THE EFFECT OF EMPLOYEE ORGANIZATIONAL CITIZENSHIP BEHAVIOR ON SERVICE QUALITY: THE CASE OF WOLKITE UNIVERSITY SPECIALIZED HOSPITAL

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Abstract: This explanatory mixed method study examines the impact of Organizational Citizenship Behavior (OCB) on service quality (SERVQUA) at Wolkite University Specialized Hospital (WUSH). The research investigates the relationship between different OCB dimensions and healthcare service quality, utilizing both quantitative data from 216 respondents and qualitative insights from interviews of 14 informants. Proportional stratified sampling was used to select the sample. Data were collected using a questionnaire which was adapted and had 0.91 Cronbach alpha reliability coefficient. Before collecting the actual data, the questionnaire was pilot tested with fifteen percent of the total sample size, with respondents who did not participate in the study. The quantitative data was analyzed using SPSS-20 software. Descriptive statistics (mean) was employed to summarize the responses, analyze the level of OCB and SERVQUA. For measuring whether there is a relationship between OCB & SERVQUA Pearson correlation was also computed, besides multiple linear regression was used to show the effect of OCB on SERVQUA. Seven assumptions were tested before running the regression and it was found out that the model fit for predicting, overall level of significance for ANOVA ($P< 0.05$). The results show that WUSH employees demonstrate high levels of OCB, especially in altruism, courtesy, and conscientiousness. The level of influence of these predictor variables as determined by the value of Standardized Beta Coefficients was found to positively and significantly affect service quality, with altruism having the strongest influence, in SERVQUA, followed by conscientiousness & courtesy and civic virtue. While sportsmanship did not directly have an influence on service quality, it was recognized for contributing to a positive work atmosphere. The study indicates that 56% of the variance in service quality is explained by OCB, underscoring its vital role in improving patient care and organizational performance. The findings stress the importance of nurturing altruism, conscientiousness, and courtesy within healthcare institutions to enhance service quality. The study recommends promoting altruism through recognition programs, developing conscientiousness and courtesy through professional training, and addressing obstacles to sportsmanship. Furthermore, future research is suggested to investigate additional factors that may influence service quality at WUSH., offering insights for policymakers and scholars seeking sustainable solutions in climate-stressed regions.

Keywords: effect, citizenship behavior, service quality

1. Introduction

Organizational Citizenship Behavior (OCB) refers to discretionary actions beyond official duties that support organizational well-being (Organ, 1988). In healthcare, OCB is vital for the teamwork and communication required for effective patient care (Williams & Anderson, 1991). The Ethiopian healthcare landscape, characterized by limited resources and high patient loads, relies on these behaviors. Ethiopia's collectivist culture may further enhance OCB through communal values and mutual support (Hofstede, 1980). Despite a significant increase in medical institutions over the last decade (MOH, 2020), maintaining service quality remains a priority.

Empirical evidence suggests OCB boosts organizational commitment and job satisfaction, ultimately enhancing service quality (Podsakoff et al., 2000). This relationship is grounded in Social Exchange Theory, where employees reciprocate organizational support with positive behaviors (Blau, 1964; Cropanzano & Mitchell, 2005). Furthermore, the Service-Profit Chain model links employee satisfaction and OCB directly to improved patient experiences (Heskett et al., 1994).

Service quality is often measured using the SERVQUAL Model, encompassing tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). In institutions like Wolkite University Specialized Hospital (WUSH), OCB is expected to improve these dimensions. However, research on the OCB-service quality link in Ethiopia is scarce, with existing studies focused on other sectors like hospitality or aviation (Kim & Park, 2017; Abdu, 2018). This study addresses this gap by investigating how fostering OCB at WUSH can enhance patient outcomes and organizational effectiveness.

1.1. Statement of the Problem

A perceived lack of OCB among employees at WUSH has led to practical issues, including decreased service quality, operational inefficiencies, and low employee morale (Organ, 1988). Despite the recognized importance of OCB, there is a significant knowledge gap regarding its interplay with service quality in Ethiopian healthcare (Chughtai et al., 2015). Most existing research lacks context-specific insights for Ethiopian teaching hospitals, hindering the development of evidence-based management policies.

Methodologically, previous Ethiopian studies (e.g., Abdu, 2018) often relied on limited correlational designs and small sample sizes. Furthermore, while literature exists for OCB and service quality separately, integrated studies in specialized teaching hospitals are virtually non-existent in the Ethiopian context.

Current observations at WUSH reveal a contradiction: while the hospital's 2022 customer satisfaction survey reported a 72.5% rating, quarterly evaluations and community feedback suggest persistent quality concerns. This study aims to resolve these discrepancies by empirically testing the effect of OCB on SERVQUAL dimensions at WUSH, providing recommendations to improve patient satisfaction and hospital efficiency.

1.2. Objective of the Study

1.4.1 General Objective: To investigate how OCB affects service quality (SERVQUAL) at WUSH. 1.4.2 Specific Objectives:

1. Identify the elements of OCB demonstrated by WUSH employees.
2. Analyze the relationship between OCB elements and health service quality.
3. Examine the overall effect of OCB on service quality at WUSH.

1.3. Significance of Study

This research provides empirical data from a non-Western setting, contributing to the global academic discourse on OCB. Practically, the findings will guide WUSH management and Ethiopian policymakers in developing strategic plans to enhance employee engagement, patient satisfaction, and hospital efficiency.

1.4. Scope of the Study

The study focuses on medical and administrative staff at WUSH. Independent variables include OCB dimensions (altruism, conscientiousness, sportsmanship, courtesy, and civic virtue), while the dependent variable is service quality (reliability, responsiveness, assurance, and empathy). Data will be collected via descriptive surveys and qualitative interviews, analyzed through multiple regression.

1.5. Limitations of the Study

The study relies on self-reported data, which may introduce bias. To mitigate this, results are triangulated with interviews from department coordinators and managers. Additionally, the research is geographically confined to WUSH due to resource constraints.

1.6. Definition of Variables

- OCB: Voluntary behaviors exceeding formal duties to enhance organizational success (Organ, 1988).

- Service Quality (SERVQUAL): The extent to which hospital services meet or exceed patient expectations (Parasuraman et al., 1985).
- Altruism: Helping colleagues with tasks.
- Conscientiousness: High dedication beyond basic expectations.
- Civic Virtue: Responsible participation in organizational life.
- Sportsmanship: Maintaining a positive attitude amid challenges.

