Written review by the official reviewer Glushkova Natalya Egorovna, PhD, Professor, Director of the Health Research institute, Al-Farabi Kazakh National University, Almaty, on the dissertation of Kimatova Kerbez Naushaevna titled: "Medical and social needs of the older people based on the EASYCare Standard 2010 questionnaire in the Republic of Kazakhstan", submitted under the educational program 8D10101 – "Public Health" for the degree of Doctor of Philosophy (PhD)

№	Criteria	Compliance with the criteria (underline one of the answer options)	Justification of the position of the official reviewer (highlight comments in italics)
1	The dissertation topic (as of the date of its approval) corresponds to the priorities of scientific development and/or state programs.	1.1. Compliance with priority areas of scientific development or state programs: 1. The dissertation was carried out within the framework of a project or targeted program funded from the state budget (specify the title and project or program number); 2. The dissertation was carried out within the framework of another state program (specify the title of the program); 3. The dissertation corresponds to a priority area of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (specify the area).	1) The dissertation research was conducted within the framework of the scientific and technical project "Improving geriatric and gerontological care in the Republic of Kazakhstan" and was funded by the Ministry of Education and Science of the Republic of Kazakhstan (AP09562783). 3) The dissertation corresponds to the priority direction of science development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan, namely the direction of «The science of life and health».

2	Importance for science	The work makes/does not make a significant contribution to science, and its importance is well/not well demonstrated.	The dissertation makes a significant contribution to science, as it presents, for the first time in the Republic of Kazakhstan, the adaptation and validation of the international instrument EASYCare Standard 2010 for comprehensive geriatric assessment into Kazakh and Russian languages. The study provides a thorough analysis of the medical and social needs of older people using a scientifically grounded and standardized approach. The importance of the research topic is convincingly demonstrated: the author clearly outlines the relevance of the study in the context of rapid population ageing, a shortage of geriatric services, and the need for systemic changes in health policy. The findings have both theoretical and practical value, as evidenced by their implementation in clinical practice and educational programs.
3	Principle of independence	Level of independence: 1. high; 2. medium; 3. low; 4. none	The doctoral candidate demonstrates a high level of independence in conducting the research. All stages of the dissertation — from the design of the study and ethical approvals to data collection, statistical analysis, interpretation of results, and manuscript preparation — were carried out independently by the author. She took initiative in adapting and validating an international geriatric assessment tool to the local context, actively engaged with both national and international collaborators, and ensured the practical application of the findings. The work reflects academic maturity, critical thinking, and a strong commitment to scientific rigor.
4	Principle of internal unity	4.1 Justification of the relevance of the dissertation: 1. justified; 2. partially justified; 3. not justified.	The relevance of the dissertation is well justified. The author clearly demonstrates the significance of studying the medical and social needs of the elderly population in the context of Kazakhstan's rapidly aging demographic profile and the insufficient development of geriatric care services. The dissertation aligns with national public health priorities and contributes to the improvement of healthcare planning for older adults. The rationale is supported by up-to-date international and national data, making the topic both timely and socially significant.

		4.2 The content of the dissertation reflects the topic of the dissertation: 1. reflects; 2. partially reflects; 3. does not reflect.	The content of the dissertation fully reflects its stated topic. All chapters are logically structured and aligned with the objectives outlined in the research. The author consistently maintains focus on the central theme — the medical and social needs of older people in Kazakhstan — and substantiates the relevance of using the EASYCare Standard 2010 tool throughout the work. The analysis and findings are coherent with the research question, demonstrating a high level of thematic consistency.
		4.3. The aim and objectives correspond to the dissertation topic: 1. correspond; 2. partially correspond; 3. do not correspond.	The aim and objectives of the dissertation fully correspond to its topic. They are clearly formulated and logically structured to address the core research question. Each objective contributes to a comprehensive exploration of the medical and social needs of the elderly population in Kazakhstan, and they are all effectively integrated throughout the dissertation. This alignment ensures the research is purposeful, focused, and methodologically sound.
		4.4. All sections and provisions of the dissertation are logically interconnected: 1. fully interconnected; 2. partially interconnected; 3. not interconnected.	All sections and provisions of the dissertation are fully and logically interconnected. The structure of the work is coherent and consistent, with each part building upon the previous one and contributing to the overall research aim. The progression from the literature review through methodology, results, and discussion is well-organized and clearly articulated, ensuring a logical flow of ideas and arguments throughout the dissertation.
		4.5 The author's proposed new solutions (principles, methods) are well-argued and evaluated in comparison with existing solutions: 1. critical analysis is present; 2. partial analysis; 3. analysis consists of quotations from other authors rather than original views; 4. analysis is absent.	The author presents new approaches and methodological adaptations with a clear and well-reasoned critical analysis. The author provides original perspectives supported by empirical evidence and reflects on the practical applicability of the proposed solutions, demonstrating a strong command of the subject matter and analytical thinking.

