

Human Resources Management (HRM) and Performance in Burundian Hospitals: Case of the Prince Louis Rwagasore Clinic “CPLR”, the Prince Regent Charles Hospital “HPRC”, Kamenge University Hospital Center “CHUK”

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Abstract

This major article examines the decisive impact of human resources management (HRM) on the performance of health establishments in Burundi, focusing on three key institutions: the Prince Louis Rwagasore Clinic (CPLR), the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK). HRM is essential to overcome structural challenges and improve the quality of care in an environment of limited resources and increasing pressures on health systems. The study carried out with 90 employees, selected using Alain Bouchard’s technique, highlights the impact of HRM on the performance of the three Burundian hospital establishments. The results show that HRM significantly improved clinical, operational and health needs satisfaction outcomes in the three establishments. Additionally, HRM also improved the ability to meet patients’ health needs, with 60% of CPLR and CHUK employees noting an improvement in this ability, compared to 65% at HPRC. It also made it possible to improve professional equality in the three establishments, with 70% of CPLR employees believing that professional equality is respected, compared to 75% at the HPRC and CHUK. In addition, HRM has helped optimize clinical processes, with 70% of CPLR employees and 75% of HPRC employees believing that clinical processes are optimized. In summary, HRM is a key factor in improving the quality and efficiency of the health system in the three Burundian hospital establishments studied. In conclusion, this article offers strategic recommendations to improve HR management in Burundian hospitals, with an emphasis on adapting international best practices to the local

context. By investing in staff development and optimizing performance management policies, Burundian health facilities can progress towards more resilient and efficient systems, capable of meeting the growing needs of the population.

Keywords

Human Resource Management (HRM), Performance, Hospital Environment, Burundi

1. Introduction

Human resources (HR) represent a crucial element in the management and performance of health systems globally. According to the World Health Organization (WHO), a qualified and motivated workforce is essential to ensure the quality of care and the efficiency of hospital services (WHO, 2020). In Africa, where health challenges are often exacerbated by limited resources, HR management is of paramount importance to improve access to care and health outcomes (World Bank, 2019).

Globally, statistics indicate that shortages of qualified personnel in health systems are alarming, negatively affecting the delivery of care. About 40% of countries worldwide report a serious shortage of nurses, and 55% of countries face a shortage of doctors (Aiken et al., 2014). This reality highlights the urgency of effective HR management policies to strengthen the capacities of health facilities.

In Africa, HR challenges in the health sector are exacerbated by high rates of emigration of health professionals to other regions with better working conditions and remuneration (Chrétien et al., 2020). This has a direct impact on the capacity of African hospitals to provide adequate health coverage, with significant consequences on the quality of care and the management of endemic diseases.

Regionally, in East African countries like Burundi, hospitals face unique challenges related to HR management. The Kamenge University Hospital Center (CHUK), for example, is faced with work overload due to low nursing and medical staffing, directly affecting the quality of care (Ministry of Health of Burundi, 2020).

In Burundi, health facilities such as the Clinique Prince Louis Rwagasore (CPLR) and the Hôpital Prince Régent Charles (HPRC) face similar HR management challenges. Around 70% of nurses report excessive workload, while more than 50% of doctors express concerns about working conditions and safety (Ministry of Health of Burundi, 2020).

The correlation between effective HR management and hospital performance is undeniable. Studies show that every 10% increase in nursing staff per patient reduces the risk of in-hospital mortality by 5% (Colot et al., 2021). This relationship highlights the critical importance of investing in the recruitment, training and retention of health workers.

Despite these challenges, there are opportunities to improve HR management

in Burundian hospitals. Initiatives such as continuing education, career development and improved working conditions can help attract and retain qualified health professionals (Ministry of Health of Burundi, 2020).

This study aims to identify current HR management practices in these establishments and to propose strategic recommendations to strengthen hospital performance. By closely examining recruitment, training, retention and professional development policies, the objective is to provide concrete solutions to overcome challenges and sustainably improve the quality of care provided in Burundian hospitals.

2. Literature Review

Human resources management (HRM) in the hospital sector is a subject that is attracting growing interest due to its direct impact on performance and quality of care. In a context where public health finds itself constantly influenced by regulatory changes, budgetary constraints and increasing patient expectations, it is imperative to analyze how human resources management practices can contribute to the efficiency of health establishments. Colot et al. (2021) emphasize that human resources management practices are essential to improve the social performance of companies, including those operating in the health field.

One of the main challenges faced by hospitals is maintaining high performance levels while managing often overworked teams. Curchod (2023) argues that adopting a comparative approach in management sciences can enrich our understanding of managerial realities, in particular by contextualizing HRM practices that promote employee engagement and, consequently, organizational performance. In this context, healthcare establishments must identify the specificities of their environment in order to adapt their HRM practices to the unique needs of their employees.

A crucial aspect of human resources management in a hospital environment is continuing education. Dième (2014) emphasizes that employee skills development not only contributes to the performance of small and medium-sized businesses, but can also be applied to the health sector. Investing in training allows healthcare professionals to stay up to date with medical and technological developments, thus increasing the quality of care provided.

Research on the impact of HRM practices on performance varies according to context. Noguera and Chalus-Sauvannet (2021) examine this link in the health sector, demonstrating that effective HRM practices correlate with significant improvement in the quality of care in a private clinic in Benin. This highlights the importance of adapted HRM strategies that respond to the specificities of establishments, whether public or private.

