

Optimization of Job Performance in the Surgical Suite Through Human Capital Training Management Strategies

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Abstract

➤ Introduction and Objective:

Operating room management in third-level public hospitals requires the harmonious integration of clinical technical expertise and administrative leadership. This article investigates the optimization of job performance among nursing staff in the Surgical Suite (6th Floor) of the Dr. José María Vargas Central Hospital in San Cristóbal, Táchira State, Venezuela, through the implementation of managerial training strategies.

➤ Methodology:

Quantitative, descriptive, and field research with a non-experimental cross-sectional design. The population consisted of 80 surgical nurses, with a simple random probabilistic sample of 20 professionals (25%) selected. Data collection utilized a structured questionnaire with 12 dichotomous items, validated by expert judgment, with reliability established through the Kuder-Richardson formula ($KR-20 = 0.98$).

➤ Results:

Broad recognition of Planning (100%) and Organization (100%) functions was evidenced, as well as the Relevance (100%) and Impact (87%) of continuous education. However, a critical bottleneck exists in Directing/Leadership (87% negative perception) and in the effective application of Managerial Strategies (73% negative assessment).

➤ Conclusion:

The optimization of surgical performance requires moving beyond reactive frameworks through a comprehensive training plan focused on soft skills, conflict resolution, and internal mentorship.

Keywords: Job Performance, Human Capital Management, Surgical Suite, Managerial Training, Public Health Management, Nursing Leadership.

I. INTRODUCTION

The management of public health institutions in Latin America has undergone a profound organizational transformation, transitioning from traditional care models to contemporary frameworks grounded in total quality management, competency-based management, and results-oriented governance. Within hospital architecture, the surgical suite represents an operational unit of high complexity and imminent risk, where cutting-edge technology, interdisciplinary protocols, and human talent

subject to high stress levels converge. The Pan American Health Organization (PAHO, 2025) maintains that the efficiency of surgical services extends beyond the availability of basic infrastructure, depending substantially on the robustness of human capital management processes that ensure patient biosafety and operational continuity.

In the Venezuelan context, material resource constraints and the turnover of specialized professionals impose extraordinary challenges on healthcare management. Martínez (2024) notes that the functional

sustainability of hospital centers in economically restricted environments requires prioritizing continuous training in soft skills and process optimization as a protective mechanism. The Dr. José María Vargas Central Hospital of San Cristóbal (HCSC), as a Type IV care center and the primary referral node in the Venezuelan Andean region, faces a high surgical demand that contrasts with limitations in the organizational coordination of personnel in the Surgical Suite located on the 6th Floor.

Despite the recognized technical proficiency of nursing and medical professionals, the lack of training programs tailored toward managerial competencies (situational leadership, assertive communication, conflict resolution, and efficient time allocation) has created operational bottlenecks. The Venezuelan Society of Public Health (2025) warns that the disconnect between administrative leadership and the operative surgical team increases the risk of adverse events associated with strategic communication failures by up to 30%.

Under this perspective, the general objective of this study was to optimize job performance in the Surgical Suite (6th Floor) of the HCSC by establishing the foundation for a comprehensive managerial training plan. Specifically, it addressed:

- Diagnosing the current situation of job performance and training needs;
- Identifying influential organizational factors;
- Structuring the training proposal; and
- Verifying the technical, operational, and financial feasibility of its execution.

II. THEORETICAL FRAMEWORK AND LEGAL FOUNDATIONS

The study is grounded in Human Capital Theory and Modern Administration applied to healthcare organizations. López (2021) conceptualizes training not as an operating expense, but as a high-return strategic investment that enhances worker skills to maximize institutional performance. This is complemented by Drucker's (1999) philosophy on transforming organizational culture through leadership and goal-oriented planning.

In the realm of healthcare, Human Resources Management in Health (HRMH) involves attracting, developing, and retaining highly qualified professionals (SciELO México, 2018). Furthermore, Andragogy (Caraballo, 2020) and Clinical Simulation (Bados et al., 2019) provide the pedagogical foundation for continuous adult education in critical surgical environments. Legally, the research is framed within the Constitution of the Bolivarian Republic of Venezuela (1999, Arts. 83, 84, 87, 102), the Organic Law on Prevention, Conditions, and Working Environment (LOPCYMAT, 2005, Arts. 53, 56), and the Organic Health Law (1998).

III. METHODOLOGY

Research was conducted under the quantitative paradigm, categorized as a descriptive, field, and non-experimental cross-sectional study (Arias, 2025; Hurtado, 2023). The modality corresponds to a Feasible Project (*Proyecto Factible*), aimed at proposing operational and institutional solutions to a diagnosed problem.

➤ Population and Sample

The population consisted of eighty (80) nursing professionals working across various 24-hour shifts in the Surgical Suite on the 6th Floor of the HCSC. A simple random probabilistic sampling method was applied, selecting a representative sample of 25% of the population, equivalent to twenty (20) surgical nursing professionals.

➤ Data Collection Technique and Instrument

A survey technique was employed, using a structured questionnaire of twelve (12) dichotomous items (Yes / No) as the instrument, designed based on the operationalization of the variables Performance Optimization and Managerial Training. The instrument underwent validation through Expert Judgment (three specialists in methodology, public management, and nursing). Reliability was determined via a pilot test conducted at a similar care center (Dr. Patrocinio Peñuela Ruíz Hospital), obtaining a Kuder-Richardson coefficient (KR-20) of 0.98, representing very high representativeness and reliability.

