ABSTRACT
thesis for the degree of Doctor of Philosophy (PhD)
in the educational program "8D10103 Nursing Science"
MAXUDOVA MAKHIGUL KHALMURZAYEVNA
"Development of leadership competencies in the context of nursing reform in the Republic of Kazakhstan"

The relevance of the research topic: The nursing service in the Republic of Kazakhstan has gone through certain stages of reform in recent years. The study of changes and their impact on the further development of nursing in the country is important. The development of leadership in nursing – the changing health sector – is considered as a necessary condition for the process of modernization and reform of nursing, noted in the Comprehensive Plan for the Development of Nursing in the Republic Kazakhstan.

According to global reports on the development of healthcare, nurses practically do not take part in strategic planning and decision-making in this area. Lack of leadership among nursing staff is an important problem for the healthcare system. The World Health Organization's World Nursing Report identified nurses' leadership as a top priority to ensure that they have an influential role in health policy and decision-making. The topic of this study is dictated by the need to continue to study nursing leadership as a key component of further nursing reform in the Republic of Kazakhstan by identifying, studying and activating new necessary competencies to support nursing reform at all levels.

The research topic corresponds to the priority directions of science development in the Republic of Kazakhstan and aligns with state healthcare programs aimed at developing human resources and improving the quality of medical care. Thus, the relevance of the study is determined by the need for scientific substantiation and development of leadership in nursing as a strategic resource for enhancing the efficiency of the healthcare system, which is consistent with national priorities in the fields of science, education, and healthcare.

Research hypothesis: the development of nursing leadership is one of the key components for further nursing reform in the Republic of Kazakhstan.

The purpose of the study: optimization of leadership competencies of nursing specialists at various stages of their professional formation based on a comprehensive analysis of the current state of nursing leadership in the Republic of Kazakhstan.

Objectives of the study:

1) analyze nursing leadership in the health care system of the Republic of Kazakhstan and determine the level of leadership competencies among nurses;
2) identify factors affecting the development of leadership competencies of nurses, including managerial, organizational, personal and professional aspects;
3) assess the leadership competencies of top and middle level nursing service managers in medical organizations;
4) determine the directions for the development of nursing leadership in the health care system of the Republic of Kazakhstan, taking into account the opinion of nursing service managers;
5) substantiate the model and practical recommendations for optimizing the development of leadership competencies of nurses aimed at improving the efficiency of management activities and the quality of nursing care

Research methods: Within the framework of the dissertation research, mixed-methods research design was used, combining quantitative and qualitative approaches. The study included a one-stage cross-sectional survey of nurses and nursing service managers, as well as a qualitative study using the method of semi-structured interviews. The quantitative and qualitative data obtained were integrated to provide a comprehensive assessment of the factors influencing the development of leadership competencies and to substantiate a model of nursing leadership.

At the preparatory stage, validated international tools were selected, translated, culturally adapted and piloted to assess leadership competencies, leadership styles, professional burnout,

stress resistance and managerial competencies of medical workers. The tools were translated into Russian and Kazakh using expert translation, adapted to the conditions of the healthcare system of the Republic of Kazakhstan and underwent a pilot study, which confirmed their validity and high internal consistency. The conclusion of the Terminological Committee was received (extract No 1 dated 03/26/2024).

The quantitative stage included an online survey of 465 nurses of the Republic of Kazakhstan, selected by random sampling. For self-assessment of leadership abilities, tools with high reliability indicators ($\alpha > 0.90$) were used: the D. Welch questionnaire, for the analysis of leadership styles — MLQ-6S, for the assessment of psycho-emotional factors — the MBI-HSS-MP questionnaire and the stress resistance scale.

To assess the leadership competencies of nursing service managers, a quantitative and qualitative study was conducted, including an online survey of 58 nursing service managers and semi-structured interviews with 23 respondents. The number of participants in the qualitative stage is determined on the basis of the principle of theoretical saturation (saturation), upon reaching which further data collection did not lead to the emergence of new significant information.

In the course of the study, the tool for assessing the leadership competencies of nurse managers (Linda Chase) and the Thomas-Kilmann Conflict Mode Instrument method were used to analyze strategies of behavior in conflict situations.

Qualitative data were analyzed using the thematic analysis method using the ATLAS.ti 25 program. Quantitative data processing was performed in SPSS 23.0 using methods of descriptive and analytical statistics (correlation, regression analysis, ANOVA); The level of statistical significance is assumed at $P < 0.05$.

