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Acmeology-based development of nurses' professional skills in light of lifelong learning

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Abstract

Aim: The study examines the impact of the acmeological approach to postgraduate education on developing the personal component of nurses' professional skills. *Design:* An experimental study. *Methods:* The study involved 72 nurses in postgraduate training (average age 36.3 years old) specializing in family nursing and nurse anesthetists in anesthesiology and intensive care units, with an average working experience of 14.3 years. The following methods were used: the morphological test of life values, the "Need for achievements" inventory, and the "Motivation of professional activity" test. A Student's t-test was used to compare the indicators and assess the validity of the results. The data obtained from the written survey were calculated and entered into Excel spreadsheets for further processing. *Results:* The use of the acmeological approach in nurses' professional training in advanced training courses statistically significantly ($p < 0.05$) contributed to an increase in the importance of spiritual and moral values. The research results revealed the increasing importance of internal motives to nurses' professional activity and the positive dynamics of nurses' desire to perform *Conclusion:* The acmeological approach to developing professional skills in continuing education contributed to the reinforcement of important personal qualities in nurses.

Keywords: acmeological approach, experiment, lifelong learning, nursing, professional skills, vocational development.

Introduction

The world today is marked by a paradigmatic shift in nursing, traditionally viewed as patient care supervised by a doctor. Competency-based learning strives to empower nurses with more independence, i.e., direct involvement in diagnosis, treatment, and prescription of medicines in addition to routine following of medical prescriptions (Maier, 2019). The model of nurses stepwise vocational development involves three qualification levels: bachelor's degree nursing specialist; master's degree consulting nurse; and the doctor of philosophy (PhD) degree consulting nurse (Aljohani, 2020). Many countries have adopted this classification and Ukraine is gradually implementing it, highlighting the importance of lifelong professional development

for nurses in preparing them for the challenges of nursing practice (Antonova & Sharlovych, 2021). Nurses must possess vocational competence and be motivated towards self-development and self-improvement, constantly updating their knowledge and skills, improving their teamwork abilities, and applying the latest protocols. Through the Lifelong Vocational Education and Training (LVET) system, anatomy-based vocational training has become an innovative approach to improving nurses' education (Sharlovych, 2017). Organizing acmeological guidance and support for continuing professional education for nurses promotes motivation for continuous self-development, sustained interest in professional improvement, and the development of personal qualities. Thus, nursing professionals must urgently address the task of creating an acmeological environment in continuing education to ensure the success of their careers and competitiveness in today's nursing market. The increasing role of nurses worldwide

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(Maier, 2019) necessitates the development of nursing (Aljohani, 2020) and the improvement of nursing practice. In addition, it involves addressing several management issues, including providing opportunities for ongoing professional competence development through lifelong learning (Fealy et al., 2018).

Scholars highlight highly important nursing skills such as the ability to effectively communicate with other healthcare professionals, the ability to work in teams and provide appropriate care for patients (Cook et al., 2019), and diagnostic and treatment skills (Maier, 2019), which require lifelong interprofessional training (Bell et al., 2018). The digitalization of the healthcare industry requires professionals to acquire competencies aimed at operating high-tech equipment (Konttila et al., 2019). Healthcare reform in nursing requires highly qualified nurse managers with leadership competencies and relevant internationally recognized qualities. Nurses with advanced degrees and clinical nurses should strive to meet these standards (Heinen et al., 2019).

Nurses' continuous professional development aims at the acquisition and maintenance of the necessary competencies, knowledge, and skills for safe and efficient patient care (Bryant et al., 2020). Researchers (King et al., 2021) have identified several vital factors that optimize the impact of continuing professional development on nursing training, professional development, and improvement in the workplace, which involve development through mentoring (Mikkonen et al., 2020). To ensure that nurses' continuing professional development positively impacts person-centered care and its outcomes, it is essential to consider factors such as self-motivation, attitude towards practice, effective leadership, proper human resource management, and fostering a positive workplace culture (King et al., 2021).

