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Quality of care and satisfaction in mothers of children under 5 years of age who attend a primary health care facility in Lima

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Abstract

To identify the relationship between quality of care and satisfaction in mothers of children under 5 years of age who attend the well-child check-up clinic at a primary health care facility in North Lima. The approach adopted was quantitative and the design was correlational-cross-sectional. The population consisted of 420 duly selected informant mothers, to whom the two measurement instruments were applied. There was a significant relationship between the construction of quality of care and satisfaction ($p<0.05$). Similarly, a significant relationship was found between the dimensions of quality of care (scientific and technical care, human care, and context of care) and satisfaction in all cases ($p<0.05$). According to the quality of care, the elevated level prevailed (55.7%), followed by medium (24.5%) and low (19.8%). According to satisfaction in mothers, the acceptable value prevailed (52.4%), followed by in process (24.5%) and to improve (23.1%). Finally, there is a relationship between quality of care and waiting time ($p<0.05$), as well as between satisfaction and waiting time ($p<0.05$). There was a meaningful relationship between the construction's quality of care and satisfaction.

Keywords: Child health services, Mothers, Nursing care, Patient satisfaction, Quality of health care.

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1. Introduction

The World Health Organization (WHO) defines the quality of care as the degree to which individual and community health services increase the likelihood of achieving desired health outcomes [1]. Quality has increasingly become a fundamental part of life in all aspects. Today, users are continuously looking for excellent quality services that meet their needs [2]. Nurses provide nursing care to people of all conditions and ages and play an important role in care in Primary Health Care (PHC) settings, where evidence highlights that their work in care management is associated with fewer emergency room visits, hospital readmissions, and health costs [3]. Nurses play a vital role in the health care system, spending considerable time with patients during the care they provide [4].

On the other hand, the preparation of health-care facilities is essential for the provision of quality health services [5].

Each year, between 5.7 and 8.4 million people die in developing countries due to poor health care, accounting for up to 15% of deaths in those countries. In addition, it is estimated that the loss of productivity associated with inferior quality of care in these countries ranges between 1.4 and 1.6 trillion dollars per year. Quality health services are essential to achieving effective universal health coverage. As countries commit to the goal of "Health for All," it is critical to ensure that the health services provided are effective, safe, and people-centered [6]. The WHO emphasizes quality by promoting equitable, person-centered care that respects individual care preferences and responds to multiple needs for care, safety, quality of life, and autonomy [7].

On the other hand, valuing parents' satisfaction with children's health care is crucial due to the key role that parents play in decision-making for the well-being of their children. Patient satisfaction with health care affects adherence to treatment and indications of care, loyalty, and the general well-being of minors [8] is increasingly used as a measure of health system performance [9].

Well-child check-ups include vaccination, which is a simple and effective preventive measure against infections and diseases in the population, especially children. A study done in China on parental satisfaction (1083 parents) on these immunization services reported that the overall satisfaction rate was 92.9% (95% CI: 92.5%, 93.2%). Despite the results, it is emphasized that the quality of service could be further improved by modernizing the vaccination environment, reducing waiting time, optimizing the appointment mechanism, and making vaccination convenient and accessible [10].

A study conducted in Sweden on parents' perceptions of the quality of care in children's health centers reported optimal quality with average values >3. However, several potential areas for improvement were identified that needed additional information. Parents' perceptions of areas for improvement are new and important knowledge for registered nurses in child health centers [11].

On the other hand, in Norway, all children have the right to receive regular health check-ups, as is the case in many countries. The assessment of parental satisfaction is essential. The study comprises a sample of 1654 parents and found that most users were satisfied with the service (95%) and with the help they received from it (91%). In general, the parents were satisfied with the work of the nurse, who is the professional who interacts with them the most [12].

The limited impact of increased access to care on improvements in health outcomes during the Millennium Development Goals (SDGs) era has been attributed, in part, to the inadequate quality of care received. On this, a study carried out in the Democratic Republic of the Congo, Afghanistan, Nepal and Senegal revealed that the quality-of-service score is positively associated with the proportion of large installations (β=8.61; P=0.004) and the proportion of health providers ranked in the top fifth in service quality score (β=30.15; P<0.001) in the region. It is highlighted that the quality of care for sick children in a region improves with a higher proportion of high-performing providers or larger facilities [13].

Developmental disorders affect about 1 in 6 children in the United States. Early identification and treatment improve child and family developmental and functioning outcomes.

