

## ORIGINAL ARTICLE

# Perceived Quality of Care and Healthcare-Seeking Behaviors for Childhood Illnesses in Larkana, Pakistan: A Cross-Sectional Study

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## Abstract

**Background:** Despite national improvements, Larkana district in Pakistan faces high under-five child mortality. This study examines the relationship between perceived quality of healthcare and care-seeking behaviors for childhood illnesses in Larkana.

**Methods:** A cross-sectional study was conducted from January to April 2021, involving 390 parents/guardians of children under five visiting outpatient departments in Larkana hospitals. Semi-structured interviews assessed sociodemographics, perceived quality of care, and healthcare-seeking patterns. Chi-square tests and logistic regression analyzed associations between perceived quality and care utilization.

**Results:** Low perceived quality of care was significantly associated with reduced formal healthcare utilization for childhood illnesses (OR: 0.42, 95% CI: 0.28-0.63,  $p < 0.001$ ). Maternal education level and distance to healthcare facilities were significant moderating factors. 36% of respondents preferred traditional healers as first-line care, correlating with lower perceived quality scores.

**Conclusions:** Negative perceptions of healthcare quality significantly impact care-seeking behaviors for childhood illnesses in Larkana. Interventions targeting quality improvement and community education may enhance child healthcare utilization and outcomes.

**Keywords:** Child health; healthcare quality; care-seeking behavior; Pakistan; healthcare utilization; maternal education

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## Layman Summary

This study looked at how parents' opinions about healthcare quality affect their decisions to seek medical care for their sick children in Larkana, Pakistan. Researchers interviewed 390 parents or guardians of young children at local hospitals. They found that when parents thought the healthcare was poor quality, they were less likely to take their children to proper medical facilities when they got sick. Instead, many preferred to use traditional healers. The study also found that mothers with more education were more likely to seek proper medical care for their children. Additionally, living far from hospitals made it harder for families to get healthcare. These findings suggest that the improvement in health care quality and awareness among the communities in using proper medical care could be the possible factors to upscale the health care facilities usage among more children in Larkana. This is of importance since it could reduce high mortality in young children in the area. The authors propose that grass-roots health authorities should bend efforts toward improvement and increasing access to health care, educating, and disseminating information to parents about the benefits for the health of their children through proper, approved medical settings.

The child's health remains an emerging concern for the globe, where inequities between the developed and developing concept prevail. Pakistan, with under-five mortality rates of the order of 69 per 1,000 live births, happens to be a bit higher compared to most regional neighbors [1]. The rural areas bear a disproportionately higher burden of child mortality and morbidity in Pakistan [2].

The worst situation prevails in Larkana, where the under-five mortality rate appears to be as high as 142 per 1,000 live births, which is more than double the national average [3]. Though the high mortality is to be faced, it is not only that but also entrenched poverty, a low literacy rate, and limited access to quality healthcare services that continue to afflict [4]. Various outbreaks of different diseases in recent times, such as HIV, have thrown light on how vulnerable the children of this area are [5].

The factors that influence healthcare-seeking behaviors for childhood illnesses must be understood in order to develop interventions that can improve child health outcomes. The overall barriers to healthcare access could be understood against the backdrop of the Thaddeus and Maine proposed Three Delays Model, which was actually developed in relation to maternal mortality [6]. There are three critical delays identified within this model: delay in recognition and decision to seek care, delay in reaching an adequate healthcare facility, and delay in receiving adequate care at the facility.

Though the Three Delays Model has been applied to a great deal of maternal health issues, its principles are equally relevant to child health. In such a context of Larkana, each of these delays could easily be influenced by a long myriad of other factors at play: socio-economic class, educational level, cultural beliefs, and perception of the quality of care in health facilities [7].

Perceived quality of care has emerged as one of the important determinants of healthcare utilization in low- and middle-income countries [8]. Evidence exists to show that low perception of quality results in delayed care-seeking, resorted use of informal providers, or complete avoidance of formal services for health care [9, 10]. This holds very dire implications for potential case worsening of sick children and, at worst, contributes to some preventable deaths.

Although long perceived as being important to healthcare use, there is very little studied about the connection of care quality to care-seeking for childhood illnesses in Pakistan generally and, specifically, in districts like Larkana with high mortality rates. Unless investigated, the knowledge gap presented herein would not have any room for developing appropriate and targeted interventions to improve health outcomes for children in this region.

