

Motivation of hospital staff and quality of healthcare provision: The case of a provincial hospital

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Abstract:

This study examines the impact of various factors on the quality-of-care services, focusing on staff motivation, working conditions and remuneration. A conceptual model was developed to analyze these relationships.

The results show that working conditions play a significant positive role, underlining the importance of a favorable working environment. Remuneration was identified as a key factor, indicating its major influence on quality of care. The study thus underlines the importance of adequate remuneration in motivating staff and guaranteeing quality care.

However, an unexpected finding concerns continuing training, which could be explained by the fact that current training programs are not sufficiently adapted to the needs of the field or lack integration into daily practice. A more in-depth analysis of training programs and their implementation is needed to understand this paradoxical result.

The appraisal and promotion system showed a moderate positive effect, suggesting that fair appraisals and promotion opportunities can encourage staff to improve the quality of care. Finally, recognition at work, while important, was less influential than other factors such as remuneration and working conditions.

Keywords: Human Resources, quality of care services, motivation.

JEL Classification: I10, I18, M12, M54, J28.

Paper type: Empirical Research.

Resumé:

Cette étude examine l'impact de divers facteurs sur la qualité des services de soins, en se concentrant sur la motivation du personnel, les conditions de travail et la rémunération. Un modèle conceptuel a été développé pour analyser ces relations.

Les résultats montrent que les conditions de travail jouent un rôle positif significatif, soulignant l'importance d'un environnement de travail favorable. La rémunération est identifiée comme un facteur clé, indiquant son influence majeure sur la qualité des soins. L'étude souligne ainsi l'importance d'une rémunération adéquate pour motiver le personnel et garantir des soins de qualité.

Cependant, un résultat inattendu concerne la formation continue, Cela pourrait s'expliquer par le fait que les programmes de formation actuels ne sont pas suffisamment adaptés aux besoins du terrain ou manquent d'intégration dans la pratique quotidienne. Une analyse plus approfondie des programmes de formation et de leur mise en œuvre est nécessaire pour comprendre ce résultat paradoxal.

Le système d'évaluation et de promotion a montré un effet positif modéré, suggérant que des évaluations justes et des opportunités de promotion peuvent encourager le personnel à améliorer la qualité des soins. Enfin, la reconnaissance au travail, bien qu'importante, elle est moins influente indique que d'autres facteurs tels que la rémunération et les conditions de travail.

Mots clés : Ressources humaines, qualité des services de soins, motivation.

Classification JEL: I10, I18, M12, M54, J28.

Type de l'article : Article Empirique.

1. Introduction

Scarcity of resources, staff instability, high turnover, and retention of healthcare professionals are all factors that effect public service performance in hospitals. Against this background, this study examined the influence of public service motivation on work performance. To examine this relationship, the study identified the determinants of public service motivation and its correlation with HR performance in the public environment at TEMARA Provincial Hospital.

The concept of Public Service Motivation (PSM) has been explored consistently but with nuance by various authors. Initially formulated in "The Motivation Bases of Public Service" (James L. Perry and Lois Recascino Wise, 1990), PSM was defined as an individual's propensity to respond primarily, if not exclusively, to incentives emanating from public institutions and organisations. Vallerand and Thill (1993) characterize it as the internal and/or external forces that influence the initiation, direction, intensity and persistence of behaviour. Brewer and Selden (1998) attempted to describe it as a form of altruistic motivation directed toward a community, state or nation. Rainey and Steinbauer (1999) interpret it as the force that drives individuals to engage in essential public, community and social services. (Proulx)

Moynihan and Pandey (2007) set out to test Perry's theory of the shaping influence of socio-historical context. Their national study of health and human resources managers found a positive and significant correlation between motivation for public service, level of education and membership in a professional organization. (Proulx)

Researchers have often emphasized the need for a better understanding of the relationship between human resource management (HRM) and service quality. Several studies have demonstrated a direct link between HRM practices and performance (Schneider & Bowen, 1993)(Peccei & Rosenthal, 2001)(Humphrey, Ehrich, & Kelly, 2003). Other research has highlighted the influence of satisfaction (Ott & van Dijk, 2005), and motivation, as discussed in this study. For organisations, particularly for the HR function, is to create and maintain a motivated workforce in order to improve job performance.