Courtesy: Preventing conflict through respect and consideration

2. REVIEW OF RELATED LITERATURE

The purpose of this review is to examine the theoretical underpinnings, empirical data, and conceptual frameworks regarding Organizational Citizenship Behavior (OCB), service quality, and their interrelationship within healthcare, specifically for Wolkite University Specialized Hospital (WUSH).

2.1. Organizational Citizenship Behavior (OCB)

OCB refers to employees' discretionary behaviors that exceed formal job requirements to support organizational functioning (Organ, 1988). Dimensions originally proposed by Smith et al. (1983) include altruism, conscientiousness, sportsmanship, courtesy, and civic virtue. These behaviors capture facets like assisting colleagues, maintaining a positive attitude, and organizational loyalty. Empirical research indicates that OCB positively impacts performance, organizational commitment, and job satisfaction (Podsakoff et al., 2000). In healthcare, OCB is linked to improved cooperation and patient care coordination (Organ et al., 2006). Bolino et al. (2008) argue that healthcare workers exhibiting OCB better align with organizational values, ultimately enhancing patient outcomes.

2.2. Healthcare Service Quality

Service quality is defined by how effectively delivery meets or exceeds patient expectations (Parasuraman et al., 1985). The SERVQUAL model remains the primary framework for evaluation, identifying five dimensions: tangibles (physical environment), reliability (consistency), responsiveness (promptness), assurance (expertise), and empathy (compassion). Higher service quality consistently correlates with increased patient trust, satisfaction, and treatment adherence (Bitner et al., 2000).

2.3. The Relationship between OCB and SERVQUAL

Theoretical models suggest OCB influences service quality by fostering a culture of excellence. Specific dimensions of OCB drive distinct quality outcomes:

- Altruism: Voluntary assistance to colleagues and patients personalizes care and reduces wait times (Lee & Allen, 2002).
- Conscientiousness: Diligence and protocol adherence ensure reliability, precision, and patient safety (Judge & Bono, 2001).
- Sportsmanship: Maintaining a positive attitude under stress preserves a harmonious work environment and smoother patient interactions (Moorman, 1991).
- Civic Virtue: Participation in hospital governance and policy improvement leads to operational innovations and better resource utilization (Podsakoff et al., 2000).
- Courtesy: Professionalism and empathetic communication improve the patient's emotional experience and build institutional trust (Smith et al., 1999).

While cross-industry research supports the positive correlation between OCB and quality, there is a significant gap in empirical studies focused on the Ethiopian healthcare context, making this study at WUSH particularly timely.

2.4. Empirical Evidence: OCB's Effect on Service Quality

Evidence across various sectors supports the OCB-quality link. In the hospitality sector, Kim and Park (2017) found a positive correlation between employee OCB and customer perceptions of quality. In healthcare, studies suggest OCB improves patient care and operational efficiency by facilitating better staff coordination (Hwang & Chang, 2008).

Research by Zohar (2000) indicates that hospitals with high OCB levels provide more personalized care, leading to superior health outcomes. Locally, Ekeram (2018) demonstrated that OCB significantly influences service quality at Ethiopian Airlines, suggesting similar dynamics may exist in Ethiopian healthcare. At WUSH, where resources may be constrained, OCB could mitigate inefficiencies and facilitate smoother patient experiences through a collaborative workforce.

2.5. Theoretical Frameworks

Two primary theories explain the OCB-quality mechanism:

1. Social Exchange Theory (SET): Suggests employees engage in OCB to reciprocate perceived organizational support and positive working conditions (Blau, 1964; Rhoades & Eisenberger, 2002).
2. Job Characteristics Model (JCM): Argues that job designs offering autonomy and task significance encourage discretionary behaviors like OCB, as providers feel their work positively impacts patient lives (Hackman & Oldham, 1976).

2.6. Service Quality Conceptualization

Perceived quality is a subjective assessment of excellence derived from comparing expectations against actual performance (Zeithaml, 1987). It differs from "objective quality" (mechanical/standard-based) in that it is an overall attitude toward service superiority (Garvin, 1983). The SERVQUAL scale, consolidating ten original dimensions into five, remains the foundational framework for measuring these subjective perceptions.

2.7. Study Variables

- Independent Variable: Organizational Citizenship Behavior (OCB)—discretionary actions like helping colleagues and punctuality that support organizational efficiency (Organ, 1988).
- Dependent Variable: Service Quality—measured through tangibles, assurance, empathy, responsiveness, and dependability (Parasuraman et al., 1985).

2.8. Conceptual Framework

The anticipated relationship positions OCB as the driver of service quality. This study investigates how the five dimensions of OCB directly influence the five dimensions of SERVQUAL at WUSH, aiming to provide hospital management with insights to harness these behaviors for improved operational efficiency and patient satisfaction.

3. RESEARCH METHODOLOGY

3.1. Description of Study Area and Population

Gurage Zone is situated in the Central Ethiopia Regional State and is inhabited by the Gurage people. It is located at about 270 KM from the capital Addis Ababa and WUSH is found 11 KM from Wolkite which is the capital of Gurage zone. WUSH comprises about 13 departments which include internal medicine, general surgery, pediatrics and child health specialty care, gynecology & obstetrics, orthopedics, ethology, radiology, dental care, eye care, dermatology and adult ICU (www.wolkite.edu.et, n.d). This study is conducted during the period of May 2024 up to March 2025.

3.2 Research Design

This study is explanatory research since it aims to elucidate the connections between OCB and service quality and uncover its root causes. Unlike descriptive research, which focuses on detailing characteristics or patterns, or exploratory research, which investigates new areas with limited information, explanatory research seeks to understand the reasons behind specific conditions or behaviors (Creswell (2009). Collection and analysis of quantitative and qualitative data took place parallelly which makes the study an explanatory concurrent mixed methods design.

3.3. Research Approach

This study is a cross-sectional study. It uses a mixed approach which includes both quantitative and qualitative approaches in data collection and analysis. Quantitative data on the impact of OCB on SERVQUA is collected through questionnaire, and qualitative data about how OCB affects SERVQUA is gathered using semi-structured interview. Quantitative data is also used to examine the level and type of OCB exhibited by participating health care staff at WUSH. Interview was employed to integrate the data obtained through questionnaire about the effect of OCB on SERVQUA and verify it with the data collected about the perceptions and opinions of participants with regards to the relationship between OCB and service quality.