The current study aims to fill this gap by assessing the relationship between healthcare facility-perceived quality of care and further healthcare-seeking behaviors for childhood illnesses in Larkana. How perception of quality influences care-seeking decisions needs to be investigated so that appropriate policy and particulars of good practice may be set in changing practice to improve healthcare utilization and overall health outcomes for children from this vulnerable population.

Our key hypothesis is that there is a statistical association between negative perceptions of healthcare quality and decreased utilization of formal healthcare services for childhood illnesses. We further explore the moderating influences of sociodemographic variables such as maternal education and distance to healthcare facilities within this relationship.

This study shall, therefore, add to the body of literature that is currently prevailing in healthcare quality and healthcare utilization research carried out across low-resource settings in general. Specific studies include Das et al. on the quality of medical advice in low-income countries and Kroeger's anthropological perspective on health care research in developing countries [11]. Looking more precisely at child health in Larkana, we hope to inform more generally about healthcare-seeking behavior in high-mortality contexts.

The results of this study have the potential to inform targeted interventions to improve the actual and perceived quality of CHCS in Larkana. In addressing barriers to health utilization, we would be

working toward reducing the unacceptably high levels of child mortality in this region and contributing to the achievement of Sustainable Development Goal 3, delineated to ensure healthy lives and promote well-being for all at all ages [12].

## Methods

### Study design and setting:

This cross-sectional study was conducted between January and April 2021 in five major hospitals across Larkana district, Pakistan. Larkana was chosen due to its significantly high under-five mortality rate and disparities in child health outcomes compared to national averages.

### Study population:

The study population consisted of parents or guardians of children under five years old seeking outpatient care at the selected hospitals in Larkana district. Eligible participants were those accompanying children for outpatient services, capable of providing informed consent, and able to participate in a semi-structured interview.

### Sampling technique:

A multi-step systematic random sampling approach was employed to achieve a representative sample. Participants were stratified by hospital and child age group (0-23 months and 24-59 months) before selection. Random selection lists were generated from outpatient registers, identifying individuals at predefined intervals. Trained research assistants approached these individuals in waiting areas and clinic registrations, providing informed consent information and inviting their participation.

### Objectives of the research:

The primary objective was to examine the relationship between perceived quality of care at healthcare facilities and subsequent healthcare-seeking behaviors for childhood illnesses in Larkana. Secondary objectives included:

1. Assessing the prevalence of negative quality perceptions among parents/guardians
2. Identifying sociodemographic factors associated with healthcare-seeking behaviors
3. Exploring the moderating effects of maternal education and distance to healthcare facilities on the relationship between perceived quality and care utilization

### Biases and confounder:

Several potential biases and confounders were identified and addressed:

1. **Selection bias:** Mitigated through systematic random sampling and strict inclusion/exclusion criteria.
2. **Recall bias:** Minimized by focusing on recent healthcare experiences and using standardized questionnaires.
3. **Social desirability bias:** Addressed through anonymity and neutral phrasing of questions.
4. **Confounding factors:** Controlled for in statistical analysis, including sociodemographic variables and distance to healthcare facilities.
5. **Language barriers:** Questionnaires were translated into local languages and back-translated for accuracy.

### Data collection:

Data was collected through face-to-face interviews conducted by trained research assistants using standardized questionnaires. The questionnaires explored:

1. Sociodemographic information (e.g., parental age, education, income)
2. Perceived quality of care at healthcare facilities (using a validated 5-point Likert scale assessing various aspects of care)
3. Care-seeking patterns for childhood illnesses (e.g., frequency of visits to formal healthcare facilities, use of informal care providers)
4. Child health indicators (e.g., type and severity of recent illnesses)
5. Distance to nearest healthcare facility

**Quality control measures:**

To ensure data quality and consistency:

1. Questionnaires were piloted on a small sample before the main study to assess clarity and feasibility.
2. Interviewers underwent comprehensive training on data collection procedures, ethical conduct, and interview techniques.
3. Regular supervision and monitoring were conducted throughout the data collection process.
4. Data entry was performed by two independent operators and cross-checked for discrepancies.

