Investigating the relationship between health service quality and patient satisfaction: A case study of Lima East clinics in the midst of the COVID-19 pandemic

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A R T I C L E I N F O

A B S T R A C T

Quality assessment has emerged as a recurring consideration in individuals' preferences for healthcare services. As a result, many private healthcare institutions recognize their obligation to improve the services they provide, especially in response to the prevailing demand for care. This study seeks to elucidate the intricate relationship between service quality and patient satisfaction in the clinics of Lima East in the challenging context of the COVID-19 pandemic in 2022. The research results show a remarkable mutual compatibility score and a substantial correlation coefficient of 0.696, indicating the concurrent validity of both variables. In conclusion, this study underscores its paramount importance by shedding light on the critical factors that clinics must prioritize in these challenging times. This illumination enables healthcare institutions to make informed decisions regarding service improvements, while at the same time shedding light on the relationship between service quality and patient satisfaction.

1. Introduction

The proliferation of the COVID-19 pandemic has induced substantial repercussions across various economic sectors. Notably, the healthcare sector has experienced a severe strain in its capacity to provide care. Consequently, many private healthcare entities are compelled to enhance the quality of their services. This obligation arises from the pervasive chaos and heightened uncertainty prevalent in numerous hospitals and clinics. The resultant strain on healthcare facilities has prompted some clinics to raise their service fees, encompassing both medical care and pharmaceuticals. Furthermore, a significant proportion of individuals seeking healthcare services have been forced to forgo such services due to financial constraints, thereby exacerbating the challenges faced by healthcare institutions. This unfortunate situation has contributed to the negative perception that patients and their families hold regarding clinic care. In Ecuador, a study was conducted to gauge public sentiment concerning the quality of medical services provided. The findings

reveal a modest level of satisfaction, with an average score of 48% for both expectations and perceptions. This suggests a prevailing state of satisfaction at an intermediate level. Consequently, there exists a pressing need for service improvement initiatives aimed at elevating satisfaction levels and, by extension, enhancing the overall quality of healthcare services (Suárez Lima et al., 2019).

Nationally conducted research by the Ministry of Health in Peru focused on assessing the level of satisfaction among individuals utilizing healthcare facilities. The findings revealed that a substantial 74.3% of respondents reported a high level of satisfaction, characterizing the service they received as either 'good' or 'very good.' Nevertheless, within this dataset, specific subgroups of users exhibited a comparatively lower evaluation concerning their satisfaction with healthcare services (Hernández-Vásquez et al., 2019).

An extensive inquiry took place within a healthcare facility located in Lima, with the primary aim of assessing both the quality of service and the satisfaction levels of the individuals using the facility. The findings indicated that the users of this healthcare center expressed their evaluation of the quality of service in distinct categories. Specifically, a noteworthy 77.2% of respondents held a favorable view, characterizing the quality as 'good.' An additional 21.7% provided a rating of 'regular,' signifying a moderate level of satisfaction. A smaller

subset, constituting 2.2% of respondents, expressed a less favorable perception, deeming the quality to be 'low-ranking.' (Al-Mhasnah et al., 2018).

This research endeavors to elucidate the interconnection between the quality of service and the level of customer satisfaction within clinics situated in East Lima during the context of the COVID-19 pandemic in the year 2022. In order to establish the requisite theoretical framework for this investigation, it is imperative to draw upon pertinent prior research endeavors, as delineated below.

Oliva (2005) posited that "quality" signifies the endorsement of one of the involved parties concerning compliance with stipulated requirements. Conversely, a lack of quality manifests when such compliance is not achieved. Wisniewski (2001) contended that "quality" pertains to a sequence of favorable assessments made by an individual regarding the attributes of a product or service. These assessments involve evaluation and comparison relative to other entities of the same category. Furthermore, Wisniewski (2001) emphasized that "service" encompasses endeavors conducted to fulfill the needs of another party, with the objective of satisfying those needs in exchange for monetary compensation. It represents intangible actions that one person can provide to meet the requests of another. Oliva (2005) elucidated five dimensions of service quality: empathy, reliability, security, responsiveness, and tangibility.