"Nursing care" or "nursing care" in Growth and Development Control, or I think [14], refers to the comprehensive approach that nurses take to protect children. From the perspective of nursing care, this represents a key opportunity to ensure comprehensive monitoring of child health, allowing the early identification of possible risks or alterations in their development. Likewise, these spaces provide a conducive environment to guide parents and caregivers on healthy eating practices, breastfeeding and parenting guidelines, reinforcing their role in promoting optimal growth and strengthening the emotional bond with their children [15]. Therefore, nurses in childcare settings must provide nursing care that addresses both the child and their caregiver parents. To improve the quality of care, it is necessary to analyze the factors associated with care, such as improving the nurse's communication skills and promoting the nurse-parent partnership [16].

The literature review reveals a growing concern about improving the quality of health care services and the quality of nursing care, particularly in contexts such as ours, where the health system still faces multiple challenges related to its precariousness, fragmentation, and management limitations. In this scenario, there is a need to generate new knowledge that strengthens new management strategies and allows for a better understanding of the reality of these services. Therefore, this study is justified by providing up-to-date scientific evidence on the dynamics of child health care management.

As indicated, the objective of the study was to identify the relationship between the quality of care and satisfaction among mothers of children under 5 years of age who attend the well-child control clinic in a primary health care establishment in Lima Norte.

2. Materials and Methods

2.1. Study Approach and Design

This research is classified as basic or fundamental, since its objective is to generate new knowledge that enriches the existing theoretical heritage. The approach adopted is quantitative since it seeks to measure the magnitude of the phenomenon using standardized instruments and statistical tools/functions [17]. As for the design, it is a non-experimental study since no deliberate manipulation of the variables analyzed will be conducted. It is also correlational and cross-sectional, correlational because it aims to identify the relationship between the main constructs and cross-sectional because the data collection occurred in a single Time Frame [18].

2.2. Population, Sample, and Sampling

The population was made up of 420 mothers of children under 5 years of age who go to the well-child control clinic in a primary health care establishment in North Lima, specifically the Juan Pablo II Confraternity Maternal and Child Center. The number of mothers is the average number of mothers who go to the health facility in a month (average of the first six

months of the year 2024). The study will have a sample (or sampling), since it will work with the entire identified population in a month.

2.3. Technique

As for the data collection technique, the survey will be conducted, which will allow participants in quantitative studies in health to be addressed. This technique is characterized by being flexible and standardized, which allows it to adapt to the different circumstances that may arise in the fieldwork and the standardized way, it facilitates the ability to approach many participants in a short time, thanks to which it will be possible to obtain a lot of information [19, 20].

2.4. Instruments

There were two measurement instruments, the "Quality of Care (Care) Questionnaire" and the "Satisfaction Scale". The first is a questionnaire designed by the author, which is made up of 20 statements where each one is evaluated on a Likert scale from never = 1 to always = 5, which will identify the quality of care perceived by mothers who attend the CRED consultation with their children under 5 years of age. It has three dimensions: scientific and technical care, human care, and the context of care (environment). The final values obtained will be distributed between low, medium, and high values. It has optimal psychometric properties, that is, its validity and reliability, which allow it to be applied to our reality. This questionnaire is designed to evaluate the perception of users regarding the service provided by nurses in CRED care.

The second is derived from the SERVQUAL Model, designed by Parasuraman et al. [21]. It is one of the most applied and useful tools for measuring service quality in different settings, including health services. It was adapted to our reality by the Ministry of Health, all of which was reflected in the "Technical Guide for the Evaluation of External User Satisfaction in Health Establishments and Medical Support Services" [22]. This tool measures customers' perceptions of services in five dimensions: "reliability" which is defined as the service provider's ability to perform the promised service reliably and accurately; "responsiveness" which measures the willingness of service personnel to assist customers and provide prompt service; "safety" which is defined as the knowledge and courtesy of employees and their ability to inspire confidence among consumers; "empathy" which is defined as individualized, attentive and putting in the place of the other, that is provided to customers and "tangible aspects" that value the physical facilities, equipment and appearance of the staff. It was developed to assess satisfaction with the quality of the service received. The main objective of the model is to identify areas for improvement and increase customer satisfaction. The scale is made up of 22 statements that are evaluated on a Likert-type scale ranging from never=1 to always=5, whose final values are to be improved, in process and acceptable. In short, it represents the degree of conformity or disagreement of the mothers with the care received.