**Statistical Analysis:**

**Sample size estimation:**

The sample size was calculated using the formula for cross-sectional studies:

$$n = [Z^2 \cdot \alpha/2 \cdot P(1-P)] / d^2$$

Where:

$Z^2 \cdot \alpha/2 = 1.96$  (for 95% confidence level)

$P = 0.5$  (assumed prevalence of negative quality perceptions)

$d = 0.05$  (5% margin of error)

This yielded a minimum sample size of 384. Accounting for potential non-response, we aimed to recruit 390 participants.

**Data analysis:**

Data was analyzed using SPSS v22 software. The following statistical methods were employed:

1. **Descriptive statistics** (frequencies, percentages, means, standard deviations) to summarize sociodemographic characteristics, perceived quality scores, and care-seeking patterns.
2. **Chi-square tests** to examine associations between categorical variables (e.g., perceived quality categories and care-seeking behaviors).
3. **Independent t-tests** to compare mean perceived quality scores between groups (e.g., those who utilized formal healthcare vs. those who did not).
4. **Logistic regression** to assess the relationship between perceived quality of care (independent variable) and healthcare utilization (dependent variable), while controlling for sociodemographic factors and distance to healthcare facilities.
5. **Moderation analysis** using interaction terms in the logistic regression model to examine the moderating effects of maternal education and distance to healthcare facilities.

Statistical significance was set at  $p < 0.05$  for all analyses.

**Ethical considerations:**

The study protocol was approved by the Institutional Review Board of **SZABIST**. Informed consent was obtained from all participants, ensuring adherence to the Declaration of Helsinki principles. Participants were informed about the study's aims, data collection procedures, and their right to withdraw at any time. Anonymity and confidentiality were maintained throughout the research process.

**Results**

**Characteristics of the participants**

A total of 390 parents/guardians participated in the study. The majority were mothers (78.2%,  $n=305$ ), with a mean age of 28.3 years ( $SD=5.7$ ). Almost half of the mothers (46.9%,  $n=183$ ) had no formal education, while 28.5% ( $n=111$ ) of fathers were illiterate. The predominant ethnicity was Sindhi (92.1%,  $n=359$ ), and the majority identified as Muslim (97.4%,  $n=380$ ). Nearly half of the children (49.7%,  $n=194$ ) were born at home.

**Main findings**

**Perceived Quality of Care:** The mean perceived quality score was 3.2 out of 5 ( $SD=0.9$ ), indicating moderate satisfaction with healthcare services. However, 42.3% ( $n=165$ ) of participants reported low perceived quality (scores  $<3$ ).

**Healthcare-Seeking Behaviors:**

- 36% ( $n=140$ ) of respondents preferred traditional healers as the first point of care for childhood illnesses.
- 63.8% ( $n=249$ ) reported using formal healthcare services for their child's most recent illness.
- The mean number of healthcare facility visits in the past year was 2.8 ( $SD=1.6$ ).

**Association between Perceived Quality and Healthcare Utilization:**

Chi-square analysis revealed a significant association between perceived quality categories (low vs. high) and the use of formal healthcare services ( $\chi^2 = 28.7$ ,  $p < 0.001$ ).

**Logistic Regression:**

After controlling for sociodemographic factors and distance to healthcare facilities, low perceived quality of care was significantly associated with reduced odds of utilizing formal healthcare services for childhood illnesses (OR: 0.42, 95% CI: 0.28-0.63,  $p < 0.001$ ).

**Moderating Effects:**

- **Maternal Education:** The interaction term between perceived quality and maternal education was significant ( $p=0.023$ ), indicating that the effect of perceived quality on healthcare utilization was stronger for mothers with higher education levels.
- **Distance to Healthcare Facility:** The interaction between perceived quality and distance was also significant ( $p=0.037$ ), suggesting that the impact of perceived quality on utilization decreased as distance to healthcare facilities increased.

