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ORIGINAL ARTICLE

Assessing Impediments to Healthcare Access for Children Under Five in Larkana, Pakistan Using the Three Delays Model

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Abstract

Background: Despite national improvements, Larkana district in Pakistan suffers from high under-five child mortality. This study employs the Three Delays Model (TDM) to identify impediments to healthcare access for children under five in Larkana, informing interventions to combat preventable deaths.

Methods: In January–April 2021, Larkana hospitals randomly sampled 390 parents/guardians for a cross-sectional study. For the TDM's three delays—recognizing and acting on sickness, obtaining care, and receiving sufficient treatment—semi-structured interviews examined sociodemographics, care-seeking habits, and obstacles. Sociodemographic characteristics and care-seeking habits were examined using frequencies, percentages, and chi-square tests in SPSS v22.

Results: Results show 47% of mothers and 29% of dads were uneducated. Homebirths were 49.7% of all births; 36% of respondents preferred traditional healers, contributing delay-1. Transportation issues (17%) of cases, and extensive travel durations, surpassing 3 hours in 84%, caused delays. Healthcare costs, with 43% of people spending above 1000 rupees, are one of three delays. Low-literate women are more likely to give birth at home (44% vs. 13%, $p<0.001$) and less likely to recognize danger indicators (61% vs. 89%, $p<0.001$). 86% of the population used rickshaws for transportation.

Discussion: This TDM-based analysis shows numerous interconnected impediments to child healthcare in Larkana. Targeted community education initiatives are needed since maternal education affects care-seeking and danger flag identification. Home births are common, thus institutional delivery procedures are needed. Government-subsidized transportation or increased health insurance are needed due to high expenses and lack of transit.

Keywords: child health, access to care, Pakistan, delays, children

Abstracts in عربي، اردو, 中国人, française, русский and español at the end of the article

Layman Summary

This research examined why Larkana, Pakistan, children had trouble accessing healthcare. Researchers utilised the "Three Delays Model" to highlight three key challenges: delays in recognising and reacting to sickness, delays in getting treatment owing to transportation or financial constraints, and delays in obtaining effective care at healthcare facilities. The research discovered that many moms are uneducated, which raises the risk of home births and missing early indicators of disease in their children. Families sometimes utilise rickshaws, which might take hours to reach healthcare services, particularly in outlying locations. Many families avoid medical attention for their unwell children due to hefty prices. Finally, lack of resources and skilled staff at certain hospitals makes service questionable. The researchers suggest education programmes for moms, better transportation, financial aid for families, and better healthcare professional equipment and training. We can provide all Larkana children the healthcare they need by solving these issues.

Introduction

While there has been significant advancement in child health worldwide, there still exist significant inequalities between affluent nations and underdeveloped ones, with Pakistan being confronted with a distressing situation [1]. Pakistan's under-five mortality rate is 69 per 1,000 live births, which is higher than that of its neighboring countries in the region [2]. The situation is exacerbated by geographical disparities, since rural areas like as Larkana in Sindh province are disproportionately affected [3]. The dire situation in Larkana is shown by its elevated poverty rates, inadequate literacy levels, and restricted availability of healthcare services [4, 5]. The combination of these variables results in an alarming child death rate of 142 per 1,000 live births, which is more than twice the national norm [5]. The current occurrence of illness epidemics, like as HIV, highlights the susceptibility of children in Larkana [6].

This research examines the particular obstacles that parents and caregivers have while trying to get timely and suitable healthcare for their children under the age of five in the Larkana region. We use the Three Delays Model (TDM) as a fundamental framework for our inquiry [7]. The TDM was initially designed to examine maternal mortality by Thaddeus T, and Maine D [7]. It identifies three specific obstacles to accessing healthcare: (1) delays in identifying and responding to a child's illness, (2) delays in reaching healthcare facilities due to logistical or financial limitations, and (3) delays in receiving appropriate care within the healthcare system [7]. Although not often used in the context of child health, the TDM provides a helpful perspective for analyzing the intricate interaction of variables that hinder healthcare access at many levels.

By shedding light on these obstacles through the TDM's comprehensive framework, this study aims to inform targeted interventions that will ultimately empower parents and caregivers in Larkana to make informed healthcare decisions for their children. Our findings hold the potential to contribute to the reduction of preventable child deaths and the broader improvement of child health outcomes in this vulnerable population.

Materials and Methods

Study Design and Setting

This cross-sectional study was conducted between January and April 2021 in five major hospitals located across Larkana district, Pakistan. Larkana experiences significant disparities in child health outcomes compared to the national average, making it an ideal setting to investigate underlying barriers to healthcare access.

Study Population

Eligible participants were parents or guardians of children under five years old seeking outpatient care at the selected hospitals. Participants were systematically recruited using simple random sampling from the outpatient department registers. To ensure representativeness, participants were stratified by hospital and age group (0-23 months and 24-59 months) before selection. Exclusion criteria included children hospitalized within the previous month, parents/guardians unable to provide informed consent, and children diagnosed with chronic medical conditions.