3.4. Target Population

The target population of the study is health care service providers which include health professionals and administrative workers on duty in 2024/25. It has a total of 485 health service providers.

3.5. Sampling techniques and sample size determination

Proportional stratified random sampling technique is used to choose the sample for the quantitative phase, guaranteeing representation from various hospital departments and employment role. Different departments (like nursing, administration, and medical) and employment responsibilities (like doctors, nurses, and administrative staff) are included in the strata. A random selection process is used to choose study participants from each stratum. A sampling frame for each functional department such as nursing staff, medicine, etc. are collected and respondents are randomly selected based on the sample size indicated below.

The researcher has determined the required sample size by deriving Yamane formula (1967). Then the desired sample is allocated proportionally to each sub-group or stratum.

n= N/1+N(e)2 where, n=desired sample size
N=total number of populations=977
e= error (5%) = 0.05
n=485/1+485(0.05)2 =485/1+1.21=485/2.21=220

An additional 10 percent of the sample size is determined by the above formula to consider the non-responding questionnaire since some questionnaires may not be filled and returned. Therefore, the sample size becomes (220+22) = 242

Table-1. Sample size

	Target population	Number of populations by sub-group or stratum	Sample size
	Doctors, including residents	111	50
	Nurses (clinical & midwives)	141	64

	Medical laboratory technicians	24	11
	Pharmacist	16	8
	Other health professionals	34	15
	Administrative & support staff	159	72
	Total	**485**	**220**
	10%=		**22**

Simple random sampling was employed to select the stated number of respondents based on the indicated sample size.

For interview data collection, purposive sampling is employed throughout the qualitative phase to choose individuals or respondents from each functional unit of the hospital (nursing, doctors, health officers, administrative staff, heads, etc) who can offer a variety of insightful viewpoints on OCB.

3.6. Source of data and collection Methods

Both primary and secondary data sources were utilized in the current study. Primary data is collected from sample respondents and interviewees. The tools used for gathering primary data include questionnaires and semi-structured interviews. The researcher has used questionnaire to collect data from the chosen sample respondents, and semi-structured interview questions have been developed for this purpose.

The data collection tools are designed so as to measure the objectives listed in the study. The clarity and strengths of the tools are evaluated by senior experts from the department of management in Wolkite University. The questionnaire and interview data are collected concurrently, and the analysis is made after the collection of both types of data and the results converged. About 14 interviews are conducted with selected staff respondents. The interview is tape recorded and transcribed for data analysis.

3.7. Data collection Instrument

3.7.1. Quantitative Data Collection Instrument

A survey questionnaire was administered to hospital staff members to examine their levels of OCB and their perceptions of SERVQUA at WUSH.

3.7.1.1. OCB Questionnaire

To collect thorough data, the following tools were used followed by demographic information items. The first part of the questionnaire, the OCB questionnaire was modified from Podsakoff et al.1990 version. This tool will be changed to better suit WUSH's operational and cultural setting. The five acknowledged OCB dimensions—according to Podsakoff et al.'s 1990 include altruism, conscientiousness, sportsmanship, courtesy and civic virtue—were represented in the first section of the questionnaire. Respondents were rated how they perceive they engage in different behaviors associated with each dimension.

Altruism: Behaviors focused on aiding specific individuals in specific situations, such as supporting a new employee with their work without being asked.

Conscientiousness: Exceeding fundamental job standards in terms of quality and quantity, such being punctual and sticking rigorously to corporate guidelines.

Sportsmanship: is the ability to have positive and optimistic stand when facing challenges Courtesy: Preventive actions to lessen interpersonal conflicts at work, include alerting colleagues to changes that may have an impact on them.

Civic virtues include taking part in hospital upgrades and attending meetings to show support and involvement for the organization. Hence, 24 OCB items developed by (Podsakoff, 1990) and which were adapted and tested having a reliability coefficient of 0.92 (Podsakoff et al., 2006) were used in the current study. The scale used in the questionnaire were five-point Likert scales, 1 representing strongly disagreement to 5 denoting strongly agree.

1.4.1.1. SERVQUAL Questionnaire

The second part of the questionnaire contained the SERVQUA scale items, prepared by Parasuraman et al. (1988) was adapted to fit the context of WUSH. This part of the adapted questionnaire, having a reliability coefficient of 0.9, was used for the current study to evaluate the quality of healthcare service at WUTSH from the viewpoints of employees. The items in SERVQUA part of the questionnaire were aspects of service quality related to responsiveness, reliability, empathy and assurance.

Reliability: The ability to provide the promised service accurately and consistently.
Responsiveness: The capability to support clients and provide prompt service.
Assurance: The staff's skill, courtesy, and ability to build trust and confidence.
Empathy: The hospital offers compassionate and personalized care to each patient

3.7.2. Pilot study

To consider cultural context while operationalizing the construction of OCB, the scale was subjected to pilot testing which includes an initial reliability test conducted on 15% of the total sample size. A discussion of each item with respondents and experts in the department of management was made to give clarity and precision of the items. The items in the questionnaire that were identified to lack internal consistency or those that seemed to be contextually imprecise and irrelevant were slightly adjusted.

3.7.1.2. Interview

To seek additional data on the relationship between OCB and service quality and triangulate the data collected through questionnaire, semi- interview was supported using an interview guide. The participants were purposefully selected from each functional department of WUSH. Semi-structured interviews were held with selected customer service department coordinators, hospital managers and senior employees.

3.8. Validity and Reliability

Polit and Hungler (1993) describe reliability as the degree to which an instrument consistently measures the attribute it is intended to evaluate. The overall reliability of the questionnaire was assessed using Cronbach's alpha coefficient, which yielded a value of 0.91. The questionnaires distributed to the employees are evaluated for consistency in measurement. To ensure reliability, efforts made to minimize potential sources of measurement error, such as bias from data collectors and participants' voluntary consent to either participate or decline. This helped validate the collected data and ensured it accurately represented the respondents' views. To maintain face validity throughout the process, the researcher has received feedback and guidance from the advisor. The sample size is appropriate, and the questionnaires were previously used in other studies, with only some modifications made. Additionally, before distribution, the questionnaires are reviewed by the selected employees of WUSH. Content validity is further strengthened by maintaining consistency in the administration of the questionnaires, with all of them being personally distributed by the researcher. The questions are designed using clear, simple language to ensure ease of understanding, and explicit instructions are provided to the participants.