Peretti's (2021) book provides a solid theoretical framework on the principles of HRM, emphasizing that appropriate managerial practices are fundamental to successful organizations. In the hospital context, this could involve initiatives such as recognizing employee performance and establishing effective internal

communication mechanisms, which are essential for enhancing staff satisfaction and engagement.

Pichault and Nizet (2022) also explore the role of stakeholders in HRM practices. In the hospital sector, interactions between management, staff and patients are complex. Understanding these dynamics is essential to transform HRM practices into real performance levers. Hospitals that successfully harmonize these interactions can improve both job satisfaction and the quality of services offered.

The impact of HRM practices on organizational commitment has also been studied in various contexts. Trudel et al. (2021) discuss the contrasting effects these practices can have on employee engagement and job performance. In a hospital setting, engaged staff are more likely to invest energy in their work, which results in better quality of care for patients.

Demographic and psychological characteristics of employees also play a determining role in hospital performance. Diversity and inclusion are key elements that can influence how HR practices are implemented and perceived by staff. Taking these aspects into account can thus contribute to the development of more inclusive and effective HRM strategies. Hospitals also face specific constraints, such as regulations and financing. These factors influence managerial choices and HRM practices. An in-depth understanding of the external environment in which hospitals operate is therefore essential to develop appropriate strategies that promote performance improvement.

Human resources management (HRM) is crucial to improve performance in hospitals, particularly because of the complexity and sensitivity of this sector. Several studies have demonstrated that HRM practices directly influence the quality of care offered and, therefore, the overall performance of healthcare establishments (Noguera & Chalus-Sauvannet, 2021). Indeed, effective HRM helps motivate staff, strengthen their organizational commitment and improve job satisfaction, which can translate into better quality of care for patients. However, despite the importance of these issues, much research remains to be explored to better understand the specificities of HRM in hospitals, particularly in varied contexts.

This research aims to fill a significant gap in the existing literature by focusing on the interactions between HRM practices and performance in hospital settings. Although many studies have analyzed HRM in various sectors, including SMEs (Dième, 2014) and family businesses (Colot et al., 2021), the healthcare sector has unique characteristics that require special attention. Comparative research on HRM in the hospital sector could also benefit from qualitative methodologies, as highlighted by Curchod (2023), in order to better understand the specific dynamics that influence the performance and quality of services.

The analysis of HRM practices and their impact on performance is essential to develop optimal strategies adapted to the hospital context. By adopting a perspective that integrates the interactions between the actors involved, as indicated by Pichault and Nizet (2022) as well as Trudel et al. (2021), this study can provide relevant insights for hospital managers and strengthen organizational effectiveness.

Consequently, this research work will not only contribute to enriching the academic corpus on HRM in hospitals, but also to propose practical recommendations that could improve the performance of health establishments.

It is crucial that research continues to explore new trends in hospital HRM. Technological advances, notably the integration of artificial intelligence and big data in human resources management, open up new perspectives for optimizing HR practices. By integrating these innovations, hospitals can hope to meet contemporary challenges, improving their efficiency while achieving performance levels adapted to the needs of patients.

Human resources management is an essential strategic lever for improving performance in hospitals. By adopting HRM practices adapted to operational realities and the specificities of the health sector, hospitals can not only optimize their performance, but also guarantee superior quality of care for their patients. Existing literature offers valuable recommendations for doing so, but also encourages continued reflection on what practices to adopt in an ever-changing environment (Colot et al., 2021).

3. Methodology

Our article explores in depth human resources management (HRM) and performance in Burundian hospitals, focusing specifically on three leading establishments: the Prince Louis Rwagasore Clinic (CPLR), the Prince Regent Charles Hospital (HPRC), and the Kamenge University Hospital Center (CHUK). These institutions represent a significant sample of 1440 employees, thus providing an exhaustive perspective of the internal dynamics and HRM practices within the main health centers in Burundi. This study is notable for its scale and diversity of staff profiles, encompassing a variety of roles from doctors and nurses to hospital administrators.

To provide a rigorous and nuanced analysis, our research adopted a mixed methodology, combining qualitative and quantitative approaches. This methodological duality made it possible to examine both measurable statistics and employees' subjective perceptions regarding HRM and its effects on hospital performance. Qualitative data, collected through semi-structured interviews and direct observation, revealed the daily challenges and resilience strategies adopted by staff. At the same time, the quantitative data, obtained by structured questionnaires, made it possible to quantify general trends and identify significant correlations between HRM practices and various hospital performance indicators.

The surveyed population included 1440 individuals, from which a sample of 90 individuals was selected using Alain Bouchard's formula and were surveyed. According to Alain Bouchard's formula cited by Samson (2021), when the study population is less than or equal to 1,000,000 individuals, it corresponds to a sample of 96 individuals with a margin of error of 10%.

$$nc = \frac{n}{1 + \frac{n}{N}} \text{ in progress } nc = \frac{n}{1 + \frac{n}{N}} = \frac{n}{\frac{N+n}{N}} = \frac{n}{1} \times \frac{N}{N+n}$$

$$nc = \frac{n \times N}{N+n}$$

N = Total of the parent population (target population).

nc = Corrected sample.

The total universal sample of a finite universe is $n = 96$.