2.5. Instrument Validity and Reliability

The "Quality of Care (Care) Questionnaire" presents acceptable psychometric properties (validity and reliability), which were conducted through a pilot study in a sample of fifty mothers. The validity of content was given by the evaluation of five expert judges, who on average gave a rating of 93%, which was interpreted as good. Statistical validity was developed through the Kaiser-Meyer-Olkin sample adequacy tests, whose value was (KMO>0.5) and the Bartlett test, whose value was 0.000 ($p<0.001$). Reliability was given by means of the Cronbach's Alpha test, whose value was 0.985 and was interpreted as dependable.

The "Satisfaction Scale" also has acceptable psychometric properties (validity and reliability), which were conducted through a pilot study in a sample of fifty mothers. The validity of the content was given by the evaluation of five expert judges, who on average gave a rating of 95%, interpreting it as good. Statistical validity was developed through the Kaiser-Meyer-Olkin sample adequacy tests, whose value was (KMO>0.5) and the Bartlett test, whose value was 0.000 ($p<0.001$). Reliability was given by means of the Cronbach's Alpha test, whose value was 0.994, which is interpreted as dependable.

2.6. Data Collection Process

The information collection was conducted in the months of August and September 2024. As in any study, prior planning was conducted that allowed orderly access to the informant mothers. Orderly access facilitates orderly data collection. Both instruments were provided in digital format (Google Forms), being shared through a digital link via WhatsApp. Participants who reported difficulties in completing the data sheet were assisted by the assigned interviewer. Each participating mother had an average time of 15 to 20 minutes to complete the requested data. Informed consent was part of the data sheet shared with the reporting mothers.

2.7. Statistical Analysis

Once the data collection activity was completed, the collected information was exported to Excel format, from there it was migrated to a data matrix developed in the SPSS statistical program version 27 in Spanish. For data analysis, descriptive statistics were applied, estimating frequencies, measures of central tendency and the variable calculation function, among others, which allowed the analysis of the data based on the sociodemographic data, variables, and established dimensions. Hypothesis tests were performed using Pearson's chi-square test. The most relevant results were presented in tables, which were prepared with their corresponding description for better understanding.

2.8. Bioethical Considerations

The research was conducted under strict ethical criteria, taking as reference international documents that regulate the protection of study subjects, such as the Declaration of Helsinki [23] and the Belmont Report [24]. These criteria highlight

the importance of safeguarding the dignity and autonomy of participants by obtaining their informed consent. Likewise, the project was evaluated and received the endorsement of an institutional ethics committee, ensuring compliance with the standards required for its respective execution.

3. Results

3.1. Descriptive Analysis

Table 1.
Sociodemographic Data of Participants.

Mother's age		**Min: 19 Media: 32.36 Max: 42**	
		N	**%**
Marital status	Single	19	4.5%
	Married	100	23.8%
	Cohabitant	297	70.7%
	Divorced	0	0.0%
	Widow (a)	4	1.0%
Waiting time	Up to 10 min	228	54.3%
	Up to 20 min	139	33.1%
	Up to 30 min	37	8.8%
	30 min farmhouse	13	3.1%
Patient Type	New	34	8.1%
	Continuation	374	89.0%
	Reentry	12	2.9%
Level of education	Unenlightened	0	0.0%
	Primary	0	0.0%
	High school	391	93.1%
	Technical Superior	15	3.6%
	Higher University	14	3.3%
Occupation	No occupation	117	27.9%
	Eventual Work	226	53.8%
	Stable work	77	18.3%

Table 1 shows that in terms of marital status, those who live together predominated (70.7%), according to the waiting time it was up to 10 minutes of waiting time (54.3%), according to the type of patient, it is observed that those who continue (89%) predominated, according to the level of education the secondary level predominated (93.1%) and finally, according to occupation, those with temporary work predominated (53.8%).

Table 2.
Quality Of Care and Dimensions.

		N	**%**
Quality of care	Low	83	19.8%
	Middle	103	24.5%
	High	234	55.7%
Scientific and technical care	Low	75	17.9%
	Middle	89	21.2%
	High	256	61.0%
Human care	Low	98	23.3%
	Middle	101	24.0%
	High	221	52.6%
Context of care (environment)	Low	105	25.0%
	Middle	74	17.6%
	High	241	57.4%

Table 2 shows that the quality of care was dominated by an elevated level (55.7%). According to dimensions, the high value prevailed in scientific and technical care (61%), in human care the high value prevailed (52.6%) and in the context of care (environment) the high value prevailed (57.4%).