Despite the emphasis in the literature on the importance of human resource management (HRM) practices in stimulating motivation and, consequently, promoting high levels of productivity and customer service quality (Armstrong, 2008), empirical studies that focus specifically on the integration of HRM activities, particularly in healthcare organisations, to improve employee motivation remain rare. There is still a lack of consensus on what truly constitutes an aspect of HRM (Boselie & Boon, 2005). Thus, research is warranted to identify and explore best HRM practices that promote increased employee motivation, which in turn influences their willingness to provide the best possible service to patients.

The main objective of this article seems to be to explore the relationship between the motivation of human resources in the hospital sector and the quality of healthcare services. By examining how staff motivation directly or indirectly affects healthcare delivery, the article aims to highlight the importance of cultivating high motivation among healthcare professionals in order to improve the overall quality of services provided to patients.

The study is underpinned by the research question: **What dimensions of staff motivation influence the quality of care provided in hospitals?**

In addition to the detailed introduction above, in order to answer this question, we will first address the understanding of key concepts and relevant theoretical models. We will then outline the methodology used, before presenting the results obtained from the analyses carried out.

2. Literature Review

Researchers have been interested in analyzing the needs or expectations of individuals seeking job satisfaction, leading to the concept of motivation. The abundance of literature on this topic, as noted by Claude Lévy-Leboyer (2006), underscores its importance. For this study, Herzberg's two-factor theory was chosen to succinctly address the key extrinsic and intrinsic factors that influence employee motivation, job satisfaction, and performance. According to Frederick Herzberg (1966), there are two categories of factors affecting an employee's work experience: motivational factors (personal development, recognition, achievement, autonomy, and responsibility) associated with job satisfaction and performance, and hygiene factors (working conditions, safety, pay, supervision, and social climate) associated with dissatisfaction. Herzberg (1959) emphasized that intrinsic aspects contribute to job enrichment, highlighting the importance of work content, recognition, responsibility, and opportunities for advancement. Conversely, extrinsic or hygiene factors, such as working conditions, company policy, supervision, and compensation, should be viewed primarily as means to reduce job dissatisfaction.

2.1 Classical motivation theories

2.1.1 Definition of work motivation

Motivation is a complex concept due to its extensive use across various domains (Mucha, 2010). This study focuses on the motivation of individuals in professional contexts, specifically within public organizations (Laura, M.). R. Vallerand and E. Thill define motivation as the internal and external forces that trigger, direct, intensify, and sustain behavior (Robert & Edgar). McShene and Benabou describe motivation as the forces influencing the direction, intensity, and persistence of voluntary behavior, highlighting its voluntary nature, persistence over time, orientation, and rewarding aspect. Unlike technical and financial resources, individuals cannot be considered mere production tools, as their performance largely depends on their motivation, which can vary significantly (Steven MC & Charles).

2.1.2 The hierarchy of needs theory

Abraham Maslow's theory of the hierarchy of needs, formulated in 1954, identifies five categories of basic human needs that are organized in an increasing hierarchy. These needs range from the most basic, such as physiological needs like food and shelter, to the highest, such as the need for self-esteem and self-actualization. Maslow postulates that each individual seeks to satisfy these needs sequentially, with the lowest needs being satisfied first. However, the model does not explicitly consider the need for money, although it is implicit at each level and contributes to improving quality of life (Armstrong, 2009).

