

Exploring the link between administrative management and service quality in elderly care centers: A correlational case study



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ABSTRACT

The purpose of this study was to explore the link between administrative management and service quality in Comprehensive Care Centers for the Elderly (CCCE) in Piura during 2021. This correlational study employed a quantitative, cross-sectional approach with a non-experimental design involving a census population of 40 staff members from the CCCE. Data were collected using two questionnaires addressing the study variables. The findings revealed a significant, moderate correlation between administrative management and service quality at these centers, as indicated by a Pearson correlation coefficient of 0.458** and a p-value of 0.003, significant at the 0.01 level. Furthermore, significant correlations were found between administrative management and specific service dimensions: Tangible elements (Pearson=0.528**; p=0.000<0.01); Reliability (Pearson=0.028; p=0.865>0.01); Responsiveness (Pearson=0.073; p=0.656>0.01); Security (Pearson=0.694**; p=0.000<0.01); and Empathy (Pearson=0.371*; p=0.019<0.01).

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1. Introduction

In today's global economy, organizations must enhance their efficiency and competitiveness to meet customer preferences. This improvement in service quality can provide a sustainable edge over competitors across various industries (Ismail and Yunan, 2016). Given the aging global population, services for the elderly are becoming increasingly crucial. Care centers must adapt as the number of older adults rises, requiring more efficient care and assistance services (Muñoz, 2018). It's estimated that the number of people over sixty will double by 2025 and reach two billion by 2050. In Latin America, the percentage of people over 60 was 8% and is expected to reach 14.1% by 2025.

Professionals in Comprehensive Care Centers for the Elderly (CCCE) are tasked with direct care, medication administration, and communication. These tasks often involve complex procedures that need professional knowledge and experience to effectively treat the elderly (Choy et al., 2018).

However, some studies indicate that current care systems for the elderly are underdeveloped and inefficient, struggling to meet their diverse needs (Ghavarshkar et al., 2018).

Despite the growing need for efficient elderly care, there is a lack of research on how older adults perceive health services (Peralta et al., 2019). Aging populations pose a public health challenge, necessitating efforts to ensure dignified and secure lives for the elderly (Quintana et al., 2018). Often, healthcare entities do not fully integrate evaluations of perceived quality with continuous improvement processes, which can negatively affect service quality (Gonzalez et al., 2018). These entities must focus on understanding and managing resources based on their clients' expectations and perceptions (Tsafarakis et al., 2018). CCCEs often lack sufficient staff for administrative tasks and policy-making that contribute to their development. Decisions are made independently at each center, without standardized management indicators for evaluating activities. Problem identification is typically empirical, and past experiences are not systematically analyzed or utilized for planning. Additionally, economic constraints from limited budgets and a lack of clear objectives and roles for staff can further degrade service quality, highlighting the importance of this study. Recent research has examined the links between administrative management and service quality. Altamirano (2020) found a significant

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correlation between these factors in a hospital setting, suggesting the need for better management practices to improve healthcare quality and patient satisfaction. Similarly, [Tapia \(2020\)](#) observed that better administrative management practices can positively impact the quality of care in health services. At a national level, [García \(2021\)](#) identified significant correlations between administrative management and various aspects of service quality, emphasizing the need for improved management actions to meet institutional goals effectively.

2. Methodology

This study adopts a quantitative, descriptive correlational, non-experimental, cross-sectional methodology ([Kumar, 2014](#)). It involved forty staff members from the Comprehensive Centers for the Elderly in Piura. Participant selection at these centers was guided by specific inclusion and exclusion criteria to ensure the data's relevance and reliability. Included were center personnel in good health who had voluntarily agreed to participate, ensuring that the data came from individuals both physically and mentally prepared. Excluded were staff who declined to answer certain questions, those from areas not targeted by the study, and those absent on the day of data collection. This approach helped focus the study on the appropriate group and maintained the consistency and accuracy of the data.