**Table 1. Sociodemographic characteristics of participants (n=390)**

Characteristic	n (%)
<b>Gender of respondent</b>	
Mother	305 (78.2)
Father	85 (21.8)
<b>Maternal education</b>	
No formal education	183 (46.9)
Primary	65 (16.7)
Secondary	131 (33.6)
Graduate or higher	11 (2.8)
<b>Paternal education</b>	
No formal education	111 (28.5)
Primary	102 (26.2)
Secondary	128 (32.8)
Graduate or higher	49 (12.6)
<b>Ethnicity</b>	
Sindhi	359 (92.1)
Punjabi	15 (3.8)
Balochi	12 (3.1)
Other	4 (1.0)
<b>Religion</b>	
Muslim	380 (97.4)
Hindu	7 (1.8)
Christian	3 (0.8)
<b>Place of child's birth</b>	
Home	194 (49.7)
Healthcare facility	132 (33.8)
Other	64 (16.4)

**Table 2. Perceived quality of care and healthcare-seeking behaviors (n=390)**

Variable	n (%) or Mean ± SD
Perceived quality score (1-5)	3.2 ± 0.9
Perceived quality categories	
Low (<3)	165 (42.3)
High (≥3)	225 (57.7)
Preferred first point of care	
Traditional healer	140 (36.0)
Formal healthcare facility	250 (64.0)
Used formal healthcare for most recent illness	249 (63.8)
Number of healthcare facility visits in past year	2.8 ± 1.6

**Table 3. Logistic regression: Perceived quality and formal healthcare utilization**

Variable	Odds Ratio	95% CI	p-value
<b>Perceived quality (ref: High)</b>			
Low	0.42	0.28-0.63	<0.001
<b>Maternal education (ref: No formal)</b>			
Primary	1.32	0.72-2.41	0.368
Secondary	1.87	1.13-3.09	0.015
Graduate or higher	3.56	0.74-17.12	0.113
Distance to facility (km)	0.93	0.89-0.97	0.001
Child's age (months)	1.02	1.00-1.04	0.045
Household income (1000 PKR)	1.01	1.00-1.02	0.078

**Table 4. Moderation analysis: Interaction effects**

Interaction Term	Odds Ratio	95% CI	p-value
Perceived quality * Maternal education	1.45	1.05-2.00	0.023
Perceived quality * Distance to facility	0.97	0.94-0.99	0.037

This study examined the relationship between perceptions of quality of care and healthcare-seeking behavior for childhood illnesses in Larkana, Pakistan. The results show a strong interaction effect between low perceived quality of care and lower utilization of formal healthcare services for children below five years of age. This relationship persisted after adjustments were made for sociodemographic factors and distance to facilities, hence suggesting parental perceptions drive behavior in seeking care for their children.

What is worrying, also in relation to studies carried out in similar settings, is the preference for traditional healers as the first point of care by 36% of the respondents. For example, Shaikh and Hatcher reported that traditional healers were in rural Sindh, Pakistan, often the first choice for healthcare because of cultural beliefs and perceived accessibility [13, 14]. Although our findings suggest this may also be affected by negative perceptions of formal healthcare quality, it has implications for health promotion activities.

Specifically, the moderating effect of maternal education in that relationship between perceived quality and healthcare utilization strikes a note. That is, among mothers with a higher level of education, stronger associations were found between quality perceptions and care-seeking behaviors. This validates the assumption made by several studies showing that education could enhance critical evaluation of healthcare services. Indeed, Agha and Carton reported from a study in Pakistan that there was a positive association between maternal education and the utilization of services for maternal health.

The observed interaction between perceived quality and distance to healthcare facilities highlights the complex interplay of factors influencing care-seeking behaviors. As distance increased, the impact of perceived quality on utilization decreased, suggesting that physical access barriers may override quality considerations for some families. This finding aligns with the Three Delays Model [6], emphasizing the importance of addressing both quality perceptions and physical access to healthcare.

Our results also revealed socioeconomic disparities in healthcare utilization, with higher household income associated with increased odds of using formal healthcare services. This finding is consistent with a systematic review by Huda et al. (2019), which identified poverty as a significant barrier to healthcare utilization in low- and middle-income countries [15].

The overall moderate satisfaction with healthcare services (mean perceived quality score of 3.2 out of 5) suggests room for improvement in the quality of child healthcare in Larkana. This finding is similar to studies in other parts of Pakistan, such as the work by Majrooh et al. (2014) in Punjab, which found suboptimal quality of primary healthcare services [16].