The development of the lifelong vocational education system in nursing occurs in the context of improvement in the quality of education as a complex product of the level of educational services and professional competencies and the relevance of the educational content to the demands of contemporaneity (Dubaseniuk et al., 2020). Nurses ensure their professional mobility through a lifelong vocational training process that includes motivational, problem-seeking, adaptational and developmental, reflective, and correctional stages of learning. This training content orients individuals towards developing a personality that can engage in self-study, self-education, self-determination, self-development, and professional accomplishment (Gunawan et al.,

2019; Semenog et al., 2020). A nurse integrates professional competency and mastery, performs medical procedures and manipulations proficiently, possesses communicative skills, exhibits personal qualities such as responsibility, empathy, reliability, and tolerance, and can concentrate and make competent decisions during emergency and uncertain clinical situations, all contributing to their professionalism (Zakusilova, 2016). The effectiveness of the vocational training of nurses is affected by such factors as the implementation of innovative pedagogical technologies, and interactive learning (Aitenova et al., 2019); the relevance of the educational environment to vocational nursing activity (e.g., through simulation studies); quality learning and teaching facilities; and pedagogical excellence (Zakusilova, 2016).

The acmeological approach is a significant factor in consistent lifelong medical education, which, combined with the competency-based approach, creates the conditions for professional self-determination, self-accomplishment, and self-improvement of nurses (Lisna-Miskov, 2018). The acmeological approach motivates nurses to achieve professional development, leadership, and career growth while maintaining stable motivation for continuous vocational improvement.

Meanwhile, experts view the competency-based approach as a general methodology (Galiev et al., 2019; Lisna-Miskov, 2018).

Implementing acmeology-based multi-level training ensures that nurses extend their professional competencies, develop leadership skills, build teamwork capacity, and gain the ability to take responsible, independent decisions, as highlighted by analysis of the literature data. Acknowledgement of the significance of lifelong vocational development as a basis of medical aid is represented in the "The development of medical education" project, implemented in 2018 (Medical Education Development, n.d.). The demand for meeting the healthcare needs, and for support and refinement of the standards of the occupational activity of nurses through the provision of lifelong vocational training based on the implementation of the scientifically substantiated acmeological approach indicates the relevance of the subject of this study.

The methodological framework of the study consisted of the conceptual model of acmeology-based learning, developed from the pedagogical experience at Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology of the introduction of modern pedagogical technologies into the process of lifelong learning in training courses for medical workers (Yu et al.,

2022) and of methods for experimenting, as well as further analytical operations, concerning the effectiveness of the introduction of acmeology-based academic programs to the training of nurses (Foolchand & Maritz, 2020). The experimental factor consisted of conducting lectures, discussions, and tasks for independent study.

The traditional approach to nursing education during postgraduate training is based on the assimilation of theoretical knowledge about the specifics of nursing, involving tests and examinations based on the curriculum. The application of the acmeological approach involved the creation of a harmonious personal and professional image, the building of aself-concept, and the identification of professional and personal qualities that contribute to the development of self-affirmation, allow for the separation of behavioral patterns, adequate self-esteem, and the allocation of skills and qualities in the social and professional environment. For this purpose, classes were given on understanding the importance of image, on working on one's character weaknesses, knowledge, and skills, and on communicating with other participants in the context of various professional situations and ways of dealing with these situations. The next feature of the professional nursing training program – the creation of an environment of like-minded people – was provided by the conditions of the experiment and postgraduate training in general. During the experiment, the peculiarities of the spiritual and moral development of nurses and the improvement of professional qualities using innovative technologies were widely considered, which was ensured by the possibility of sharing experiences in the process of discussing innovative treatment methods and during lectures and discussions on innovations in medicine. Plans were developed for the self-realization for each participant, involving unlocking one's creative potential, perseverance in implementing life and professional plans, self-observation and self-education, and introducing new habits in life to improve one's professional level.