3.9. Procedures of data collection

Before collecting data an official letter from the department of management for granting permission has been submitted to WUSH. In order to guarantee accuracy and consistency in the administration of the survey instruments, three research assistants participated in extensive training sessions. Ethics, appropriate survey administration methods, and participant inquiry procedures are covered in the training. The surveys are conducted in two ways. The first of which is google form in which selected employees based on their choice given the link for the google form. The other respondents who have no access to the internet are given to fill the questionnaire with paper and pencil by giving them clear instructions on how to complete the surveys. The data collection took place in the month of January 2025. Since the study employs an explanatory concurrent mixed method, data collection and analysis of quantitative and qualitative data were executed parallelly.

3.10. Methods of Data Analysis

Before data analysis, data preparation for cleaning and organizing the data by coding responses, addressing missing data, and ensuring consistency was made. For quantitative data analysis SPSS software version-20 was used.

Descriptive statistics was utilized to summarize survey responses and to summarize demographic characteristics of the sample staff and generalize them. Whereas, inferential statistics, multiple linear regression analysis model (MLRM), was used to investigate the relationship and the magnitude of impact between OCB and SERVQUA and generalize to the population. Before analyzing the data using regression analysis the ordinal data were transformed, and composite mean was computed to make the data continuous. Data collected through interviews were transcribed and analyzed thematically.

3.11. Model Specification

The current study investigates the effect of Organizational Citizenship Behavior (OCB) on Service Quality (SERVQUA) at WUSH. The independent variable OCB discretionary behavior includes five dimensions such as altruism (helping others in the workplace), conscientiousness (going beyond the minimum requirements), sportsmanship (maintaining positive attitude despite challenges, Civic Virtues (Engaging in Organizational Life) and courtesy (Promoting Positive Work Relationships). The OCB variables are measured in a five-Likert scale, which is categorical. The dependent variable SERVQUA is continuous data. The effect of OCB on SERVQUA is measured using Multiple Linear Regression Model (MLRM).

The multiple linear regression equation is shown below.

$$Y=B0+B1X1 + B2X2+B3X3+B4X4+B5X5 +E$$

Where y is the response variable SERVQUA, x1, x2, x3, x4 and x5 are the predictor variables altruism, conscientiousness, sportsmanship, courtesy and civic virtue respectively, b0 is the constant (intercept) and e the error term.

The relationship between the predictor variables and response variables is interpreted as:

For increase in one unit of Y by the dependent variable SERVQUA, the independent variables altruism (X1), conscientiousness (X2), sportsmanship(X3), courtesy(X4) and civic virtue(X5) increase by B1, B2, B3, B4 & B5 respectively.

In using MLRM in the study some assumptions are made which include linearity, independence, homoscedasticity, normality of residuals and multicollinearity problems among independent variables are tested.

Besides R^2 is used to indicate the percentage of variation in the dependent variable (SERQUA) that can be ascribed to the independent variables (dimensions of OCB) in the model. To assess how effectively the dimensions of OCB collectively account for the changes observed in SERVQUA, R-squared measure is used. High R^2 suggests that a significant proportion of the variability in Service Quality is accounted for by the OCB dimensions, indicating a strong model fit, and low R^2 indicates that OCB dimensions explain only a small fraction of the variance in Service Quality, suggesting that other factors might be influencing SERVQUA.

Multicollinearity will be used to ensure that the dimensions of OCB are not excessively correlated with one another, which could interfere with the interpretation of their separate effects on Service Quality. For detection of multicollinearity, the Variance Inflation Factor (VIF) and the Condition Index will be calculated. Typically, a VIF above 10 or a Condition Index exceeding 30 signals significant multi-collinearity.

Thorough testing for these elements enhances the robustness and credibility of the model, ensuring more accurate insights into the effects of Organizational Citizenship Behavior on Service Quality.

3.12. Ethical Considerations

Informed consent was achieved through letting respondents guarantee permission detailing the study's objectives, the participants' voluntary involvement, confidentiality guarantees, and their right to withdraw from the study at any time without penalty are given. To protect participant privacy, participant identities were anonymized, and all obtained data were treated with absolute confidentiality. Only authorized research staff had access to the data.

3. RESEARCH METHODOLOGY

3.1. Study Area and Population

Wolkite University Specialized Hospital (WUSH) is located in the Gurage Zone, 270 km from Addis Ababa. It comprises 13 departments, including Internal Medicine, Surgery, Pediatrics, and ICU. The study population includes 485 healthcare providers and administrative staff on duty during the study period (May 2024 – March 2025).

3.2. Research Design and Approach

This study employs explanatory concurrent mixed methods design with a cross-sectional approach. Quantitative data (questionnaires) and qualitative data (semi-structured interviews) were collected and analyzed in parallel to elucidate the causal relationship between Organizational Citizenship Behavior (OCB) and service quality (SERVQUAL) (Creswell, 2009).

3.3. Sampling and Sample Size

Proportional stratified random sampling was used for the quantitative phase to ensure representation across departments. The sample size (n) was determined using the Yamane (1967) formula and adding a 10% non-response buffer, the final sample size is 242. Purposive sampling was utilized to select 14 participants for qualitative interviews.

Table 1: Sample Size Distribution

Stratum	Population	Sample	Stratum	Population	Sample
Doctors/Residents	111	50	Pharmacists	16	8
Nurses/Midwives	141	64	Other Health	34	15
Lab Technicians	24	11	Admin/Support	159	72
Total	485	220	+10% Buffer		242

3.4. Data Collection Instruments

- OCB Questionnaire: Adapted from Podsakoff et al. (1990/2006), measuring five dimensions: Altruism, Conscientiousness, Sportsmanship, Courtesy, and Civic Virtue. It uses 24 items on a 5-point Likert scale ($\alpha = 0.92$).

- SERVQUAL Questionnaire: Adapted from Parasuraman et al. (1988), assessing Reliability, Responsiveness, Assurance, and Empathy ($\alpha = 0.90$).
- Interview Guide: Used for semi-structured interviews with managers and senior staff to triangulate quantitative findings.
- Pilot Study: Conducted 15% of the sample to refine item clarity and contextual relevance.