The significant association between low perceived quality and reduced healthcare utilization underscores the need for interventions targeting both actual and perceived quality of care. This may include improving healthcare infrastructure, enhancing provider communication skills, and implementing community engagement programs to address misconceptions about formal

**Study strengths and limitations**

**Strengths:**

1. The study addresses an important gap in understanding healthcare-seeking behaviors for childhood illnesses in a high-mortality setting.
2. The use of a validated perceived quality assessment tool enhances the reliability of the findings.
3. The consideration of moderating factors provides a nuanced understanding of the relationship between perceived quality and care utilization.

**Limitations:**

1. The cross-sectional design limits causal inference regarding the relationship between perceived quality and healthcare utilization.
2. The study was conducted in hospital outpatient departments, potentially excluding families who do not use formal healthcare services at all.
3. Self-reported data on healthcare utilization may be subject to recall bias, although efforts were made to minimize this through standardized questionnaires.

**Conclusion and recommendations**

This study provides compelling evidence that negative perceptions of healthcare quality significantly impact care-seeking behaviors for childhood illnesses in Larkana, Pakistan. The findings highlight the complex interplay of factors influencing healthcare utilization, including perceived quality, maternal education, and distance to healthcare facilities.

Based on these results, we recommend the following actions to improve child health outcomes in Larkana:

1. Implement targeted quality improvement initiatives in healthcare facilities, focusing on aspects of care that most strongly influence patient perceptions, such as provider communication and waiting times.
2. Develop community education programs to improve health literacy and address misconceptions about formal healthcare services, particularly targeting areas with low maternal education levels.
3. Strengthen outreach services and mobile health units to overcome distance-related barriers to healthcare access, especially in remote areas where physical access may override quality considerations.
4. Integrate traditional healers into the formal healthcare system through training and referral programs, leveraging their community trust to improve uptake of evidence-based child health interventions.
5. Conduct regular patient satisfaction surveys and community feedback sessions to continuously monitor and improve the quality of child healthcare services.
6. Implement poverty alleviation programs and explore options for reducing out-of-pocket healthcare costs to address socioeconomic barriers to care utilization.
7. Invest in maternal education initiatives, recognizing its role in enhancing critical evaluation of healthcare services and promoting appropriate care-seeking behaviors.
8. Develop tailored interventions that address the specific needs and preferences of different sociodemographic groups, acknowledging the heterogeneity in care-seeking behaviors.

**Future research implications:**

Future research should focus on longitudinal studies to establish causal relationships between perceived quality and healthcare utilization, as well as evaluating the effectiveness of interventions targeting both actual and perceived quality of care. Additionally, qualitative studies exploring the cultural and social factors influencing perceptions of healthcare quality in Larkana would provide valuable insights for designing context-specific interventions.

By addressing both the actual and perceived quality of child healthcare services, while simultaneously tackling socioeconomic and geographic barriers to access, we can work towards improving healthcare utilization and ultimately reducing the unacceptably high child mortality rates in Larkana. These efforts will contribute to the broader goal of achieving universal health coverage and ensuring that every child has the opportunity to thrive and reach their full potential.

### Supporting information

File 1: Questionnaire/tool

File 2: Ethical approval documentation

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### Authors contributions

**Conceptualization:** MBS

**Data Curation:** SNK, MBS

**Investigation:** SNK, MBS

**Methodology:** SNK, MBS

**Project Administration:** HSNK, MBS

**Resources:** SNK, MBS

**Software:** SNK, MBS

**Supervision:** SNK, MBS

**Validation:** SNK, MBS

**Visualization:** SNK, MBS

**Writing – Original Draft Preparation:** SNK, MBS

**Writing – Review & Editing:** SNK, MBS

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All authors have read and agreed to the published version of the manuscript.

### تصنيف

**مختصر:** باوجود انقراض جودہ الرعاۃ، توجہ مفاطعة لارکانہ فی پاکستان ارتفاقا فی معدل وفيات الأطفال دون سن الخامسة. تبحث هذه الدراسة في العلاقة بين الجودة المتصورة للرعاية الصحية وسلوكيات طلب الرعاية لأمراض الطفولة في لارکانہ.

