This is an Accepted Manuscript for *Calitatea Vieții*. Subject to change during the editing and production process.

VALIDATION AND ADAPTATION OF THE HEALTHQUAL-KZ QUESTIONNAIRE FOR COMPREHENSIVE HEALTHCARE QUALITY ASSESSMENT IN PUBLIC−PRIVATE PARTNERSHIPS

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The assessment of healthcare quality and patient satisfaction in public−private partnerships (PPPs) remains a critical but underexplored area, that has been identified as a priority by international health organizations. These metrics are essential for evaluating healthcare management models and shaping systems that meet population needs.

This study aimed to develop a scientifically valid and culturally adapted version of the HEALTHQUAL questionnaire for Kazakhstan, based on the rigorous linguistic adaptation of the Portuguese version.

Materials and Methods: *The adaptation process involved translating the HEALTHQUAL-KZ questionnaire into Russian and Kazakh and then conducting a comprehensive validation process to ensure cultural and contextual relevance. To assess content and external validity, data from 100 randomly selected medical records were drawn from the integrated medical information system (MIS) at the Almaty Multidisciplinary Clinical Hospital, representing cases treated both three years before and three years after the PPP (Patient Protection Program) implementation. The adapted questionnaire's reliability was confirmed through Cronbach's alpha ($\alpha > 0.7$) for internal consistency and Spearman's rank correlation coefficient for test-retest reliability. These measures ensured the methodological robustness of the study.*

Results: *The HEALTHQUAL-KZ questionnaire, which was validated, consists of 25 questions divided into five domains, demonstrated high reliability in all domains, as supported by Cronbach's Alpha and Spearman's*

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CALITATEA VIEȚII, XXXVI, nr. 2, 2025, pp. , https://doi.org/10.46841/RCV.2025.02.01

rank correlation. The average completion time was approximately 12 minutes and 35 seconds. No significant correlation was found between demographic factors (age, education) and satisfaction levels, confirming the objectivity of the tool.

Conclusion: *This study presents the first validated adaptation of the HEALTHQUAL questionnaire for the healthcare context in Kazakhstan, offering a reliable instrument for assessing healthcare quality and patient satisfaction in PPP models. The significance of this research lies in its innovative methodological approach, providing a framework that can be transferred and adapted to other countries with similar healthcare systems and challenges. While it has local relevance, this work also contributes to the global discussion on improving healthcare through PPPs by offering a model for adapting healthcare quality assessment tools across cultures. This framework has the potential to standardize quality metrics and enable meaningful comparisons between diverse healthcare settings, advancing the field of healthcare research.*

Keywords*: public−private partnership; HEALTHQUAL questionnaire; linguistic adaptation of the questionnaire; satisfaction with medical care.*

INTRODUCTION

Public−private partnership (PPP) represents a strategic collaboration between public and private entities, aimed at achieving mutually beneficial goals (Roehrich, Lewis and George 2014; Skaggs *et al.* 2016). In this model, private entities are often driven by profit motives, while public entities prioritize social, political, and economic improvements (Zhang *et al.* 2009). Traditionally, the public sector assumed all associated risks, but the PPP model allows for shared risk assessment and solution development, enhancing profitability and sustainability for both parties (Dalton-Jez *et al.* 2012). Under this arrangement, the public sector defines service expectations, and the private sector is responsible for financing, constructing, and managing the designated assets (International Monetary Fund 2004). PPPs in healthcare are gaining traction worldwide as a mechanism for improving healthcare quality and access. By aligning the resources and expertise of public and private stakeholders, PPPs enable a more efficient allocation of resources and a more balanced distribution of risks. The World Health Organization (WHO) highlights PPPs as an innovative solution to critical global health issues, including infrastructure gaps, budget constraints, and the need for advanced service delivery models. Although extensive research examines how PPPs can enhance clinical outcomes globally, there remains a substantial gap in understanding how these partnerships affect patient satisfaction and healthcare quality—particularly in transitional economies like Kazakhstan. Addressing this knowledge gap is essential not only for local policy development but also for establishing methodologies applicable to similar economic contexts, where standardized and culturally adapted tools for assessing healthcare quality are needed.