3.5. Validity and Reliability

Instrument reliability was confirmed with an overall Cronbach's alpha of 0.91. Content and face validity were ensured through advisor feedback, expert review from Wolkite University's Management Department, and consistent administration by the researcher to minimize measurement error.

3.6. Data Collection Procedures

Following ethical clearance, three trained assistants administered surveys in January 2025 via Google Forms and paper-based questionnaires. Quantitative and qualitative data were collected concurrently in alignment with the explanatory mixed-methods design.

3.7. Data Analysis and Model Specification

Quantitative data were analyzed using SPSS v20. Descriptive statistics summarized demographics, while Multiple Linear Regression (MLR) assessed the impact of OCB dimensions on SERVQUAL. Qualitative interviews were transcribed and analyzed thematically.

The Regression Model: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$

- Y: SERVQUAL (Dependent Variable)
- $X_1 - X_5$: Altruism, Conscientiousness, Sportsmanship, Courtesy, and Civic Virtue (Independent Variables).

Assumptions Testing: The model was tested for linearity, independence, homoscedasticity, and normality. Multicollinearity was monitored via Variance Inflation Factor (VIF < 10) and Condition Index (< 30). R^2 was used to measure the variance in service quality explained by the OCB dimensions.

3.8. Ethical Considerations

Participants provided informed consent following a briefing on the study objectives and their right to withdraw. Data were anonymized and treated with strict confidentiality, with access restricted to authorized research personnel.

4.1. Results of Study

The descriptive statistical analysis indicates that the total number of questionnaires distributed to respondents is 242 of which 216 questionnaires were returned and the rest 26 were not completed and given back. The questionnaires which were not returned were those in which respondents were asked to fill out in google form. The response rate of the study is 95.5%.

Table-2 Response Rate

Status of the questionnaire	Number of questionnaires	Percent
Completed/returned	216	89.3

Not completed/ unreturned	26	10.7
Total	**242**	**100**

The questionnaire (appendix-) was developed containing a five-point Likert scale that range 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4- Agree and 5-Strongly Agree. In interpreting the results, a mean score of less than 3 is taken as disagreement, a mean score of greater than 3 as agreement to the item or the variable and a mean which equals to 3 is interpreted as neutral (Yonas, 2013). Descriptive statistics is used to generalize the findings of the study to the sample and inferential statistics, Multiple Linear Regression Model, is used to make inference of the results to the population.

The respondents' demographic profiles collected include gender, age, experience and qualification are briefly described below.

4.1.1. Demographic Data

Table-3. Summary of demographic data

Respondents' Demography		Frequency	Percent
Gender	Male	138	63.9
	Female	78	36.1
	Total	216	100.0
Age	18-24	29	13.4
	25-34	138	63.9
	35-44	36	16.7
	45-54	12	5.6
	more than 50	1	.5
	Total	216	100.0
Education/Qualification	Diploma or below	34	14.7
	Bachelor's degree	115	49.8
	medical doctor, GP or internist	40	17.3
	medical doctor specialist	30	13.0
	Master's degree or higher	12	5.2
	Total	231	100.0
Work experience	Less than 1 year	21	9.1
	1–3 years	86	37.2
	4-6 years	81	35.1
	more than 6 years	43	18.6
	Total	231	100.0

(Source survey result, 2025)

As can be seen from the above table, the majority of the respondents at WUSH are male which accounts 61.5 % and 38.1 % of them are female. Similarly, most of the respondents are at the age of 25-34 followed by 35-44 and ages 18-24. This age group is generally the most energetic and adaptable in the workforce, indicating a younger, more dynamic population that may be more engaged in OCB. It is only 5.2% and 0.4% of the respondents who are at the ages of 45-54 and more than 50 years respectively. Overall, we can generalize that most of the employees are at their productive years.

In terms of qualifications the majority (49.8%) of the respondents are employees holding bachelor's degree followed by General Practitioner (GP) doctors, which accounts for 17.3% of the respondents.

With regards to the professional experience of the respondents at WUSH, 37.2 % of them have 1-3 years of work experience followed by 35.1 % of respondents having 4-6 years of experience.

4.1.2. Elements of Organizational Citizenship at WUSH

To answer the first research question about how much organizational citizenship behavior the employees at WUSH display, 24-items were included in the second part of the questionnaire. The number of items which measured the level of OCB include altruism (three), conscientiousness (five), sportsmanship(six), civic virtue (four) and courtesy (six).

4.1.2.1. Altruism as an element of OCB

The respondents were asked about whether they believe they possess altruism behavior as a dimension of OCB using three items. The descriptive statistic in the table below shows that the mean score for all the items that assess altruism is above 4.0, which indicates employees' agreement to show this behavior. The most important behavior as part of altruism is to help coworkers with challenging tasks, even when it's not required them. The respondents have indicated that they agreed to show altruism (grand mean=4.09) as an important OCB.

Table-4 Altruism as an element of OCB

Statements	N	Minimum	Maximum	Mean	Std. Deviation
I try to help coworkers with challenging tasks, even when it's not required of me	216	1.00	5.00	4.2296	.90099
I willingly assist coworkers who are struggling with their workload, even if it is not part of my formal job responsibilities	216	1.00	5.00	4.2209	.95801
I contribute my knowledge and skills to ensure my teammates achieve success	216	1.00	5.00	4.2036	.91782
Grand Mean				4.5	

4.1.2.2. Conscientiousness as an element of OCB

To measure the respondents' perception of conscientiousness as an element of OCB at WUSH five questions were presented. The result is summarized below.

As can be seen in the table above the majority of the respondents agreed to exhibit conscientiousness with a grand mean of 4.05. This behavior is most importantly shown by not being absent from work, solving problems without waiting for instruction, by not taking extended or additional time while at work and going extra miles to finish the work assigned and working beyond the standard time when necessary.

