

REVIEW

Reviewer's Evaluation of the Dissertation by Balnur Iskakova on the Topic: "Measuring HIV-related stigma in healthcare settings" for the Doctor of Philosophy (PhD) Degree in the Specialty 6D 110200 – "Public Health"

№	Criteria	Compliance with criteria (please select one of the response options)"	Justification for the official reviewer's position
1.	The dissertation topic (as of its approval date) aligns with the directions of scientific development and/or government programs.	<p>1.1 Alignment with Priority Directions of Scientific Development or Government Programs</p> <p>1. The dissertation was carried out within the framework of a project or target program funded from the state budget (please specify the name and project or program number).</p> <p>2. The dissertation was conducted within the framework of another state program (please specify the name of the program).</p> <p>3. The dissertation corresponds to a priority direction of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (please specify the direction).</p>	<p>The dissertation, aimed at studying one of the reasons hindering the resolution of a significant public health issue - HIV infection, aligns with the priority direction of scientific development "Life and Health Sciences" as approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan.</p> <p>The dissertation corresponds to a priority direction in the development of science, approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan in the field of "Life and Health Sciences." It is dedicated to an important issue in the field of HIV/AIDS prevention and treatment. HIV-associated stigma is one of the main barriers preventing people living with HIV (PLHIV) from accessing medical care, including antiretroviral therapy (ART), leading to the progression of the infection to AIDS and an increase in the prevalence of the infection among the population.</p> <p>This topic is particularly important for regions with a high level of stigma towards PLHIV and insufficient coverage of ART for these individuals.</p>
2.	Importance for Science	Does the work make /does not make a significant contribution to science.	The importance of the conducted research for science is determined by the fact that stigma towards people living with HIV (PLHIV) is unfortunately a universal phenomenon widely prevalent worldwide. Therefore, studying the reasons for HIV-associated stigma among healthcare personnel in primary healthcare institutions can contribute to improving medical care for PLHIV. It can also aid in the development and implementation of targeted interventions to increase awareness of the

			negative impact of stigma, not only on HIV patients and their surroundings but also on the overall situation regarding this infection within and beyond the country. The importance of the dissertation topic is well elucidated by the author of the dissertation work.
3.	The principle of independence	Level of independence: High; Moderate; Low; No independence.	This work was carried out by the doctoral candidate independently and at a high level: the planning of the dissertation work, data collection, analysis and data storage, interpretation, writing of the dissertation, articles, abstracts, and presentation of research results were conducted by the doctoral candidate independently with advisory assistance from local and foreign consultants.
4.	The principle of internal unity	4.1 Justification of the Dissertation's Relevance: Justified; Partially justified; Not justified.	The relevance of the topic of this dissertation is well addressed and reflects the essence of the research. Although many foreign researchers have pointed out the significant negative role of HIV-associated stigma, which hinders HIV/AIDS prevention and treatment, this issue is not extensively studied in Kazakhstan, especially among healthcare professionals. The author of the dissertation has convincingly justified the relevance of the work by providing a wide range of publications on this issue in international and local journals and by identifying "white spots" that require investigation, including primary healthcare institutions.
		4.2 The content of the dissertation reflects the dissertation topic: Reflects; Partially reflects; Does not reflect.	The content of the dissertation fully reflects the research topic and is logically presented in accordance with the required standards, starting from the introduction, in which the author emphasizes the relevance of the research topic, the objectives, and tasks, the methods used to address research questions, results and discussion, as well as recommendations. In the "discussion of results" section, a deep analysis of the obtained results is conducted in comparison with data from scientific publications, and well-founded justifications for the main conclusions and findings are provided.

4.3. The objectives and tasks correspond to the dissertation topic:

Correspond;
Partially correspond;
Do not correspond.

The research's objectives and tasks are clearly formulated and align with the dissertation's topic. The research aimed to assess the level of HIV-related stigma in healthcare institutions by surveying medical personnel in primary healthcare institutions in Almaty, using a random sampling method. One of the research tasks involved validating the assessment tool in both the state and Russian languages, which was crucial for obtaining objective data. The tasks also included evaluating the level of stigma using qualitative and quantitative methods, identifying factors contributing to stigma, and developing recommendations for stigma reduction interventions.

4.4 All sections and provisions of the dissertation are logically interconnected:

Fully interconnected;
Partial interconnection;
No interconnection.

There is a clear logical connection between the sections of the dissertation and within each section. The work begins with a literature review on the topic, smoothly transitioning to identifying gaps in research and justifying the need for the current study. The goals and objectives of the work are then presented, followed by the methodology section, which provides a clear description of each data collection stage. The author also explains the results of complex statistical analysis methods in subsequent sections, acknowledging certain limitations and providing recommendations for future research.

4.5 The author's proposed new solutions (principles, methods) are justified and evaluated in comparison to known solutions:

Critical analysis is present;
Partial analysis;
The analysis consists of quotes from other authors.