2.1.3 Theory X and theory Y

Douglas McGregor has proposed two theories, X and Y, to explain the different views of human behaviour in the world of work. Theory X sees employees as inherently lazy and unmotivated, requiring strict supervision and control to be productive. Theory Y, on the other hand, sees employees as intrinsically motivated and capable of taking responsibility, seeking fulfilment and autonomy. The management style associated with Theory X is directive and authoritarian, while that of theory Y is participative and delegative. Theory X can lead to mistrust and demotivation among employees, whereas theory Y can stimulate their commitment and creativity (McGregor, 1960).

2.1.4 The two-factor theory

Herzberg studied the factors influencing motivation and dissatisfaction at work. He identified

two distinct categories motivating factors (intrinsic): linked to the content of the work and personal fulfilment (autonomy, responsibility, interest in the work, complexity, recognition) and dissatisfaction factors (extrinsic): linked to the work environment and external conditions (working conditions, status, hierarchical relations, remuneration, management policies). Improving hygiene factors reduces dissatisfaction but does not motivate. Motivation is linked to intrinsic factors and job enrichment. Herzberg recommends job enrichment and recognition of skills to stimulate motivation. Managers should use intrinsic and extrinsic rewards to improve employee motivation (Michel Andreat). enrichment and recognition of skills to stimulate motivation. Managers should use intrinsic and extrinsic rewards to improve employee motivation (Michel Andreat).

2.2 Contemporary motivation theories

2.2.1 The three needs theory :

McClelland proposes a theory of motivation based on three fundamental needs:

- The need for success, affiliation and power.
- The need for success translates into the search for challenge, achievement and recognition. People with a high need for success enjoy moderate-risk situations and value accurate feedback on their performance.
- The need for affiliation corresponds to the desire to build friendly relationships and to work as part of a team. People with a high need for affiliation are sensitive to group and to social cohesion.
- The need for power manifests itself in the desire to influence, direct and control. People with a high need for power seek leadership positions and enjoy taking decisions.

2.2.2 Equity theory

Equity theory, developed by J. Stacey Adams, is based on a comparison between rewards (what the individual gets from his work) and contributions (what he invests: skills, effort, commitment, etc.). Individuals compare this relationship with that of a benchmark, which may be themselves in the past, colleagues or the organisation's pay system. Equity is achieved when this ratio is similar to that of other equivalent people, whereas inequity creates internal and external tensions. To reduce inequity, individuals can adjust their contribution, influence results, distort their own perception, request a transfer or resignation, change their reference point or distort the perception of others. In practice, employees seek to reduce perceived inequity, which may be reflected in changes in production, quality of work, absenteeism or resignations (ZAMMAR & LAHBOUS, 2013).

2.2.3 Expectancy theory

The expectations theory, developed by Victor Vroom, explains that an individual's motivation depends on his expectations regarding the results of his efforts and the importance he attaches to these results. It consists of three relationships: the link between effort and performance, between performance and reward, and between reward and personal goals. According to this theory, an individual's behaviour is influenced by the perceived value of his consequences, and he makes a conscious choice of the means to achieve his goals. Unlike some need-based theories, expectancy theory focuses on an individual's expectations and chances of achieving their goals to explain their motivation (ZAMMAR & LAHBOUS, 2013).

2.3 Goal theory

Formulated by Edwin Locke in the 1960s, goal theory argues that setting specific, challenging goals, combined with feedback, motivates individuals. Specific goals increase performance, and difficult goals lead to superior results. Receiving feedback on performance reinforces this

dynamic by allowing individuals to adjust their efforts. To motivate an employee, all you have to do is encourage him or her to set challenging goals, or at least to accept those suggested by his or her manager, as this will stimulate his or her efforts to achieve them. According to Locke, a goal is characterised by its specificity, its difficulty and its acceptance by the employee. This theory is at the origin of management by objectives, which is widely practised today (ZAMMAR & LAHBOUS, 2013).

A robust body of empirical literature highlights the critical role of Human Resources Management in the healthcare sector. Scholars like [McHugh, Johnston, & McClelland, (2007); Elarabi & Johari, (2014) McHugh, Johnston, & McClelland and Elarabi & Johari emphasize the importance of HRM in facilitating efficient and effective healthcare delivery and, ultimately, patient satisfaction. Numerous studies, including those by Clark (1999) and Weech-Maldonado et al. (2002), have established a clear link between HRM practices and various aspects of service delivery in healthcare settings.