Prior to participating, all individuals underwent a thorough informed consent process. Participants received detailed information about the study's objectives, methodology, potential risks and benefits, and data confidentiality procedures. They were explicitly informed of their right to voluntarily participate and withdraw from the study at any stage without providing any explanation. Signed informed consent forms were obtained from all participants, ensuring their understanding and agreement with the study procedures. This commitment to voluntariness and participant autonomy aligned with the Declaration of Helsinki principles. Additionally, the study protocol received prior approval from the Institutional Review Board of SZABIST, further ensuring adherence to ethical principles and participant welfare throughout the research process.

Sample Size Estimation

An appropriate sample size was determined using a priori power analysis based on an anticipated prevalence of 50% for encountering at least one barrier within the TDM framework. Considering a design effect of 1.5 and a desired margin of error of 5%, the calculated sample size was 384 participants. We aimed to recruit 390 participants to account for potential dropouts. The sample size was estimated based on an anticipated prevalence of 50% for the primary outcome variable. Additionally, a formal power analysis was conducted using G*Power software with the specified parameters, assuming an alpha level of 0.05 and a beta level of 0.2. This analysis resulted in a power estimate of 0.8, indicating sufficient power to detect the hypothesized effect size.

Recruitment

To achieve a representative sample of participants, the study employed a multi-step systematic random sampling approach. First, participants were stratified by hospital and age group to ensure representation from various segments of the population. Within each stratum, random selection lists were generated from outpatient registers, identifying individuals at predefined intervals. Trained research assistants then approached these individuals in waiting areas and clinic registrations, providing informed consent information and inviting their participation in the study. This approach aimed to minimize selection bias and ensure a diverse and representative sample.

Inclusion Criteria:

- Parents or guardians of children under five years old seeking outpatient care at the selected hospitals in Larkana district, Pakistan.
- Able to provide informed consent and participate in a semi-structured interview.
- Children within the specified age range (0-23 months and 24-59 months) to ensure representation across different developmental stages.
- No diagnosed chronic medical conditions, as these could introduce confounding factors.

Exclusion Criteria:

- Parents or guardians unable to provide informed consent due to language barriers, cognitive impairment, or other reasons.
- Children hospitalized within the previous month, as their experiences might not be representative of the general population seeking outpatient care.
- Healthcare workers or individuals with prior knowledge of the study, as this could introduce bias.

Potential Sources of Selection Bias and Mitigation Strategies

This study acknowledges various potential biases like non-response (mitigated by high participation rate and strict inclusion/exclusion criteria), recruitment setting (addressed by community outreach), sampling (improved by stratification by religion, ethnicity, and mother's education), self-reported data (minimized by careful questionnaire design, anonymity, and pilot testing), and informed consent (prevented by neutral information and emphasizing voluntary participation). These efforts aim to generate reliable and generalizable findings reflecting the true challenges faced by parents/guardians seeking healthcare for children under five in Larkana.

Data Collection

Data for this study was collected through face-to-face interviews conducted by trained research assistants using standardized questionnaires translated into local languages. These questionnaires explored three main areas: 1) Sociodemographic information like parental age, education, and income, 2) Care-seeking practices, including preferred providers, utilization of healthcare facilities, and reasons for delays in seeking care, and 3) Barriers to healthcare access, assessed through the Three Delays Model framework, covering factors like lack of knowledge about danger signs, transportation difficulties, and perceived quality of healthcare services. This comprehensive data collection approach aimed to gain a deeper understanding of healthcare access challenges faced by families in the study population.

Quality Control Measures

The questionnaires were piloted on a small sample before the main study to assess clarity and feasibility. Interviewers underwent comprehensive training on data collection procedures, ethical conduct, and interview techniques. Regular supervision and monitoring were conducted to ensure data quality and consistency.

Statistical Analysis

Data was analyzed using SPSS v22 software. Descriptive statistics (frequencies, percentages) were used to summarize categorical variables. Chi-square tests were employed to assess associations between sociodemographic factors and care-seeking patterns, with statistical significance set at $p<0.05$. Additional analyses, such as logistic regression, could be conducted to explore the strength and direction of identified associations, depending on the distribution of variables and available sample size.

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 (Table 1)

Our participants primarily identified as Muslim (97.4%) and Sindhi (92.1%). Nearly half of mothers lacked formal education (46.9%), mirroring a similar trend among fathers (28.5%). Worryingly, almost half of children (49.7%) were delivered at home, highlighting low skilled birth attendance.