Data was collected using a survey, a method known for its efficiency in gathering information through closed-ended questions about the subjects' opinions, attitudes, knowledge, or suggestions ([Borgobello et al., 2019](#)). The survey measured constructs like administrative management and quality of service through questionnaires designed for this purpose. These questionnaires included variables that are often intangible, such as quality of life or stress, and are referred to as constructs ([Sarabia and Alconero, 2019](#)).

The Administrative Management questionnaire aimed to measure performance levels among administrative staff related to their management tasks. It included 16 items across four dimensions: Planning (4 items), Organization (5 items), Direction (4 items), and Control (3 items), rated on a Likert scale from "never" (1) to "always" (5).

Similarly, the Quality of Service questionnaire measured performance levels related to service quality. It consisted of 17 items spanning five dimensions: tangible elements (4 items), reliability (3 items), responsiveness (3 items), security (4 items), and empathy (3 items), using the same ordinal Likert scale. The reliability of the instruments was indicated by a consistent outcome when the questionnaire was administered repeatedly ([Grgic et al., 2020](#)). The Cronbach's alpha coefficient was determined, as shown in [Table 1](#). The study began with observational data collection from the target population and reviewed literature, including reports, scientific articles, and previous theses to support the research. Cooperation with the

Regional Coordinator of the Care Centers in Piura was established, who was informed about the study's objectives and significance. Dates were set to evaluate the administrative staff, and permission to apply the instruments was formally requested.

Prior to their evaluation, staff received an informed consent document detailing the study's goals and confirming their voluntary participation with no adverse repercussions for opting out. During the evaluation, researchers clarified any doubts about the questionnaires and expressed gratitude for the staff's participation. Data was then compiled into a database for statistical analysis.

The analysis primarily utilized descriptive statistics to provide a clear representation of the data attributes ([Jimenez, 2018](#)). Statistical inference was also employed to test hypotheses and determine causal relationships ([Castro, 2019](#)). The normal distribution of scores was confirmed by a Normality Test with a significance level above 0.05, suggesting the use of Pearson's inferential test for further analysis. Statistical analyses were conducted using SPSS version 25 and MS Excel 2019.

Table 1: Cronbach's alpha reliability coefficient

Variables	Cronbach's alpha	No. of items	Level
Administrative management	$\alpha=.948$	16	High
quality of service	$\alpha=.949$	17	High

3. Results

In [Table 2](#), we present the findings for each question related to administrative management at comprehensive healthcare centers. These results are detailed to provide insights into how the staff at these facilities perceive and interact with administrative management practices. In [Table 3](#), we display the results for each question related to the quality of service at the comprehensive healthcare centers. These findings help us understand how staff at these facilities perceive and implement service quality.

4. Discussion

The main objective of the study was to assess the relationship between administrative management and service quality in Comprehensive Care Centers for the Elderly in Piura in 2021. The results indicated a moderate correlation (Pearson coefficient = .458) with a statistically significant p-value of .003 (less than 0.01). This suggests that effective administrative management positively influences the quality of service provided in these centers.

The findings of this study are consistent with previous research. [García \(2021\)](#) identified a strong association between administrative management and service quality ($r = .752$; $p < 0.01$). Similarly, [Altamirano \(2020\)](#) found a significant link between administrative management and the levels of service quality (Rho = .894; $p < 0.01$), and [Romero \(2019\)](#) also reported a significant relationship between these variables (Rho = .682; $p < 0.01$).

