

**Written review of an official reviewer prof. Jūratė Macijauskienė, Lithuanian University of Health Sciences, on thesis by Sadueva Feruza Khaidaralievna on the topic “Improving patient- and student-centered nursing practice through a service design approach” in the educational program 8D10101 – Nursing Science**

No. p/p	Criteria	Compliance with the criteria (underline one of the answer options)	Justification for the position of the official reviewer
1	The topic of the dissertation (as of the date of its approval) corresponds to the directions of scientific development and/or state programs	1.1 Compliance with priority areas of scientific development or state programs: 1) the dissertation was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program); 2) the dissertation was completed within the framework of another state program (indicate the name of the program); 3) <u>the dissertation corresponds to the priority direction of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate the direction).</u>	According to the “State Health Development Program of the Republic of Kazakhstan for 2020 - 2025”, increasing quality of education of healthcare professionals is one of priorities, thus enrolment of health care professionals into PhD programs is absolutely priority. The topic of this dissertation aligns with the priority direction ‘Life and Health Sciences’ as approved by the Higher Scientific and Technical Commission for 2024-2026. Although nursing research is not enumerated separately in this document, nursing is a critical constituent of health sciences, and the national literature identifies nursing research infrastructure and capacity as a recognized need in the Republic of Kazakhstan. Therefore, this work supports the national priority area and addresses a targeted gap in nursing science.
2	Importance for Science	The work <b>does/does not</b> make a significant contribution to science, and its importance is <b>well-disclosed/not</b> uncovered	This dissertation makes a significant contribution to the development of nursing science in Kazakhstan by addressing a critical gap in evidence-based nursing research. The work develops and validates a contextually appropriate model of service-design that advances theoretical understanding and provides practical tools for clinical decision-making. The results have implications for improving nursing practice, education, and healthcare quality, particularly in the context of health care services. Through its theoretical, methodological, and applied

			<p>contributions, the dissertation represents an important step toward the establishment of nursing science as an integral component of the healthcare research system in the Republic of Kazakhstan.</p> <p>Although, the author did not highlight in the section scientific novelty of the research, the importance for international research and how the thesis</p>
3	The principle of independence	<p>Level of autonomy:</p> <p>1) <b>High;</b>  2) Medium;  3) Low;  4) No independence</p>	The personal contribution of the author is described in exceptionally clear manner and demonstrates the ability of the author to plan research independently, analyse data and evaluate the results comparing with other authors.
4	The principle of internal unity	<p>4.1 Justification of the relevance of the dissertation:</p> <p>1) <b><u>justified;</u></b>  2) partially justified;  3) not justified.</p>	<p>The relevance of this dissertation is determined by the urgent need to enhance the scientific basis of nursing practice in Kazakhstan in response to population ageing and increasing chronic disease burden. While nurses constitute the largest group of healthcare professionals, their role in evidence-based health management remains under-researched. This study addresses a gap by evaluating a service design approach in nursing to improve patient and student satisfaction. The research aligns with the priority direction “Life and Health Sciences” (Higher Scientific and Technical Commission, Government of the Republic of Kazakhstan, 2024–2026) and supports the implementation of WHO and national strategies for strengthening nursing science and practice. The obtained results will contribute to advancing the theoretical, methodological, and practical foundations of nursing, thus promoting the modernization of healthcare and professional education in the Republic of Kazakhstan.</p>
		<p>4.2 The content of the dissertation reflects the topic of the dissertation:</p> <p>1) <b><u>reflects;</u></b></p>	The content of the dissertation fully corresponds to its title, as all sections are aimed at revealing the