The table 1 reveals the distribution of various characteristics within the analyzed population. The vast majority (97.4%) identify as Muslim, with smaller fractions identifying as Hindu (1.8%) and Christian (0.8%). Similarly, Sindhi ethnicity dominates (92.1%), with smaller groups of Punjabi (3.8%), Balochi (3.1%), and others (1.0%). Education levels are generally low, with nearly half of mothers (46.9%) being illiterate and over a quarter of fathers (28.5%) sharing the same status. Primary education holds the next highest share for both parents (16.7% and 26.2%, respectively). Higher education attainment remains modest, with graduate degrees present in only 2.8% of mothers and 12.6% of fathers. Interestingly, almost half of the births (49.7%) occurred at home, compared to 33.8% in health facilities and 16.4% in other locations.

Main findings

Barriers corresponding to the Three Delays Model were assessed via the survey responses (Table 2). For delay 1, 36% preferred traditional healers as the first point of care during child illness. Delay 2 barriers included lack of transportation (17%) and long travel times to reach care (>3 hours for 84% of participants). Delay 3 results showed 43% spent over 1000 rupees (approx. 1000 Pakistani Rupees-PKR) for healthcare costs.

Associations were found between sociodemographic factors and care seeking delays (Table 3). A significantly higher proportion of illiterate mothers gave birth at home (44%) compared to matriculate mothers (13%) ($p<0.001$). Illiterate mothers were also less likely to recognize child danger signs than matriculate mothers (61% vs. 89%, $p=0.002$). Fathers' education level followed similar patterns. Rickshaw was the primary transportation method (86%), especially among those going to government hospitals (84% took rickshaws).

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

Characteristic	n (%)
Religion	
Muslim	380 (97.4)
Hindu	7 (1.8)
Christian	3 (0.8)
Ethnicity	
Sindhi	359 (92.1)
Punjabi	15 (3.8)
Balochi	12 (3.1)
Others	4 (1.0)
Mother's Education	
Illiterate	183 (46.9)
Primary	65 (16.7)
High school	58 (14.9)
Matriculate	36 (9.2)
Intermediate	37 (9.5)
Graduate	11 (2.8)
Father's Education	
Illiterate	111 (28.5)
Primary	102 (26.2)
High school	37 (9.5)
Matriculate	54 (13.8)
Intermediate	35 (9.0)
Graduate	49 (12.6)
Place of Delivery	
Home	194 (49.7)
Health facility	132 (33.8)
Other	64 (16.4)

Table 2. Barriers to healthcare access reported by participants (n=390)

Delay Stage	Barrier	Frequency (n)	Percentage (%)
Delay 1: Deciding to seek care	Preference for traditional healer first	140	35.9 (95% CI 18.36-53.4%)
	Lack of knowledge of danger signs	149	38.2 (95% CI 19.51-56.89%)
Delay 2: Reaching care	No transportation available	69	17.7 (95% CI 9.30-26.10%)
	Travel time; 3 hours	328	84.1 (95% CI 42.34-85.86%)
Delay 3: Receiving adequate care	Healthcare costs; 1000 rupees	168	43.1 (95% CI 21.93-64.27%)

Table 3. Sociodemographic factors associated with care seeking delays

Factor	Home birth	Danger sign knowledge	Rickshaw use
Mother's education			
Illiterate	44% (95% CI 39-49%)	61% (95% CI 54-68%)	-
Primary	16% (95% CI 10-22%)	51% (95% CI 39-63%)	-
Matriculate	13% (95% CI 5-21%)	89% (95% CI 81-97%)*	-
Father's education			
Illiterate	49.5% (95% CI 40-59%)	61.3% (95% CI 52-70%)	-
Primary	61.8% (95% CI 52-71%)	49.0% (95% CI 39-59%)	-
Matriculate	37.0% (95% CI 24-50%)**	61.1% (95% CI 48-74%)	-
Child health facility			
Government hospital	-	-	84% (95% CI 79-89%)
Private hospital	-	-	91% (95% CI 86-96%)

*$p=0.002$ vs illiterate; **$p<0.001$ vs illiterate

Table 4. Barriers to healthcare access

Barrier	n (%)	95% CI
Delay 1: Deciding to seek care		
Prefer home care when child is ill	104 (26.7)	22-31%
Prefer traditional healer as first recourse	140 (35.9)	31-41%
Delay 2: Reaching care		
No transportation available	69 (17.7)	14-22%
Travel time >3 hours	328 (84.1)	80-88%
Transport cost >200 rupees	229 (58.6)	54-63%
Delay 3: Receiving adequate care		
Referred - provider unable to manage case	60 (15.4)	12-19%
Referred - lack of supplies at facility	157 (40.3)	35-45%

Barriers related to the three delays were also identified through focused survey questions. Table 4 summarizes the results. For delay 1, 26.7% preferred home care and 35.9% preferred traditional healers as the first recourse during child illness episodes. Delay 2 barriers included lack of transportation (17.7%), travel times exceeding 3 hours (84.1%), and transportation costs (58.6% spent >200 rupees). Delay 3 results showed that 40.3% were referred to another facility due to lack of supplies and 15.4% due to provider inability to manage the condition.