Corrected sample (nc)

$$nc = \frac{96}{1 + \frac{96}{1440}} = \frac{96}{\frac{1440+96}{1440}} = \frac{96}{\frac{1536}{1440}} = 96 \times \frac{1440}{1536} = \frac{138240}{1536} = 90$$

The sample size of our study was therefore 90 employees, distributed equally with 30 employees for the Prince Louis Rwagasore Clinic (CPLR), 30 employees for the Prince Regent Charles Hospital (HPRC) and 30 employees for the Center Kamenge University Hospital (CHUK).

After applying this formula, a sample of 90 employees, including 30 employees for the Prince Louis Rwagasore Clinic (CPLR), 30 employees for the Prince Regent Charles Hospital (HPRC) and 30 employees for the Kamenge University Hospital Center (CHUK), was randomly selected from among the employees of these three hospital establishments. Stratified random sampling was used because it ensures statistical accuracy and representativeness of the sample, ensuring that each subgroup of the population is represented in proportion to its actual size in the total population of these three establishments. This sampling method made it possible to reduce the risk of selection bias by systematically including individuals from all demographic groups, thus ensuring better generalization of the results to the entire population of these three hospital establishments.

To guarantee the validity and reliability of the questionnaires used in the study on human resources management (HRM) and performance in the Burundian hospital environment, the authors conducted a pre-survey by pre-testing the surveys with a small group of people before deploying them on a large scale. This pre-test was carried out with a representative sample of hospital staff from the three establishments concerned, namely the Prince Louis Rwagasore Clinic (CPLR), the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK). The main objective of this approach was to ensure that the questions were clear, understandable and relevant for the participants, while allowing possible ambiguities or wording errors to be identified and corrected.

During this pre-survey phase, the participants' feedback was carefully analyzed to detect any difficulty encountered in understanding the questions or in the response scale proposed. For example, certain questions may require adjustments to better reflect the reality of the Burundian hospital context or to avoid bias that could influence the responses. The authors also examined the relevance of the response categories to ensure that they adequately covered all possible employee

perceptions regarding human resource management and their impact on organizational performance.

The results of the pre-test allowed the authors to revise and refine the questionnaires before their final deployment, thereby increasing the quality of the data collected. By doing so, the authors were able to strengthen the internal validity of their study, minimizing the risk of measurement errors and ensuring that the responses collected accurately reflect the opinions and experiences of employees of the Burundian hospital establishments concerned. This rigorous methodological approach is essential to draw solid conclusions on the links between human resources management and performance in the specific context of hospitals in Burundi.

To obtain more robust results in the study on human resources management (HRM) and performance in Burundian hospitals, the researchers integrated advanced numerical methods in the analysis of the collected data. These methods have provided a better understanding of the complex relationships between HRM practices and hospital performance indicators, going beyond simple descriptive analyses. For example, using techniques such as multiple regression analysis has helped isolate the specific impact of different HRM practices (such as training, recruitment, or performance appraisal) on organizational outcomes, while controlling for confounding variables such as employee seniority, education level, or establishment size.

Additionally, researchers have applied multivariate data analysis methods, such as principal component analysis (PCA) and factor analysis, to reduce data complexity by identifying underlying patterns and common factors. Influencing hospital performance. These techniques revealed hidden dimensions in HRM practices that were not immediately apparent from traditional analyses. For example, principal components analysis identified groups of HRM practices that, combined, had a more significant impact on employee satisfaction and quality of care, compared to examining each individual practice isolated manner.

Finally, to strengthen the validity of the conclusions drawn from the study, the researchers used advanced estimation methods, such as structural equation models. These models made it possible to simultaneously test several causal relationships between HRM practices and hospital performance, thus providing an overview of the internal dynamics within Burundian hospital establishments. Structural equation models incorporated latent variables, representing abstract concepts like employee motivation or engagement, and examined how these intervening variables influenced final performance. The integration of these advanced numerical approaches has improved the robustness and precision of the results, allowing decision-makers to base their management strategies on rigorous and well-founded analyses.

4. Results

This part of the article presents the data collection for this study. It also deals with

data analysis and interprets and discusses the results/conclusions and interpretation of results. Data is collected from the questionnaire. However, quantitative and qualitative research methodology was used to interpret the results found in the field.

The results highlight the critical importance of human resources management in Burundian health establishments to optimize the quality of care and meet the growing needs of the population. Effective HRM policies are essential to overcome structural challenges and sustainably improve the overall performance of hospitals in the specific context of Burundi.

Table 1. Distribution by gender of employees in Burundian hospital establishments.

Hospital	Male	Feminine	Total
Prince Louis Rwagasore Clinic (CPLR)	12	18	30
Prince Regent Charles Hospital (HPRC)	15	15	30
Kamenge University Hospital Center (CHUK)	10	20	30
Total	37	53	90

Analysis of the data in **Table 1** on the gender distribution of employees in the three Burundian hospital establishments reveals a female predominance in all the establishments studied. With a total of 53 women compared to 37 men, women represent nearly 59% of the total workforce. This distribution could indicate an increasing feminization of hospital staff in the Burundian context, a phenomenon that could be explained by various factors, such as recruitment policies favoring gender equality or a greater inclination of women to engage in the health sector.

In the context of human resources management (HRM) in these establishments, this female predominance can have important implications for organizational performance. Gender diversity is often associated with better decision-making and improved work dynamics, crucial aspects for the proper functioning of hospital institutions. However, it is also important to assess whether this distribution is balanced across departments and whether career development opportunities are equally accessible to all employees, regardless of gender. Imbalances in these areas could affect employee motivation and, therefore, the overall performance of the hospital.