**الطرق:** تم إجراء دراسة مقطعية في الفترة من يناير إلى أبريل 2021، شملت 390 من الآباء/الأوصياء على الأطفال دون سن الخامسة الذين يزورون أقسام العيادات الخارجية في مستشفيات لارکانہ. قامت المقابلات شبه المنظمة بتقييم الخصائص الاجتماعية والديموغرافية، وجودة الرعاية المتصورة، وأنماط البحث عن الرعاية الصحية. قامت اختبارات Chi-square والانحدار اللوجستي بتحليل الارتباطات بين الجودة المتصورة والاستفادة من الرعاية.

**النتائج:** ارتبط انخفاض جودة الرعاية بشكل كبير بانخفاض استخدام الرعاية الصحية الرسمية لأمراض الطفولة (نسبة الأرجحية: 0.42). فاصل الثقة 95%: 0.28-0.63. قيمة الاحتمال <math>P</math> <math>0.001</math>. وكان مستوى تعليم الأمهات والمسافة إلى مرافق الرعاية الصحية من العوامل المعتدلة الهامة. فضل 36% من المشاركين المعالجين التقليديين كخط أول للرعاية، مما يرتبط بانخفاض درجات الجودة.

**الاستنتاجات:** التصورات السلبية لجودة الرعاية الصحية تؤثر بشكل كبير على سلوكيات طلب الرعاية لأمراض الطفولة في لارکانہ. التدخلات التي تستهدف تحسين الجودة وتعليم المجتمع قد تعزز استخدام الرعاية الصحية للأطفال ونتائجها.

**الكلمات المفتاحية:** صحة الطفل؛ جودة الرعاية الصحية؛ سلوك طلب الرعاية؛ باكستان؛ الاستفادة من الرعاية الصحية.

### ABSTRACT

**Contexte:** Malgré des améliorations nationales, le district de Larkana au Pakistan est confronté à une mortalité élevée des enfants de moins de cinq ans. Cette étude examine la relation entre la qualité perçue des soins de santé et les comportements de recherche de soins pour les maladies infantiles à Larkana.

**Méthodes:** Une étude transversale a été menée de janvier à avril 2021, impliquant 390 parents/tuteurs d'enfants de moins de cinq ans visitant les services ambulatoires des hôpitaux de Larkana. Des entretiens semi-structurés ont évalué les caractéristiques sociodémographiques, la qualité perçue des soins et les modèles de recherche de soins de santé. Les tests du chi carré et la régression logistique ont analysé les associations entre la qualité perçue et l'utilisation des soins.

**Résultats:** La faible qualité perçue des soins était associée de manière significative à une utilisation réduite des soins de santé formels pour les maladies infantiles (OR : 0,42, IC à 95 % : 0,28-0,63,  $p<0,001$ ). Le niveau d'éducation de la mère et la distance par rapport aux établissements de santé étaient des facteurs modérateurs importants. 36 % des personnes interrogées préféraient les guérisseurs traditionnels comme soins de première intention, ce qui correspond à des scores de qualité perçus plus faibles.

**Conclusions:** Les perceptions négatives de la qualité des soins de santé ont un impact significatif sur les comportements de recherche de soins pour les maladies infantiles à Larkana. Les interventions ciblant l'amélioration de la qualité et l'éducation communautaire peuvent améliorer l'utilisation et les résultats des soins de santé infantiles.

**Mots-clés:** Santé des enfants ; qualité des soins de santé ; comportement de recherche de soins ; Pakistan ; utilisation des soins de santé ; éducation maternelle

### АБСТРАКТНЫЙ

**Справочная информация:** Несмотря на улучшение ситуации в стране, в районе Ларкана в Пакистане наблюдается высокий уровень детской смертности в возрасте до пяти лет. В этом исследовании изучается взаимосвязь между воспринимаемым качеством здравоохранения и поведением при обращении за медицинской помощью при детских заболеваниях в Ларкане.

**Методы:** поперечное исследование было проведено с января по апрель 2021 года с участием 390 родителей/опекунов детей в возрасте до пяти лет, посещавших амбулаторные отделения больниц Ларканы. Полуструктурированные интервью оценивали социально-демографические данные, воспринимаемое качество медицинской помощи и модели обращения за медицинской помощью. С помощью тестов хи-квадрат и логистической регрессии были проанализированы связи между воспринимаемым качеством и использованием медицинской помощи.