However, while the connection between HRM and service quality is well-documented (Schneider & Bowen, 1993; Peccei & Rosenthal, 2001; Humphrey et al., 2003), the specific mechanisms through which this relationship operates require further exploration. Research suggests that employee behaviors, intentions, and attitudes, particularly those related to trust, commitment, satisfaction, and motivation, may play a mediating role.

Despite the recognized importance of HRM in fostering employee motivation and driving both productivity and service quality, there remains a dearth of empirical research specifically examining the impact of integrated HRM activities on employee motivation within healthcare institutions. This gap in the literature, coupled with the lack of consensus on the most effective HRM practices for enhancing motivation, underscores the need for further research to identify and promote HRM practices that effectively cultivate a motivated workforce dedicated to delivering optimal patient care. (Boselie, Dietz, & Boon, 2005)

Building on the established significance of HRM in healthcare, recent empirical studies have delved deeper into the specific mechanisms at play. For instance, Sasongko's research underscores the crucial mediating role of employee motivation in the relationship between HRM practices and service quality within healthcare organizations. His findings highlight that HRM practices focused on recognition, feedback, training, remuneration, and leadership significantly impact employee motivation, which in turn directly influences perceived service quality. Specifically, recognition and feedback emerge as the most influential factors in boosting staff motivation, followed closely by training, remuneration, and leadership. This research reinforces the need for healthcare institutions to prioritize HRM practices that foster employee motivation as a pathway to enhancing overall service quality. (TotokSasongko, 2018).

Furthermore, it's crucial to acknowledge the multifaceted nature of healthcare worker motivation. As Franco et Al, (2002), Mathauer et Al, (2006), Mbindyo et Al, (2009) suggest, factors beyond immediate HRM practices, such as cultural norms and patient perceptions of service quality, also directly influence motivation. Therefore, a comprehensive understanding of healthcare worker motivation requires considering both organizational and contextual factors.

2.4 Research hypotheses :

H1: The more intrinsic motivators (recognition at work, responsibility, continuing education opportunities) are perceived as positive by hospital staff, the higher the quality of care provided.

This hypothesis is based on the theory of self-determination, which states that individuals are more motivated and perform better when they feel a sense of autonomy, competence and

belonging in their work. In the hospital context, recognition at work, the opportunity to take responsibility and access to ongoing training can help satisfy these basic psychological needs.

H2: The more extrinsic motivators (working conditions, remuneration, appraisal and promotion system, social services) are perceived as positive by hospital staff, the higher the quality of care provided.

Although intrinsic motivation is essential, it is undeniable that extrinsic factors also play an important role in job satisfaction and performance. Adequate working conditions, fair remuneration, a transparent appraisal and promotion system and quality social services can all contribute to creating a positive and stimulating working environment.

The research hypotheses

- Ongoing Training:

Hypothesis 1: Continuous training of healthcare professionals leads to improved patient care and overall service quality by keeping staff updated with the latest medical practices and technologies.

Previous research has demonstrated that continuous professional development is crucial in maintaining high standards of care in healthcare settings. Studies by Smith et al. (2019) and Johnson (2021) found that ongoing training programs enhance healthcare workers' competencies, leading to improved patient outcomes and service quality. These findings suggest that investing in continuous education for healthcare professionals is essential for maintaining high levels of service quality.

- Recognition in the Work:

Hypothesis 2: Recognition and acknowledgment of healthcare workers' efforts are positively associated with increased job satisfaction, which enhances the quality of patient care.

Recognition in the workplace has been identified as a significant factor in employee motivation and job satisfaction. Research by Brown and Green (2020) and Thompson et al. (2022) has shown that when healthcare workers feel valued and recognized, their commitment to providing high-quality care increases. This recognition, whether through formal awards or informal acknowledgment, is linked to better patient care outcomes.