In healthcare, PPP is becoming increasingly relevant each year, a trend supported by the WHO's advocacy for such models (Baru and Nundy 2008). While hospitals in some regions generate a third of healthcare costs, insufficient infrastructure investment persists, emphasizing the need for innovative management models (Caselli, Vecchi and Corbetta 2015). For example, PPP initiatives in Russia have been associated with decreased mortality, improved care quality, and increased life expectancy (Gera and Rubtcova 2018). In Kazakhstan, PPP projects in healthcare typically involve private companies financing, constructing, and managing healthcare infrastructure while the government defines service requirements and provides oversight. These collaborations have led to improved healthcare facilities, better service delivery, and increased access to care, particularly in rural and underserved areas. However, detailed analyses of PPPs' impact on service quality and patient satisfaction are limited (De Marco and Mangano 2013; Hellowell 2016; Mota and Moreira 2015). Although a few studies assess quality and satisfaction within PPP frameworks, none offer tools specifically validated for Kazakhstan's unique healthcare context.

In exploring frameworks for healthcare quality assessment, five primary models emerge in the literature: Donabedian's model, SERVQUAL, HEALTHQUAL, PubHosQual, and HospitalQual (Lee 2017). Donabedian's model focuses on structure, process, and outcomes to evaluate healthcare quality, emphasizing the relationship between these components (Donabedian 1988). SERVQUAL, developed by Parasuraman, Zeithaml and Berry (1996), assesses service quality through the gap between customer expectations and perceptions across five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. PubHosQual is a model specifically designed for public hospitals, incorporating patient perspectives on care quality and focusing on healthcare accessibility and public service delivery (Shahin 2013). HospitalQual focuses on hospital-specific dimensions, evaluating both patient satisfaction and the broader healthcare environment (Nabatchi 2014). The HEALTHQUAL model, developed by Camilleri and O'Callaghan (1998) and later refined by Lee (2017), adapts SERVQUAL to healthcare settings, focusing on 16 indicators across five dimensions: enhancement of health services, tangible quality aspects, efficiency-related quality, safety-focused quality, and empathy-related quality (Carvalho and Rodrigues 2022). The HEALTHQUAL model stands out for its ability to offer a comprehensive, multidimensional evaluation of healthcare service quality, with an emphasis on both patient satisfaction and the operational effectiveness of healthcare systems. Its adaptability to different cultural and healthcare contexts, such as Kazakhstan's, makes it a valuable tool for assessing healthcare quality in transitional economies. By providing a standardized yet flexible framework, the HEALTHQUAL model facilitates the development of tools like the HEALTHQUAL-KZ, ensuring that healthcare quality measurement is both scientifically validated and culturally relevant. The aim of this study was to

conduct a rigorous linguistic adaptation of the Portuguese HEALTHQUAL questionnaire for the Kazakhstani population, resulting in the HEALTHQUAL-KZ tool. While assessing patient satisfaction and healthcare quality is vital for any healthcare system, it is especially critical in PPP frameworks, where efficient, patient-centered care is paramount. The growing integration of PPPs in Kazakhstan's healthcare underscores the need for reliable, standardized tools that accurately measure service quality and patient satisfaction. The significance of developing such a tool extends beyond Kazakhstan; countries across Central Asia, Eastern Europe, and other emerging economies share similar healthcare challenges. By creating a culturally adapted, scientifically validated instrument, this study not only addresses local healthcare needs but also contributes to the broader field of healthcare quality assessment by providing an adaptable framework that other countries can employ, thereby fostering the establishment of international best practices in PPP healthcare evaluation.

METHOD AND MEASURES

The adapted scale developed by Lee (Lee 2017; Lee and Kim 2017) consists of 26 questions, rated on a 5-point Likert scale, to assess patient satisfaction with healthcare quality. For this study, we selected the Portuguese version of the HEALTHQUAL model, which comprises 25 questions organized across five key dimensions (Camilleri and O'Callaghan 1998; Carvalho and Rodrigues 2022): (1) Empathy; (2) Space and Environment; (3) Safety; (4) Efficiency; and (5) Results of Using Hospital Services.