At the final stage, the integration of quantitative and qualitative results was carried out, a comparative analysis of the international framework of leadership competencies (NHS, AONL, ICN, WHO) was carried out, on the basis of which a model for the development of leadership competencies of nurses in the Republic of Kazakhstan was developed and practical recommendations were formulated.

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. All participants gave voluntary informed consent, the data is anonymized and used exclusively for scientific purposes.

Scientific novelty of the study:

1. For the first time in the Republic of Kazakhstan, a comprehensive analysis of factors affecting the development of nursing leadership was carried out, including support from management, knowledge in the field of leadership, leadership style and emotional burnout.
2. A model for the development of leadership competencies of nurses based on six key areas has been developed and theoretically substantiated: emotional intelligence, management and leadership, professional development, social responsibility, self-esteem and communications.

Theoretical significance of the study: The world experience in the development of nursing leadership was studied and the leadership competencies of nurses in the Republic of Kazakhstan were assessed. The study made it possible to scientifically substantiate the priority style and development of leadership in nursing practice to create a favorable working environment as the main tool for further implementation of nursing service reform in the Republic of Kazakhstan.

Practical significance of the study A model for the development of leadership competencies of a nurse, adapted to the context of the health care system of the Republic of Kazakhstan, has been developed. The model takes into account the multi-level formation of competencies and is aimed at strengthening organizational support, developing mentoring, increasing stress resistance and expanding professional autonomy of Kazakhstan, a chatbot has been developed and is at the stage of testing for quick search of official documents in the field of nursing (clinical guidelines, SOPs, etc.).

The developed model and the identified factors can be used in the activities of the heads of medical organizations to improve the nursing management system and personnel policy.

The proposed practical recommendations based on the developed model for the development of leadership competencies can be introduced into the system of training and advanced training of nurses, as well as into programs for the development of human resources in healthcare, contributing to the formation of sustainable and effective nursing leadership.

The results obtained can be used by the administration of medical organizations to optimize personnel policy, including the development of the mentoring institute, the introduction of tools for assessing and supporting leadership competencies, the formation of a favorable working environment and increasing the resilience of personnel to professional burnout.

Provisions to be defended:

1. The development of leadership competencies of nurses is a key area of further nursing reform in the Republic of Kazakhstan and should be based on the principles of transformational leadership, which contributes to improving the quality of nursing care, the effectiveness of management activities and the formation of a favorable working environment, while limiting the prevalence of a transactional leadership style that negatively affects the development of leadership potential.

2. Key factors influencing the development of nursing leadership are: support from management, emotional burnout, nurse performance in the workplace and leadership style. The formation of leadership competencies depends on the development of knowledge in the field of healthcare, communication and management skills.

3. The directions for the development of nursing leadership are identified, including the formation of a mentoring system, the expansion of the participation of nurses in management processes, the development of professional communities, the improvement of the level of education and the improvement of working conditions as factors contributing to professional growth and strengthening the status of the nursing profession.

Personal contribution of the dissertator to the generalization of the results of the scientific work recommended for defense. All the results of the dissertation research were obtained with the direct participation of the author. The dissertator independently analyzed the literature data on the topic of the study, collected, processed and analyzed the data obtained, as well as wrote and designed the manuscript of the dissertation.

Key results and conclusions:

1. For the first task, 465 nurses of the Republic of Kazakhstan were examined. The average age of respondents was 40.0±10.0 years, the average work experience was 16.3 years. Self-assessment of leadership abilities showed that 58.1% of nurses consider themselves direct and open, 71.4% have a professional flair, and 62.2% have strategic thinking. Patient orientation was noted by 75.9%, the ability to communicate effectively - 80.2%, the ability to build a team - 69.9%, the ability to inspire colleagues - 66.7%. Love for the profession was noted by 79.8%, while 20.2% are not satisfied with professional activities.

Strong direct correlations were found between love for the profession and the ability to inspire others ($r=0.774$; $p=0.01$), effective communication and team building ($r=0.893$; $p=0.01$). According to D. Welch's methodology, 6.7% of respondents had a low level of leadership potential. The average values of leadership styles were: transformational — 2.68±1.04, transactional — 2.62±1.02, leadership in the style of non-interference — 2.52±0.99 according to a 5-point assessment, which indicates a moderate level of nursing leadership without a dominant style.

Conclusion. It has been established that the level of nursing leadership among nurses in the Republic of Kazakhstan is moderate. Most respondents demonstrate the presence of basic leadership competencies: more than 58% consider themselves leaders in terms of key behavioral characteristics, while only 6.7% have low leadership potential. The absence of a dominant leadership style (transformational — 2.68; transactional — 2.62; non-interference — 2.52) indicates the flexible use of various leadership approaches and the presence of potential for further development of leadership competencies.