During the courses, important personal and professional qualities of nurses were considered and analyzed during their professional activities, using the acmeological approach, and points for improvement were highlighted.

Flipped classroom discussions, brainstorming, role-playing, and professional games were used during the training. Videos of nurses working in different settings were watched, and the nurses developed plans for working with different patients in different conditions and situations, taking into account their skills and abilities (speed of work, ability to cope with stressful situations, etc.).

Aim

The study examined the impact of the acmeological approach to postgraduate education on the development of the personal component of nurses' professional skills.

Methods

Design

The study was experimental. A postgraduate training course for nurses based on the acmeological approach was developed as a result of a review of the scientific literature. It was also discussed with regard to its impact on certain values and criteria of effective nursing work.

Sample

Seventy-two young nurses (the average age was 36.3 years old) specializing in family nursing and nurse anesthetists specializing in anesthesiology and intensive care units were selected for the study rather than experienced nurses (the average work experience constituted of 14.3 years). Nurses were selected by random choice from among postgraduate students who held the relevant qualification documents of a nurse and took part in clinical activities. Nurses underwent postgraduate training (advanced training courses) at Zhytomyr Medical Institute, Department of Postgraduate Nursing Education. Courses were taught by teachers (eight science teachers – with a PhD and more than ten years' work experience) from the Zhytomyr Medical Institute in the framework of the research topic "Theoretical and methodological fundamentals of development of professional skills of nurses in postgraduate education", according to which the acmeological approach was implemented in the vocational training of nurses. The experiment in providing nurses with acmeological training lasted three months, after which a survey was conducted.

Data collection

Nikitina's (2017) questionnaires recommending the assessment of aspects of student learning, including during postgraduate training, were selected for the study. The following tests were performed:

The Morphological test of life values (Sopov & Karpushina, 2002) consists of 112 questions with a five-point Likert scale ranging from "strongly disagree" to "strongly agree". It aimed at establishing a motivational and value-based personality structure, including self-development; spiritual satisfaction;

creativity; active social contacts; personal prestige; high financial status; achievements; and preserving one's individuality. The tested values were divided into two bidirectional subgroups: spiritual and moral (self-development, spiritual satisfaction, creativity, active social contacts) and egocentric and prestigious, or pragmatic (prestige, achievements, financial status, preserving one's individuality). Validity and reliability were tested by Bukhvalova and Karpushina (2008).

The "Need for achievements" inventory (Nikitina, 2017) consists of 22 questions, which help evaluate the level of need for achievements (0–0 points – low; 11–12 points – below average; 13–14 points – average; 15–16 points – above average; 17 and above – high).

The test for "Motivation of professional activity" (the methods of K. Zamfir as modified by A. Rean) enables the establishment of the significance of intrinsic, positive external, and negative external motives for occupational activity (Earning money; The desire for career growth; The desire to avoid possible punishment or troubles; The need to gain social prestige and respect of the people from the environment; Satisfaction with the process of work and its results; and The opportunity to improve accomplishments). The dimensions are rated on a five-point Likert scale from "strongly disagree" to "strongly agree" (Nikitina, 2017).

The authors developed a questionnaire with 54 questions and seven subsections to evaluate the impact of training based on the acmeological approach for nurses. The answers to the questions were scored on a five-point Likert scale from "strongly disagree" to "strongly agree". The questionnaire helped to assess the following aspects: nurses' satisfaction with their professional development; the impact of the acmeological approach on attitudes towards the profession; the difficulties encountered in the course of lifelong learning; the impact of the acmeological approach on further professional activity and career development; the need for support in upgrading qualifications; and satisfaction with learning outcomes and meeting expectations. Face validity of the questionnaire was ensured by its structure and the compliance of its items with the research objective and tasks (the experts who conducted training sessions assessed the relevance of the questions as 1 – relevant, 0 – inappropriate, and then calculated the Cohen's kappa coefficient, which was 0.84).