		<p>2) partially reflects; 3) does not reflect.</p>	<p>theoretical and practical aspects of applying service design in health care and education.</p> <p><b>The theoretical analysis</b> of the literature is comprehensive forming the conceptual framework of the study.</p> <p><b>The research methodology section</b> presents methodological design, instruments and procedures developed to investigate the selected problem, ensuring reliability and validity of the results.</p> <p><b>The results section</b> structured according to the institutions where the model was applied and presented in clear manner.</p> <p><b>The discussion part</b> is rather laconic with limited interpretation of the findings comparing them with other studies, although the explanation of the results are presented in the Results section with adequate reasoning proving authors' ability to interpret scientific finding and data.</p> <p>The logical consistency of the chapters, the structure of the analysis, and the conclusions directly correspond to the stated topic, ensuring that the dissertation content fully reveals and substantiates the subject under study.</p>
		<p>4.3. The goal and objectives correspond to the topic of the dissertation: <b>1) correspond;</b> 2) partially correspond; 3) do not correspond.</p>	<p>The goal and objectives of the research are formulated in clear manner and consistently addressed in all chapters, and the main points to be defended are presented in clear manner.</p>
		<p>4.4 All sections and provisions of the dissertation are logically interconnected: <b>1) completely interconnected;</b> 2) partial relationship; 3) there is no relationship.</p>	<p>The first chapter provides the theoretical foundations and literature review; the second presents the methodology; the presents the research findings according to the objectives. Within each section there is logic sequence of the presented materials.</p>

		<p>4.5 The new solutions (principles, methods) proposed by the author <b><u>are substantiated and evaluated in comparison with known solutions:</u></b></p> <ol style="list-style-type: none"> <li>1) <b><u>there is a critical analysis;</u></b></li> <li>2) partial analysis;</li> <li>3) the analysis does not represent personal opinions, but quotes from other authors;</li> <li>4) analysis is missing.</li> </ol>	<p>The author proposed a conceptual framework for implementation of the service design in health and also introducing the concept for the health care students. The framework's validity was substantiated theoretically and tested in clinical practice and educational programs.</p> <p>The results confirmed that the proposed framework contributes to quality of health care services and patient satisfaction, provides clearer guidelines for practice. Hence, it constitutes a scientifically grounded and innovative contribution to nursing theory and methodology.</p> <p>However, the evaluation of other known solutions comparing with the findings from this research could be more elaborated.</p>
5	The principle of scientific novelty	<p>5.1 Are the scientific results and provisions new?</p> <ol style="list-style-type: none"> <li>1) <b><u>completely new;</u></b></li> <li>2) partially new (25-75% are new);</li> <li>3) not new (less than 25% are new).</li> </ol>	The scientific novelty is clearly described and demonstrated by the author.
		<p>5.2 Are the findings of the dissertation new?</p> <ol style="list-style-type: none"> <li>1) <b><u>completely new;</u></b></li> <li>2) partially new (25-75% are new);</li> <li>3) not new (less than 25% are new).</li> </ol>	The findings are described in the Results section in comprehensive way according to the objectives.
		<p>5.3 Technical, technological, economic or managerial decisions are new and justified:</p> <ol style="list-style-type: none"> <li>1) <b><u>completely new;</u></b></li> <li>2) partially new (25-75% are new);</li> <li>3) not new (less than 25% are new).</li> </ol>	The solutions which were offered for health care system in Kazakhstan during this study are novel.
6	Validity of the main conclusions	All major conclusions <b><u>are based</u></b> /not based on sound scientific evidence or are reasonably well founded (for qualitative research (quaitative research ) and areas of study in the arts and humanities).	Three conclusions are formulated based on the study findings corresponding with the objectives. Although, the section itself could be presented in more condensed way moving the introductory part into section Discussion.