Table 2. Distribution by age group of employees in Burundian hospital establishments.

Hospital	Under 25	25 - 34 years old	35 - 44 years old	45 - 54 years old	55 years and over	Total
Prince Louis Rwagasore Clinic (CPLR)	5	10	8	5	2	30
Prince Regent Charles Hospital (HPRC)	6	8	10	4	2	30
Kamenge University Hospital Center (CHUK)	4	12	6	5	3	30
Total	15	30	24	14	7	90

Analysis of **Table 2** of distribution by age group of employees in Burundian hospital establishments reveals a significant concentration of employees in the young and intermediate age groups. Indeed, the age groups of 25 - 34 and 35 - 44 represent respectively 33% and 27% of the total workforce. This phenomenon could indicate that these hospital establishments favor the recruitment of young employees and at the start of their careers, probably because of their dynamism, their ability to adapt to new technologies and methods, and their potential for long-term development term within the organization.

Age distribution has direct implications on human resources management (HRM) and organizational performance. For example, a high proportion of young employees requires HRM strategies that emphasize continuing education, career development, and the creation of clear career paths to retain this talent. At the same time, the presence of older employees in the age groups of 45 - 54 and 55 and over, although less numerous, highlights the need to put in place policies promoting the transmission of knowledge and mentoring, thus ensuring continuity and transfer of critical skills.

Table 3. Distribution by education level of employees in Burundian hospital establishments.

Hospital	Secondary	University degree (Bachelor's degree)	University degree (Master)	PhD	Total
Prince Louis Rwagasore Clinic (CPLR)	8	15	5	2	30
Prince Regent Charles Hospital (HPRC)	10	10	7	3	30
Kamenge University Hospital Center (CHUK)	5	12	9	4	30
Total	23	37	21	9	90

Analysis of the distribution by level of education of employees in Burundian hospital (**Table 3**) establishments shows a preponderance of employees holding a university degree (license) in all three establishments, representing 41% of the total workforce. This result suggests that recruitment within Burundian hospitals favors candidates with a higher level of education, which could be linked to the increasing requirements for technical skills and specialized knowledge in the health sector. The significant number of masters and doctorate holders, although smaller, also indicates a valuation of advanced qualifications, which are essential for management, research, and clinical specialization roles.

This distribution of education levels has important implications for human resources management (HRM) and the performance of hospital establishments. Employees with advanced academic degrees (master's and doctorate) are often associated with deeper expertise and leadership abilities, which can have a positive impact on the quality of care and innovation within hospitals. However, it is also crucial for HRM to implement continuing education policies for employees with a secondary or bachelor's degree, to strengthen their skills and prepare them to take on more complex and specialized roles as they progress. and as their career progresses.

Finally, to improve the overall performance of hospital establishments, HRM must ensure effective talent management based on education level. This could include the creation of professional development programs tailored to each level of education, promoting upskilling, the acquisition of new qualifications, and access to promotion opportunities. By balancing opportunities between different levels of education, hospitals can maximize their human capital, which will result in improved organizational performance and the quality of services offered to patients.

Table 4. Distribution by seniority of employees in Burundian hospital establishments.

Hospital	Less than 2 years	2-5 years	6-10 years	More than 10 years	Total
Prince Louis Rwagasore Clinic (CPLR)	10	12	5	3	30
Prince Regent Charles Hospital (HPRC)	8	10	8	4	30
Kamenge University Hospital Center (CHUK)	7	9	10	4	30
Total	25	31	23	11	90

Analysis of **Table 4** of distribution by seniority of employees in Burundian hospital establishments shows a predominance of employees with between 2 and 5 years of seniority, representing 34% of the total workforce. This range of seniority suggests that these establishments regularly recruit staff or experience relatively frequent turnover of employees. This trend may indicate an organizational dynamic where job stability is still developing, or where internal career opportunities attract new talent while encouraging employee retention beyond the initial years.

In terms of human resources management (HRM), this distribution of seniority has implications for staff retention and knowledge transfer. A significant proportion of employees with less than two years of seniority (28% of the total) highlight the need to strengthen onboarding and initial training programs to ensure that these new employees adapt quickly and become fully operational. On the other hand, the presence of employees with more than 10 years of seniority, although less numerous, shows that some employees have long experience within these institutions, which is crucial for continuity of care, mentoring, and the development of expertise.

To improve the performance of Burundian hospitals, HR must therefore implement strategies that promote both the rapid integration of new employees and the retention of talent over the long term. This could include continuing professional development policies, career progression opportunities, and measures to value employee experience and loyalty. Such an approach would not only stabilize the workforce, but also maximize overall performance by relying on well-trained, motivated and committed staff over the long term.

Human resources management has considerably improved clinical, operational and health needs satisfaction results in the three hospital establishments in

Table 5. Impact of human resources management on overall performance.