Table 3.
Satisfaction and Dimensions.

		N	%
Patient satisfaction	To improve	97	23.1%
	In process	103	24.5%
	Acceptable	220	52.4%
Reliability	To improve	97	23.1%
	In process	68	16.2%
	Acceptable	255	60.7%
Responsiveness	To improve	98	23.3%
	In process	95	22.6%
	Acceptable	227	54.0%
Safety	To improve	99	23.6%
	In process	124	29.5%
	Acceptable	197	46.9%
Empathy	To improve	74	17.6%
	In process	99	23.6%
	Acceptable	247	58.8%
Tangible aspects	To improve	112	26.7%
	In process	128	30.5%
	Acceptable	180	42.9%

Table 3 shows that the acceptable value (52.4%) predominated in patient satisfaction. In all dimensions of satisfaction, the acceptable value prevails, in reliability with 60.7%, in responsiveness with 54%, in security with 46.9%, in empathy with 58.8% and finally in tangible aspects with 42.9%.

3.2. Hypothesis Testing

A significant relationship was found between quality of care and satisfaction through Pearson's chi-square test ($p<0.05$).

Table 4.
Chi-Square Test Results.

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	282,159a	4	0.000
Likelihood Ratio	328.855	4	0.000
Linear-by-Linear Association	250.546	1	0.000
N of Valid Cases	420		

Note: a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.97.

Table 5.
Kendall's Tau-c Correlation Results.

		Value	Asymptotic Standardized Error[a]	Approximate T[b]
Ordinal by Ordinal	Kendall's tau-c	0.653	0.022	29.086
N of Valid Cases		420		

Likewise, a significant relationship was found through Pearson's chi-square test between the dimensions of quality of care (scientific and technical care, human care, and context of care) and satisfaction (in all cases $p<0.05$).

Finally, regarding the relationship between quality of care and waiting time and the relationship between satisfaction and waiting time, a significant relationship was found for both cases ($p<0.05$).

4. Discussion

Evaluating the quality of care and satisfaction of mothers of children under 5 years of age who attend a PHC facility in Lima is essential to improve child health outcomes. This analysis made it possible to identify deficiencies in the care provided, ensuring that maternal expectations and needs are addressed in a comprehensive manner, thinking about the benefit that this will bring to the children. In addition, understanding their perceptions and experiences facilitates the development of strategies to optimize childcare, strengthen trust in health services, and encourage greater parental involvement in pediatric care programs.

Was a Significant relationship between quality of care and satisfaction ($p<0.05$). This result coincides with that of Lúa [25] since it reported a significant relationship between both main variables ($p<0.01$). The assessment in both variables was high, but the importance of following the improvement process already outlined is highlighted, with an organizational sense where the available resources are optimized. In the same way, it coincides with the study by Malena et al. [26], who indicate that there is a relationship between the quality of nursing care and the satisfaction of mothers who attend the CRED

consultation ($p<0.05$). It is also highlighted that the continuous improvement of the attention and care provided to users must continue.

On this, a study conducted in Sweden points out that analyzing parents' perceptions about the quality of care in child health centers is essential since it provides us with key elements to improve the quality standards of the health institution. The study highlights that parents want information based on their preferences and needs. Parents' general opinion of the quality of care in community health centers was rated as optimal quality. However, areas for improvement were identified that needed additional information. Excellent quality of care and attention leads to parents being satisfied with their care experience [11]. Efforts have been made to improve maternal and child health care globally, where care must be comprehensive, in addition to complementing intramural care efforts with a focus on promoting extramural work that includes postnatal home visits. The results indicated that mothers were satisfied with home visiting services in general, but were not satisfied with some specific postnatal care, such as the quality of maternal care information and the support provided by community nurses in relation to the care of the newborn during their visit. Mothers' satisfaction levels with these services are high, but there are still opportunities to improve them by addressing specific challenges and adapting these services to the diverse needs of mothers in the postnatal period [27].

On the other hand, a significant relationship was found between the dimensions of quality of care (scientific and technical care, human care, and context of care) and satisfaction in all cases $p<0.05$).