Surveys using the above methods were conducted before and after the nurses completed the courses in the form of written questionnaires.

Data analysis

To compare the indicators and evaluate the validity of the results, a Students t-test was applied. The existence of the relationship between the methodological scales was assessed based on Pearson correlation r_{xy}, the calculated values of which were evaluated against Chaddock's table for interpretation. The research was carried out using MS Excel software, the data received from the written survey were calculated and entered into Excel spreadsheets, where the group's results were further processed. Cohens kappa coefficient was calculated to determine the questionnaire's validity.

Results

The participating nurses completed the postgraduate courses based on the application of the acmeological approach to vocational training content. The personality component of professional skills was assessed in real-time at the beginning and the end of the pedagogical experiment.

Table 1 shows the results of analysis of the motivational and value-based personality structure using the morphological test of life values.

Using the acmeological approach in the nurses' professional training in the postgraduate education program contributed to a statistically significant ($p < 0.05$) increase in the importance of spiritual and moral values. The participating nurses became more active regarding their social and professional contacts, and their motivation for self-development and the importance of creativity and spiritual satisfaction increased. The importance of most pragmatic values did not change significantly ($p > 0.05$). In the first and second testing, high financial status was prioritized, whereas prestige and preservation of individuality were less important. Nonetheless, according to the "Achievements" scale, a statistically significant ($p < 0.05$) increase in the indicators was observed. Table 2 below shows the survey results of participating nurses for the "Need for achievements" test.

Testing of the participating nurses for "Need for achievement" revealed a statistically significant increase in this need, indicating a positive correlation with the indicators of the respondents' motivational and value structure dynamics ($r_{xy} = 0.2941$). At the beginning of the study, most nurses had an average level of need for achievement. After completing the acme training, 36.1% of the participating nurses demonstrated an above-average level, and 13.9% of the respondents showed a high level of need for achievement. The results of a study on the impact of acceleration-based vocational

training on nurses' motivation to work are presented in Table 3.

Professional development during acmeology-based training contributed to a statistically significant ($p < 0.05$) increase in the significance of nurses' intrinsic motives for professional activity. They became more satisfied with their work and its results and realized their need for higher professional achievements. Regarding extrinsic motives, the value of monetary earnings remained at the same high level during the follow-up study as during the original research ($p > 0.05$). At the same time, desires for career advancement and promotion increased ($p < 0.05$). In contrast, the significance of the negative external motives showed a statistically valid decrease ($p < 0.05$). Accordingly, while a moderate correlation ($r_{xy} = 0.5993$) persisted between intrinsic and positive external motives, the correlation between intrinsic and negative external motives was negative ($r_{xy} = -0.2727$).

Table 1 The dynamics of the motivational and value structure of nurses' personality in the course of the acmeology-based vocational training

Values		Average score		Student's t-test	p-value
		A^a	$A1^b$		
Spiritual and moral	self-development	3.2 ± 0.3	4.1 ± 0.2	-3.833	< 0.05
	spiritual satisfaction	2.8 ± 0.2	4.0 ± 0.5	-3.860	< 0.05
	creativity	2.6 ± 0.4	3.8 ± 0.2	-4.648	< 0.05
	active social contacts	3.5 ± 0.5	4.4 ± 0.1	-3.057	< 0.05
Egocentric and prestigious (pragmatic)	prestige	3.0 ± 0.2	3.2 ± 0.1	-1.550	> 0.05
	achievements	3.2 ± 0.1	3.8 ± 0.2	-4.648	< 0.05
	high financial status	4.5 ± 0.5	4.6 ± 0.4	-0.270	> 0.05
	preservation of one's individuality	3.3 ± 0.2	3.6 ± 0.4	-1.162	> 0.05