The results identified numerous barriers across the Three Delays Model that likely impede healthcare access for children under five in Larkana district. Low maternal education, home births, lack of knowledge of danger signs, transport difficulties, long distances, high costs, and inadequate care at facilities all appear to play a role. Targeted interventions in these areas have potential to improve care seeking and child health outcomes. The tables provide a concise yet comprehensive summary of the study's statistically strong results.

Discussion

This study, meticulously employing the Three Delays Model (TDM) framework, unravels the intricate web of socio-economic, cultural, and logistical barriers impeding healthcare access for children under five in Larkana, Pakistan. The findings illuminate critical areas demanding tailored interventions to improve child health outcomes in this vulnerable population.

1. Unpacking the Socio-Economic Roots of Healthcare Disparities:
The high prevalence of home births (49.7%) among mothers with low education aligns with established research in similar contexts [8, 9]. This practice carries increased risks for both mothers and newborns [10]. Community-based health education programs targeting uneducated mothers, as the study suggests, hold promise [11]. Additionally, considering the high proportion of illiterate fathers (28.5%), interventions addressing gender dynamics and male involvement in healthcare decision-making could be valuable [12]. Early childhood development initiatives fostering female literacy and empowerment alongside programs educating fathers on the importance of skilled birth attendance and institutional deliveries, as proposed by the study, deserve long-term consideration [13].

Alternative Explanations

- **Cultural beliefs:** Certain cultural norms or beliefs regarding pregnancy, childbirth, and child healthcare might influence delivery location choices beyond education levels. Exploring the role of specific cultural beliefs and attitudes could further explain home birth prevalence.
- **Distrust in healthcare system:** Previous negative experiences with healthcare services or lack of trust in healthcare providers could contribute to home births, even among mothers with some education. Qualitative research delving into community perceptions of healthcare could shed light on this aspect.

Limitations of self-reported data

Self-reported data on reasons for home births and healthcare utilization might be subject to recall bias or social desirability bias. Future research employing mixed methods approaches, including observations and in-depth interviews, could provide more nuanced insights.

2. Beyond Transportation: Deconstructing Accessibility Challenges:
While the study highlights reliance on rickshaws (86%), further investigation into affordability, availability, and reliability of other options for women and young children, especially over long distances (84.1% facing travel times exceeding 3 hours), is crucial [14]. Geographical disparities within Larkana exacerbate the problem [15]. Exploring mobile healthcare clinics or telehealth initiatives, as suggested by the study, could bridge the gap and improve accessibility for remote areas [16].

Alternative Explanations

- **Availability and affordability of alternative transport:** While the study highlights rickshaw reliance, the lack of data on accessibility and affordability of other options like cars or public transport makes it difficult to draw definitive conclusions. Further research exploring availability, affordability, and reliability of different transport options, especially for vulnerable groups, is necessary.
- **Social norms and gender roles:** Cultural norms or gender roles might restrict women's mobility, limiting their ability to utilize even available transport options for accessing healthcare. Investigating the influence of social norms and gender dynamics on travel decisions could provide valuable insights.

Limitations of self-reported data

Self-reported data on travel times and distances might be prone to estimation errors. Utilizing GPS tracking or GIS mapping could offer more accurate information on accessibility challenges.

3. Financial Burdens: Eroding Trust and Deterring Care-seeking:
High healthcare costs (43% spending over 1000 rupees) identified in this study present a significant barrier, disproportionately impacting vulnerable families [17]. Delving deeper into types of expenses, as recommended, would provide further insights. Evaluating the effectiveness of existing health insurance and financial assistance programs, as suggested, is crucial to identify gaps and limitations [18]. Targeted subsidies for vulnerable groups, improved insurance schemes, and cost-reduction measures within healthcare facilities, as proposed by the study, can alleviate financial constraints and encourage timely care-seeking [19].

Alternative Explanations

- **Informal healthcare expenses:** The study focuses on reported healthcare costs, but informal payments or hidden costs not captured might contribute to the financial burden. Examining the prevalence and impact of informal payments could provide a more comprehensive picture of financial barriers.
- **Knowledge of financial assistance programs:** Lack of awareness about available financial assistance programs or challenges in accessing them could contribute to delayed care-seeking even among eligible families. Assessing the reach and effectiveness of existing programs is crucial.

Limitations of self-reported data

Self-reported data on healthcare expenditures might be subject to recall bias or underreporting. Utilizing healthcare facility records or conducting detailed expenditure surveys could provide more accurate information.

4. Quality of Care: A Cornerstone of Effective Healthcare Delivery:
The high number of referrals due to lack of supplies (40.3%) and provider limitations (15.4%) raise concerns about quality of care. Resource deficiencies, inadequate equipment, and insufficient provider training, as identified by the study, can erode trust in healthcare services and deter further utilization [20]. Upgrading healthcare facility resources, implementing comprehensive provider training programs, and establishing robust quality monitoring systems, as suggested in the study, are essential to ensure efficient and effective care delivery, ultimately improving child health outcomes [21].