Al-Mhasnah et al. (2018) contended that "satisfaction" emerges following an assessment that compares the assistance provided with the recipient's initial expectations and requirements. Newman and Patel (2004) posited that "satisfaction" is the emotional outcome of contentment or disappointment that arises in an individual after juxtaposing their experience with the product or service against their initial perspective. They delineated three tiers of satisfaction: Dissatisfied, Satisfied, and Delighted. Dissatisfaction occurs when performance falls short of the client's expectations. Satisfaction is attained when the outcome aligns with the client's expectations, and Delight occurs when the outcome exceeds those expectations.

2. Literature review

Davidoff et al. (2015) conducted a comprehensive investigation within a healthcare facility to delve into the intricate relationship between the quality of care and the satisfaction experienced by care recipients. Employing a quantitative research methodology, the study meticulously examined a range of variables. The primary variable of interest pertained to the perceived quality of care, which encompassed five distinct elements. In parallel, the study assessed the dependent variable, which was bifurcated into two dimensions: administrative quality and clinical quality.

The research cohort consisted of 377 individuals who sought medical services at the designated healthcare center. Notably, the results gleaned from the independent variable paint a nuanced picture. Approximately 50.4% of service recipients expressed concerns regarding the adequacy of healthcare personnel's access to the necessary tools and resources required for the effective execution of their duties. Additionally, 58.4% of respondents cited a deficiency in the appeal and availability of essential material resources. An even larger proportion, 63.6%, believed that care was not administered on an individualized basis, further emphasizing the need for a personalized approach. Notably, a substantial percentage, 56.8%, expressed a perceived lack of attentiveness and concern from healthcare providers.

Turning to the outcomes related to the second variable, a notable degree of dissatisfaction emerged. Specifically, 48% of respondents expressed dissatisfaction with the signage and informational posters present within the healthcare facility. Moreover, 46.7% indicated dissatisfaction with the explanations provided about their treatment plans.

In light of these findings, the research underscores a strong and statistically significant connection between the study's variables, as indicated by a Pearson coefficient of 0.822. Ultimately, this study offers a valuable contribution to the field of research, as it unveils empirically evaluated insights into the multifaceted dynamics of the variables under investigation.

Campbell et al. (2020) conducted a research study within a healthcare facility to explore the levels of satisfaction among service recipients. This quantitative study aimed to comprehensively assess satisfaction, which was represented by a set of five distinct elements. The researchers employed a non-probabilistic sampling method, focusing on 84 cases of individuals afflicted with COVID-19. Data collection was facilitated through the utilization of the SERVQUAL questionnaire.

The results of the study revealed significant insights into various dimensions of satisfaction. In terms of reliability, the healthcare facility achieved a satisfactory rating of 45%. Similarly, the responsiveness of the healthcare personnel garnered a 34% satisfaction rate, while the security measures in place were highly satisfactory, with a rating of 70%. Moreover, empathy, a crucial element of patient experience, also demonstrated a commendable level of satisfaction, standing at 70%. Notably, the assessment of tangible aspects, including the availability of essential equipment and materials within the healthcare center, yielded an impressive satisfaction rate of 86%. This high percentage can be attributed to patients' perceptions that the facility adequately provided the necessary resources for their care.

In conclusion, the study found that the overall satisfaction of individuals receiving medical services reached 61%, while dissatisfaction accounted for 39%. This distribution falls within an acceptable range, signifying areas for potential improvement within the healthcare establishment. Specifically, opportunities for enhancement include addressing

waiting times and ensuring the consistent availability of pharmaceuticals in the facility's pharmacy.

Ultimately, this research contributes valuable data to the broader research project, offering an expanded understanding of the satisfaction levels among healthcare service recipients.