A^a – initial study; $A1^b$ – repeated study

Table 2 The dynamics of nurses' need for achievements in the course the acmeology-based vocational training

The level of need for achievements	A^a		$A1^b$		Student's t-test	p-value
	n	%	n	%		
Low	8	11.1	2	2.8		
Below average	11	15.3	5	6.9		
Average	34	47.2	29	40.3	9.445	< 0.05
Above average	16	22.2	26	36.1		
High	3	4.2	10	13.9		
Total	72	100	72	100		

A^a – initial study; $A1^b$ – repeated study

Table 3 Motivation dynamics of nurses' professional activity in the process of professional training based on acmeology

The motives of the occupational activity		Average score		Student's t-test	p-value
		A^a	$A1^b$		
Intrinsic	the need to achieve social prestige and respect from others	3.2 ± 0.3	3.8 ± 0.2	-2.88231	< 0.05
	satisfaction with the process and results of the job	2.8 ± 0.2	3.6 ± 0.4	-3.09839	< 0.05
	opportunity for greater achievements in this area of activity	3.0 ± 0.5	4.2 ± 0.3	-3.56453	< 0.05
External positive	money earning	4.5 ± 0.5	4.6 ± 0.4	-0.2705	> 0.05
	the desire for career growth	4.0 ± 0.2	4.4 ± 0.1	-3.09839	< 0.05
	promotion at work	3.8 ± 0.2	4.3 ± 0.2	-3.06186	< 0.05
r_{xy}	0.5993				
External negative	the desire to avoid possible punishment	3.5 ± 0.5	2.4 ± 0.2	3.53797	< 0.05
	the desire to avoid possible problems	3.8 ± 0.4	2.6 ± 0.2	4.64758	< 0.05
r_{xy}	-0.2727				

A^a – initial study; $A1^b$ – repeated study; rxy – Pearson correlation

Table 4 shows the survey results of participating nurses using a semi-structured questionnaire.

All respondents highly appreciated the importance of acmeological approach to professional development. They were satisfied with their vocational training, even though it only occasionally met their expectations. They stressed that the acmeological approach greatly impacted their attitude

to the profession. At the same time, the respondents were not sure that their acmeology training would change their professional activity and provide career advancement, although they hoped it would. In addition, a significant number of respondents experienced learning difficulties. They stated they needed support during their postgraduate studies, indicating that they recognized the need for lifelong learning.

Table 4 The results of the survey of nurses who completed the acmeology-based vocational training

Indicators	Average score	Rank
The level of satisfaction with one's professional development	4.6 ± 0.2	3
The impact of the acmeological approach on the attitude to the profession	4.8 ± 0.2	1
The existence of difficulties during the lifelong learning	4.2 ± 0.3	6
The impact of the acmeological approach on further profession and career growth	4.4 ± 0.1	5
The need for support in the process of professional development	4.5 ± 0.3	4
The level of satisfaction with the results of learning	4.6 ± 0.4	2
Matching learning outcomes with expectations	4.3 ± 0.2	7

Discussion

The lifelong vocational development of nurses (Medical Education Development, n. d.) implies their constant refining of the professional competencies gained (Galiev et al., 2019) for the provision of adequate patient care (Heinen et al., 2019; Lau et al., 2020). Nurses need to acquire new skills, which should be incorporated into their postgraduate education and lifelong learning programs in response to societal advancements and digital transformation (Sharlovych, 2022). The acmeological approach, according to experts (Lisna-Miskov, 2018; Sharlovych, 2017), is an effective means of lifelong learning, which promotes the upgrading of the professional skills of nurses by the development of personality-related and professionally meaningful qualities and by raising motivation for professional self-improvement and self-development (Nikitina, 2017). Simultaneously, while the national system of vocational nursing education may depend on the acmeological approachs framework to foster significant personality-oriented and professional qualities, Western literature is more inclined to put an emphasis on developing professional nursing competencies and expanding occupational roles (Cooper et al., 2019), rather than deeply examining the acmeological approach.