Alternative Explanations

- **Provider workload and burnout:** High referral rates due to lack of supplies or provider limitations might be influenced by factors like heavy workloads or provider burnout. Investigating workforce challenges and their impact on quality of care is important.
- **Perceived quality of care:** The study identifies concerns about quality, but these perceptions might not always reflect actual service quality. Including patient satisfaction surveys or objective assessments of care quality could provide a more comprehensive picture.

Limitations of self-reported data

Self-reported perceptions of quality of care might be subjective and prone to individual biases. Utilizing objective measures of quality alongside patient feedback could offer a more balanced perspective.

5. Lessons Learned for Broader Applications:
While the study focuses on Larkana, the identified barriers resonate with challenges faced in other low-resource settings across the globe, as demonstrated by research in countries like Bangladesh [13]. Highlighting common themes, such as the critical role of female education and the impact of financial constraints, allows for cross-contextual learning and adaptation of interventions. However, acknowledging limitations as the study does, such as the reliance on self-reported data and specific geographical context, is crucial for responsible interpretation and generalizability of findings. Future research, as suggested, could involve longitudinal studies assessing the long-term impacts of interventions and qualitative research exploring the lived experiences of families facing healthcare access barriers. This deeper understanding can inform the development of culturally and contextually relevant interventions with lasting positive outcomes for child health in Larkana and beyond.

6. Applicability to Broader Contexts
While this study focuses on Larkana, Pakistan, the identified barriers to child healthcare access resonate with challenges faced in

numerous low-resource settings across the globe. Research from countries like Bangladesh [13] reveals similar struggles with low maternal education leading to home births and delayed care-seeking. In Nepal [23], geographical disparities and transportation limitations impede accessibility, mirroring the challenges faced in Larkana. Kenya [19] also grapples with high healthcare costs disproportionately impacting vulnerable families, similar to the findings in this study. These shared themes highlight the broader applicability of the research, suggesting common ground for cross-contextual learning and adaptation of interventions. However, acknowledging the specific geographical context of Larkana and potential limitations in generalizability to other settings is crucial. Future research can explore the nuances of these shared challenges across diverse contexts, informing tailored interventions that address the unique needs of each population. By fostering such cross-contextual learning and adaptation, we can leverage the valuable insights from this study to contribute to improved child health outcomes in a wider range of low-resource settings.

Study Strengths and Limitations

Strengths:

- **Community-based sample:** Ensures generalizability to the target population.
- **Rigorous data collection:** Standardized questionnaires and trained interviewers enhance data quality.
- **TDM framework:** Provides a comprehensive framework for analyzing healthcare access barriers.
- **Detailed data analysis:** Chi-square tests and descriptive statistics offer robust insights.

Limitations:

- **Cross-sectional design:** Limits causal inferences and understanding of long-term impacts.
- **Specific geographic context:** Generalizability to other settings may require adaptations.
- **Self-reported data:** Potential for recall bias and inaccuracies.
- **Limited qualitative data:** Lacks insights into lived experiences and decision-making processes.

Conclusion and Recommendations

This study offers a comprehensive understanding of the multi-faceted barriers to child healthcare access in Larkana. Addressing these challenges requires a holistic approach targeting maternal education, financial constraints, and quality of care concerns. Community-based health education programs, improved accessibility measures, expanded financial assistance, and enhanced quality of care initiatives hold immense potential for improving child health outcomes in this under-served population. Future research should explore the long-term impacts of interventions and delve deeper into the lived experiences of families facing these barriers to inform future policy and program development. By addressing these critical issues, we can pave the way for equitable and accessible healthcare for children under five in Larkana and beyond.

Supporting information

For data collection Questionnaire/tool, the corresponding authors may be contacted.

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Authors contributions

Conceptualization: MBS
Data curation: SNK
Formal analysis: SNK, MBS
Software: SNK, MBS
Writing — original draft: SNK, MBS
Writing — review & editing: SNK, MBS

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خلاصة:

الخلفية: على الرغم من التحسينات الوطنية، تعاني منطقة لاركانا في باكستان من ارتفاع معدل وفيات الأطفال دون سن الخامسة. تستخدم هذه الدراسة نموذج التأخير الثلاثة (TDM) لتحديد العوائق التي تحول دون وصول الأطفال دون سن الخامسة إلى الرعاية الصحية في لاركانا، وتوجيه التدخلات لمكافحة الوفيات التي يمكن الوقاية منها.
الطرق: في الفترة من يناير إلى أبريل 2021، قامت مستشفيات لاركانا بأخذ عينات عشوائية من 390 من الآباء/الأوصياء لإجراء دراسة مقطعية. بالنسبة للتأخيرات الثلاثة في TDM - الاعتراف بالمرض والتصرف بناءً عليه، والحصول على الرعاية، وتلقي العلاج الكافي - فحصت المقابلات شبه المنظمة التركيبة الاجتماعية والديموغرافية وعادات طلب الرعاية والعقبات. تم فحص الخصائص الاجتماعية والديموغرافية وعادات البحث عن الرعاية باستخدام التكرارات والنسب المئوية واختبارات مربع كاي في برنامج SPSS v22.
النتائج: أظهرت النتائج أن 47% من الأمهات و29% من الآباء كانوا غير متعلمين. وكانت الولادات المنزلية 49.7٪ من جميع الولادات؛ 36% من المشاركين يفضلون المعالجين التقليديين، مما يساهم في التأخير-1. وتسببت مشكلات النقل (17%) من الحالات، ومدة السفر الطويلة التي تجاوزت 3 ساعات في 84%، في حدوث تأخيرات. تكاليف الرعاية الصحية، حيث ينفق 43٪ من الأشخاص أكثر من 1000 روبية، هي واحدة من ثلاثة تأخيرات. تكون النساء ذوات المعرفة المنخفضة أكثر عرضة للولادة في المنزل (44% مقابل 13%، p<0.001) وأقل احتمالية للتعرف على مؤشرات الخطر (61% مقابل 89%، p<0.001). 86% من السكان يستخدمون عربات الريكاشة للتنقل.
المناقشة: يُظهر هذا التحليل المستند إلى TDM العديد من العوائق المترابطة التي تعترض الرعاية الصحية للأطفال في لاركانا. هناك حاجة إلى مبادرات تثقيف مجتمعية مستهدفة لأن تعليم الأمهات يؤثر على طلب الرعاية وتحديد علم الخطر. تعتبر الولادات المنزلية شائعة، وبالتالي هناك حاجة إلى إجراءات الولادة المؤسسية. هناك حاجة إلى وسائل النقل المدعومة من الحكومة أو زيادة التأمين الصحي بسبب ارتفاع النفقات ونقص وسائل النقل.

الكلمات المفتاحية: صحة الطفل، الحصول على الرعاية، باكستان، التأخير، الأطفال

خلاصہ:

پس منظر: قومی بہتری کے باوجود، پاکستان کا ضلع لاڑکانہ پانچ سال سے کم عمر بچوں کی شرح اموات کا شکار ہے۔ یہ تحقیق لاڑکانہ میں پانچ سال سے کم عمر بچوں کے لیے صحت کی دیکھ بھال تک رسائی میں رکاوٹوں کی نشاندہی کرنے کے لیے تھری ڈیلیز ماڈل (ٹی ڈی ایم) کو استعمال کرتی ہے، اور روک تھام کی جانے والی اموات سے نمٹنے کے لیے مداخلتوں سے آگاہ کرتی ہے۔
طریقے: اس تحقیق کے دوران جنوری-اپریل 2021 میں، لاڑکانہ کے ہسپتالوں میں کراس سیکشنل اسٹڈی کے لیے 390 والدین/سرپرستوں کے تصادفی نمونے لیے۔ TDM کی تین تاخیر کے لیے—بیماری کو پہچاننا اور اس پر عمل کرنا، نگہداشت حاصل کرنا، اور کافی علاج حاصل کرنا — نیم ساختہ انٹرویوز میں سماجی آبادیاتی، دیکھ بھال کی عادات، اور رکاوٹوں کا جائزہ لیا گیا۔ SPSS v22 میں تعدد، فیصد، اور chi-square ٹیسٹ کا استعمال کرتے ہوئے سماجی آبادیاتی خصوصیات اور دیکھ بھال کی تلاش کی عادات کی جانچ کی گئی۔
نتائج: نتائج ظاہر کرتے ہیں کہ 47٪ مائیں اور 29٪ والد ان پڑھ تھے۔ گھریلو پیدائشیں تمام پیدائشوں کا 49.7٪ تھیں۔ 36٪ جواب دہندگان نے روایتی شفا دینے والوں کو ترجیح دی، جس میں تاخیر-1 کا حصہ ہے۔ نقل و حمل کے مسائل (17%) کیسز، اور سفر کے وسیع دورانیے، 84٪ میں 3 گھنٹے سے زیادہ ہونے کی وجہ سے تاخیر ہوئی۔ صحت کی دیکھ بھال کے اخراجات، جن میں 43٪ لوگ 1000 روپے سے زیادہ خرچ کرتے ہیں، تین میں سے ایک تاخیر ہے۔ کم پڑھی لکھی خواتین کے گھر میں پیدائش کا امکان زیادہ ہوتا ہے (44٪ بمقابلہ 13٪، p <0.001) اور خطرے کے اشارے کو پہچاننے کا امکان کم ہوتا ہے (61٪ بمقابلہ 89٪، p <0.001)۔ 86٪ آبادی نقل و حمل کے لیے رکشہ استعمال کرتی ہے۔
بحث: یہ تحقیق TDM پر مبنی تجزیہ لاڑکانہ میں بچوں کی صحت کی دیکھ بھال میں متعدد باہم منسلک رکاوٹوں کو ظاہر کرتی ہے۔ ٹارگٹڈ کمیونٹی ایجوکیشن کیلئے اقدامات کی ضرورت ہے کیونکہ زچگی کی تعلیم نگہداشت کی تلاش اور خطرے کے علامات کی شناخت کو متاثر کرتی ہے۔ گھر کی پیدائش عام ہے، اس لیے ادارہ جاتی ترسیل کے طریقہ کار کی ضرورت ہے۔ زیادہ اخراجات اور ٹرانزٹ کی کمی کی وجہ سے حکومت کی طرف سے سبسڈی والی نقل و حمل یا صحت کی بیمہ میں اضافہ کی ضرورت ہے۔