The Portuguese version was chosen for several important reasons. First, it has been extensively applied in healthcare systems undergoing reforms similar to those in Kazakhstan, particularly within public–private partnership (PPP) frameworks. This model not only evaluates clinical factors but also organizational and infrastructural aspects of healthcare delivery, making it particularly suitable for a comprehensive assessment of healthcare quality. Moreover, the Portuguese version has demonstrated high reliability and validity in international studies, underscoring its robustness as an instrument for evaluating healthcare quality in emerging healthcare systems like Kazakhstan's (Oliveira 2023; Antunes *et al.* 2022).

Study Design

To ensure linguistic and cultural relevance, the questionnaire was translated from Portuguese into Russian and Kazakh using a rigorous translation and back-translation process, conducted by two professional translators. This approach maintained semantic consistency and ensured the precision of terms. After initial translations, a comparative analysis was conducted to finalize the wording. A focus group of 15 patients subsequently reviewed the draft version to evaluate the clarity

and comprehensibility of each question. Any ambiguous wording was revised based on feedback from two healthcare experts, ensuring strong content validity.

For external validity, three independent healthcare professionals, each a professor and doctor of medical sciences at top medical universities in Kazakhstan, reviewed and approved the structure and content of the adapted questionnaire. These experts, with extensive backgrounds in medical sociology, quality management, and healthcare assessment tool development, affirmed the scientific rigor and contextual relevance of the questionnaire for the Kazakhstani healthcare system.

Data Collection Instrument

After final approval, a random sample of 100 medical records was selected from the integrated Medical Information System (MIS) of the Almaty Multidisciplinary Clinical Hospital. This hospital was chosen due to its pivotal role in Kazakhstan's healthcare system, particularly in the context of public−private partnership (PPP) initiatives. The facility offers a broad spectrum of services, treating over 13,000 inpatients and 13,000 outpatients annually and performing approximately 7,000 surgeries. The high patient volume makes it an ideal setting to evaluate the effects of PPP on healthcare quality and patient satisfaction. The randomization process involved selecting cases from both the pre- (2017–2020) and post-PPP implementation (2020–2024) periods, ensuring a representative dataset. The selection process, conducted using a random number generator, included essential patient details such as contact information for follow-up. Patients were contacted by phone, provided informed consent, and completed the HEALTHQUAL-KZ questionnaire electronically via Google Forms in their preferred language (Russian or Kazakh). Some participants did not respond, resulting in a final sample of 32 responses for the period before PPP implementation and 37 responses afterward.

After assessing the content and external validity, the Kazakhstan version of the questionnaire consisted of 25 questions, divided into 5 domains (Table 1). Each domain includes 5 questions: 1) Empathy, 2) Hospital infrastructure, 3) Quality of service, 4) Efficiency of medical staff, and 5) Result of services rendered. We did not include a health literacy scale in this version of the questionnaire, as we felt it was more appropriate to assess health literacy through more detailed international questionnaires to obtain reliable results. Additionally, we did not include a scale to assess awareness of PPP projects, as we considered it premature for our population due to the recent implementation of this project and the almost complete lack of understanding and knowledge among focus group respondents regarding the implementation of such projects.

Table no. 1

Kazakhstan version HEALTHQUAL of the HEALTHQUAL-KZ questionnaire

Scales	Questions	Answers and scores
1. Empathy	1. The clinic staff is polite and friendly.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	2. The clinic staff is always ready to listen and understand any question.	1 – Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree
	3. The clinic staff easily understands my health status.	1 − Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree
	4. The clinic staff quickly understands my needs	1 – Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally Agree
	5. The clinic staff can put themselves in the position of my place and understand my problems.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
2. Hospital infrastructure	1. It seems to me that the capabilities of this hospital meet the needs of our population.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	2. The condition of the hospital is visually appealing.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	3. The overall level of cleanliness in the hospital is satisfactory.	1 − Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree
	4. The hospital provides a comfortable and safe environment for patients	1 − Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree

	5. Navigating and moving around the hospital is relatively easy.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
3. Quality of service	1. The clinic staff strictly followed the rules of hygiene and protection.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	2. The doctors made an accurate diagnosis.	1 – Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree
	3. The nurses did not make mistakes in their work.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	4. I was confident in the professional work of all the clinic staff.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	5. I have full confidence in the professionalism of the doctors of this hospital.	1 – Totally disagree 2 – Disagree 3 − Somewhere in the middle 4 − Agree 5 – Totally agree
4. Efficiency of medical staff	1. I believe that the clinic staff avoids unnecessary use of medication.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	2. I believe that the clinic staff strives to apply only those methods of treatment that are strictly necessary.	1 – Totally disagree 2 – Disagree 3 – Somewhere in between 4 − Agree 5 – Totally agree
	3. In my opinion, the hospital's work processes are clearly structured and understandable.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	4. I believe that the number of employees is sufficient to meet the needs of patients.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree

	5. The hospital effectively manages the time I spend there (for example, it conducts appointments/examinations on time).	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
5. Result of services rendered	1. I believe that the medical care provided to me was consistent with my state of health.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	2. My health improved after being treated at this hospital.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	3. I feel that my condition has improved significantly thanks to the treatment at this hospital.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	4. The clinic staff gave me all the necessary explanations to prevent the occurrence of other concomitant diseases.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree
	5. The degree of effort and readiness of medical personnel to prevent diseases is high.	1 – Totally disagree 2 – Disagree 3 − Somewhere in between 4 − Agree 5 – Totally agree

Statistical Analysis

We conducted all statistical analyses using SPSS Statistics 26.0. Data normality was assessed through the Shapiro-Wilk test, kurtosis and skewness indices, and visual inspection of histograms. For normally distributed quantitative data, we applied the paired t-test (for equal variances) and Welch's test (for unequal variances). Non-normally distributed data were analyzed using the Mann-Whitney U-test. Nominal data were compared using Pearson's chi-squared test.

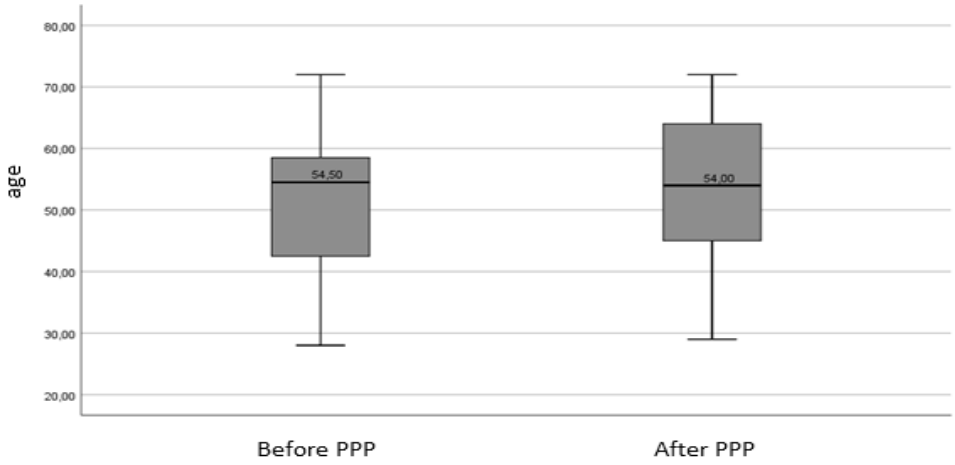
The reliability of the adapted questionnaire was confirmed through Cronbach's alpha coefficient ($\alpha > 0.7$), indicating strong internal consistency. Test-retest reliability was assessed using Spearman's rank correlation coefficient, with a two-week interval between tests. The strength of correlation was evaluated based on the Cheddick scale. Statistical significance was set at $p < 0.05$.

RESULTS

The groups did not differ in age, the median and IQR of age were: group 1 – 54.5 (16.5); эGroup 2 – 54 (20.5) (*Figure 1*).