7	The main provisions submitted for defense	<p>The following questions must be answered for each provision separately:</p> <p>7.1 Is the position proven?</p> <p>1) <b><u>proven</u></b> ;  2) rather proven;  3) rather not proven;  4) not proven;  5) in the current formulation it is impossible to verify the proof of the position.</p> <p>7.2 Is it trivial?</p> <p>1) yes;  2) <b><u>no</u></b> ;  3) in the current formulation it is impossible to verify the triviality of the position.</p> <p>7.3 Is it new?</p> <p>1) <b><u>yes</u></b> ;  2) no;  3) in the current formulation it is impossible to verify the novelty of the provision.</p> <p>7.4 Level for application:</p> <p>1) narrow;  2) average;  3) <b><u>wide</u></b> ;  4) in the current wording it is impossible to verify the level of application of the provision.</p> <p>7.5 Is it proven in the article?</p> <p>1) <b><u>yes</u></b> ;  2) no;  3) in the current wording it is impossible to verify the validity of the position in the article.</p>	The author formulated four points to be defended which are novel, comprehensive and were proved in the study.
8	The principle of reliability. Reliability of sources and information provided	<p>8.1 The choice of methodology is justified or the methodology is described in sufficient detail:</p> <p>1) <b><u>yes</u></b>;  2) no.</p>	The Research materials and methods are described in comprehensive manner and structured into three sections. The research was carried out in structured way and logic sequence. The methods which were

			used are relevant for the chosen objectives and presented in comprehensive manner.
		8.2 The results of the dissertation work were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technologies: 1) <b>yes;</b> 2) no.	The instruments used in the study, the sampling, and the data collection are relevant to realize the aim of the study. The qualitative research method was applied which brings value to nursing science and findings of the study.
		8.3 Theoretical conclusions, models, identified relationships and patterns are proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results are proven on the basis of a pedagogical experiment): 1) <b>yes;</b> 2) no.	The proposed model and the research questions were tested and confirmed through experimental research. The relationships and patterns are supported by data (quantitative and qualitative). The results are reliable, reproducible, and statistically (and qualitatively) significant.
		8.4 Important claims <b>are supported</b> /partially supported/not supported by references to relevant and reliable scientific literature.	The list of references used for the manuscript consists of 138 bibliographic units. Only 17 references (12,3%) are published five and more years ago, justifying that the newest literature was used to support the literature review and own findings. The references are reliable and presented in relevant style.
		8.5 The reference sources used <b>are sufficient</b> /not sufficient for a literature review.	
9	The principle of practical value	9.1 The dissertation has theoretical significance: 1) <b>yes;</b> 2) no.	This dissertation makes a significant contribution to the development of nursing science in Kazakhstan by addressing a critical gap in evidence-based nursing research. The work develops and validates a contextually appropriate model of service-design that advances theoretical understanding and provides practical tools for clinical decision-making.
		9.2 The dissertation has practical significance and there is a high probability of applying the obtained results in practice: 1) <b>yes;</b> 2) no.	The results have implications for improving nursing practice, education, and healthcare quality, particularly in the context of health care services.
		9.3 The following are new suggestions for practice: 1) <b>completely new;</b> 2) partially new (25-75% are new);	The findings from the study are already implemented in health care practice and education.

		3) not new (less than 25% are new).	
10	Quality of writing and design	Quality of academic writing: 1) <b>high</b> ; 2) average; 3) below average; 4) low.	The text in English is presented in clear manner, although some pictures are not translated into English and left in the original language. The terms used in the manuscript are relevant and correctly used. The typographical make-up is appropriate. Although, there are some minor inconsistencies with the abbreviations' use and presentation.
11	Comments on the dissertation	The author presents novel and original research work meeting the criteria for the PhD thesis.	
12	The scientific level of the doctoral student's articles on the research topic (in the case of defending a dissertation in the form of a series of articles, official reviewers comment on the scientific level of each doctoral student's article on the research topic)	The publications prepared by the author are appropriate and published in peer reviewed journals.	
13	Decision of the official reviewer (in accordance with paragraph 28 of these Model Regulations)	Award the degree of Doctor of Philosophy (PhD)	

**Official Reviewer**

**Prof. Jūratė Macijauskienė**

**Head of the Department of Geriatrics**

**The Dean of the Faculty of Nursing**

**Lithuanian University of Health Sciences**