The study examined the impact of acceleration-based training on the development of personal values. The acmeological approach aided nurses to gain a deeper understanding of their professional traits and skill development, while considering societal progress, digital tools, and the enhancement of practice and self-education (Sharlovych, 2022). Respondents prioritized their financial needs in both initial and follow-up testing. Nevertheless, the positive dynamics of the spiritual satisfaction factor indicate the growing importance of the moral and ethical components of professional activity. It can be considered a significant factor in preventing nurses professional burnout. Further research is planned to investigate in depth the acmeological approachs contribution to preventing professional burnout.

The increase in the creativity index indicates that professional training based on acmeology stimulates the development of nurses' creative potential during professional training, enabling them to act as potential agents of change in the development of the healthcare system. This role is ensured by the influence of nurses' social contacts, interaction in the professional environment, and aspirations for new achievements.

The study on the impact of professional training based on acmeology, according to the K. Zamfir method (modifying A. Rean), indicated a shift in motivational priorities towards the predominance of intrinsic motivation and a decrease in negative external motivation, which positively impacted the professional and personal components of nurses' personalities.

The survey of participating nurses based on a semi-structured questionnaire showed a high awareness of the need for continuing professional education and the importance of the acmeological approach to their professional satisfaction. Nevertheless, the learning difficulties identified make it necessary to focus on the factors affecting the organization of continuing education (Fealy et al., 2018) to improve learning and its effectiveness and to provide comprehensive support for nurses to ensure their continuing education.

Limitation of study

The study's limitations relate primarily to when it was conducted – at the beginning and end of the postgraduate training, requiring additional control over the composition of the sample of respondents In addition, the study was carried out only at one

educational institution. The problem lies in the absence of consistent and mandatory implementation of the acmeological approach in the vocational training of nurses at all stages and levels.

Conclusion

The application of the acmeological approach to developing professional skills, in the context of continuing education, cultivates motivation towards self-learning, and enhances the professional knowledge and skills of nurses in practice. The value of the study for the scientific community lies in the theoretical substantiation of the positive impact of the acmeological approach on the development of personal motivation, significant values and self-development of nurses. The study recommends using the acmeological approach in education and implementing it in the organization of continuous professional training for nurses. Additionally, this approach can be leveraged to improve curricula and professional training programs, leading to enhanced effectiveness of training. Furthermore, plans for future research include using training programs based on the acmeological approach to train a larger number of nurses with varied work experiences and specializations. The research will analyze the effect of the acmeological approach in preventing professional burnout.

Ethical aspects and conflict of interest

In the course of the study, regulatory bioethical requirements were thoroughly met. Permission to conduct the study was obtained from the ethical committee of the university. All respondents gave their written informed consent to participation in the study. The anonymity of the research results and confidentiality of information about the respondents and their data were ensured. The principle of academic integrity was strictly observed.

The authors declare that the research study has no conflict of interest.

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Author contributions

Conception and design (ZS, TZ), data analysis and interpretation (AK, LP), manuscript draft (AK), critical revision of the manuscript (ZS, TZ), final approval of the manuscript (ZS, TZ, AK, LP).

References

Aitenova, E. A., Smanova, A. A., Akzholova, A. T., Turalbayeva, A. T., Madalieva, Z. K., & Abdigapbarova, U. M. (2019). Construction of a dual system of preparation of engineering-pedagogical personnel at higher education institutes. *Astra Salvensis – revista de istorie si cultura*, *7*(13), 353–365.