Regarding the relationship between quality of care and waiting time and the relationship between satisfaction and waiting time, a significant relationship was found for both cases ($p<0.05$). The studies by Nottingham et al. [28] and Alrasheedi et al. [29] point out important aspects about these findings. In the first study, users who were very dissatisfied with the wait time were 81% likely not to recommend the care provider. Understanding which aspects of a patient's experience drive quality of care and patient satisfaction is helpful for healthcare managers operating with increasingly limited resources. Delays in seeking health care and providing adequate clinical care are common in resource-limited settings. The second study highlights the need for recent technological elements, sufficient staffing, and patient-centered, friendly methods to reduce waiting times. Here, it was found that 32.79% of respondents were not satisfied with waiting times at the registration and payment for care desk [30].

On this point, a study on barriers to access and use of primary health care services for children under five years of age in South Africa indicates that four main themes emerged: health system barriers, health personnel-related behaviors, health center infrastructure barriers, and guardian-related barriers. Sub-themes emerged, such as distance from facility, lack of resources, long waiting times, poor time management, lack of commitment and dedication to work, insufficient waiting space, problems with water and sanitation, guardians' beliefs about health care, and the urgency of the disease. In view of this, it is essential to create a professional and friendly environment conducive to facilitating better access to PHC services for children under 5 years of age [31].

Based on the quality of care, the elevated level prevailed (55.7%), followed by medium (24.5%) and low (19.8%). This coincides with the study by Malena et al. [26] who reported that 42.4% of the mothers reported a moderately favorable value, followed by unfavorable with 38.4% and favorable with 19.2%. According to the dimension of scientific and technical care, the elevated level prevailed (61%), followed by medium (21.2%) and low (17.9%). This coincides with Torres [32], who indicated that in the technical-scientific dimension, the high value prevailed with 100%, likewise in the human dimension with a high value with 99.2% and finally with the environment dimension with a high value with 100%. According to the human care dimension, the elevated level prevailed (52.6%), followed by medium (24%) and low (23.3%). According to the dimension of the context of care (environment), the elevated level prevailed (57.4%), followed by low (25%) and medium (17.6%). Care provided with human sense and considering the context where it is provided are fundamental aspects to consider when designing and planning the comprehensive care that must be provided to users, who in this case are mothers and their minor children. Care must be person-centered, and it must be approached with a human sense. These results are like those of Apaza [33], who reported that there is a relationship between the human dimension and maternal satisfaction ($p=0.036$). In the same way, at last, Huaytalla [34] reported that there is a relationship between the environment dimension and maternal satisfaction ($p<0.05$). An optimal environment favors the satisfaction of mothers.

According to satisfaction, the acceptable value prevailed (52.4%), followed by in process (24.5%) and to improve (23.1%). It coincides with the study by Malena et al. [26] who reported that 45.4% of the mothers had a medium level, followed by low with 32.6% and high with 22.1%. Along the same lines, the study by Mercedes and Correa [35] pointed out that satisfaction had an elevated level with 77%, followed by low with 16%, and medium with 8%. Similarly, these results are consistent with those of Dana et al. [36], who reported that the overall proportion of mothers/caregivers who were satisfied with their children's immunization service was 76.7%. In addition, 89.7%, 77.1%, 77.2%, 65.8%, and 68.3% were satisfied with waiting room amenities, cleanliness of immunization rooms, distance from nearby health center, focus of service providers, and wait time to get service, respectively. In addition, the authors note that parents who waited ≤30 minutes to get the service were 7.3 times more likely to be satisfied than those who waited >30 minutes [AOR and 95% CI 7.3 (3.9-13.6)], a situation that is given in the results of this study and that may explain the levels of satisfaction. Finally, it should be noted that fathers who lived closer to health centers were 5.9 times more likely to be satisfied than their counterparts, which may explain the satisfaction in this study since the fathers in their entirety reside in the jurisdiction of the health establishment.

There were also coincidences with the findings of Debela et al. [37] who reported 84.6% satisfaction in mothers who go to child health services. An organized institution that has empathetic health professionals and administrative staff favors user satisfaction. For this reason, improvements in child health services must be continuous to guarantee comprehensive care, and the availability of resources that favor the adequate care of the child and his or her mother, who accompanies him. Along the same lines, he encountered incidents with the study by Naeem et al. [8] from Pakistan, which found that 40% of parents

expressed satisfaction with the quality of care their children received. Satisfaction is the expression of adequate service and attention.