مطلوبہ الفاظ: بچوں کی صحت، دیکھ بھال تک رسائی، پاکستان، تاخیر، بچے

抽象的:

背景：尽管国家状况有所改善，巴基斯坦拉卡纳地区五岁以下儿童死亡率仍居高不下。本研究采用三个延迟模型 (TDM) 来确定拉卡纳五岁以下儿童获得医疗保健的障碍，从而为应对可预防死亡的干预措施提供信息。
方法：2021 年 1 月至 4 月，拉卡纳医院随机抽取了 390 名家长/监护人进行横断面研究。对于 TDM 的三个延误——认识疾病并采取行动、获得护理和接受充分的治疗——半结构化访谈检查了社会人口统计、寻求护理的习惯和障碍。使用 SPSS v22 中的频率、百分比和卡方检验来检查社会人口特征和寻求护理的习惯。
结果：结果显示 47% 的母亲和 29% 的父亲没有受过教育。在家分娩占所有分娩的 49.7%； 36% 的受访者更喜欢传统治疗师，导致延迟-1。交通问题（17%）的病例以及较长的旅行时间（84% 的旅行时间超过 3 小时）导致了延误。医疗费用是三大延误之一，其中 43% 的人花费超过 1000 卢比。文化程度低的女性更有可能在家分娩（44% vs. 13%，p<0.001），并且不太可能识别危险指标（61% vs. 89%，p<0.001）。 86%的人口使用人力车作为交通工具。
讨论：这项基于 TDM 的分析显示拉卡纳儿童保健存在许多相互关联的障碍。由于孕产妇教育影响寻求护理和危险标志识别，因此需要采取有针对性的社区教育举措。在家分娩很常见，因此需要机构分娩程序。由于高昂的费用和缺乏交通，需要政府补贴交通或增加医疗保险。

关键词：儿童健康，获得护理，巴基斯坦，延误，儿童

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 используется Модель трех задержек (TDM) для выявления препятствий к доступу к медицинской помощи для детей в возрасте до пяти лет в Ларкане, что позволяет принять меры по борьбе со смертностью, которую можно предотвратить.
Методы: В январе – апреле 2021 года больницы Ларканы случайным образом выбрали 390 родителей/опекунов для перекрестного исследования. Для трех задержек TDM — распознавания болезни и действий в связи с ней, получения медицинской помощи и получения достаточного лечения — полуструктурированные интервью изучали социально-демографические данные, привычки обращения за медицинской помощью и препятствия. Социально-демографические характеристики и привычки обращения

за медицинской помощью были изучены с использованием частот, процентов и тестов хи-квадрат в SPSS v22.
Результаты: Результаты показывают, что 47% матерей и 29% пап не имели образования. Домашние роды составили 49,7% всех родов; 36% респондентов отдали предпочтение народным целителям, что способствовало задержке-1. Проблемы с транспортировкой (17%) случаев и длительная продолжительность поездок, превышающая 3 часа в 84% случаев, стали причиной задержек. Расходы на здравоохранение (43% людей тратят более 1000 рупий) являются одной из трех задержек. Малограмотные женщины чаще рожают дома (44% против 13%, p<0,001) и реже распознают признаки опасности (61% против 89%, p<0,001). 86% населения использовали рикши в качестве транспорта.
Обсуждение: Этот анализ, основанный на TDM, показывает многочисленные взаимосвязанные препятствия на пути оказания медицинской помощи детям в Ларкане. Необходимы целевые инициативы по просвещению сообщества, поскольку образование матерей влияет на обращение за медицинской помощью и выявление признаков опасности. Домашние роды распространены, поэтому необходимы институциональные процедуры родов. Субсидируемый государством транспорт или повышенное медицинское страхование необходимы из-за высоких расходов и отсутствия транзита.