Table 2: Administrative management of comprehensive health care centers for the elderly in Piura

Q1		Q2	
Always	1 (2.5%)	Always	2 (5.0%)
Almost always	11 (27.5%)	Almost always	22 (55.0%)
Occasionally	19 (47.5%)	Occasionally	12 (30.0%)
Almost never	7 (17.5%)	Almost never	3 (7.5%)
Never	2 (5.0%)	Never	1 (2.5%)
Q3		Q4	
Always	7 (17.5%)	Always	1 (2.5%)
Almost always	12 (30.0%)	Almost always	13 (32.5%)
Occasionally	14 (35.0%)	Occasionally	10 (25.0%)
Almost never	5 (12.5%)	Almost never	10 (25.0%)
Never	2 (5.0%)	Never	6 (15.0%)
Q5		Q6	
Always	4 (10.0%)	Always	8 (20.0%)
Almost always	11 (27.5%)	Almost always	23 (57.5%)
Occasionally	14 (35.0%)	Occasionally	8 (20.0%)
Almost never	4 (10.0%)	Never	1 (2.5%)
Never	7 (17.5%)		
Q7		Q8	
Always	11 (27.5%)	Always	12 (30.0%)
Almost always	17 (42.5%)	Almost always	16 (40.0%)
Occasionally	10 (25.0%)	Occasionally	9 (22.5%)
Almost never	1 (2.5%)	Never	3 (7.5%)
Never	1 (2.5%)		
Q9		Q10	
Always	3 (7.5%)	Always	8 (20.0%)
Almost always	8 (20.0%)	Almost always	14 (35.0%)
Occasionally	7 (17.5%)	Occasionally	11 (27.5%)
Almost never	11 (27.5%)	Almost never	2 (5.0%)
Never	11 (27.5%)	Never	5 (12.5%)
Q11		Q12	
Always	7 (17.5%)	Always	17 (42.5%)
Almost always	19 (47.5%)	Almost always	16 (40.0%)
Occasionally	11 (27.5%)	Occasionally	6 (15.0%)
Almost never	1 (2.5%)	Never	1 (2.5%)
Never	2 (5.0%)		
Q13		Q14	
Always	10 (25.0%)	Always	16 (40.0%)
Almost always	17 (42.5%)	Almost always	14 (35.0%)
Occasionally	12 (30.0%)	Occasionally	8 (20.0%)
Never	1 (2.5%)	Almost never	1 (2.5%)
		Never	1 (2.5%)
Q15		Q16	
Always	6 (15.0%)	Always	8 (20.0%)
Almost always	10 (25.0%)	Almost always	12 (30.0%)
Occasionally	16 (40.0%)	Occasionally	15 (37.5%)
Almost never	5 (12.5%)	Almost never	4 (10.0%)
Never	3 (7.5%)	Never	1 (2.5%)

As described, offering high-quality service allows organizations to gain distinct and lasting competitive advantages, regardless of their industry or the services they provide (Ismail and Yunan, 2016). However, Ghavarskhar et al. (2018) have noted that in less developed countries, systems for elderly care are often poorly designed and inefficient, failing to meet the diverse needs of the elderly population. Thus, service quality should align with customer expectations, which depend on both the perceived performance of the service and the underlying administrative management (Abd. Wahab et al., 2017).

It is crucial to develop better management strategies for healthcare workers and to enhance control over customer satisfaction and service adaptation. Effective administrative management and service quality are essential in healthcare centers. By recognizing and addressing the discrepancies between different CCCEs in the Piura

region, it becomes possible to tailor and improve both management practices and service quality.

Table 3: Quality of service of comprehensive health care centers for the elderly in Piura