The author has primarily conducted the validation of the stigma assessment instrument, which, when used by other researchers, can yield reliable results of interest to an international audience. Additionally, recommendations and directions for further research at the national level aimed at combating HIV-related stigma in healthcare institutions have been provided. Considering the identified needs of the respondents during the study, interventions have been recommended to increase knowledge about HIV, stigma, discrimination, care for HIV-positive patients, and precautionary measures. The potential for comprehensive assistance to

			PLHIV through the integration of HIV services and primary healthcare services is discussed separately. However, as the author rightly points out, further detailed research on such an approach and its impact on the level of HIV-related stigma in primary healthcare institutions is needed. All recommendations are based on a critical analysis of the author's own data in comparison with data from other researchers, obtained on the principles of evidence-based research.
To 5.	The principle of scientific novelty	5.1 Are the scientific results and propositions new? Entirely new; Partially new (25-75% are new); Not new (less than 25% are new).	The validation of the stigma assessment instrument in both the Kazakh and Russian languages for the Kazakhstani context is entirely new and can be used in future research. Additionally, the results indicating a high level of stigma among healthcare workers in primary healthcare organizations are also new findings.
		5.2 Are the dissertation's conclusions new? Entirely new; Partially new (25-75% are new); Not new (less than 25% are new).	The conclusions drawn in the dissertation align with the research results and are new.
		5.3 Are the technical, technological, economic, or managerial solutions new and justified? Entirely new; Partially new (25-75% are new); Not new (less than 25% are new).	The use of a new questionnaire developed by the author, along with the appropriate copyright license, and its implementation in the work of other organizations enhances the novelty and reliability of this scientific work.
6.	The justification of the main conclusions.	All the main conclusions are based on substantial scientific evidence or are reasonably well-founded (for qualitative research and fields of study related to arts and humanities).	All the conclusions drawn based on the research results are well-founded and thoroughly described.

7.	The main points presented for defense.	<p>7.1 Is the proposition proven? Proven; Likely proven; Likely not proven; Not proven.</p> <p>7.2 Is it trivial? Yes; No.</p> <p>7.3 Is it novel? Yes; No.</p> <p>7.4 Level of applicability: Narrow; Moderate; Broad.</p> <p>7.5 Is it proven in the article? Yes; No.</p>	<p>The propositions presented for the defense of this dissertation are new, well-founded, practically significant, and have been published in scientific journals with a high level of impact factor. Among these propositions: A high level of HIV-related stigma among primary healthcare workers: Likely proven. Working with HIV patients in the past year and having extensive work experience have a positive impact, reducing the level of stigma: Likely proven. Low levels of HIV knowledge among study participants and a high level of fear of contracting HIV in the sample: Likely proven. These propositions demonstrate the novelty, substantiation, practical significance, and publication in high-impact factor journals, as indicated in the original statement.</p>
8.	The Principle of Credibility of Sources and Provided Information	<p>8.1 The choice of methodology is justified or the methodology is described in sufficient detail: Yes; No.</p>	<p>The choice of research methods is justified and fully described in the dissertation. Both quantitative and qualitative methods were utilized in the study, allowing for a comprehensive understanding of the level of HIV-related stigma among primary healthcare workers. Quantitative methods involved the development and validation of a stigma assessment tool based on standard scales, as well as surveys among healthcare personnel. Qualitative methods included conducting in-depth interviews with healthcare workers to gain a deeper understanding of the factors influencing stigma and discrimination. The author also justifies the application of each research method and explains how it contributes to achieving the research goals and objectives. This ensures scientific rigor and confidence in the research findings.</p>

	<p>8.2 The results of the dissertation work were obtained using modern methods of scientific research and data processing and interpretation techniques with the use of computer technologies: Yes; No.</p>	<p>The author employs several new statistical methods for data analysis, such as factor analysis for categorical data, using the latest licensed statistical packages. These new methods enable a more precise and comprehensive analysis of the data, leading to more reliable results and conclusions. The use of licensed statistical packages also ensures a high degree of accuracy and representativeness in the research findings.</p>
	<p>8.3 Theoretical conclusions, models, identified relationships, and regularities are proven and confirmed by experimental research (for fields of study related to pedagogical sciences, the results are proven based on pedagogical experiments): Yes; No.</p>	<p>The relationships discovered through statistical analysis are well-described, and the author also establishes connections between quantitative and qualitative results. This allows for a more comprehensive and in-depth understanding of the essence and significance of the obtained results. The author demonstrates the ability to integrate and interpret different types of data, contributing to a more complete understanding of complex relationships within the researched problem.</p>
	<p>8.4 Important statements are supported/partially supported/not supported by references to current and reliable scientific literature.</p>	<p>The obtained results are compared with available reliable scientific literature. The author references previous research conducted by other scientists and uses their findings to support their conclusions.</p>
	<p>8.5 The sources of literature used are sufficient/insufficient for the literature review.</p>	<p>The sources of literature used are sufficient (n=168).</p>
9	<p>The principle of theoretical significance</p> <p>9.1 The dissertation has theoretical significance: Yes; No.</p>	<p>Validated instruments for assessing HIV-related stigma can be used for further research in the country. Additionally, the results regarding the level of HIV-related stigma among PSMC workers can be valuable for future interventions. These findings provide valuable information for the development of measures and programs aimed at reducing HIV-related stigma and discrimination in healthcare institutions.</p>

		<p>9.2 The dissertation has practical significance, and there is a high probability of applying the obtained results in practice: Yes; No.</p>	<p>The dissertation has practical significance, and there is a high probability of applying the obtained results in practice. The validated questionnaire developed by the author has received the appropriate copyright license and has been implemented in the work of one of the clinics.</p>
		<p>9.3 Are the practical recommendations new? Completely new; Partially new (25-75% are new); Not new (less than 25% are new).</p>	<p>The practical recommendations are completely new.</p>
10.	Quality of academic writing	<p>The quality of academic writing: high; average; below average; low.</p>	<p>The dissertation is written in English, the quality of academic writing is high, and the formatting of the dissertation meets all the requirements set by the dissertation committee.</p>

Official reviewer:
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