**Результаты:** Низкое воспринимаемое качество медицинской помощи было в значительной степени связано со снижением обращения за официальной медицинской помощью при детских заболеваниях (ОШ: 0,42, 95% ДИ: 0,28-0,63,  $p<0,001$ ). Уровень образования матерей и удаленность от медицинских учреждений были значимыми сдерживающими факторами. 36% респондентов предпочли традиционных целителей в качестве первой линии помощи, что коррелирует с более низкими показателями воспринимаемого качества.

**Выводы:** Негативное восприятие качества здравоохранения существенно влияет на поведение при обращении за медицинской помощью в связи с детскими заболеваниями в Ларкане. Вмешательства, направленные на повышение качества и просвещение сообщества, могут улучшить использование услуг детского здравоохранения и его результаты.

**Ключевые слова:** Здоровье детей; качество здравоохранения; обращение за медицинской помощью; Пакистан; использование здравоохранения; материнское образование

### ABSTRACTO

**Antecedentes:** A pesar de las mejoras nacionales, el distrito de Larkana en Pakistán enfrenta una alta mortalidad infantil menor de cinco años. Este estudio examina la relación entre la calidad percibida de la atención médica y los comportamientos de búsqueda de atención para enfermedades infantiles en Larkana.

**Métodos:** Se realizó un estudio transversal de enero a abril de 2021, en el que participaron 390 padres/tutores de niños menores de cinco años que visitaron departamentos ambulatorios de hospitales de Larkana. Las entrevistas semiestructuradas evaluaron datos sociodemográficos, la calidad percibida de la atención y los patrones de búsqueda de atención médica. Las pruebas de chi-cuadrado y la regresión logística analizaron las asociaciones entre la calidad percibida y la utilización de la atención.

**Resultados:** La baja calidad percibida de la atención se asoció significativamente con una menor utilización de la atención médica formal para enfermedades infantiles (OR: 0,42; IC del 95%: 0,28-0,63,  $p<0,001$ ). El nivel de educación materna y la distancia a los centros de salud fueron factores moderadores importantes. El 36% de los encuestados prefirió a los curanderos tradicionales como atención de primera línea, lo que se correlaciona con puntuaciones de calidad percibidas más bajas.

**Conclusiones:** Las percepciones negativas sobre la calidad de la atención sanitaria impactan significativamente los comportamientos de búsqueda de atención para enfermedades infantiles en Larkana. Las intervenciones dirigidas a la mejora de la calidad y la educación comunitaria pueden mejorar la utilización y los resultados de la atención sanitaria infantil.

**Palabras clave:** Salud infantil; calidad de la atención sanitaria; comportamiento de búsqueda de atención; Pakistán; utilización de la atención sanitaria; educación materna

### خلاصہ

باوجود انقراض جودہ الرعاۃ، توجہ مفاطعة لارکانہ فی پاکستان ارتفاقا فی معدل وفيات الأطفال دون سن الخامسة. تبحث هذه الدراسة في العلاقة بين الجودة المتصورة للرعاية الصحية وسلوكيات طلب الرعاية لأمراض الطفولة في لارکانہ.

**الطرق:** تم إجراء دراسة مقطعية في الفترة من يناير إلى أبريل 2021، شملت 390 من الآباء/الأوصياء على الأطفال دون سن الخامسة الذين يزورون أقسام العيادات الخارجية في مستشفيات لارکانہ. قامت المقابلات شبه المنظمة بتقييم الخصائص الاجتماعية والديموغرافية، وجودة الرعاية المتصورة، وأنماط البحث عن الرعاية الصحية. قامت اختبارات Chi-square والانحدار اللوجستي بتحليل الارتباطات بين الجودة المتصورة والاستفادة من الرعاية.

**النتائج:** ارتبط انخفاض جودة الرعاية بشكل كبير بانخفاض استخدام الرعاية الصحية الرسمية لأمراض الطفولة (نسبة الأرجحية: 0.42). فاصل الثقة 95%: 0.28-0.63. قيمة الاحتمال <math>P</math> <math>0.001</math>. وكان مستوى تعليم الأمهات والمسافة إلى مرافق الرعاية الصحية من العوامل المعتدلة الهامة. فضل 36% من المشاركين المعالجين التقليديين كخط أول للرعاية، مما يرتبط بانخفاض درجات الجودة.