In their study, Gómez-Carmona et al. (2022) embarked on an investigation conducted within a healthcare center, aiming to comprehend the quality of healthcare services provided and discern the impressions held by patients regarding these services. Their research employed a quantitative, descriptive-correlational approach. Two primary variables were posited for examination: firstly, the quality of healthcare service, which was delineated through the prism of five distinct dimensions; secondly, recipient satisfaction, encompassing dimensions such as the treatment provided by healthcare personnel, overall service, commitment, motivation, and accessibility.

The research methodology encompassed simple random sampling, wherein a sample size of 86 recipients from the Medical Center was selected. Moreover, the research instrument was adapted from the original SERVQUAL tool.

The study's findings unveiled noteworthy insights. The quality of healthcare delivery, with its multifaceted elements, attained a commendable rating, achieving a substantial 64% approval. Likewise, patient satisfaction across the various dimensions demonstrated a favorable average of 65.1%, with a moderate rating of 34.9% in certain areas.

In conclusion, the research underscored the discernible linkages between the analyzed variables, substantiated by a coefficient of 0.465, signifying a moderate relationship. Ultimately, this thesis contributes significantly to our ongoing research efforts, fostering a deeper understanding of the factors intertwined with the correlations explored in the study.

In their research, Vosburg and Robinson (2022) conducted an extensive study aimed at comprehending the perceived level of satisfaction among recipients of care in healthcare centers. Their research followed a quantitative, descriptive cross-sectional approach, meticulously examining the factors contributing to satisfaction. The study focused on the satisfaction variable, dissecting it into five distinct elements.

To gather data, the researchers administered a SERVQUAL questionnaire, conducting surveys with a sample of 200 recipients. The study's outcomes shed light on several key findings. Notably, the satisfaction index regarding reliability exhibited notable trends. Specifically, 18.90% of respondents in the CSPU expressed profound satisfaction, with an additional 20.13% in the CSPR indicating complete satisfaction. Concerning sensitivity, 20.13% of participants in the CSPU expressed satisfaction, while 27.88% in the CSPR conveyed total satisfaction. Moreover, safety considerations proved pivotal, with 22.38% of CSPU participants expressing high satisfaction and 27.38% in the CSPR declaring total satisfaction. In terms of empathy, 22.30% of the CSPU conveyed strong satisfaction, while the CSPR exhibited complete satisfaction at 27.20%. Furthermore, tangible elements elicited responses, with 19.25% in the CSPU considering them highly satisfying, compared to 31.88% in the CSPR indicating complete satisfaction.

The research culminated in a significant finding – an overwhelmingly positive acceptance of patients regarding the various dimensions studied. A majority of respondents expressed satisfaction, with many reporting complete satisfaction with the healthcare services received. This research work, therefore, not only contributes valuable insights to our project but also establishes a crucial link to dimensions related to satisfaction.

Noriega (2020) developed research to know the attentional administration and the effect on the satisfaction index of people who resort to the health center. A quantitative analysis was applied. The study was made up of two variables. Quality of service management they are based on four dimensions where they are mission, internal approach, external approach, and involvement. The second is user satisfaction which is made up of five dimensions: Empathy, responsibility, reliability, security, and tangible goods. The sample was 384 users. The results, in the variables, were obtained 61% in tangible elements, 59% in reliability, security 56% where the level of satisfaction is a little unfavorable where care is related by employees who do not demonstrate the credibility and trust they give to the user that creates dissatisfaction of patients, since it is very scarce and that affects the insecurity and disagreement of the customer service process. In conclusion, the research resulted in a satisfactory state of the users of medium degree not reaching the admission range of 70% specified in the SERVPERF model, therefore, it is necessary to establish improvement measures such as in safety. Also, in the reliability that was not acceptable to users. Finally, we can say that research contributes to our work since it is related to the study variable.

Abd-Elrahman (2022) designed a study with the primary aim of comprehending the quality of care and client satisfaction within a medical center during the pandemic. The research followed a quantitative approach with a correlative degree of analysis. The study encompassed two main variables: Quality of care in Health, which consisted of three distinct dimensions, and satisfaction, a variable comprising five dimensions.