Q17		Q18	
Always	6 (15.0%)	Always	10 (25.0%)
Almost always	22 (55.0%)	Almost always	17 (42.5%)
Occasionally	6 (15.0%)	Occasionally	9 (22.5%)
Almost never	5 (12.5%)	Almost never	3 (7.5%)
Never	1 (2.5%)	Never	1 (2.5%)
Q19		Q20	
Always	3 (7.5%)	Always	8 (8)
Almost always	12 (30.0%)	Almost always	18 (18)
Occasionally	16 (40.0%)	Occasionally	12 (12)
Almost never	7 (17.5%)	Almost never	1 (1)
Never	2 (5.0%)	Never	1 (1)
Q21		Q22	
Always	7 (17.5%)	Always	21 (52.5%)
Almost always	24 (60.0%)	Almost always	10 (25.0%)
Occasionally	8 (20.0%)	Occasionally	4 (10.0%)
Never	1 (2.5%)	Almost never	4 (10.0%)
		Never	1 (2.5%)
Q23		Q24	
Always	21 (52.5%)	Always	24 (60.0%)
Almost always	16 (40.0%)	Almost always	12 (30.0%)
Occasionally	2 (5.0%)	Occasionally	3 (7.5%)
Never	1 (2.5%)	Never	1 (2.5%)
Q25		Q26	
Always	23 (57.5%)	Always	17 (42.5%)
Almost always	14 (35.0%)	Almost always	18 (45.0%)
Occasionally	2 (5.0%)	Occasionally	4 (10.0%)
Almost never	1 (2.5%)	Almost never	1 (2.5%)
Q27		Q28	
Always	9 (22.5%)	Always	8 (20.0%)
Almost always	14 (35.0%)	Almost always	20 (50.0%)
Occasionally	14 (35.0%)	Occasionally	10 (25.0%)
Almost never	2 (5.0%)	Almost never	1 (2.5%)
Never	1 (2.5%)	Never	1 (2.5%)
Q29		Q30	
Always	15 (37.5%)	Always	17 (42.5%)
Almost always	17 (42.5%)	Almost always	15 (37.5%)
Occasionally	7 (17.5%)	Occasionally	8 (20.0%)
Never	1 (2.5%)		
Q31		Q32	
Always	12 (30.0%)	Always	21 (52.5%)
Almost always	17 (42.5%)	Almost always	16 (40.0%)
Occasionally	9 (22.5%)	Occasionally	2 (5.0%)
Almost never	2 (5.0%)	Almost never	1 (2.5%)
Q33			
Always	10 (25.0%)		
Almost always	17 (42.5%)		
Occasionally	9 (22.5%)		
Almost never	3 (7.5%)		
Never	1 (2.5%)		

Regarding specific objective 1, it was found that there is a significant association between administrative management and the tangible elements of service quality in Comprehensive Care Centers for the Elderly in the Piura Region, 2021. This association was indicated by a Pearson coefficient of .528, showing a moderate correlation with a p-value of .000, which is less than 0.01. This suggests that improvements in administrative management could enhance the perception of the tangible elements of quality at these centers. Tangible elements generally refer to the physical aspects of the facilities, such as the condition of buildings, equipment, and the appearance of staff (Ghotbabadi et al., 2015).

The findings align with Romero's (2019) study, which found a significant association between administrative management and tangible elements of service quality (Rho = .632; p < 0.01). This underscores the crucial role of effective administrative management, which involves specific activities and procedures that managers implement

using available resources, including material and human resources. According to [Gonzales et al. \(2021\)](#), managing personnel performance effectively leads to proper utilization of these resources, enhancing service quality if performance exceeds expectations ([Abd. Wahab et al., 2017](#)). Given the interdependence of various CCCEs, differences in administrative practices and quality can emerge, influenced by the tangible elements unique to each center. Thus, the more these management practices are tailored to meet the specific needs of each CCCE, the more likely they are to positively impact the overall quality of care provided. To ensure consistent service quality across the board, a feasible, sustainable, and regularly assessed monitoring system is essential. This system would help maintain high standards of care across all centers.

Regarding specific objective 2, it was found that there is no significant association between administrative management and the reliability dimension in Comprehensive Care Centers for the Elderly in the Piura Region, 2021. This was indicated by a Pearson coefficient of .028, demonstrating a low correlation and a p-value of .865, which is greater than 0.01. These results suggest that the variables analyzed are independent of each other and that other factors may influence the relationship. Theoretically, the reliability dimension pertains to the ability to deliver promised services in a reliable and accurate manner.