Figure 1

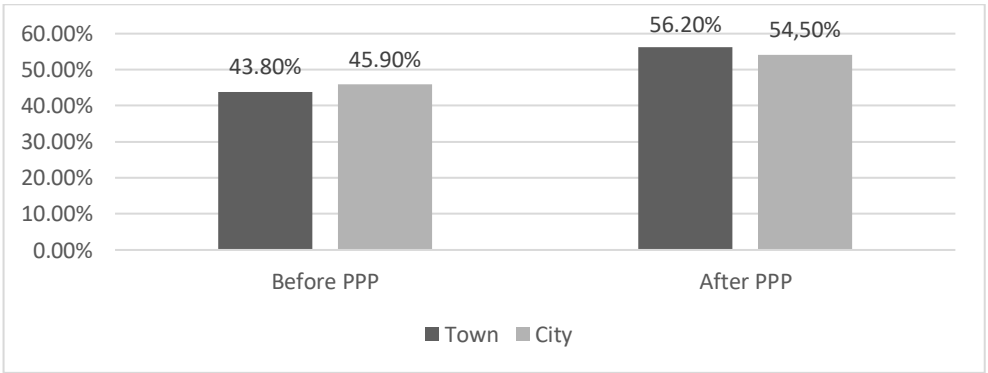
Age of patients



In the first group, 14 people were from rural areas and 18 people with city registration, in the second group, 17 people were residents of the village and 20 people were residents of the city (*Figure 2*), the differences are not statistically significant.

Figure 2

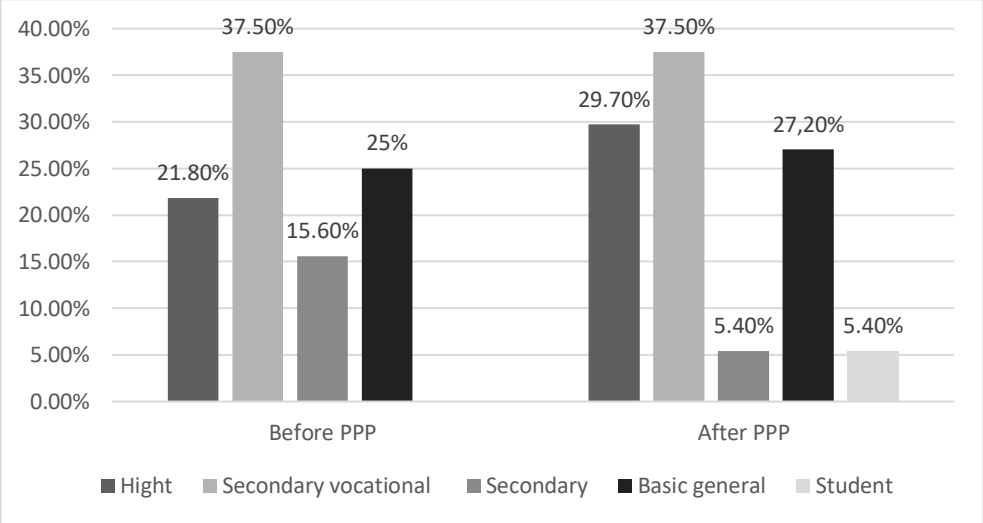
Village / city ratio between groups



In the first group, 7 people had higher education, 12 people-secondary vocational, secondary − 5, basic general − 8, in the second group − 11 people had higher education, secondary vocational − 14, secondary − 2, basic general − 10, student − 2, the differences are statistically significant (p = 0.002, *Figure 3*).

Figure 3

Level of education



The reliability assessment of the questionnaire showed fairly high Cronbach's Alpha values for all the evaluated domains (*Table no. 2*). The reliability score by repeated testing after two weeks, evaluated using Spearman's rank correlation criterion, was also high (*Table no. 3*). The average reproducibility of the questionnaire was 12 minutes and 35 seconds.

Table no. 2

Assessment of the reliability of the Kazakhstan version HEALTHQUAL of the HEALTHQUAL − KZ questionnaire

Dimension	Cronbach's Alpha	Spearman's rank correlation coefficient	p-value
Empathy	0.775	0.741	<0.001
Hospital Infrastructure	0.881	0.866	<0.001
Safety	0.876	0.933	<0.001
Efficiency	0.851	0.921	<0.001
Results of hospital services	0.899	0.902	<0.001

When assessing the correlation between age, education level, and the results of the HEALTHQUAL scales of the HEALTHQUAL-KZ questionnaire, only one moderate statistically significant direct relationship was found between education level and assessment of satisfaction with hospital infrastructure (rxy=0.317 − moderate relationship on the Chaddock scale; p=0.041). No other significant correlations were found. Perhaps the level of education can influence satisfaction with environment and hospital stay conditions. Therefore, it is important to assess the relationship between medical literacy and quality of medical care, as recommended by foreign researchers.