The research involved a sample of 94 individuals who had received medical examinations in various external clinics within the healthcare facility. These participants willingly agreed to partake in the study. The primary objective was to quantify both the quality of care and customer satisfaction.

To achieve this, Abd-Elrahman employed the chi-square test, a statistical method enabling the measurement of variables within the test. The

research outcomes unveiled that 77% of patients perceived a high level of quality in the healthcare they received. However, it's noteworthy that 69.15% expressed dissatisfaction.

In conclusion, the study establishes a direct correlation between the quality of care and recipient satisfaction. The results exhibit a high level of reliability, standing at 95%, with a p-value of 0.000. Ultimately, this thesis contributes significantly to the research project, enabling a more nuanced analysis of various dimensions within the research context.

Chang et al. (2013) embarked on a quantitative study with the primary objective of assessing the relationship between the quality of care and the state of satisfaction among recipients. This study adopted a non-experimental approach, focusing on quantitative analysis. Two key variables were scrutinized: the quality of service, comprising five distinct elements, and satisfaction, which also consisted of five elements.

The researchers opted for non-probabilistic and convenient sampling methodologies. Given the nature of their study, which didn't necessitate extensive resources or time, they administered questionnaires to 232 users admitted to the general medicine department.

The findings of the study indicated a significant connection between the quality of care and the satisfaction levels of patients, as evidenced by a coefficient of 0.665. This suggests that improvements in service quality have a positive impact on patient satisfaction—an encouraging outcome.

In summary, this thesis contributes to the broader research project by shedding light on the interplay between these variables. Despite variations in the study context, the research underscores their interconnectedness and underscores the importance of quality improvements for enhancing patient satisfaction—a valuable insight applicable beyond the specific field of study.

Karaca and Durna (2019) conducted a quantitative, descriptive, and correlational study within a clinical setting, aiming to assess the relationship between care provision and the satisfaction levels of service recipients. This investigation encompassed two primary variables: the quality of nursing care, structured into three dimensions (human, technical-scientific, and environmental), and patient satisfaction, which consisted of five distinct elements.

The study population comprised 150 hospitalized patients, from which a sample of 70 service recipients was selected. Data collection was facilitated through the administration of questionnaires.

The study's findings revealed an overall admission rate of 27.1% regarding the quality of care, with the human dimension receiving the highest approval rate at 31.4%. Furthermore, the security dimension achieved a significant indicator of 22.9%.

Conclusively, this research firmly establishes a positive correlation between the quality of care and the satisfaction levels of service recipients, supported by a coefficient of 0.700 and a p-value of 0.000. Moreover, it validates the interconnection between individual variables and their subordinate elements. This study makes a valuable contribution to the project by providing insights into critical components relevant to the research endeavor.

In a study conducted by Mena (2021), the objective was to assess the relationship between the level of satisfaction and the quality of service within a clinical laboratory setting. This research employed a quantitative approach with a descriptive-correlational design at a cross-sectional level.

Two key variables were considered in the study. The first variable was the independent one, which encompassed the dimensions of human interaction, technical aspects, and the environmental context. The second variable, patient satisfaction, comprised five distinct dimensions.

The research population included 890 service recipients who had been attended to between August and October 2020 at the clinical laboratory. A systematic sample calculation was performed, resulting in a sample size of 205 recipients, who were then subjected to a questionnaire.

The initial evaluation of the independent variable indicated an overall rating of 37.6%, with the human dimension receiving the highest approval rate at 40.5%. Conversely, in the case of the dependent variable, a satisfaction rate of 42.9% was observed among patients, with safety being the most positively rated dimension, receiving 51.7% approval.

In conclusion, a clear association exists between these two variables, supported by a coefficient of 0.779 and a p-value of 0.000, demonstrating a positive correlation. This study contributes significantly to the research project by offering insights into the extent of patient satisfaction, which is highly relevant to our research focus.