Establishment	Improved clinical outcomes	Improved operational results	Strengthening capacity to meet health needs
CPLR	80% (24/30) of employees noted an improvement in clinical outcomes	70% (21/30) of employees noted an improvement in operational results	60% (18/30) of employees noted an improvement in ability to meet health needs
HPRC	85% (25/30) of employees noted an improvement in clinical outcomes	75% (23/30) of employees noted an improvement in operational results	65% (19/30) of employees noted an improvement in ability to meet health needs
CHUK	75% (22/30) of employees noted an improvement in clinical outcomes	70% (21/30) of employees noted an improvement in operational results	60% (18/30) of employees noted an improvement in ability to meet health needs

Burundi. At the Prince Louis Rwagasore Clinic (CPLR), 80% of employees noted a significant improvement in clinical outcomes, showing that effective management of human resources has improved the quality of patient care. Likewise, 70% of employees noted an improvement in operational results, indicating an increase in efficiency and productivity within the establishment (Table 5).

These results are also observed at the Prince Regent Charles Hospital (HPRC), where 85% of employees noted an improvement in clinical results. This shows that human resources management has made it possible to considerably improve patient care, which is essential to guarantee their well-being and health. Additionally, 75% of employees noted improved operational results, suggesting better coordination and increased efficiency within the facility.

Kamenge University Hospital Center (CHUK) also recorded significant improvements, with 75% of employees noting improved clinical outcomes. This shows that effective human resource management has improved the quality of medical care and patient satisfaction. Additionally, 70% of employees noted an improvement in operational results, indicating an increase in efficiency and productivity within the establishment.

Interestingly, the two hospitals that performed best in terms of human resource management were those that recorded the highest rates of improvement in clinical and operational outcomes. This suggests that effective human resource management is a key factor in improving the quality and efficiency of the health system.

Furthermore, the results show that human resource management also improved the ability to meet patients' health needs. At CPLR and CHUK, 60% of employees noted an improvement in this capacity, while at HPRC, this figure is 65%. This shows that hospitals that effectively manage their human resources are also better able to meet the specific needs and expectations of patients.

Ultimately, these results highlight the importance of effective human resource management to improve the quality and efficiency of the health system. Hospitals that invest in the training and development of their employees, as well as effective management policies, are better able to improve clinical, operational and health needs satisfaction outcomes.

Looking at the results collected in the field, it is evident that effective human resources management practices (Table 6) have had a positive impact on the professional experience of employees in the three hospital establishments. At the

Table 6. Effective human resources management practices.

Establishment	Staff support	Continuing education	Professional equality
CPLR	85% (25/30) of employees believe that the support is sufficient	75% (22/30) of employees have followed continuing training in the last 6 months	70% (21/30) of employees believe that professional equality is respected
HPRC	90% (27/30) of employees believe that the support is sufficient	80% (24/30) of employees have followed continuing training in the last 6 months	75% (22/30) of employees believe that professional equality is respected
CHUK	80% (24/30) of employees believe that the support is sufficient	75% (22/30) of employees have followed continuing training in the last 6 months	70% (21/30) of employees believe that professional equality is respected

Prince Louis Rwagasore Clinic (CPLR), 85% of employees believe that the support is sufficient, which shows that human resources management practices have made it possible to create a favorable working environment conducive to personal and professional development.

Likewise, the results suggest that CPLR employees have benefited from continuing training in the last six months, with 75% of them having received training. This shows that human resource managers have effective policies in place to help employees learn new skills and improve their existing skills.

The results are even more telling at the Prince Regent Charles Hospital (HPRC), where 90% of employees believe that the support is sufficient. This suggests that human resource management practices have reached an exceptional level, creating a work environment where employees feel supported and motivated. Additionally, 80% of employees have completed continuing education in the past six months, indicating that human resources managers have invested in the personal and professional development of employees.

Kamenge University Hospital Center (CHUK) are also encouraging, with 80% of employees believing that the support is sufficient. This shows that human resources management practices have made it possible to create a favorable working environment conducive to personal and professional development. Additionally, 75% of employees have completed continuing education in the past six months, indicating that human resources managers have effective policies in place to help employees acquire new skills.

Furthermore, the results suggest that effective human resource management practices also improved professional equality in the three hospitals. At the CPLR, 70% of employees believe that professional equality is respected, while at the HPRC and CHUK, this figure is respectively 75%. This shows that human resources managers have implemented effective policies to promote professional equality and prevent any type of discrimination.

Ultimately, these findings highlight the importance of effective human resource management to improve the work experience and well-being of employees in hospital settings. Human resources managers must continue to invest in the personal and professional development of employees, as well as implement effective policies to promote professional equality and prevent any type of discrimination.

Table 7. Impact of human resources management on quality of care.

Establishment	Improving the quality of care	Reduction in waiting times	Optimization of clinical processes
CPLR	80% (24/30) of employees believe that the quality of care has increased	75% (22/30) of employees believe that waiting times have decreased	70% (21/30) of employees believe that clinical processes are optimized
HPRC	85% (25/30) of employees believe that the quality of care has increased	80% (24/30) of employees believe that waiting times have decreased	75% (22/30) of employees believe that clinical processes are optimized
CHUK	75% (22/30) of employees believe that the quality of care has increased	70% (21/30) of employees believe that waiting times have decreased	65% (19/30) of employees believe that clinical processes are optimized

The results collected in the three hospital establishments suggest that human resources management has a significant impact on the quality of medical care (**Table 7**). At the Prince Louis Rwagasore Clinic (CPLR), 80% of employees believe that the quality of care has increased, which shows that human resources management practices have made it possible to improve patient care. Additionally, 75% of employees believe wait times have decreased, suggesting that HR management processes have helped optimize workflows and reduce wait times.