Table-5 Conscientiousness as an element of OCB

Statements	N	Minimum	Maximum	Mean	Std. Deviation
I go to work often	216	1.00	5.00	4.4037	.80666
I take initiative to solve problems or improve processes without waiting for instructions	216	1.00	5.00	4.2045	.89823
While on duty, I do not take extended or additional breaks	216	1.00	5.00	4.0963	.80969
I go extra miles to ensure that I finish my assignments punctually, even if it requires additional effort	216	1.00	5.00	4.0227	.90306
I often work beyond the standard working hours if necessary to complete my responsibilities	216	1.00	5.00	3.8106	.96443
Grand Mean				**4.37**	

4.1.2.3. Sportsmanship as an element of OCB

The other part of the questionnaire was prepared to measure sportsmanship as an element of OCB. As can be seen in the table above, a significant portion of employees report engaging in behaviors typical of sportsmanship in maintaining a positive attitude, tolerating inconveniences and avoiding complaints.

Table-6 Sportsmanship as an element of OCB

Statements	N	Minimum	Maximum	Mean	Std. Deviation
I offer support to my colleagues in challenging situations, motivating them to stay optimistic	216	1.00	5.00	4.1716	.89659
I keep a positive outlook even during tough times at work	216	1.00	5.00	4.0461	.85340
I take initiative to solve problems or improve processes despite troubling conditions	216	1.00	5.00	3.9076	.85573

I remain patient with small annoyances and refrain from voicing complaints	216	1.00	5.00	3.8946	.88938
Usually, I find issues with the actions taken by my organization	216	1.00	5.00	2.9292	1.08696
To finish the assignment, I always need small doses of inspiration	216	1.00	5.00	2.9206	1.19572
Grand Mean				**3.49**	

4.1.2.4. Civic Virtue as an element of OCB

The next element of OCB that the current study addressed is civic virtue. Table—below reports respondents' perceptions of their behavior of civic virtue as an element of OCB. A compost or grand mean of 3.6 on behaviors of civic virtue suggest that employees, on average, tend to agree with the statements related to participating in the affairs of the hospital, staying informed about organizational matters, and contributing to a positive work environment.

Table-7 Civic Virtue as an element of OCB

Statements	N	Minimum	Maximum	Mean	Std. Deviation
I follow hospital policies and regulations, and I encourage others to do the same.	216	1.00	5.00	4.1584	.90624
I get involved in efforts that enhance the welfare of the hospital community	216	1.00	5.00	3.8943	1.02394
I am informed about hospital-wide changes and contribute to discussions on improving organizational culture.	216	1.00	5.00	3.7558	.93349
I actively take part in meetings and discussions within the organization although they are optional	216	1.00	5.00	3.5263	1.00498
Grand Mean				**4.38**	

4.1.2.5. Courtesy as an element of OCB

A further dimension in the OCB variable which the study addresses is courtesy. The respondents reported their highest agreement to the statement which tries to find out whether the employees respect other people's rights. Similarly, the respondents indicated their agreements to both communicating clearly to avoid any misunderstandings and treating their coworkers with kindness and respect. Overall, the respondents have indicated their agreement (average mean= 4.13) to have generally high level of courtesy in the hospital. This suggests that

the respondents generally agree that employees exhibit polite, respectful and considerate behavior towards colleagues and patients.

Table-8 Courtesy as an element of OCB

Statements	N	Minimum	Maximum	Mean	Std. Deviation
I respect other people's rights	216	1.00	5.00	4.3666	.84424
I communicate clearly to avoid any misunderstandings	216	1.00	5.00	4.2924	.74724
I treat my coworkers with kindness and respect	216	1.00	5.00	4.2751	.84518
I actively try to comprehend my colleagues' viewpoints and emotions	216	1.00	5.00	4.1236	.82290
I consider the impact that my actions have on other people's employment	216	1.00	5.00	4.011	.86137
I seek feedback from my coworkers to improve my performance and the work environment	216	1.00	5.00	3.9894	.90205
Grand mean				4.48	

4.1.2.6. Composite means of elements of OCB

As can be seen from the table below courtesy is the most important dimensions of OCB shown by health care workers at WUSH followed by altruism with average mean values of 4.13 and 4.12 respectively which indicate the respondents' agreements to show the behaviors. Similarly, the respondents also agreed to have conscientiousness as an OCB next to courtesy and altruism.

Hence, according to the findings OCB questionnaire, the most important elements of OCB shown by most WUSH employees are altruism, courtesy, sportsmanship, civic virtue and conscientiousness in that order.

Table-9 Summary of the elements of OCB shown by employees at WUSHU

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Altruism_	216	1.70	5.70	4.5000	.92416
Courtesy	216	1.84	5.00	4.4838	.76988
Sportsmanship	216	2.72	5.00	4.4406	.52600
Civic Vertue	216	2.34	5.00	4.3864	.68326
Conscientiousness	216	1.75	5.00	4.3754	.81648
Valid N (listwise)	216				

4.1.3. Service Quality

The dependent variable of the current study is service quality. Twenty-one questions were prepared and distributed to employee respondents to have their overall perception of the variable. The questions were related to responsiveness, reliability and assurance. As can be seen in the table below, the grand mean of this variable is 3.1848 which indicates that they fairly agree to the items of service quality at WUSH since the grand mean is greater than 3. However, the respondents reported their disagreements about the hospital's practices to finish a task within a given amount of time (M=2.7662. The problem of responsiveness is also confirmed by respondents' agreement to the item which measures whether employees are too busy to attend to patients' requests right away (M=3.4372). Similarly, the respondents did not show strong agreement with items which measure whether the services provided by WUSH are dependable and consistent (M=3.0866), WUSH staff members are trusted by patients for their integrity (M=3.0433).