Rita et al. (2019) conducted a study with the aim of exploring the relationship between user satisfaction and the quality of care. Their research employed a quantitative correlational research approach, focusing on patient satisfaction as the primary variable, which consisted of five distinct dimensions. The second variable encompassed aspects related to the human element, technical competence, and the environmental context.

The researchers employed a probabilistic sampling method, selecting a sample of 227 patients for their study. The findings of the research indicated an overall patient satisfaction rate of 97.5%. Notably, safety was a key highlight, with an impressive satisfaction rate of 82.9%, while tangible aspects also garnered substantial approval at 80.9%. However, the dimension related to reliability had the highest percentage of dissatisfaction, with only 5.10% expressing satisfaction.

On the other variable, an impressive satisfaction rating of 71.28% was achieved, with the

environmental dimension receiving the highest overall rating at 80.2%.

In conclusion, the study revealed a significant correlation between the two variables, supported by a significance level of 0.000 and a coefficient of 0.670. This research makes a valuable contribution to our understanding, as it clearly demonstrates the interconnectedness of the analyzed variables.

3. Methodology

The presented study falls within the realm of basic research, as its primary objective is to contribute to the expansion of scientific knowledge. As noted by Greason (2000), this type of research aims to enhance scientific understanding, improve existing theories, or delve deeper into research concepts. Furthermore, the study will adopt a correlational research design, aligning with the definition provided by Sampieri and Torres (2018). This approach entails the measurement and analysis of potential associations between two or more study variables within a specific context. An essential characteristic of this research is its non-experimental nature, in accordance with Sampieri and Torres (2018). In a non-experimental study, researchers refrain from intentionally manipulating study variables. Instead, their focus is on observing and measuring phenomena and variables within existing situations to facilitate analysis. The chosen research method is the hypothetical deductive approach, as described by Onwuegbuzie et al. (2009). This method involves formulating hypotheses based on two premises and subsequently testing them. It aids in understanding and explaining the causal relationships underlying observed phenomena. In terms of the research approach, a quantitative methodology will be employed, following the guidelines outlined by Sampieri and Torres (2018). This approach enables the measurement and analysis of data related to the research problem and facilitates hypothesis testing. The sequential steps inherent to quantitative research will be utilized to elucidate the phenomena under investigation. Lastly, the research has a cross-sectional nature, as it involves the compilation of information at a specific point in time. Sampieri and Torres (2018) noted that this approach is suitable for investigations that gather and analyze data on a single occasion.

The population is made up of patients from the clinics of East Lima. As expressed by Artigas and Robles (2010), the population is the totality of subjects who are in a specific place and period, which there is an interest in investigating, since they meet similar characteristics for the study.

Sampieri and Torres (2018) expressed that the sample is a portion of units of analysis that is subtracted from the population, from which a study is sought. Likewise, they express that in non-probabilistic sampling the units of analysis are not selected randomly but are based on criteria that the researcher considers necessary for his research.

Similarly, Etikan et al. (2016) have emphasized that convenience sampling is a method designed for the expedient selection of research subjects who are readily accessible and willing to participate in the study. Consequently, for the implementation of our research, a non-probabilistic and convenience sampling method is deemed appropriate. In this regard, questionnaires were administered to 81 patients who sought healthcare services at the Health Clinics within the San Juan de Lurigancho district in the year 2022.

1. Inclusion criteria:
o Patients within the age range of 20 to 75 years.
o Patients who received treatment on a minimum of three occasions across various medical specialties.
o Patients who availed themselves of healthcare services at the Clinic during the months of January through June.
2. Exclusion criteria:
o Patients falling outside the specified age bracket.
o Patients who did not receive treatment on at least three occasions across different medical specialties.
o Patients who did not access healthcare services at the Clinic during the months of January through June.

The chosen data collection technique for this study is the survey method. As elucidated by López Roldán and Fachelli (2016), this technique involves gathering information through a questionnaire, enabling a series of targeted inquiries to be posed to study participants with the aim of acquiring pertinent data.