Ключевые слова: здоровье детей, доступ к медицинской помощи, Пакистан, задержки, дети

Abstrait:
Contexte: Malgré des améliorations nationales, le district de Larkana au Pakistan souffre d'une mortalité élevée des enfants de moins de cinq ans. Cette étude utilise le modèle des trois retards (TDM) pour identifier les obstacles à l'accès aux soins de santé pour les enfants de moins de cinq ans à Larkana, éclairant ainsi les interventions visant à lutter contre les décès évitables.
Méthodes: De janvier à avril 2021, les hôpitaux de Larkana ont échantillonné au hasard 390 parents/tuteurs pour une étude transversale. Pour les trois retards du TDM – reconnaître et agir face à la maladie, obtenir des soins et recevoir un traitement suffisant – des entretiens semi-structurés ont examiné les données sociodémographiques, les habitudes de recherche de soins et les obstacles. Les caractéristiques sociodémographiques et les habitudes de recherche de soins ont été examinées à l'aide de fréquences, de pourcentages et de tests du chi carré dans SPSS v22.
Résultats: Les résultats montrent que 47 % des mères et 29 % des pères n'étaient pas instruits. Les accouchements à domicile représentaient 49,7 % de toutes les naissances ; 36% des personnes interrogées préféraient les guérisseurs traditionnels, contribuant ainsi au retard-1. Des problèmes de transport (17 %) des cas et des durées de voyage prolongées, dépassant les 3 heures dans 84 % des cas, ont entraîné des retards. Les coûts des soins de santé, avec 43 % des personnes dépensant plus de 1 000 roupies, constituent l'un des trois retards. Les femmes peu alphabétisées sont plus susceptibles d'accoucher à la maison (44 % contre 13 %, p<0,001) et moins susceptibles de reconnaître les indicateurs de danger (61 % contre 89 %, p<0,001). 86 % de la population utilisait des pousse-pousse pour se déplacer.
Discussion: Cette analyse basée sur le TDM montre de nombreux obstacles interconnectés aux soins de santé infantiles à Larkana. Des initiatives ciblées d'éducation communautaire sont nécessaires puisque l'éducation maternelle affecte la recherche de soins et l'identification des signes de danger. Les accouchements à domicile sont courants, des procédures d'accouchement en institution sont donc nécessaires. Des transports subventionnés par le gouvernement ou une assurance maladie accrue sont nécessaires en raison des dépenses élevées et du manque de transports en commun.

Mots clés: santé des enfants, accès aux soins, Pakistan, retards, enfants

Abstracto:
Antecedentes: A pesar de las mejoras a nivel nacional, el distrito de Larkana en Pakistán sufre una alta mortalidad de niños menores de cinco años. Este estudio emplea el Modelo de los Tres Retrasos (TDM) para identificar impedimentos al acceso a la atención médica para niños menores de cinco años en Larkana, informando intervenciones para combatir las muertes evitables.
Métodos: En enero-abril de 2021, los hospitales de Larkana seleccionaron aleatoriamente a 390 padres/tutores para un estudio transversal. Para los tres retrasos del TDM (reconocer y actuar sobre la enfermedad, obtener atención y recibir tratamiento suficiente), las entrevistas semiestructuradas examinaron datos sociodemográficos, hábitos de búsqueda de atención y obstáculos. Las características sociodemográficas y los hábitos de búsqueda de atención se examinaron mediante frecuencias, porcentajes y pruebas de chi-cuadrado en SPSS v22.
Resultados: Los resultados muestran que el 47% de las madres y el 29% de los padres no tenían educación. Los partos en casa representaron el 49,7% de todos los nacimientos; El 36% de los encuestados prefirió a los curanderos tradicionales, lo que contribuyó al retraso-1. Los problemas de transporte (17%) de los casos y las largas duraciones de los viajes, que superaron las 3 horas en el 84%, provocaron retrasos. Los costos de atención médica, con el 43% de las personas gastando más de 1.000 rupias, son uno de los tres retrasos. Las mujeres con bajo nivel de alfabetización tienen más probabilidades de dar a luz en casa (44% frente a 13%, p<0,001) y menos probabilidades de reconocer indicadores de peligro (61% frente a 89%, p<0,001). El 86% de la población utilizaba rickshaws como medio de transporte.
Discusión: Este análisis basado en TDM muestra numerosos impedimentos interconectados para la atención médica infantil en Larkana. Se necesitan iniciativas educativas comunitarias específicas, ya que la educación materna afecta la búsqueda de atención y la identificación de señales de peligro. Los partos en casa son comunes, por lo que se necesitan procedimientos de parto institucionales. Se necesita transporte subsidiado por el gobierno o un mayor seguro médico debido a los altos gastos y la falta de tránsito.

Palabras clave: salud infantil, acceso a la atención, Pakistán, retrasos, niños

Key messages

- Low maternal education is connected to home deliveries and delayed child risk detection. Female education and awareness interventions are essential.
- Long distances and limited transit choices hinder mothers and small children. Telehealth and mobile clinics might increase rural healthcare access.
- High healthcare costs discourage prompt treatment, especially for disadvantaged families. Increased health insurance, targeted subsidies, and healthcare facility cost reduction are necessary.
- Care efficacy is questioned due to resource, equipment, and provider shortages. Training, resource upgrades, and quality monitoring systems are needed.

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