On the other hand, there were no coincidences with Otokwala et al. [38] who reported that 58.3% of mothers were partially satisfied, 38.3% were very satisfied, and 3.5% were not at all satisfied. More than 70% of informants considered that the reliability, team cohesion, skills and professionalism of nurses influenced their satisfaction. In addition, educational degrees and occupation showed a significant relationship with satisfaction (p=0.00). Overall, participants were partially satisfied with the care they received.

Already looking at the analysis of the dimensions of satisfaction, according to the dimension reliability prevailed the acceptable value (52.4%), followed by in process (24.5%) and to improve (23.1%), in the dimension response capacity, the acceptable value prevailed (54%), followed by improving (23.3%) and in process (22.6%), in The dimension safety prevailed the acceptable value (46.9%), followed by in process (29.5%) and to improve (23.6%), in The dimension empathy prevailed the acceptable value (58.8%), followed by in process (23.6%) and to be improved (17.6%), and finally in The dimension Tangible aspects also prevailed the acceptable value (42.9%), followed by in process (30.5%) and to improve (26.7%). The above coincided with Mucha [39] who pointed out that according to the reliability dimension, the satisfied value prevailed with 85%, according to the response speed dimension the satisfied value with 58%, according to the security dimension the satisfied value with 82%, according to the empathy dimension the satisfied value with 85% and finally, the tangible elements dimension the satisfied value with 74%.

Patient satisfaction is an essential indicator for measuring the quality of health services. Therefore, the evaluation of patient satisfaction with visits to primary care centers (PHC) is essential when evaluating the quality of health services provided, Alhajri et al. [40]. Mercedes and Correa [35], in this regard, highlight that the behavior and skills of nurses are essential to guarantee the adherence of mothers to the CRED program. A mother who shows adherence can be an ally of the nurse, thus being able to contribute to the care of her youngest child.

In conclusion, it should be noted that a meaningful relationship was found between the quality of care and satisfaction. In relation to the dimensions of quality of care, there was a meaningful relationship between the three (scientific and technical care, human care, and context of care) and satisfaction. According to the quality of care, the elevated level prevailed. According to patient satisfaction, the acceptable value prevailed. Finally, regarding the relationship between quality of care and waiting time and the relationship between satisfaction and waiting time, a meaningful relationship was found for both cases.

The findings contribute to critical analysis and reflection on the problems detected, promoting improvements in care. In this sense, the identification of deficiencies and opportunities for improvement allows for more effective strategies to be generated to optimize processes and guarantee a higher quality service. In addition, by recognizing the main limitations in care, intervention plans can be designed aimed at strengthening the skills of the staff and improving the experience of users, who in this case are the mothers who come with their minor children to the CRED consultation.

References

[1] World Health Organization, *Quality of care*. Ginebra-Suiza: World Health Organization, , 2025.

[2] M. Nyelisani, L. Makhado, and T. Luhalima, "A professional nurse's understanding of quality nursing care in Limpopo province, South Africa," *Curationis*, vol. 46, no. 1, p. 2322, 2023. https://doi.org/10.4102/curationis.v46i1.2322

[3] M. Horton *et al.*, "Advanced practice nurses in primary care and their impact on health service utilisation, costs and access globally: A Scoping Review," *Journal of Clinical Nursing*, vol. 1, no. 1, pp. 1-7, 2024. https://doi.org/10.1111/jocn.17614

[4] H. Mulugeta, F. Wagnew, G. Dessie, H. Biresaw, and T. D. Habtewold, "Patient satisfaction with nursing care in Ethiopia: A systematic review and meta-analysis," *BMC Nursing*, vol. 18, no. 1, pp. 1-12, 2019. https://doi.org/10.1186/s12912-019-0348-9

[5] A. A. Alemu, A. Welsh, T. Getachew, and M. Khajehei, "Assessment of healthcare facilities' readiness to provide antenatal care in Ethiopia: Facility based study using service provision assessment data," *Archives of Public Health*, vol. 83, no. 1, pp. 1-14, 2025. https://doi.org/10.1186/s13690-024-01464-5

[6] World Health Organization, *Why quality matters?* Ginebra-Suiza: World Health Organization, 2025.

[7] World Health Organization, *What is the evidence for quality and value in long-term care?* Ginebra-Suiza: World Health Organization, 2024.