The instrument employed in this research is the questionnaire, consistent with the approach outlined by Sampieri and Torres (2018). This questionnaire comprises a structured sequence of questions designed to facilitate the collection of data relevant to addressing the research problem.

4. Results

Data from patients in the clinics of East Lima were extracted through an applied survey, obtaining the following results shown in Table 1.

4.1. Descriptive results

Regarding Table 1, it is noteworthy that 81.5% of the clients assess the quality of service as falling within the 'good' category, while the remaining 18.5% deem it to be at a 'regular' level.

As illustrated in Table 2, pertaining to the first dimension, a significant 74.1% of respondents perceive it to be in 'good' condition, with an additional 22.2% indicating a 'regular' state, while a minority of 3.7% express it as 'bad.' In a similar vein, with regard to the safety dimension, an impressive 82.7% of patients regard it as 'good.' Nevertheless, 17.3% hold the view that it is 'regular.' Furthermore,

concerning tangible elements, an overwhelming 88.9% of patients find it to be in 'good' condition.

Conversely, 9.9% perceive it as 'regular,' and a mere 1.2% consider it to be in 'bad' shape.

Table 1: Frequency of the variable quality of service

		Frequency	Percentage
	Regular	15	18.5
Valid	Good	66	81.5
	Total	81	100.0

Table 2: Frequency of service quality dimensions

	Responsiveness		Safety		Tangible elements	
Scales	Frequency	%	Frequency	%	Frequency	%
1=Bad	3	3.7			1	1.2
2=Regular	18	22.2	14	17.3	8	9.9
3=God	60	74.1	67	82.7	72	88.9
Total	81	100	81	100	81	100

Table 3 reveals that a significant 85.2% of patients perceive their experience as 'pleased,' while the remaining 14.8% categorize it as 'satisfied.' Examining Table 4, concerning various aspects, a substantial 86.4% of patients find themselves in a state of 'pleased.' Additionally, 11.1% express 'satisfaction,' while a minor 2.5% report 'unsatisfaction.' Similarly, in terms of the quality-of-

care dimension, a remarkable 91.4% of respondents indicate they are in a 'pleased' state. Nevertheless, 8.6% consider themselves to be in a 'satisfied' state. Regarding the environment, 71.6% of patients report a 'complacent' experience, with 25.9% expressing 'satisfaction,' and 2.5% acknowledging a sense of 'dissatisfaction.'

Table 3: Frequency of the variable level of satisfaction

		Frequency	Percentage
	Satisfied	12	14.8
Valid	Pleased	69	85.2
	Total	81	100.0

Table 4: Frequency of the dimensions of the variable level of satisfaction

	Aspects		Quality of care		Environment	
Scales	Frequency	%	Frequency	%	Frequency	%
1=Dissatisfied	2	2.5	0	0	2	2.5
2=Satisfied	9	11.1	7	8.6	21	25.9
3=Pleased	70	86.4	74	91.4	58	71.6
Total	81	100	81	100	81	100

4.2. Correlational results

4.2.1. General hypothesis

H0: The quality of service is not significantly linked to the level of customer satisfaction of the clinics in East Lima during the COVID-19 pandemic, 2022.
Ha: The quality of service is notably linked to the level of customer satisfaction of clinics in East Lima during the COVID-19 pandemic, 2022.

As shown in Table 5, a significance of 0.000 is identified, in other words, the alternate hypothesis is

validated, since a nexus of the two evaluated variables is visualized, in addition, a correlational coefficient of 0.696 is observed manifesting a high correspondence of both variables.

4.2.2. First specific hypothesis

H0: Quality of service is not positively associated with perceived customer aspects of clinics in East Lima during the COVID-19 pandemic, 2022.
Ha: Quality of service is positively associated with perceived customer aspects of clinics in East Lima during the COVID-19 pandemic, 2022.