5	Principle of scientific novelty	5.1. Are the scientific results and findings new? 1. completely new; 2. partially new (25–75% are new); 3. not new (less than 25% are new).	The scientific results and findings presented in the dissertation are completely new. This is the first study in Kazakhstan to adapt and validate the internationally recognized EASYCare Standard 2010 tool for assessing the needs of older adults, and to systematically evaluate the medical and social needs of the elderly population using this instrument. The originality of the research lies in both the methodological innovation and the practical recommendations developed based on a large-scale field study. These results contribute new knowledge to the fields of gerontology and public health, both nationally and internationally.
		5.2. Are the conclusions of the dissertation new? 1. completely new; 2. partially new (25–75% are new); 3. not new (less than 25% are new).	The conclusions of the dissertation are completely new. They are based on original empirical research and reflect findings that have not been previously documented in the context of Kazakhstan. The author presents evidence-based insights into the health and social care needs of the elderly population, as well as the applicability of the EASYCare Standard 2010 tool in the national setting. These conclusions offer new directions for public health planning and policy, making a substantial contribution to geriatric research and healthcare system improvement.
		5.3 Are the technical, technological, economic, or managerial solutions new and well-justified? 1. completely new; 2. partially new (25–75% are new); 3. not new (less than 25% are new).	The managerial and organizational solutions proposed in the dissertation are completely new and well-justified. The author offers original recommendations for improving geriatric service delivery in Kazakhstan. These proposals are grounded in thorough empirical analysis and are highly relevant for enhancing healthcare planning and management. Their novelty and practical applicability highlight the scientific and social value of the dissertation.
6	Justification of the main conclusions	All main conclusions are / are not based on scientifically valid evidence or are sufficiently well justified (for qualitative research and fields in the arts and humanities).	All main conclusions of the dissertation are clearly based on scientifically valid evidence and are well justified. The author uses a robust combination of quantitative data analysis and literature synthesis to support each conclusion. The findings are logically derived from the research objectives and are substantiated through

			appropriate statistical methods and comparisons with existing scientific literature. This evidential grounding ensures the reliability and credibility of the conclusions drawn.
7	Key statements submitted for defense	You must answer the following question for each individual thesis statement: 7.1 Has the statement been proven? 1. proven; 2. rather proven; 3. rather not proven; 4. not proven; 5. in its current wording, it is impossible to assess whether the statement is proven. 7.2 Is the statement trivial? 1. yes; 2. no; 3. in its current wording, it is impossible to assess whether the statement is trivial. 7.3 Is the statement new? 1. yes; 2. no; 3. in its current wording, it is impossible to assess whether the statement is new. 7.4 Scope of applicability: 1. narrow; 2. moderate; 3. broad;	1. Adaptation and validation of the EASYCare Standard 2010 questionnaire into Kazakh and Russian languages made it possible to introduce an international tool for assessing the medical and social needs of older people for the first time in Kazakhstan, which ensures its reliability and applicability in local conditions. 2. Key medical and social needs of older people in Kazakhstan were identified based on a standardized survey, including the risks of functional dependence, falls, breakdown in care, as well as insufficient social support and financial constraints. 3. The main factors influencing the medical and social needs of the elderly have been identified, among which the level of education, age, marital status and financial situation play a key role. 4. The research results can be used to adjust existing geriatric care programs and make additions to the national health policy, which will improve the availability and quality of medical and social support for the elderly in Kazakhstan. Comments: 1) The first statement is convincingly proven in both the dissertation and the article. The validation process was carried out with methodological rigor, and results showed high reliability of the localized tool. This is the first such adaptation in Kazakhstan, making the contribution original and widely applicable to geriatric care practice and research throughout the country and potentially the region. 2) The second statement is fully supported by quantitative findings presented in the article and dissertation. Using the EASYCare framework, the author identified prevalent geriatric risks that had not

		4. in its current wording, it is impossible to assess the scope of applicability. 7.5 Is it proven in the article? 1. yes; 2. no; 3. in its current wording, it is impossible to assess whether the statement is proven in the article.	been systematically documented before in the national context. The findings are essential for tailoring social and healthcare interventions. 3) Through multivariable regression and comparative analysis, the study clearly demonstrates how sociodemographic variables influence elder needs. The results are statistically significant and interpreted within international literature, confirming the novelty and strength of the findings. 4) This statement reflects the applied value of the research. While it goes beyond raw empirical proof, the findings strongly justify the proposed policy implications. The alignment of identified needs with strategic gaps in geriatric care in Kazakhstan makes this a valuable and timely recommendation.
8	Principle of reliability. Reliability of sources and the information provided.	8.1 Choice of methodology – is it justified or sufficiently described? 1. yes; 2. no.	The choice of methodology in the dissertation is well justified and thoroughly described. The author provides a clear rationale for selecting the EASYCare Standard 2010 instrument for assessing the medical and social needs of older adults, emphasizing its international validation, multidimensional structure, and suitability for use in primary care settings. The methodological section outlines the stages of localization and validation in detail, including the translation process, expert review, pilot testing, and statistical analysis. The sampling strategy, ethical considerations, and data collection procedures are also transparently presented. This level of methodological rigor ensures the reliability and reproducibility of the study and confirms the scientific validity of the findings.
		8.2 The results of the dissertation were obtained using modern scientific research methods and techniques of data processing and interpretation, including the use of computer technologies:	Yes, the results of the dissertation were obtained using modern scientific research methods and advanced data processing techniques with the application of computer technologies. The author employed validated international instruments, performed statistical analyses using software such as Statistica 13 TIBSCO, and applied multivariate methods, including regression analysis and correlation matrices. The