[8] B. Naeem *et al.*, "Assessment of parental satisfaction with paediatric health services in public sector tertiary hospitals within a low-income setting using Patient Satisfaction Questionnaire (PSQ-18)," *BMJ Paediatrics Open*, vol. 8, no. 1, p. e002418, 2024. https://doi.org/10.1136/bmjpo-2023-002418

[9] H. Farley *et al.*, "Patient satisfaction surveys and quality of care: An information paper," *Annals of Emergency Medicine*, vol. 64, no. 4, pp. 351-357, 2014. https://doi.org/10.1016/j.annemergmed.2014.02.021

[10] G. Qian *et al.*, "Parental/guardians' satisfaction with vaccination service and its associated factors: A cross-sectional study from Eastern China," *BMC Public Health*, vol. 24, no. 1, p. 3574, 2024. https://doi.org/10.1186/s12889-024-20980-1

[11] A. Jacobzon, Å. Engström, S. R. Gustafsson, and M. Andersson, "Parents' perceptions of care quality at child health centres: A cross-sectional study from Sweden," *Journal of Clinical Nursing*, vol. 34, no. 1, pp. 218-229, 2025. https://doi.org/10.1111/jocn.17339

[12] S. Kaiser, C. C. Lillevik, K. Jakobsen, M. B. Hansen, and M. Martinussen, "Parent satisfaction with child health centres for children 0–5 years old in Norway: A cross-sectional study," *Nordic Journal of Nursing Research*, vol. 42, no. 3, pp. 158-165, 2022.

[13] H.-Y. Lee, J. E. Cooper, and M. E. Kruk, "Regional determinants of quality of care for sick children: A multilevel analysis in four countries," *Journal of Global Health*, vol. 14, p. 04053, 2024. https://doi.org/10.7189/JOGH.14.04053

[14] Ministry of Health, *Growth and development monitoring (CRED) for children under 11 Years of age*. Lima, Peru: Ministry of Health, 2024.

[15] J. H. Staab, S. Tong, J. S. Gerson, and C. E. Simonsen, "Screening pediatric patients to determine need for child life services using the pediatric emotional safety screener," *Journal of Child Health Care*, p. 13674935241312989, 2025. https://doi.org/10.1177/13674935241312989

[16] I. Jin and H. H. Cho, "Factors influencing the quality of nursing care as perceived by mothers of hospitalized children in South Korea," *Child Health Nursing Research*, vol. 27, no. 3, pp. 266–275, 2021. https://doi.org/10.4094/chnr.2021.27.3.266

[17] A. Bowling, *Research methods in health: Investigating health and health services*, 2nd ed. United States: McGraw-Hill Education, 2023.

[18] C. M. Mellis, "How to choose your study design," *Journal of Paediatrics and Child Health*, vol. 56, no. 7, pp. 1018-1022, 2020. https://doi.org/10.1111/jpc.14929

[19] H. Aarons, *A practical introduction to survey design: A beginner's guide*. Los Angeles-USA: SAGE, 2020.

[20] S. Patel, S. Jena, A. Gupta, and P. Lathar, *Research methodology theory & techniques*. India: Xoffencer International Publication, 2023.

[21] A. Parasuraman, V. A. Zeithaml, and L. L. Berry, "Servqual: A multiple-item scale for measuring consumer perc," *Journal of retailing*, vol. 64, no. 1, pp. 1-12, 1988.

[22] General Directorate of People's Health, *Directorate of health quality - MINSA, technical guide for the evaluation of external user satisfaction in medical support establishments and services. RM No. 527-2011/MINSA*. Lima, Peru: MINSA, 2012.

[23] World Medical Association, *WMA declaration of Helsinki: Ethical principles for medical research involving human subjects*. USA: World Medical Association, 2024.

[24] K. B. Brothers, S. M. Rivera, R. J. Cadigan, R. R. Sharp, and A. J. Goldenberg, "A Belmont reboot: Building a normative foundation for human research in the 21st century," *The Journal of Law, Medicine & Ethics*, vol. 47, no. 1, pp. 165-172, 2019. https://doi.org/10.1177/1073110519840497

[25] B. Lúa, "Quality of care and satisfaction among external users of a clinic in Guayaquil," Bachelor's Thesis, Piura, Peru: Cesar Vallejo University, 2021.