Table 5: Correlation of the variable quality of service and the variable level of satisfaction

			V1: Quality of service	V2: Level of satisfaction
Rho de Spearman	Quality of service	Correlation coefficient	1.000	.696**
		Sig. (bilateral)	0	.000
		N	81	81
	Level of satisfaction	Correlation coefficient	.696**	1.000
		Sig. (bilateral)	.000	0
		N	81	81

**: The correlation is significant at level 0.01 (bilateral)

As shown in Table 6, a significance of 0.000 is observed, thus approving the alternative hypothesis, since there is a connection between attentional quality and dimension aspects, also has a coefficient of 0.650, indicating a high degree link.

4.2.3. Second specific hypothesis

H0: Quality of service is not effectively connected to the perceived quality of customer care of clinics in East Lima during the COVID-19 pandemic, 2022.

Ha: Quality of service is effectively connected to the perceived quality of customer care of clinics in East Lima during the COVID-19 pandemic, 2022.

As shown in Table 7, a significance of 0.000<0.05 is appreciated, so that the alternative hypothesis is reaffirmed, since there is a connection between the quality of service and quality of care, a correlation of 0.419 is also visualized denoting a moderate link.

4.2.4. Third specific hypothesis

H0: Quality of service is not significantly linked to the client environment of clinics in East Lima during the COVID-19 pandemic, 2022.
Ha: Quality of service is significantly linked to the client environment of clinics in East Lima during the COVID-19 pandemic, 2022.

Table 6: Correlation of the variable quality of service and dimension aspects

			V1: Quality of service	D1: Aspects
Rho de Spearman	Quality of service	Correlation coefficient	1.000	.650**
		Sig. (bilateral)	0	.000
		N	81	81
	Aspects	Correlation coefficient	.650**	1.000
		Sig. (bilateral)	.000	0
		N	81	81

**: The correlation is significant at level 0.01 (bilateral)

As shown in Table 8, a reciprocal compatibility of 0.001<0.05 is identified, admitting the alternative hypothesis, because there is a connection concerning the quality of service and the environment, a correlative coefficient is also appreciated at 0.357, reflecting the correspondence of low degree of the variable and the dimension mentioned.

Table 7: Correlation of the variable quality of service and the dimension quality of care

			V1: Quality of service	D2: Quality of care
Rho de Spearman	Quality service	Correlation coefficient	1.000	.419**
		Sig. (bilateral)	0	.000
		N	81	81
	Quality of care	Correlation coefficient	.419**	1.000
		Sig. (bilateral)	.000	0
		N	81	81

**: The correlation is significant at level 0.01 (bilateral)

Table 8: Correlation of the variable quality of service and the environment dimension

			V1: Quality of service	D3: Environment
Rho de Spearman	Quality of service	Correlation coefficient	1.000	.357**
		Sig. (bilateral)	0	.001
		N	81	81
	Environment	Correlation coefficient	.357**	1.000
		Sig. (bilateral)	.001	0
		N	81	81

**: The correlation is significant at level 0.01 (bilateral)

5. Discussions

Having presented the general problem with the following question How is the quality of service linked to the level of customer satisfaction of the clinics in East Lima during the COVID-19 pandemic, 2022?, it was found as a result that according to the descriptive and inferential statistics that: A correspondence of high correlation and a significance of 0.000<0.05 coexist, that establishes the approval of the general hypothesis raised, in which the quality of service is associated with the satisfactory degree of the patients of the clinics of East Lima. Similarly, Chang et al. (2013) conducted in a Clinic indicates that there is a link between the variable quality of care and the variable patient satisfaction, with a significant degree of 0.000 and a correlation coefficient of 0.665. In accordance with what is stated in the specific problem number 1, i.e., how is the quality of service associated with the perceived aspects of the clients of the clinics in East Lima during the COVID-19 pandemic, 2022?, according to the statistics used, the high correlative pre-existence of the quality of service and the perceived aspects was found, with a sig. of 0.000 and a correlative coefficient in a 0.650, admitting the first specific hypothesis raised, in which the quality of service has a link with the perceived aspects of the patients of East Lima. Similarly, a study developed by Karaca and Durna (2019) produced a result of the direct link between attentional quality and empathy, understanding this dimension to personal aspects in attention, since it maintained a significance of 0.000 and a high correlation value of 0.676, thus giving a high-grade relationship between variable and dimension. Based on what is stated in the specific problem number 2, i.e., how does the quality of service connect with the perceived quality of care of the client of the clinics in East Lima during the COVID-19 pandemic, 2022?, it was found as a result that according to the descriptive and inferential statistics there is a moderate connection of the quality of care and the quality of care dimension, since there is a significance of 0.000<0.05 and a coefficient of 0.419, thus admitting the second specific hypothesis, revealing that the variable quality of care is effectively connected with the perceived quality of care of the patients of the clinics