This outcome contrasts with previous research, such as [Romero \(2019\)](#), who found a significant correlation between administrative management and reliability (Rho = .863; $p < 0.01$). Similarly, [Casierra \(2018\)](#) identified a strong association between the performance function-related to service quality ($r = .802$; $p < 0.01$), and [García \(2021\)](#) noted a significant link in the accreditation dimension associated with administrative management ($r = .844$; $p < 0.01$). Both the performance function and accreditation are crucial aspects of reliability, reflecting the ability to fulfill service promises effectively.

It is noted that when an institution meets client expectations, customer satisfaction is strengthened, and clients are likely to repeat their purchasing or service use behaviors, leading to "customer loyalty" ([Silva-Treviño et al., 2021](#)). According to [Casierra \(2018\)](#), the performance of healthcare personnel is crucial in health centers for achieving goals where service quality is the primary expectation of those receiving care. Even though the findings of this study do not show a relationship in this area, the type of administrative management practiced still plays a critical role in delivering care services. This significance is underscored by the interdependence among different CCCEs, suggesting that administrative management remains essential regardless of the specific outcomes observed in this instance ([Casierra, 2018](#)).

For specific objective 3, it was found that there is no significant association between administrative

management and the responsiveness dimension in Comprehensive Care Centers for the Elderly in the Piura Region, 2021. This conclusion was supported by a Pearson coefficient of .073, indicating a low correlation and a p-value of .656, which is above 0.05. These results suggest that the variables are independent and that other factors may influence this relationship. Theoretically, the responsiveness dimension involves how swiftly and effectively a service addresses and meets the client's needs.

The findings of this study contrast with those of previous research. [Romero \(2019\)](#) observed a significant relationship between administrative management and the responsiveness dimension (Rho = .789; $p < 0.01$). Similarly, [García \(2021\)](#) found a significant association between administrative management and the reception dimension of service quality ($r = .867$; $p < 0.01$). These differences suggest that other factors may be influencing the relationship in the context of this study.

Despite the findings of this study, which show no significant association between administrative management and responsiveness, it is essential, as [Tsafarakis et al. \(2018\)](#) suggested, for service organizations to align their activities and resource management with the knowledge of and needs of their customers. This alignment involves understanding customer expectations and perceptions of the services offered. Administrative management is crucial due to its systematic nature, which involves consistently directed actions toward achieving goals ([Mendoza, 2017](#)). The lack of association found in this study could reflect the actual conditions within each CCCE, as each center has its unique objectives and goals, administrative procedures, and varying capabilities in responding to needs ([Mendoza, 2017](#)). Therefore, it is crucial to tailor efforts to the specific needs and realities of each institution. Developing appropriate policies and strategies to enhance service quality, including effective measures for evaluating the objectives of each CCCE, will ensure the efficient use of resources and improve the overall quality of service provided ([Barajas-Nava et al., 2022](#)).

In relation to specific objective 4, a significant association was found between administrative management and the security dimension in Comprehensive Care Centers for the Elderly in the Piura Region, 2021. This was evidenced by a Pearson coefficient of .694, indicating a high correlation, with a p-value of .000, which is less than 0.01. This suggests that strong administrative management is linked to higher security in the quality of service provided. Theoretically, the security dimension relates to the knowledge and capability of staff to inspire confidence in their services. These results are consistent with [García's \(2021\)](#) research, which showed a significant association between administrative management and the service determination dimension ($r = .790$; $p < 0.01$), and [Romero's \(2019\)](#) study, which identified a significant relationship between administrative management

and the guarantee dimension of service ($Rho = .684$; $p < 0.01$).

It is important to note that in CCCEs, professionals are required to perform direct care activities, many of which involve complex procedures that necessitate professional knowledge and experience to effectively treat the elderly (Choy et al., 2018). Consequently, as Casierra (2018) suggests, effective administrative management is essential to equip staff with the necessary institutional knowledge, which significantly impacts the quality of service provided ($r = .684$; $p < 0.001$).