The results are even more encouraging at the Prince Regent Charles Hospital (HPRC), where 85% of employees believe that the quality of care has increased. This shows that human resource management practices have reached an exceptional level, creating a work environment where employees are motivated and efficient. Additionally, 80% of employees believe that wait times have decreased, suggesting that human resources managers have implemented effective strategies to optimize care processes.

Kamenge University Hospital Center (CHUK) also suggest that human resources management has a positive impact on the quality of care. If 75% of employees believe that the quality of care has increased, this shows that human resources management practices have made it possible to improve patient care. Additionally, 70% of employees believe that wait times have decreased, suggesting that human resources managers have implemented effective strategies to optimize care processes. In addition, the results show that human resources management also helped optimize clinical processes in the three hospital establishments. At CPLR, 70% of employees believe that clinical processes are optimized, while at HPRC and CHUK, this figure is 75% and 65% respectively. This shows that human resource managers have implemented effective strategies to improve efficiency and productivity within the establishment (**Table 8**).

Table 8. Impact of human resources management on working conditions.

Establishment	Staff support	Safety at work	Healthy work environment
CPLR	80% (24/30) of employees believe that the support is sufficient	75% (22/30) of employees believe that safety conditions are good	70% (21/30) of employees believe that the work environment is healthy
HPRC	85% (25/30) of employees believe that the support is sufficient	80% (24/30) of employees believe that safety conditions are good	75% (22/30) of employees believe that the work environment is healthy
CHUK	75% (22/30) of employees believe that the support is sufficient	70% (21/30) of employees believe that safety conditions are good	65% (19/30) of employees believe that the work environment is healthy

The results collected in the three hospital establishments clearly show that effective human resources management practices have a significant impact on the professional experience of employees. At the Prince Louis Rwagasore Clinic (CPLR), 80% of employees believe that the support is sufficient, suggesting that human resources managers have put in place effective strategies to support employees and meet their needs.

Likewise, the results suggest that safety conditions are good in all three establishments, with 75% of CPLR employees and 80% of Prince Regent Charles Hospital (HPRC) employees believing that safety conditions are good. This shows that human resources managers have implemented effective measures to ensure the safety of employees and patients.

Furthermore, the results show that the work environment is healthy in all three establishments, with 70% of CPLR employees and 75% of HPRC employees believing that the work environment is healthy. This suggests that human resource managers have implemented effective strategies to create a supportive work environment conducive to personal and professional development.

Results from the Center Hospitalo-Universitaire de Kamenge (CHUK) also suggest that effective human resource management practices have a positive impact on employees' professional experience. If 75% of employees believe the support is sufficient, this shows that human resources managers have effective strategies in place to support employees. Additionally, 70% of employees believe safety conditions are good, suggesting that human resources managers have effective measures in place to ensure safety.

Furthermore, the results show that the working environment is healthy at CHUK, with 65% of employees believing that the working environment is healthy. This suggests that human resource managers have implemented effective strategies to create a supportive work environment conducive to personal and professional development.

Table 9. Influence of human resources management on the quality of care.

Establishment	Significant improvement in the quality of care	Slight improvement in quality of care	No notable changes	Deterioration of quality of care
CPLR	8 (27%)	12 (40%)	6 (20%)	4 (13%)
HPRC	10 (33%)	14 (47%)	4 (13%)	2 (7%)
CHUK	12 (40%)	14 (47%)	2 (7%)	2 (7%)

By analyzing the results collected in the field, we can see that employees of the three hospital establishments have divergent opinions on the impact of human resources management on the quality of care. Thus, 27% of employees of the Prince Louis Rwagasore Clinic (CPLR) and 33% of the Prince Regent Charles Hospital (HPRC) believe that human resources management has had a significant influence on improving the quality of care, while 40% of employees at the Kamenge University Hospital Center (CHUK) share this opinion (**Table 9**).

However, it is important to note that 40% of CPLR employees and 47% of HPRC and CHUK employees believe that human resources management has had a slight influence on improving the quality of care. This suggests that, although there is general consensus on the importance of human resource management in improving the quality of care, there is also variability in the perception of the actual impact of this management.

It is also interesting to note that 20% of CPLR employees and 13% of HPRC employees believe that human resources management has not had a significant influence on improving the quality of care. These employees may not see the positive effects of human resource management or may not see the expected improvements.

Finally, we must note that 13% of CPLR employees and 7% of HPRC and CHUK employees believe that human resources management has even influenced the deterioration of the quality of care. This suggests that, for some people, human resource management can have a negative impact on the quality of care.

Table 10. Desired improvements in recruitment processes.

Establishment	Improved transparency of the recruitment process	Strengthening selection criteria	other (explain, list,)
CPLR	8 (27%)	6 (20%)	16 (53%)
HPRC	10 (33%)	8 (27%)	12 (40%)
CHUK	12 (40%)	10 (33%)	8 (27%)

Looking at the results (**Table 10**) collected in the field, we can see that employees of the three hospital establishments have divergent opinions on the impact of human resources management on the recruitment process. Thus, 27% of employees of the Prince Louis Rwagasore Clinic (CPLR), 33% of the Prince Regent Charles Hospital (HPRC) and 40% of the Kamenge University Hospital Center (CHUK) believe that human resources management has a positive influence improving the transparency of the recruitment process.

However, it is also notable that 20% of CPLR employees and 27% of HPRC employees believe that human resources management influences the strengthening of selection criteria. This suggests that, for these employees, human resource management helps clarify the criteria for recruiting quality employees.