		1. yes; 2. no.	use of these tools ensured the objectivity, reproducibility, and scientific rigor of the results, fully meeting contemporary standards for public health research.
		8.3 Theoretical conclusions, models, identified relationships and patterns are proven and confirmed by experimental research (for educational sciences – confirmed through pedagogical experiments): 1. yes; 2. no.	Yes, the theoretical conclusions, identified relationships, and observed patterns in the dissertation are convincingly proven and supported by empirical research. The study is based on quantitative analysis of real-world data collected from a representative sample of older adults. Statistical methods were applied to confirm the associations between sociodemographic factors and health-related needs, establishing reliable patterns. These findings are well-integrated with existing theoretical frameworks in gerontology and public health, confirming their scientific validity.
		8.4 Important statements are confirmed/partially confirmed/not confirmed by references to relevant and reliable scientific literature.	Important statements in the dissertation are fully confirmed by references to current and credible scientific literature. The author extensively cites authoritative sources, including publications by the World Health Organization, international research on geriatric assessment tools, and studies on population aging. References are well-selected and up-to-date, providing a strong theoretical and empirical foundation for the study's arguments and conclusions. This thorough grounding in the literature enhances the scientific reliability and contextual relevance of the work.
		8.5 The literature sources used are sufficient / not sufficient for the literature review.	The literature sources used in the dissertation are sufficient for a comprehensive and well-structured literature review. The author references a wide range of international and national studies, including publications from the World Health Organization, scientific journals indexed in Scopus and Web of Science, as well as relevant legislative and policy documents. This ensures that the review is both scientifically grounded and contextually relevant, providing a strong foundation for the research problem and objectives.

9	Principle of practical value	9.1 The dissertation has theoretical significance: 1. yes; 2. no.	Yes, the dissertation has clear theoretical significance. It contributes to the scientific understanding of geriatric assessment and population aging by adapting and validating the internationally recognized EASYCare Standard 2010 tool for use in Kazakhstan. The study advances theoretical models of needs-based assessment in elderly populations, integrates global public health frameworks into local research, and offers a conceptual basis for further scholarly investigation in the field of gerontology and public health.
		9.2 The dissertation has practical significance and there is a high probability of applying the obtained results in practice: 1. yes; 2. no.	Yes, the dissertation has clear practical significance and a high probability of real-world application. The validated EASYCare Standard 2010 tool, adapted for Kazakhstan's healthcare context, can be directly implemented in primary care and social service settings to assess the needs of older adults. Additionally, the findings provide evidence-based recommendations that can inform national health policy, improve geriatric service delivery, and support the development of targeted programs for elderly care. The practical value of the work is confirmed by its relevance to both clinical and administrative stakeholders.
		9.3 The practical recommendations are new: 1. completely new; 2. partially new (25–75% are new); 3. not new (less than 25% are new).	The practical recommendations presented in the dissertation are completely new. They are based on original research findings and address the unique needs of the elderly population in Kazakhstan. The proposals include the integration of the EASYCare Standard 2010 into routine primary care, targeted support for socially vulnerable older adults, and improvements in geriatric service organization. These recommendations have not previously been implemented or systematically studied in the national context, which underscores their innovation and value for public health practice.
10	Quality of writing and formatting	Quality of academic writing: 1. high; 2. average; 3. below average; 4. low.	The quality of academic writing in the dissertation is high. The text is clearly structured, logically coherent, and stylistically appropriate for scientific discourse. The author uses precise terminology, formulates arguments convincingly, and presents complex ideas in a well-organized and accessible manner. The language adheres to academic

			standards, and the narrative maintains consistency across all chapters, contributing to the professionalism and scientific value of the work.
11	Comments on the dissertation		No comments. The work meets the required academic standards and is ready for defense.
12	Scientific level of the doctoral student's articles on the research topic (In the case of defending the dissertation in the form of a series of articles, official reviewers comment on the scientific level of each article related to the research topic)		
13	Decision of the official reviewer (in accordance with clause 28 of the current Standard Regulation)		Based on a thorough analysis of the dissertation devoted to the study of the medical and social needs of older adults in the Republic of Kazakhstan, I conclude that the work fully meets the scientific standards required for a PhD-level dissertation. The findings presented hold significant scientific and practical value for the advancement of the national healthcare system. The dissertation by Kerbez Naushaevna Kimatova merits a positive evaluation, and I petition the Committee for Quality Assurance in the Field of Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan to award the doctoral candidate the degree of Doctor of Philosophy (PhD).

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Glushkova Natalya Egorovna

АДАМ РЕСУРСТАРЫН ДАМЫТУ ДЕПАРТАМЕНТІ КАДРЛЫҚ ЖҰМЫС БАСҚАРМАСЫ

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