in East Lima. Likewise, Karaca and Durna (2019) concluded with the existence of a connection between the quality of care and the reliability dimension, understanding this dimension with the care and guidance provided to the patient, where its p-value was 0.000, which is < to 0.05, as well as a coefficient of 0.653.

Having raised the specific problem number 3, i.e., how is the quality of service linked to the client's environment of the clinics in East Lima during the COVID-19 pandemic, 2022?, and according to the statistics carried out, the high link regarding the quality of service and the environment is affirmed, by virtue of the fact that there is reciprocal compatibility in a 0.001 and a correlative coefficient of 0.357, therefore, the third specific hypothesis presented is approved, where the quality of service is significantly linked to the environment of the recipient of the service of the clinics in East Lima. Likewise, in a similar study developed by Karaca and Durna (2019), the validity of the link between the quality of care and tangible aspects was found as a result, since it obtained a significant value of 0.000, this being < to 0.05, as well as a coefficient of 0.649.

6. Conclusions

The quality of service stands as a pivotal determinant in relation to the patient satisfaction index within the clinics of East Lima. This assertion is substantiated by the achieved statistical significance of 0.000, which is less than the conventional threshold of 0.05. Moreover, this relationship is underscored by a correlational coefficient of 0.696, indicating a substantial and positive association between the independent and dependent variables. Furthermore, a direct correlation is observed between the quality of service and the 'aspects' dimension. The bilateral significance level is recorded at 0.000, also falling below the threshold of 0.05. This statistical outcome aligns with the high correlation coefficient of 0.650, signifying a robust relationship between the quality of service and the first dimension of the dependent variable. In the context of the quality of service and its connection with the 'quality-of-care' dimension, a moderate correlation is evident. Here, the obtained significance level is 0.000, which remains lower than 0.05. Additionally, a coefficient of 0.419 is observed, falling within an acceptable range and indicating a discernible relationship between the variables. Finally, the quality of service exhibits a correlation with the 'environment' dimension. This correlation is marked by a significant degree of 0.001, again below the 0.05 threshold. Additionally, a correlational coefficient of 0.357 is noted, suggesting a meaningful link between the quality of service and the environmental aspect.

7. Recommendations

It is proposed that clinics prioritize the enhancement of factors associated with service quality, as this is likely to yield a favorable impact on the overall satisfaction levels of patients seeking their services. Furthermore, it is recommended that clinics place a strong emphasis on continuous improvement in the demeanor and interpersonal skills of their healthcare staff. This approach is expected to result in a more positive perception of the clinic's services among patients, particularly concerning service-related aspects. To further elevate patient satisfaction, it is suggested that clinics invest in ongoing training programs to augment the caregiving skills of their healthcare personnel. This strategic focus on skill development is anticipated to translate into a more timely and comprehensive index of patient satisfaction with the healthcare facility. Lastly, clinics are advised to persist in their efforts to enhance the infrastructure and equipment of their establishments. This proactive approach is a crucial evaluative component contributing to patients' perceived satisfaction with the clinic's services.

Compliance with ethical standards

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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