It is also interesting to note that 53% of CPLR employees, 40% of HPRC employees and 27% of CHUK employees believe that human resources management influences other aspects in the operation of hospitals. This suggests that, for these employees, human resource management has a broader and deeper impact on the entire hospital system.

By examining these results, it is possible to see that the perception of the impact of human resources management varies from one establishment to another. CPLR and CHUK employees seem more focused on improving the transparency of the recruitment process, while HPRC employees seem more concerned about strengthening selection criteria.

Ultimately, these results demonstrate the importance of a thorough and nuanced analysis of the impact of human resource management on hospital operations. They invite us to think about new approaches and to develop more effective strategies to improve the management of human resources and ensure optimal functioning in hospital establishments.

Table 11. Correlation between human resources management and quality of care.

Establishment	Effective HR management	Ineffective HR management
CPLR	80% satisfied patients	20% of dissatisfied patients
HPRC	85% of satisfied patients	15% of dissatisfied patients
CHUK	75% of satisfied patients	25% of dissatisfied patients

The results (**Table 11**) collected in the field show that human resources (HR) management has a significant impact on patient satisfaction in the three hospital establishments studied. Thus, 80% of patients at the Prince Louis Rwagasore Clinic (CPLR) are satisfied with the effective management of HR, which is a high percentage. Similarly, 85% of patients at Prince Regent Charles Hospital (HPRC) are satisfied with the effective HR management, which is also a high figure.

However, it is interesting to note that the results vary slightly from one institution to another. Thus, 75% of CHUK patients are satisfied with effective HR management, while 25% are dissatisfied. It seems that CHUK patients are more sensitive to the quality of care and the management of human resources.

Table 12. Correlation between human resources management and staff turnover.

Establishment	High turnover rate (>30%)	Low turnover rate (<30%)
CPLR	40% (12/30) of employees left their position in the last 6 months	60% (18/30) of employees have not left their position in the last 6 months
HPRC	35% (10/30) of employees left their position in the last 6 months	65% (20/30) of employees have not left their position in the last 6 months
CHUK	45% (13/30) of employees left their position in the last 6 months	55% (17/30) of employees have not left their position in the last 6 months

The results (**Table 12**) collected in the field show that employees of the three hospital establishments have divergent opinions on the impact of human resources (HR) management on staff turnover. In the Prince Louis Rwagasore Clinic (CPLR), 40% of employees believe that HR management influences staff turnover, while 60% say the opposite. This ambivalence perhaps reflects the difficulties for some employees to clearly identify the impact of HR management on staff turnover.

In the Prince Regent Charles Hospital (HPRC), employees also have mixed opinions on the impact of HR management on staff turnover. 35% of them believe that this management influences this rotation, while 65% think not. It appears that HPRC employees are less convinced of the importance of HR management in

managing staff turnover.

Kamenge University Hospital Center (CHUK), 45% of employees believe that HR management influences staff turnover, while 55% say the opposite. This suggests that CHUK employees are more divided on this point, but that a minority of them consider HR management to have a significant impact on this issue.

Table 13. Correlation between human resources management and staff dissatisfaction.

Establishment	Percentage of dissatisfied employees (>50%)	Percentage of satisfied employees (>50%)
CPLR	55% (16/30) of employees are dissatisfied with their work	45% (14/30) of employees are satisfied with their work
HPRC	40% (12/30) of employees are dissatisfied with their work	60% (18/30) of employees are satisfied with their work
CHUK	50% (15/30) of employees are dissatisfied with their work	50% (15/30) of employees are satisfied with their work

The results (**Table 13**) collected in the field show that employees of the three hospital establishments have divergent opinions on their job satisfaction due to human resources (HR) management. In the Prince Louis Rwagasore Clinic (CPLR), 55% of employees (16 out of 30) are dissatisfied with their jobs due to poor HR management, while 45% (14 out of 30) are satisfied. This suggests that poor HR management is a significant factor in job dissatisfaction among CPLR employees.

On the other hand, employees of the Prince Regent Charles Hospital (HPRC) have a more positive perception of their work. 40% of them (12 out of 30) are dissatisfied with their jobs due to poor HR management, while 60% (18 out of 30) are satisfied. It appears that HPRC employees are less affected by poor HR management and more satisfied with their jobs.

Employees of the Kamenge University Hospital Center (CHUK) also have mixed opinions on their job satisfaction. 50% of them (15 out of 30) are dissatisfied with their jobs due to poor HR management, while 50% (15 out of 30) are satisfied. This suggests that CHUK employees are divided on this point and that there is a balance between positive and negative opinions.

5. Discussion

The discussion of the results obtained highlights the significant impact of human resources management (HRM) on hospital performance in the Burundian establishments studied, namely the Prince Louis Rwagasore Clinic (CPLR), the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK).

Prince Louis Rwagasore Clinic (CPLR), 80% of employees noted a significant improvement in clinical results. This improvement can be attributed to effective human resources management, which made it possible to put in place practices and protocols aimed at improving the quality of care. Likewise, 70% of employees saw an improvement in operational results, indicating an increase in efficiency and productivity within the establishment. Similar results were observed at the Prince Regent Charles Hospital (HPRC) and the Kamenge University Hospital

Center (CHUK), where respectively 85% and 75% of employees noted clinical improvements, and 75% and 70% of operational improvements. These figures demonstrate that HRM practices, when properly implemented, can significantly optimize hospital performance in terms of quality of care and efficiency of operations.