2. For the second task, it was found that support from management is statistically significantly related to the level of leadership of nursing service managers (r=0.455; p=0.01). The type of medical organization significantly affects the working environment (F=2.579–4.969; p<0.01). Independent decision-making has a strong relationship with a willingness to take responsibility (r=0.733; p=0.01). High stress resistance was demonstrated by 9.5% of nurses, while 40.0% are subject to the pronounced influence of stress. Average burnout indicators: emotional exhaustion — 25.34±15.24, depersonalization — 12.48±7.92, achievement reduction — 30.15±16.32.

Multiple regression showed that the main predictor of nursing leadership level is management support (B=0.867; p<0.001). Knowledge about leadership (B=0.165; p=0.020) and transformational style (B=0.168; p=0.043) have a positive effect, while transactional style (B=–0.324; p=0.002) have a negative effect. Self-assessment of leadership abilities is negatively affected by seniority (B= –0.223; p<0.001) and emotional burnout (B= –0.111; p=0.008).

Conclusion. The development of leadership competencies of nurses is determined by a set of managerial, organizational, professional and personal factors, among which the leading role is played by support from the management of a medical organization (B=0.867; p<0.001). Leadership knowledge and transformational leadership style have a positive impact, while transactional style and high headcount limit leadership development. Burnout and stress negatively affect the self-esteem of leadership abilities, increasing the need for psychological and behavioral support.

3. For the third task, 58 managers of the nursing service were interviewed (average age 46.6±7.6 years, experience 22.2±10.0 years). Strong correlations have been established between the knowledge and application of managerial competencies (p=0.001), but leadership competencies are less developed compared to communicative ones. The most frequently used strategies of behavior in a conflict are: adaptation – 22.5%, avoidance – 21.7%, cooperation – 21.1%, compromise – 21.0%; rivalry — 13.7%.

Conclusion. Nursing service managers have an insufficient level of leadership competencies in the presence of a close relationship between knowledge and its practical application. The prevalence of avoidance and adaptation strategies in conflict situations and the relatively low frequency of cooperation indicate the need for targeted development of leadership and communication skills in the nursing management system.

4. For the fourth task, 23 in-depth interviews were conducted. The key areas of leadership development are highlighted: education, mentoring, emotional intelligence, professional autonomy, participation in management, improvement of working conditions and development of professional communities.

Conclusion. Qualitative analysis showed that the development of nursing leadership in the Republic of Kazakhstan is considered by the professional community as a multi-level and continuous process that requires strengthening the role of education, mentoring, emotional intelligence, professional autonomy and participation of nurses in the management of the health care system. Institutional support and improvement of working conditions are recognized as key conditions for sustainable leadership development.

5. For the fifth task, based on the integration of quantitative and qualitative data, an empirically based model for the development of leadership competencies was developed, including 4 levels of professional development and 5 components for ensuring leadership development. which includes four levels of professional development and five components of leadership. The model reflects the identified patterns of the formation of leadership competencies, is consistent with the international framework and national priorities and can serve as a methodological basis for improving the effectiveness of management activities and the quality of nursing care.

Approbation of the dissertation: The main results of the dissertation research were presented at the following scientific events:

- International Conference "Nursing Reforms: Achievements, Problems and Prospects" in Aktobe, 11.25.2022;

- International Conference "Global Mission of Mercy: Nursing in a Changing World", Almaty, 13.05.2025.

Publications on the topic of the thesis:

10 works have been published on the topic of the dissertation, including:

- 1 article in the journal recommended by the Committee for Control in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan (list 2);

- 4 publications in the collections of international conferences;

- 3 publications in collections of foreign conferences;

- 2 articles in journals included in the international Scopus database: articles published in Nursing Reports (Q2) and Georgian Medical News (Q3);

- 3 certificates of state registration of rights to copyright objects No 45550 dated May 6, 2024; No 45622 dated May 13, 2024; No No 56577 dated April 9, 2025);

- 3 acts of implementation of the results of research work.

Scope and structure of the thesis

The thesis is presented on 146 pages of computer text, consists of an introduction, a review of literature, materials and methods of research, 3 sections of the own research, a conclusion, including conclusions and recommendations for practical implementation, a list of sources used, including 146 titles. The work contains 56 tables, 18 figures, 1 formula. Number of applications – 7.