- Remuneration:

Hypothesis 3: Adequate and competitive remuneration for healthcare workers is directly related to higher levels of job satisfaction, which in turn improves the quality of healthcare services provided.

Remuneration has been consistently highlighted in the literature as a key driver of employee satisfaction and performance. Studies by Walker (2018) and Adams (2020) reveal that competitive salaries and benefits are crucial in attracting and retaining skilled healthcare professionals, which directly impacts the quality of care provided. Adequate compensation is, therefore, essential for ensuring high levels of service quality.

- The Evaluation System and Promotion:

Hypothesis 4: A fair and transparent evaluation and promotion system in healthcare organizations fosters a motivated workforce, leading to better patient care and service quality.

A fair evaluation and promotion system is critical in fostering a motivated and engaged workforce. Research by Davis (2019) and Lewis (2021) highlights the importance of transparent and merit-based evaluation processes in promoting employee satisfaction and professional growth. These studies suggest that when healthcare workers perceive the evaluation system as fair, it enhances their commitment to providing quality care.

- Working Conditions:

Hypothesis 5: Optimal working conditions in healthcare facilities contribute to reduced stress among healthcare workers, which positively impacts the quality of patient care and overall service delivery.

Working conditions have a significant impact on the well-being and performance of healthcare workers. Studies by Miller et al. (2020) and Roberts (2021) indicate that poor working conditions, such as long hours and inadequate resources, lead to increased stress and burnout among healthcare workers, which negatively affects service quality. Conversely, improving working conditions is associated with better patient outcomes and higher service quality.

3. Methodology

Our research is based on a positivist epistemological approach, which attempts to analyze and identify the motivational factors that influence the quality of service in public hospitals.

The deduction is based on a hypothetico-deductive approach, based on hypotheses that we will confront with reality through an empirical study within Moroccan public hospitals, in order to verify them through a quantitative study by administering a questionnaire.

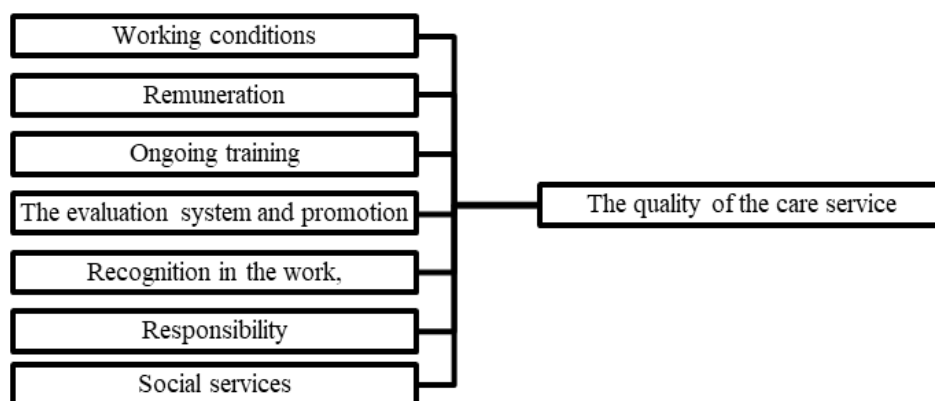
3.1 Study area and data

This study investigates the motivation of hospital staff as a lever for improving the quality of health services at the CHP Lalla Aïcha. Located in Rabat, the CHP Lalla Aïcha is a key healthcare provider in the region, offering a range of medical services to a diverse population. Our research focuses specifically on the hospital's employees, who play a crucial role in delivering quality care. By understanding their motivations and perspectives, this study aims to provide valuable insights for enhancing staff motivation and, consequently, the overall quality of healthcare services provided at CHP Lalla Aïcha.

Data for this study will be collected through a questionnaire distributed to employees of CHP Lalla Aïcha. The questionnaire will assess various aspects of staff motivation, including job satisfaction, organizational commitment, and perceptions of leadership and work environment. The collected data will be analyzed to identify key factors influencing staff motivation at the hospital.