Aljohani, K. A. S. (2020). Nursing education in Saudi Arabia: history and development. *Cureus*, *12*(4), e7874. https://doi.org/10.7759/cureus.7874

Antonova, O., & Sharlovych, Z. (2021). Szkolenie specjalistów pielęgniarstwa i poszukiwanie sposobów jego integracji w europejskiej przestrzeni edukacyjnej [Training of nursing professionals and the search for ways of integrating it into the European educational area]. *Ukrainska polonistyka*, *19*, 134–142. https://doi.org/10.35433/2220-4555.19.2021.ped-2

Bell, J., Crawford, R., & Holloway, K. (2018). Core components of the rural nurse specialist role in New Zealand. *Rural and Remote Health*, *18*(2), 4260. https://doi.org/10.22605/RRH4260

Bryant, K., Aebersold, M. L., Jeffries, P. R., & Kardong-Edgren, S. (2020). Innovations in simulation: nursing leaders' exchange of best practices. *Clinical Simulation in Nursing*, *41*, 33–40. https://doi.org/10.1016/j.ecns.2019.09.002

Bukhvalova, E. M., & Karpushina, L. V. (2008). Diagnostics of the instrumental values of personality. *Vestnik of the Samara Humanitarian Academy*, *2*, 46–58.

Cook, O., McIntyre, M., Recoche, K., & Lee, S. (2019). "Our nurse is the glue for our team" – multidisciplinary team members' experiences and perceptions of the gynaecological oncology specialist nurse role. *European Journal of Oncology Nursing*, *41*, 7–15. https://doi.org/10.1016/j.ejon.2019.05.004

Cooper, M. A., McDowell, J., Raeside, L., & the ANP–CNS Group (2019). The similarities and differences between advanced nurse practitioners and clinical nurse specialists. *British Journal of Nursing*, *28*(20), 1308–1314. https://doi.org/10.12968/bjon.2019.28.20.1308

Dubaseniuk, O., Voznyuk, A., & Samoilenko, O. (2020). Quality of education – Ukrainian experience. *Didactica Slovenica – Pedagoška obzorja*, *35*(1), 132–146.

Fealy, G. M., Casey, M., O'Leary, D. F., McNamara, M. S., O'Brien, D., O'Connor, L., Smith, R., & Stokes, D. (2018). Developing and sustaining specialist and advanced practice roles in nursing and midwifery: a discourse on enablers and barriers. *Journal of Clinical Nursing*, *27*(19–20), 3797–3809. https://doi.org/10.1111/jocn.14550

Foolchand, D., & Maritz, J. E. (2020). Experience of nurses regarding the clinical mentoring of student nurses in resource-limited settings. *Health SA Gesondheid*, *25*, 1434. https://doi.org/10.4102/hsag.v25i0.1434

Galiev, T. T., Isakova, G. O., Askarova, A. Z., Kudaibergenova, S. Z., Ibrayeva, K. Z., & Eleusizova, G. R. (2019). Systematic case study in the context of the future specialists' professional competence development. *Revista Espacios*, *40*(12), 28.

Gunawan, N. P. I. N., Hariyati, R. T. S., & Gayatri, D. (2019). Motivation as a factor affecting nurse performance in Regional General Hospitals: a factors analysis. *Enfermeria Clinica*, *29*(S2), 515–520. https://doi.org/10.1016/j.enfcli.2019.04.078

Heinen, M., van Oostveen, C., Peters, J., Vermeulen, H., & Huis, A. (2019). An integrative review of leadership competencies and attributes in advanced nursing practice. *Journal of Advanced Nursing*, *75*(11), 2378–2392. https://doi.org/10.1111/jan.14092

King, R., Taylor, B., Talpur, A., Jackson, C., Manley, K., Ashby, N., Tod, A., Ryan, T, Wood, E., Senek, M., & Robertson, S. (2021). Factors that optimise the impact of continuing professional development in nursing: a rapid evidence review. *Nursing Education Today*, *98*, 104652. https://doi.org/10.1016/j.nedt.2020.104652