Table no. 3

Correlation between the HEALTHQUAL-KZ questionnaire scales, age, and educational attainment

Scale	Age (KKS)	Bond Strength (Chaddock Scale)	p-value (Age)	Education (PQ)	Bond Strength (Chaddock Scale)	p-value (Education)
1. Empathy	0.113 (Weak)	Direct	0.280	0.108 (Weak)	Direct	0.327
2. Hospital Infrastructure	0.215 (Weak)	Direct	0.150	0.317 (Moderate)	Direct	0.041
3. Quality of Service	0.273 (Weak)	Direct	0.065	0.118 (Weak)	Direct	0.207
4. Efficiency of Medical Staff	0.080 (No correlation)	-	0.620	0.037 (No correlation)	-	0.785
5. Result of Services Rendered	0.015 (No correlation)	-	0.875	0.088 (No correlation)	-	0.725

DISCUSSION

The validation process for the HEALTHQUAL-KZ questionnaire demonstrated robust psychometric properties, evidenced by high internal consistency (Cronbach's alpha) across all five domains and strong test-retest reliability, evaluated using the Spearman rank correlation coefficient. These findings align with similar validation studies of health service quality assessment tools in various regions, affirming the instrument's reliability within the context of Kazakhstan's healthcare system (Aitmagambetov 2020). Achieving Cronbach's alpha values exceeding 0.7, as reported in this study, is widely recognized as indicative of sufficient internal consistency, thereby supporting the instrument's suitability for both Russian- and Kazakh-speaking populations.

A significant observation was the lack of substantial correlations between patient satisfaction and demographic factors such as age and education level. This contrasts with previous research that identified these factors as notable predictors of satisfaction with healthcare services. For instance, earlier studies have shown that older patients and those with higher education levels often report greater satisfaction, attributed to their enhanced understanding and expectations of medical care (Xu *et al.* 2020). In the current study, however, the consistent quality of services provided under the public–private partnership (PPP) model may explain the uniformity in satisfaction levels across different demographic groups. The successful integration of PPPs in medical institutions, as evidenced by stable satisfaction rates, supports prior findings that PPPs can enhance service delivery and mitigate disparities in patient experiences (Carvalho and Rodrigues 2022).

Despite these positive outcomes, certain limitations warrant attention. While the sample size in this study was adequate for initial validation, future research could benefit from expanding the participant pool to include a more diverse demographic across various regions of Kazakhstan. This would enhance the generalizability of the findings and provide a more comprehensive evaluation of the questionnaire's applicability in diverse healthcare settings. Moreover, subsequent studies should examine whether the HEALTHQUAL-KZ questionnaire maintains its consistency and reliability over extended periods, considering that patient satisfaction can fluctuate due to external factors, including healthcare reforms or service innovations.

Overall, the study confirms that the HEALTHQUAL-KZ questionnaire is a reliable and effective tool for measuring patient satisfaction with healthcare services in Kazakhstan. The results suggest that patient responses are not significantly influenced by demographic factors, underscoring the questionnaire's applicability across diverse population segments. Future research should focus on implementing the HEALTHQUAL-KZ in various healthcare environments to gain a broader understanding of patient experiences. Furthermore, exploring the role of public–private partnerships in enhancing service quality and fostering a patient-centered approach is crucial for improving overall care and addressing the evolving needs of patients.

This research contributes to global discussions on healthcare quality and patient satisfaction, offering insights that can be relevant to healthcare systems in other countries, particularly those experiencing similar transitions in service delivery models. By establishing a reliable measurement tool, this study provides a framework that can be adapted for use in various international contexts, enhancing the dialogue on patient-centered care worldwide.

CONCLUSION

This study validated the HEALTHQUAL-KZ questionnaire, specifically designed to assess patient satisfaction within the context of Kazakhstan's healthcare system. The psychometric properties of the tool, including its high internal consistency (Cronbach's alpha values exceeding the widely accepted threshold of 0.7), demonstrate its reliability across multiple dimensions of healthcare service quality. The results from the test-retest reliability further corroborate the stability of the instrument over time, reinforcing its suitability for longitudinal assessments in various healthcare settings.

Notably, demographic factors such as age and educational level did not exhibit significant correlations with patient satisfaction. This finding challenges prior research that typically associates higher satisfaction with older age or higher education levels, potentially due to these groups' greater understanding of healthcare services. The uniformity in satisfaction across diverse demographic segments in this study may be attributed to the consistent service delivery under public–private partnership (PPP) models, suggesting that such models may mitigate demographic disparities in patient experiences.