Table-10 Mean of service quality

Items	N	Minimum	Maximum	Mean	Std. Deviation
The hospital's hours of operation may not accommodate all patients' convenience	216	3.00	5.00	4.0736	.63844
WUSH staff members present themselves in a formal manner	216	1.00	5.00	3.5931	.99072
Hospital staff members constantly show respect and courtesy	216	1.00	5.00	3.5281	.97260
It's possible that hospital employees are too busy to attend to patients' requests right away	216	1.00	5.00	3.4372	1.12451
When interacting with hospital personnel, patients feel safe and at ease	216	1.00	5.00	3.4069	1.07491
The hospital gives precise information about when services will be rendered	216	1.00	5.00	3.3506	1.14701
The hospital maintains accurate and current records	216	1.00	5.00	3.2424	1.05176
Patients have trust and confidence in the services provided by the hospital's health care service providers	216	1.00	5.00	3.1905	1.13754
The hospital keeps to the times it has set for its scheduled services	216	1.00	5.00	3.1645	1.10286
The services provided by WUSH are dependable and consistent	216	1.00	5.00	3.0866	1.01782
WUSH staff members are trusted by patients for their integrity	216	1.00	5.00	3.0433	1.05823
When patients face challenges, employees show compassion and offers comfort	216	1.00	5.00	2.9567	1.03749
The hospital keeps its word when it pledges to finish a task within a given amount of time	216	1.00	5.00	2.7662	1.14470

The hospital provides enough support for staff members to carry out their jobs well	216	1.00	5.00	2.7619	1.16452
Grand Mean	216			3.1848	

In short, although the respondents generally indicated their agreement on the overall service measure, they showed disagreement on responsiveness measures. respondents. Respondents indicated the lack of responsiveness to another item which asked, for example, the hospital keeps to the times it has set for its scheduled services (M=3.1645). The next section presents testing whether this SERVQUA is related to and significant with the employees' OCB.

4.2. Inferential statistical analysis output

4.2.1. Correlations of OCB variables

The relationship between the variables is analyzed using Pearson's correlation coefficient (r) and presented in the table below. The magnitude of Pearson's correlation coefficient (r) according to Meyer & et.al 2016 is classified as 0.1-0.29 weak, 0.3-0.49 moderate and greater than 0.5 strong. The dependent variable SERVQUA has a strong positive relationship with altruism, conscientiousness, civic virtue and courtesy in that order. The least significant relationship exists between SERVQUA and sportsmanship.

Table11 Correlation Statistics

Correlations							
		ALT	CNSC	SPRTSM	CIVIV	CRTSY	SERVQUA
ALT	Pearson Correlation	1	.774**	.450**	.629**	.612**	.701**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	216	216	216	216	216	216
CNSC	Pearson Correlation	.774**	1	.446**	.650**	.600**	.666**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	216	216	216	216	216	216
SPRTSM	Pearson Correlation	.450**	.446**	1	.407**	.307**	.289**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	216	216	216	216	216	216
CIVIV	Pearson Correlation	.629**	.650**	.407**	1	.556**	.604**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	216	216	216	216	216	216
CRTSY	Pearson Correlation	.612**	.600**	.307**	.556**	1	.594**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	216	216	216	216	216	216
SERVQUA	Pearson Correlation	.701**	.666**	.369**	.604**	.594**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	216	216	216	216	216	216
**. Correlation is significant at the 0.01 level (2-tailed).							

On the other hand, as can be seen in the table above, there is also a relationship among OCB variables. The most significant strong relationship is shown between altruism and conscientiousness (r=.774). There is also a strong relationship between civic virtue and altruism (r=.629) and courtesy & altruism (r=.612) in that order. Altruism has a significant and strong relationship with all the OCB variables, except with sportsmanship in which the relationship is weak. The relationship between sportsmanship and the four of the other variables is weak.

4.2.2. Multiple Linear Regression

4.2.2.2. The overall significance of the regression analysis model

4.2.2.2.1. 1. ANOVA Model Fit

The ANOVA table is used to interpret the overall model summary. Service quality, the dependent variable is a function of altruism, conscientiousness, sportsmanship, civic virtue and courtesy.

SERVQUA=b0 +b1(ALT) + b2 (CONSC) + b3(SPORTM) + b4 (CIVIV) +b5 (CRTSY) +e

The null hypothesis assumes that Ho is zero and we cannot use the multiple regression model for predicting: H0= b1, b2, b3, b4 & b5=0.

The p-value in the ANOVA table below can be used to verify that the MLR model is a good fit for prediction based on the model's overall significance.

If the p-value is less than 0.05, we reject the null hypothesis and accept the alternative. This suggests that at least one of the coefficients deviates significantly from zero, enabling the data to be interpreted in a meaningful way. Consequently, the ANOVA table's p-value of 0.00 indicates that the model fits the data well.

Table-15 ANOVA Model Fit

ANOVA[a]					
Model	Sum of Squares	df	Mean Square	F	Sig.
1Regression	27.069	5	5.414	56.021	.000[b]
Residual	20.294	210	.097		
Total	47.363	215			
a. Response Variable: SERVQUA					
b. Predictors: CRTSY, SPORTM, CIVIV, ALT, CONSC					

Source: Respondents Survey Test 2025

4.2.2.2. Hypothesis Testing

The null hypothesis of the present investigation postulates that the response variable SERVQUA and the predictor variables (OCB components) do not significantly correlate, Ho=0.

1.1. Altruism does not significantly affect service quality.
1.2. Conscientiousness does not significantly affect service quality.
1.3. Sportsmanship does not significantly affect service quality.
1.4. Civic Virtue does not significantly affect service quality.
1.5. Courtesy does not significantly affect service quality.

The alternative hypothesis posits that a relationship exists between the independent variables (components of OCB) and the dependent variable SERVQUAL, with Ho ≠ 0. This hypothesis is tested by examining the significance level (sig.) of each independent variable in the coefficient table provided below. The values of significance (p-value) for the independent variable altruism, conscientiousness, civic virtue & courtesy are less than 0.05 which means rejecting the null hypothesis and accepting the alternative hypothesis. However, the p-value of one of the predictor variables, sportsmanship, is not significant, P>0.05. Hence, there is a relationship between elements of OCB and SERVQUA at WUSHU. The strength of the relationship is described using beta coefficient.

4.2.2.3. Beta Coefficient of the variables

As can be seen in the Beta column under normalized coefficients (ignoring the negative signs. The variable with the largest beta value has the most impact on explaining the variation in the dependent variable after the effects of all other variables in the model are considered. According to the beta coefficient table below, altruism (0.339) is the most significant factor, followed by conscientiousness (0.81), courtesy (0.181), and civic virtue (0.161), in that order, contributing to the variance change in SERVQUAL.