Konttila, J., Siira, H., Kyngäs, H., Lahtinen, M., Elo, S., Kääriäinen, M., Kaakinen, P., Oikarinen, A., Yamakawa, M., Fukui, S., Utsumi, M., Higami, Y., Higuchi, A., & Mikkonen, K. (2019). Healthcare professionals' competence in digitalisation: a systematic review. *Journal of Clinical Nursing*, *28*(5–6), 745–761. https://doi.org/10.1111/jocn.14710

Lau, S. T., Ang, E., Samarasekera, D. D., & Shorey, S. (2020). Development of undergraduate nursing entrustable professional activities to enhance clinical care and practice. *Nurse Education Today*, *87*, 104347. https://doi.org/10.1016/j.nedt.2020.104347

Lisna-Miskov, N. Y. (2018). Characteristics of a structural model for the formation of future medical bachelor nurses the readiness for professional activity on the praxeological basis and the results of its practical implementation. *Naukovi zapysky kafedry pedahohiky / Scientific Notes of the Pedagogical Department*, *1*(43), 188–198.

Maier, C. B. (2019). Nurse prescribing of medicines in 13 European countries. *Human Resources for Health*, *17*, 95. https://doi.org/10.1186/s12960-019-0429-6

Medical Education Development (n.d.). *Ukrainian-Swiss project "Medical education development".* Retrieved December 7, 2022, from https://mededu.org.ua/en/purpose/

Mikkonen, K., Tomietto, M., Cicolini, G., Kaucic, B. M., Filej, B., Riklikiene, O., Juskauskiene, E., Vizcaya-Moreno, F., Pérez-Cañaveras, R. M., De Raeve, P., & Kääriäinen, M. (2020). Development and testing of an evidence-based model of mentoring nursing students in clinical practice. *Nurse Education Today*, *85*, 104272. https://doi.org/10.1016/j.nedt.2019.104272

Nikitina, I. V. (2017). Rozvytok motyvatsii studentiv. Praktykum [Development of students' motivation. Workshop]. *Natsionalnyj unyvesytet kharchovykh tekhnolohii*. https://dspace.nuft.edu.ua/jspui/bitstream/123456789/29283/1/6.pdf

Semenog, O., Semenikhina, O., Oleshko, P., Prima, R., Varava, O., & Pykaliuk, R. (2020). Formation of media educational skills of a future teacher in the professional training. *Revista Românească pentru Educaţie Multidimensională*, *12*(3), 219–245. https://doi.org/10.18662/rrem/12.3/319

Sharlovych, Z. P. (2017). Akmeolohichnyi aspekt rozvytku profesiinoi maisternosti spetsialista medsestrynstva cherez pisliadyplomnu osvitu na opornykh ideiakh V. O. Sukhomlynskoho [The acmeological aspect of the development of professional skills of a nursing specialist through postgraduate education on the basis of the basic ideas of V. O. Sukhomlynsky]. *Visnyk Zhytomyrskoho derzhavnoho universytetu imeni Ivana Franka*, *5*(91), 162–166.

Sharlovych, Z. (2022). Digital transformation in the activities of a nursing specialist as an information and communication component of the development of their professional skills. *Zhytomyr Ivan Franko State University Journal. Pedagogical Sciences*, *4*(111), 262–272. https://doi.org/10.35433/pedagogy.4(111).2022.262-272

Sopov, V. F., & Karpushina, L. V. (2002). Morfologicheskiy Test Zhiznennykh Tsennostey: manual [Morphological test of life values: guidelines for use]. Publishing SamoIKP – SNTS RAS.

Yu, X., Huang, Y., & Liu, Y. (2022). Nurses' perceptions of continuing professional development: a qualitative study. *BMC Nursing*, *21*, 162. https://doi.org/10.1186/s12912-022-00940-z

Zakusilova, T. O. (2016). Actualisatgion of professional values in the context of formation of professionalism in future nurses. . *ScienceRise: Pedagogical Education*, *12*(8), 48–51. https://doi.org/10.15587/2519-4984.2016.88006