Despite these robust results, several areas warrant further investigation. Future research should expand the sample size to include a more diverse range of participants across different regions of Kazakhstan, enhancing the generalizability of the tool. Additionally, longitudinal studies will be valuable in examining whether the HEALTHQUAL-KZ maintains its reliability and responsiveness to external variables, such as healthcare policy changes or service quality improvements. Given the tool's demonstrated reliability and broad applicability, its implementation across varied healthcare environments could yield valuable insights into the factors influencing patient satisfaction and service quality.

By providing an effective means of evaluating patient satisfaction, this study contributes to the broader discourse on healthcare quality measurement. The HEALTHQUAL-KZ tool, with its culturally relevant adaptations for Kazakhstan's Russian- and Kazakh-speaking populations, represents a significant advancement in the field. Moreover, its potential application in other countries undergoing similar transitions in healthcare delivery models offers a framework for cross-cultural research in patient-centered care. Future investigations should focus on its adaptability to evolving healthcare landscapes, ensuring its long-term impact on both policy and practice in healthcare quality improvement.

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Evaluarea calității asistenței medicale și a satisfacției pacienților în parteneriatele public-privat (PPP) reprezintă un domeniu critic, dar mai puțin studiat, identificat ca o prioritate de către organizațiile internaționale de sănătate. Aceste măsurări sunt esențiale pentru evaluarea modelelor de management și modelarea sistemelor de sănătate care răspund nevoilor populației.

Studiul a avut ca scop elaborarea unei versiuni valide științific și adaptate cultural a chestionarului HEALTHQUAL pentru Kazahstan, pe baza adaptării lingvistice riguroase a versiunii portugheze.

Materiale și metode*: Procesul de adaptare a implicat traducerea chestionarului HEALTHQUAL-KZ în rusă și kazahă și apoi realizarea unui proces comprehensiv de validare pentru a asigura relevanța culturală și contextuală. Pentru a evalua conținutul și validitatea externă, datele din 100 de dosare medicale selectate aleatoriu au fost extrase din sistemul integrat de informații medicale (MIS) de la Spitalul Clinic Multidisciplinar Almaty, reprezentând cazurile tratate atât cu trei ani înainte, cât și cu trei ani după implementarea PPP (Programul de protecție a pacienților). Fiabilitatea chestionarului adaptat a fost confirmată prin alfa Cronbach ($\alpha > 0,7$) pentru consistența internă și coeficientul de corelație a rangului Spearman pentru fiabilitatea test-retest. Aceste măsuri au asigurat robustețea metodologică a studiului.*

Rezultate*: Chestionarul validat HEALTHQUAL-KZconstă din 25 de întrebări împărțite în cinci domenii și demonstrează o fiabilitate ridicată în toate domeniile, conform corelației Alpha Cronbach și rangului Spearman. Timpul mediu de finalizare a fost de aproximativ 12 minute și 35 de secunde. Nu a fost găsită nicio corelație semnificativă între factorii demografici (vârstă, educație) și nivelurile de satisfacție, confirmând obiectivitatea instrumentului.*

Concluzie*: Acest studiu prezintă prima adaptare validată a chestionarului HEALTHQUAL pentru contextul îngrijirii medicale din Kazahstan, oferind un instrument fiabil pentru evaluarea calității asistenței medicale și a satisfacției pacienților în modelele PPP. Semnificația acestei cercetări constă în abordarea sa metodologică inovatoare, oferind un cadru care poate fi transferat și adaptat în alte țări cu sisteme și provocări similare de sănătate. Deși are relevanță locală, această lucrare contribuie și la discuția globală privind îmbunătățirea asistenței medicale prin PPP, oferind*

un model de adaptare a instrumentelor de evaluare a calității asistenței medicale în toate culturile. Cadrul are potențialul de a standardiza măsurările calității și de a permite comparații semnificative între diverse medii de asistență medicală, avansând domeniul cercetării în domeniul sănătății.

***Cuvinte-cheie**: parteneriat public-privat; Chestionar HEALTHQUAL; adaptarea lingvistică a chestionarului; satisfacția față de asistența medicală.*

Received: 05.01.2025 *Accepted: 30.04.2025*