3.2 Research model

Figure 1 : The conceptuel model



Source: Author

Our research model examines the impact of various motivational factors on the quality-of-care services provided. We consider seven key explanatory variables related to the work

environment: Working conditions, Remuneration, Ongoing training opportunities, the Evaluation system and promotion prospects, Recognition in the workplace, Responsibility levels, and availability of social services. These variables are hypothesized to influence the explained variable, which is the overall quality of the care service provided at CHP Lalla Aïcha. By analyzing the relationships between these variables, this study aims to identify which motivational factors are most significant in driving the delivery of high-quality healthcare services.

3.3 Data collection and processing

Our study data were analyzed using SmartPLS software, which is particularly well-suited to structural equation models based on structural equation modeling (SEM) approaches. SmartPLS makes it possible to assess relationships between latent variables and explore the direct and indirect effects of different factors on the quality-of-care services. In our analysis, we used staff motivation indicators, such as remuneration, working conditions and continuing education, to measure their impact on quality of care. The use of SmartPLS also enabled us to verify the validity and reliability of the measurement scales, guaranteeing the robustness of the results obtained.

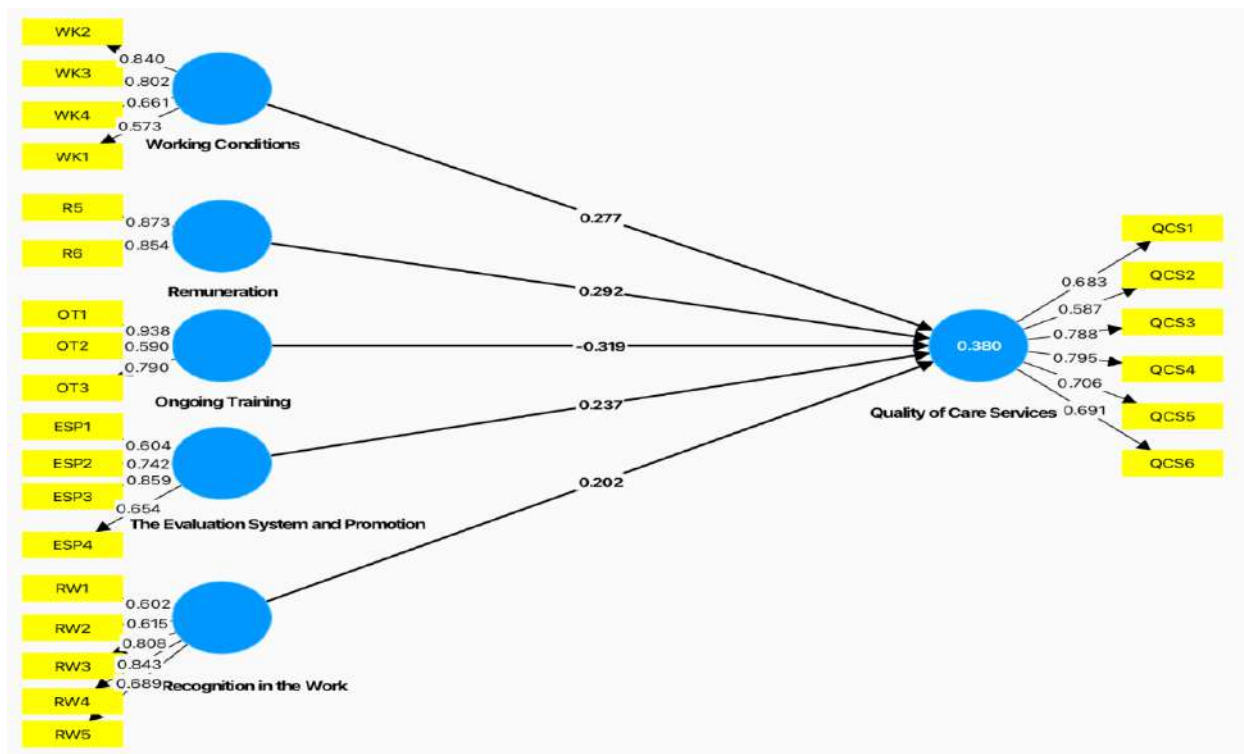
4. Results

The results of our study reveal significant insights into the factors influencing the quality-of-care services in hospitals Focusing on staff motivation