**الاستنتاجات:** التصورات السلبية لجودة الرعاية الصحية تؤثر بشكل كبير على سلوكيات طلب الرعاية لأمراض الطفولة في لارکانہ. التدخلات التي تستهدف تحسين الجودة وتعليم المجتمع قد تعزز استخدام الرعاية الصحية للأطفال ونتائجها.

**الكلمات المفتاحية:** صحة الطفل؛ جودة الرعاية الصحية؛ سلوك طلب الرعاية؛ باكستان؛ الاستفادة من الرعاية الصحية.

### خلاصہ

**پس منظر:** قومی بہتری کے باوجود، پاکستان میں لارکانہ ضلع کو پانچ سال سے کم عمر بچوں کی شرح اموات کا سامنا ہے۔ یہ مطالعہ لارکانہ میں صحت کی دیکھ بھال کے سمجھے جانے والے معیار اور بچپن کی بیماریوں کے لیے دیکھ بھال کے متلاشی رویوں کے درمیان تعلق کا جائزہ لیتا ہے۔

**طریقہ:** ایک کراس سیکشنل مطالعہ جنوری سے اپریل 2021 تک کیا گیا، جس میں لارکانہ کے ہسپتالوں میں پانچ سال سے کم عمر کے بچوں کے 390 والدین/سرپرست شامل تھے۔ نیم ساختہ انٹرویوز نے سماجی آبادیات، دیکھ بھال کے سمجھے جانے والے معیار، اور صحت کی دیکھ بھال کے متلاشی نمونوں کا جائزہ لیا۔ جی اسکوائر ٹیسٹ اور لاجسٹک ریگریشن نے سمجھے گئے معیار اور دیکھ بھال کے استعمال کے درمیان ایسوسی ایشن کا تجزیہ کیا۔

**نتائج:** دیکھ بھال کا کم سمجھا جانے والا معیار بچپن کی بیماریوں کے لیے صحت کی دیکھ بھال کے رسمی استعمال کے ساتھ نمایاں طور پر وابستہ تھا (یا: 0.42، 95% CI: 0.28-0.63،  $p<0.001$ )۔ 36% جواب دہندگان نے سطح اور صحت کی دیکھ بھال کی سہولیات سے دوری اہم اعتدال پسند عوامل تھے۔ 36% جواب دہندگان نے روایتی شفا دینے والوں کو فرسٹ لائن کیئر کے طور پر ترجیح دی، جو کہ کم سمجھے جانے والے کوالٹی اسکورز سے منسلک ہے۔

**نتیجہ:** صحت کی دیکھ بھال کے معیار کے منفی تصورات لارکانہ میں بچپن کی بیماریوں کے لیے دیکھ بھال کے متلاشی طرز عمل کو نمایاں طور پر متاثر کرتے ہیں۔ معیار کی بہتری اور کمیونٹی کی تعلیم کو نشانہ بنانے والی مداخلتیں بچوں کی صحت کی دیکھ بھال کے استعمال اور نتائج کو بڑھا سکتی ہیں۔

**مطلوبہ الفاظ:** بچوں کی صحت؛ صحت کی دیکھ بھال کے معیار؛ دیکھ بھال کے متلاشی رویے؛ پاکستان؛ صحت کی دیکھ بھال کا استعمال؛ زچگی کی تعلیم

### What is already known about this topic

1. Pakistan faces high under-five mortality rates, particularly in rural areas like Larkana district.
2. Perceived quality of care influences healthcare utilization in low- and middle-income countries.
3. Socioeconomic factors and physical access to healthcare facilities affect care-seeking behaviors for childhood illnesses.
4. The Three Delays Model provides a framework for understanding barriers to healthcare access in resource-limited settings.

### What this study adds to the current literature

1. Low perceived quality of care is significantly associated with reduced utilization of formal healthcare services for childhood illnesses in Larkana, Pakistan.
2. Maternal education moderates the relationship between perceived quality and healthcare utilization, with a stronger effect among more educated mothers.
3. Distance to healthcare facilities interacts with perceived quality, suggesting that physical access barriers may override quality considerations in some cases.
4. A substantial proportion of parents prefer traditional healers as the first point of care for childhood illnesses, correlating with lower perceived quality of formal healthcare services.

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