Table-16. Beta Coefficient of the variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.906	.201		4.510	.000
	Altruism (ALT)	.172	.039	.339*	4.407	.000
	Conscientiousness (CONSC)	.104	.044	.181*	2.337	.020
	Sportsmanship (SPRTSM)	.011	.046	.012	.238	.812
	Civic Vertue (CIVIV)	.115	.044	.168*	2.638	.009
	Courtesy (CRTSY)	.110	.037	.181*	2.990	.003
Level of significance (p<0.05) ALT*, CONSC*, CRTSY*, CIVIV*						

The model's equation that estimates the value of SERVQUA based on observed values of predictor variables is indicated as follows.

$$Y=B0+B1X1 + B2X2+B3X3+B4X4+B5X5 +E$$

Y= 0.906 + .339 (ALT) + 0.181 (CONSC) + 0.181 (CRTSY) +0.168 (CIVIV)

The magnitude of effect of OCB on SERVQUA is described in the equation and can be interpreted as:

§ Altruism has a positive significant relationship with SERVQUA. For one unit of increase in altruism, SERVQUA increases by 33.9 % other variables being constant.

§ Conscientiousness and courtesy have positive significant relationship with SERVQUA next to altruism. For one unit of increase in conscientiousness and courtesy, SERVQUA increases by 18% each, other variables being constant.

§ Civic virtue has positive significant relationships with SERVQUA. For one unit of increase in courtesy, SERVQUA increases by 16.8%.

§ Sportsmanship has no significant relationship with SERVQUA.

4.2.2.6. Model Summary

To see how the predictor and response variables are related, the value of adjusted R-squared is used. In the table below the value of the adjusted R-squared (0.56 or 56%) shows that the predictor variables of OCB together explain the variance in the dependent variable, SERVQUA, 56%. Other variables which the current study cannot identify contribute to the variance in SERVQUA.

Table-17 Model Summary

Model	R	R Square	Adjusted R Square
1	.756[a]	.572	.561
	Predictor variable: ALT, CONSC, CRTSY, CIVIV & SPRTSM Dependent variable: SERVQUA		

In conclusion, 56% of the changes in SERQUA could be attributed to the combined effect of the change in the independent variables. However, 44% of the variance is explained by other factors which are not covered by the current study.

Interview Results and Triangulation

The study utilized semi-structured interviews with hospital managers, coordinators, and senior staff to triangulate quantitative data. Most informants confirmed that OCB significantly improves service quality (SERVQUAL) by enhancing teamwork, creating a positive work environment, and building patient trust. However, a minority of participants noted that OCB alone is insufficient, citing burnout, compassion fatigue, and poor communication as significant barriers that can lead to low patient satisfaction regardless of employee effort.

Discussion of Major Findings

OCB Levels at WUSH: Employees exhibit high levels of OCB across all five dimensions (altruism, courtesy, sportsmanship, civic virtue, and conscientiousness). This indicates a strong culture of voluntary, extra-role behavior that supports the hospital's smooth functioning.

Service Quality (SERVQUAL): The hospital's service quality is above average (mean = 3.1848) but shows substantial room for improvement. Challenges like low staff morale and complex delivery systems were identified as factors that prevent higher quality scores.

Dimensional Impact on Service Quality:

Altruism: This dimension had the most considerable impact, accounting for a 33.9% increase in service quality per unit increase. Helping behaviors were found to be essential for successful patient care and professional interactions.

Conscientiousness & Courtesy: Both dimensions significantly contributed to service quality (18% each), fostering a respectful and reliable professional environment.

Sportsmanship: Interestingly, while sportsmanship helps maintain a positive organizational climate, it showed no significant relationship with service quality. It appears to affect internal harmony more than direct patient outcomes.

Overall, OCB dimensions collectively explain 56% of the variance in service quality at WUSH. The findings suggest that healthcare management should prioritize a culture of altruism, conscientiousness, and courtesy through targeted training, leadership development, and reward systems. By fostering these specific behaviors and adopting a supportive leadership approach, institutions can build a stronger bond of trust with patients and significantly improve healthcare delivery.

5.1. Summary of Major Findings

This explanatory mixed-methods study examined the impact of OCB on service quality (SERVQUAL) at WUSH using data from 216 respondents and qualitative interviews. Descriptive analysis ranked the OCB elements demonstrated by staff as altruism, courtesy, sportsmanship, civic virtue, and conscientiousness. SERVQUAL reached a moderate composite mean of 3.1848, though respondents identified a significant lack of responsiveness. Pearson's correlation confirmed strong positive relationships between SERVQUAL and altruism, conscientiousness, civic virtue, and courtesy. Multiple linear regression revealed that altruism is the most influential factor, contributing to a 33.9% improvement in service quality. Conscientiousness and courtesy each contributed 18%, while civic virtue contributed 16.8%. Conversely, sportsmanship showed no significant relationship with SERVQUAL ($p > 0.05$), despite high reported levels of engagement.

The model's Adjusted R-squared of 0.56 indicates that OCB elements collectively explain 56% of the variance in service quality at WUSH, with the remaining 44% attributed to unexamined factors. Qualitative interviews corroborated these results, emphasizing that OCB enhances teamwork, builds patient trust, and fosters a sense of organizational ownership essential for high-quality care.

5.2. Conclusions

The study confirms that OCB significantly ($p < 0.05$) impacts the quality of healthcare services at WUSH. Altruism stands out as the primary driver of both positive workplace behaviors and improved service outcomes. While employees report high levels of sportsmanship, maintaining a positive attitude and tolerating inconveniences, this specific dimension does not meaningfully influence patient-perceived service quality.

The findings highlight a critical "responsiveness" gap in the hospital's delivery service. Although OCB explains over half of the quality variance, systemic improvements are needed to address the moderate level of service quality currently observed. Ultimately, fostering OCB—particularly helping behaviors, professional courtesy, and reliability—is essential for improving healthcare delivery and organizational performance in the Ethiopian context.

5.3. Recommendations

To maximize the benefits of OCB and improve service quality, WUSH should:

1. Prioritize Altruism: Implement employee recognition and training programs that foster empathy and selfless helping behaviors, as these have the highest impact on patient care.
2. Develop Professionalism: Focus on continuous development in conscientiousness and courtesy, emphasizing punctuality, reliability, and respectful communication.
3. Enhance Civic Virtue: Involve staff in organizational decision-making to strengthen their sense of ownership and responsibility toward the hospital's mission.
4. Investigate Responsiveness Barriers: Address the 44% unexplained variance by researching external factors such as resource constraints, technological tools, and staff burnout that may hinder timely service delivery.
5. Address the Sportsmanship Paradox: Investigate why high levels of sportsmanship do not translate into better service quality, potentially by reducing workplace stressors or interpersonal conflicts.

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