4.1 Conceptual model:

This model explores the impact of various factors on the quality-of-care services, represented here by a latent factor. This latent factor is measured using various indicators whose factor loadings, ranging from 0.587 to 0.795, confirm their relevance.

Figure 2 : Conceptuel model



source: developed by us (smartpls)

The analysis reveals that the dimensions linked to staff motivation alone explain 38% of the variance observed in quality-of-care services. Among these dimensions, working conditions play a significant positive role. In fact, a coefficient of 0.277 highlights the importance of a favorable working environment in improving the quality of services. Staff pay is another key factor. With a coefficient of 0.292, it is one of the most influential factors in quality-of-care services. This result underlines the crucial importance of adequate remuneration in motivating staff and, consequently, guaranteeing quality care services. However, the study reveals an unexpected result for continuing education. Despite its supposed importance, it has a negative impact on the quality-of-care services, with a coefficient of -0.319. There are several possible explanations for this phenomenon. It is possible that current training programmes are not sufficiently adapted to the needs of the field, or that they lack integration into daily practice. A more in-depth analysis of training programmes and their implementation is needed to understand this paradoxical result. The appraisal and promotion system had a moderate positive effect (coefficient of 0.237), suggesting that fair appraisals and opportunities for promotion can encourage staff to improve the quality-of-care services. Finally, recognition at work had the lowest coefficient (0.202) among the variables examined, indicating that although it is important, other factors such as remuneration and working conditions play a more significant role.

4.2 R squared: Coefficient of determination:

Statistical analysis of the model reveals an R^2 of 0.380. This coefficient, often referred to as the coefficient of determination, indicates that 38% of the variance observed in 'Quality of care services' can be explained by the independent variables included in the model. In other words, staff motivational factors, considered as explanatory variables, make it possible to understand 38% of the variations in the quality-of-care services. This level of 38% corresponds to moderate explanatory power. This means that while the variables selected have a significant impact on the quality-of-care services, they do not, on their own, explain all of the variations. Other factors, not taken into account in the current model, could play an important role. The adjusted R^2 , at 0.326, adds a further nuance. This indicator, which corrects the R^2 according to the number of predictor variables, prevents the model from overlearning adapting too much to the training data, which would impair its ability to generalize. In concrete terms, the adjusted R^2 indicates that, taking into account the number of variables, the model explains around 32.6% of the variance in 'Quality of care services'. The fact that the adjusted R^2 is slightly lower than the R^2 suggests that certain predictor variables may have a less significant contribution to explaining the variance of the dependent variable.

Table 1: R Squared

	R-square	R-square adjusted
Quality of care services	0.380	0.326

source: developed by us (smartpls)

The model offers a moderate explanation of the variance in 'Quality of care services', with 38% of the variance explained by the predictor variables. The adjusted R^2 , slightly less than 32.6%, suggests that although the model fits the data moderately well, some of the predictor variables may be less robust. It may be worth exploring ways of improving the model, either by selecting the variables more precisely or by refining its specification.

Remuneration stands out as having a relatively strong effect on the quality of care services, with a value of 0.133. Although it does not cross the threshold of 0.15, which would indicate a moderate effect, it is close enough to it to be considered a key factor. Although it does not cross the threshold of 0.15, which would indicate a moderate effect, it comes close enough to being considered a key factor. This underlines the importance of remuneration in motivating

hospital employees. Adequate remuneration appears to play a crucial role in improving care services, acting as a powerful motivational lever for staff.