IV. RESULTS AND DISCUSSION

Below are the consolidated quantitative findings gathered from data collection and processed through frequency and percentage descriptive statistics.

Table 1 Perception of Managerial Functions in the Surgical Suite (N = 15)

Dimensions / Indicators	Yes (f)	Yes (%)	No (f)	No (%)
Planning	15	100%	0	0%
Organization	15	100%	0	0%
Directing / Leadership	2	13%	13	87%
Control & Evaluation	13	87%	2	13%

As shown in Table 1, there is absolute consensus (100%) regarding the existence of formal Planning and Organization guidelines and structures. However, a critical breakdown is detected in the Directing function (87% negative), revealing severe deficiencies in motivational

leadership, assertive communication, and effective staff guidance. Robbins and Coulter (2024) point out that strict supervision without inspiring leadership leads to emotional overload and a breakdown in the work climate.

Table 2 Evaluation of Human Capital Training in Nursing (N = 15)

Dimensions / Indicators	Yes (f)	Yes (%)	No (f)	No (%)
Continuous Education	13	87%	2	13%
Thematic Relevance	15	100%	0	0%
Impact on Performance	13	87%	2	13%
Staff Satisfaction	13	87%	2	13%

Table 2 reflects a highly positive evaluation of the intrinsic value of training: 100% recognize its technical relevance, and 87% attest that educational processes favorably impact care quality. This aligns with findings by

Oyola and Román (2025), who state that healthcare staff updates represent the explanatory variable with the highest weight in reducing intraoperative adverse event rates.

Table 3 Global Assessment of Managerial Management and Current Training (N = 15)

Evaluated Variable	Yes (f)	Yes (%)	No (f)	No (%)
Applied Managerial Strategies	4	27%	11	73%
Effectiveness of Current Training	2	13%	13	87%

Despite the desire for self-improvement, Table 3 exposes a structural gap: 73% negatively evaluate current managerial strategies, and 87% perceive that the current training offering is insufficient or disjointed. This disconnect between hospital management and front-line operational needs confirms the hypothesis that operations function under a reactive "trial and error" scheme (Pérez et al., 2025; Ramírez, 2025).

➤ Key Research Finding:

There is a marked operational bias where theoretical administrative planning does not translate into operating room leadership. Staff demand competencies in crisis management, emotional intelligence, and optimization of surgical turnover times.

V. PROPOSAL: COMPREHENSIVE MANAGERIAL TRAINING PLAN

In response to the situational diagnosis, the Managerial Training Plan for the Optimization of Operating Room Job Performance was formulated, structured under an andragogical, low-institutional-cost approach utilizing internal mentorships ("train the trainers").

➤ Phases of Proposal Execution

- Phase I – Specific Situational Diagnosis: Continuous mapping of surgical downtime, table turnover, and assessment of professional burnout levels.
- Phase II – Modular and Instructional Design: Development of 4 structured training modules:
 - ✓ Module I: Transformational Leadership and Assertive Communication in the Operating Room. Module II: Strategic Management of Surgical Time and Efficient Turnover.
 - ✓ Module III: Advanced Biosafety, WHO Protocols, and Supply Management.
 - ✓ Module IV: Stress Management, Resilience, and Burnout Prevention.
- Phase III – Flexible Andragogical Execution: 45-minute micro-workshops during shift changes,

asynchronous educational capsules, and intraoperative crisis simulation.

- Phase IV – Impact Evaluation and Control: Application of the Kirkpatrick model to measure satisfaction, learning, workplace transfer, and social return on investment.

➤ Feasibility Analysis

- Technical Feasibility: Supported by the HCSC Teaching and Research Department and the availability of qualified professionals holding Master's degrees.
- Operational Feasibility: Designed in modular micro-sessions to avoid disrupting care delivery or affecting 24-hour shift rotations.
- Financial Feasibility: Represents a minimal, optimized budget utilizing hospital infrastructure and internal intellectual capital, with high social impact in reducing costs associated with care complications.

VI. CONCLUSIONS AND RECOMMENDATIONS

➤ Conclusions

The empirical diagnosis conducted on the 6th Floor of the Dr. José María Vargas Central Hospital demonstrated a significant gap between the high quality of formal organizational planning and weaknesses in operating room leadership execution. The lack of training in managerial competencies and soft skills creates friction in interdisciplinary communication and impacts surgical productivity. Nevertheless, the high receptivity of nursing staff toward continuous education validates the social and institutional viability of implementing an andragogical program tailored to the realities of the Venezuelan public healthcare sector.

➤ Recommendations

- Institutionalize the Managerial Training Plan within the permanent programs of the HCSC Nursing and Teaching Department.

- Transition from punitive supervision styles toward transformational leadership focused on motivation and collaborative conflict resolution.
- Establish operational management indicators (surgical turnover time, WHO checklist compliance, and cancellation rates) to monitor training impact.
- Replicate this methodological and managerial model in other critical areas of the hospital and across the health network of Táchira State.

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