[26] L. Malena, H. Bautista, M. Adriana, and V. Reyes, "Satisfaction and perception of the quality of nursing care in mothers of children under 5 years of age treated at the CRED clinic - Hospital Santa Rosa-Madre de Dios," *Crescendo*, vol. 13, no. 1, pp. 1-10, 2019.

[27] Y. Agyeman-Duah and M. Bimerew, "Maternal satisfaction with postnatal home visitation services by community health nurses in Ashanti Region, Ghana: A cross-sectional correlational study," *African Journal of Reproductive Health*, vol. 28, no. 5, pp. 13-21, 2024. https://doi.org/10.29063/ajrh2024/v28i5.2

[28] Q. J. Nottingham, D. M. Johnson, and R. S. Russell, "The effect of waiting time on patient perceptions of care quality," *Quality Management Journal*, vol. 25, no. 1, pp. 32-45, 2018. https://doi.org/10.1080/10686967.2018.1404368

[29] K. F. Alrasheedi, M. Al-Mohaithef, H. H. Edrees, and S. Chandramohan, "The association between wait times and patient satisfaction: Findings from primary health centers in the Kingdom of Saudi Arabia," *Health Services Research and Managerial Epidemiology*, vol. 6, p. 2333392819861246, 2019. https://doi.org/10.1177/2333392819861246

[30] E. Garcia Gomez *et al.*, "Identifying delays in healthcare seeking and provision: The Three Delays-in-Healthcare and mortality among infants and children aged 1–59 months," *PLOS Global Public Health*, vol. 4, no. 2, p. e0002494, 2024. https://doi.org/10.1371/journal.pgph.0002494

[31] L. Tshivhase, I. Moyo, S. M. Mogotlane, and S. M. Moloko, "Barriers to accessing and utilising under-five primary health care services in Vhembe District," *African Journal of Primary Health Care & Family Medicine*, vol. 16, no. 1, pp. 1-7, 2024. https://doi.org/10.4102/phcfm.v16i1.4429

[32] I. Torres, "Nursing care quality and satisfaction level in mothers of children under 12 months of age in the growth and development service, La Huayrona Health Center, Lima," Bachelor's Thesis, Lima, Peru: Norbert Wiener University, 2022.

[33] H. Apaza, "Quality of care and satisfaction of mothers of children under 5 years of age at the Virgen de la Candelaria Health Center, Puno," Bachelor's thesis]. Puno, Peru: San Carlos Private University, 2023.

[34] M. Huaytalla, "Nursing care quality and satisfaction in mothers of 3-Year-Old Children, Cred Clinic, C.M.I - Magdalena, Lima – 2022," Bachelor's Thesis, Lima-Peru: Norbert Wiener University, 2022.

[35] L. Mercedes and L. Correa, "Mothers' perception of nursing care in the growth and development service," *Revista En Internet*, vol. 25, no. 1, pp. 1-8, 2025.

[36] E. Dana, Y. Asefa, A. T. Hirigo, and K. Yitbarek, "Satisfaction and its associated factors of infants' vaccination service among infant coupled mothers/caregivers at Hawassa city public health centers," *Human Vaccines & Immunotherapeutics*, vol. 17, no. 3, pp. 797-804, 2021.

[37] B. G. Debela, B. Negassa, H. E. Hareru, D. Sisay, and N. E. Soboksa, "Maternal satisfaction on child immunization services of rural health extension workers in Dawie Harewa district, Northeast Ethiopia: a community based cross-sectional study," *Environmental Challenges*, vol. 7, p. 100455, 2022. https://doi.org/10.1016/j.envc.2022.100455

[38] O. Otokwala, E. Peretomode, U. Eunice, N. Elizabeth, and C. Faith, "Mothers' satisfaction with nursing care received by pediatric patients in A tertiary hospital in South-South Nigeria," *SSRG International Journal of Nursing and Health Science*, vol. 6, no. 2, pp. 29-35, 2020. https://doi.org/10.14445/24547484/ijnhs-v6i2p106

[39] K. Mucha, "Nursing care quality and satisfaction with CRED monitoring among mothers of children under 5 Years of age in a MINSA Health Center," Bachelor's Thesis, Lima, Peru: César Vallejo University, 2020.

[40] S. M. Alhajri *et al.*, "Patients' satisfaction with the quality of services at primary healthcare centers in Saudi Arabia," *Cureus*, vol. 15, no. 9, pp. 1-7, 2023. https://doi.org/10.7759/cureus.45066