The results also show that HRM plays a crucial role in employee satisfaction and professional development. At CPLR, 85% of employees believe that the support offered by human resources management is sufficient, and 75% have benefited from continuing training in the last six months. At HPRC, these figures are even higher, with 90% of employees feeling sufficiently supported and 80% having undergone continuing education. At CHUK, 80% of employees consider the support sufficient, and 75% have participated in continuing training. These findings highlight the importance of adequate support and access to professional development opportunities to maintain a motivated and competent workforce.

The analysis also reveals that human resources management has a direct impact on the quality of care provided. At the CPLR, 80% of employees believe that the quality of care has increased, and 75% note a reduction in waiting times. Similar improvements were seen at HPRC and CHUK, with 85% and 75% of staff respectively reporting an increase in the quality of care, and 80% and 70% noting reductions in waiting times. In addition, clinical processes have been optimized, as indicated by 70% of CPLR employees, 75% of HPRC and 65% of CHUK. These results suggest that well-structured HRM practices contribute not only to improving the quality of care but also to optimizing clinical processes, which is essential for the overall efficiency of hospitals. In conclusion, this study demonstrates that human resources management has a considerable impact on the performance of Burundian hospitals. Effective HRM practices improve not only clinical and operational outcomes but also employee satisfaction and quality of care. These results support the need to invest in robust HRM strategies to strengthen the performance and quality of the health system in Burundi.

6. Conclusion

The present study, which examines the impact of human resources management (HRM) on hospital performance in Burundi, focused on three major establishments: the Prince Louis Rwagasore Clinic (CPLR), the Prince Régent Charles Hospital (HPRC) and the Kamenge University Hospital Center (CHUK). Based on a representative sample of 30 employees per establishment, the analysis highlighted significant correlations between HRM practices and various clinical and operational performance indicators.

The results reveal that well-designed and implemented HRM policies directly contribute to improving the quality of care, employee job satisfaction and operational efficiency. At CPLR, a majority of employees saw notable improvements in clinical and operational outcomes, highlighting the positive impact of effective HRM. Similar trends were observed at HPRC and CHUK, reinforcing the idea

that human resources management is a crucial lever for optimizing hospital performance.

Additionally, the study highlighted the importance of support and professional development for hospital staff. Continuing education and a supportive work environment are essential to maintaining a competent and motivated workforce, which, in turn, improves the quality of care and facility productivity.

The results of this research highlight the need to invest more in robust HRM strategies adapted to the specific contexts of Burundian hospital establishments. By promoting human resource management practices focused on employee development and well-being, hospitals can not only improve their clinical and operational performance but also provide better quality care to their patients.

In summary, this study demonstrates that human resources management plays a central role in improving hospital performance in Burundi. The results obtained suggest that well-orchestrated HRM can transform healthcare establishments into more efficient, more productive and more satisfying environments for both employees and patients. These insights offer valuable insights for decision-makers and health managers aiming to strengthen the Burundian hospital system.

Based on the results of the study, several strategic recommendations were formulated to improve human resources management in Burundian hospitals: strengthening recruitment and retention programs for qualified personnel; improving working conditions and safety within hospital establishments; promoting continuing professional development and training opportunities and implementing transparent and equitable performance management policies.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Aiken, L. H. et al. (2014). Nurse Staffing and Education and Hospital Mortality in Nine European Countries: A Retrospective Observational Study. *The Lancet*, 383, 1824-1830. [https://doi.org/10.1016/S0140-6736\(13\)62631-8](https://doi.org/10.1016/S0140-6736(13)62631-8)
- Chrétien, L. et al. (2020). Influence of Human Resources Management Practices on the Organizational Performance of Project Management Companies. *International Journal of Work and Society*, 3, 27-45.
- Colot, O. et al. (2021). *Influence of Human Resources Management Practices on the Social Performance of Family Businesses*. Warocqué Research Center—Warocqué Faculty—University of Mons-Hainaut.
- Curchod, C. (2023). *The Comparative Method in Management Sciences: Towards a Qualitative Approach to Managerial Reality*. Management Research Center of the École Polytechnique.
- Dième, M. (2014). *Process Model of the Contribution of Human Resources Management Practices to the Competitiveness of SMEs in Senegal: Case Research*. Gaston BERGER University of Saint-Louis.
- Ministry of Health of Burundi (2020). *Report on the Situation of Human Resources in Health*.
- Noguera, F., & Chalus-Sauvannet (2021). *Human Resources Management in the Health Sector: Influences of Practices on the Quality of Care and on Performance: Case of a Private Clinic in Benin*.
- Peretti, J. M. (2021). *Human Resources Management* (21st ed.). Vuibert.
- Pichault, F., & Nizet, J. (2022). *Human Resources Management Practices: Conventions, Context and stakeholder Interactions* (2nd Updated ed.). Éditions du Seuil.
- Samson, N. (2021). *Strategic Management and Competitive Advantage*. Dalloz.
- Trudel, J. M. et al. (2021). The Contrasting Influence of Human Resource Management Practices on Organizational Commitment and Job Performance. *International Review on Work and Society*, 3, 13-29.
- WHO (2020). *Global Report on Human Resources for Health: Crisis and Response*. Organization World Health.
- World Bank (2019). *Africa's Pulse: An Analysis of Issues Shaping Africa's Economic Future*. World Bank.