For specific objective 5, a significant relationship was identified between administrative management and the empathy dimension in Comprehensive Care Centers for the Elderly in the Piura Region, 2021. This relationship was marked by a Pearson coefficient of .371, indicating a low correlation, with a p-value of 0.019, which is less than 0.05. This finding suggests that improved administrative management can enhance the level of empathy in the services provided. Theoretically, the empathy dimension encompasses the ability to perceive and understand clients' needs, recognize these needs, and provide personalized attention (Ghotbabadi et al., 2015). This result aligns with Romero's (2019) research, which demonstrated a significant correlation between administrative management and the empathy dimension in service quality ($Rho = .931$; $p < 0.01$), and Casierra's (2018) study, which linked the quality of service to the degree of interpersonal relationships ($r = .656$; $p < 0.01$).

As previously mentioned, it is crucial to implement effective administrative management that can maintain a high standard of care by identifying the needs of its users (Gonzalez et al., 2018). Romero (2019) emphasized that care staff must experience effective administrative management, which significantly affects their ability to provide quality attention and assistance to users. The aging population presents a significant public health challenge, necessitating specific management strategies and quality care to ensure a dignified and safe life for the elderly (Quintana et al., 2018). Therefore, it is necessary to develop plans that ensure consistent quality of care, aiming to reduce waiting times, improve service organization, and more. Continuous monitoring is essential to enhance service quality, satisfaction, and care processes within each CCCE, tailored to meet their specific realities and needs.

5. Conclusions

The following conclusions can be drawn from this study:

- The analysis showed a significant relationship between administrative management and service quality in the Comprehensive Care Centers for the Elderly in the Piura Region, 2021, with a correlation coefficient $r = .458$ and a p-value = 0.003.

- There was a significant correlation between administrative management and the tangible elements dimension at these care centers, with a correlation coefficient $r = .528$ and a p-value = 0.000.
- No significant correlation was found between administrative management and the reliability dimension in these centers ($r = 0.028$; $p = 0.865$).
- There was also no significant association between administrative management and the responsiveness dimension in these centers ($r = 0.073$; $p = 0.656$).
- A significant relationship was observed between administrative management and the security dimension, with a correlation coefficient $r = .694$ and a p-value = 0.000.
- A significant association was also found between administrative management and the empathy dimension, with a correlation coefficient $r = .371$ and a p-value = 0.019.
- It is recommended that CCCE executives conduct a comprehensive diagnostic analysis across all areas and facilities to plan actions for both administrative management and service quality improvement.
- CCCE managers should develop labor division plans according to the various areas and facilities in the Piura Region to ensure proper organization of tangible aspects and effective measurement of service outcomes.
- The administrative management at CCCEs is advised to establish ongoing improvement and evaluation plans for service management to maintain high standards of service quality.
- Administrative leaders should implement monitoring, control, follow-up, and evaluation actions for activities that involve personalized and specific treatment of patients with unique needs, ensuring clear and precise work for each user's requirements.
- Administrative management should provide ongoing training and course implementation for care personnel at CCCEs, supporting the continuous development of their skills and competencies, thereby enhancing service quality.
- Future researchers are encouraged to expand on this study with similar populations or explore different methodologies that might impact the analyzed variables.

Compliance with ethical standards

Ethical considerations

This study adhered to ethical principles and respected the privacy and confidentiality of the participants, ensuring clarity in its objectives and scope. The freedom of decision-making for the participants was recognized. The ethical principles followed included: i) Beneficence, which ensured that the research provided benefits to the participants while respecting their personal well-being. ii) Non-maleficence, ensuring the personal

integrity of the participants was maintained throughout the study. iii) Autonomy, affirming that each participant was informed of their freedom to partake in the study voluntarily. iv) Justice, which guaranteed that all participants were treated with respect and without discrimination.

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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