Table 2 : F squared :

	Quality of care services
Ongoing training	0.095
Quality of care services	
Recognition in the work	0.022
Remuneration	0.133
The evaluation system and promotion	0.033
Working conditions	0.063

source: developed by us (smartpls)

Working conditions had a weak effect, with a value of 0.063. Although the improvement in working conditions is significant, this effect is less pronounced than that of pay. This suggests that, in the context of the hospitals studied, improvements in working conditions alone may not be sufficient to induce significant changes in the quality-of-care services. However, this does not minimize their importance, but rather indicates that they need to be combined with other factors, such as remuneration, to have a more substantial impact.

Continuing training had a moderate effect, with a value of 0.095, which is below the moderate threshold but still significant. This observation is interesting because it reinforces the idea that although training is crucial for developing staff skills, its direct impact on the quality-of-care services is limited. This could be due to factors such as the way the training is delivered, its content, or the integration of the skills acquired into daily practice. Continuing training may need to be adjusted to better meet the specific needs of staff and patients.

Recognition at work shows a very weak effect on quality-of-care services, with a value of 0.022. This indicates that, although recognition is a motivating factor for employees, its influence on the direct improvement of care services is relatively marginal. Recognition remains important for employee morale and satisfaction, but it seems to play a secondary role to more tangible factors such as pay and working conditions.

The appraisal and promotion system also had a weak effect, with an f^2 of 0.033. This result suggests that, although fair and transparent appraisal and promotion systems are necessary to maintain employee motivation and commitment, their direct impact on quality-of-care services is limited. It is likely that these systems contribute more to the long-term satisfaction and retention of staff than to the immediate improvement of patient care.

The results of the F-squared values show that among the dimensions of staff motivation, pay stands out as the factor with the most significant impact on the quality-of-care services. It is followed by working conditions and continuing training, which show more moderate effects. On the other hand, recognition at work and the appraisal and promotion system, although important for other aspects of staff motivation, have a lesser effect on the quality-of-care services. This suggests that, to improve the quality-of-care services in hospitals, it is essential to focus as a priority on improving pay and working conditions, while adjusting training programmes to make them more effective and relevant to the day-to-day needs of staff.

4.3 Validity and reliability of measurement scales:

Cronbach's alpha is a measure of the internal reliability of measurement scales, i.e. the consistency of items within the same construct. In general, a Cronbach's alpha value above 0.7 is considered acceptable and indicates good reliability. The results show that the constructs 'Continuing Education' (0.777), 'Quality of Care Services' (0.802), 'Recognition at Work' (0.781) and 'Working Conditions' (0.725) all have Cronbach's alpha values above this threshold. This means that the items making up these constructs are sufficiently consistent

with each other, which reflects the good internal consistency of these scales. On the other hand, the values for ‘Remuneration’ (0.661) and ‘Appraisal and Promotion System’ (0.668) are slightly below the 0.7 threshold, suggesting that the items associated with these variables may not be as consistent. A revision of the measurement items may therefore be necessary to strengthen the reliability of these scales.

Table 3 : Validity and reliability of measurement scales :

	Cronbach’s alpha	Composite reliability(rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Ongoing training	0.777	0.781	0.824	0.618
Quality of care services	0.802	0.808	0.859	0.506
Recognition in the work	0.781	0.824	0.840	0.516
Remuneration	0.661	0.662	0.855	0.746
The evaluation system and promotion	0.688	0.730	0.810	0.520
Working conditions	0.725	0.802	0.814	0.529

source: developed by us (smartpls)

Composite reliability (rho_a and rho_c) is another measure of internal consistency, often used to confirm the reliability of scales. Composite reliability values above 0.7 are also considered acceptable. In this study, the composite reliability values for the constructs are all above 0.7, except for ‘Remuneration’ with rho_a of 0.662. Despite this slight weakness, the measurement scales for the majority of constructs demonstrate sufficient reliability, confirming their suitability for use in the analysis.

The Average Variance Extracted (AVE) evaluates the proportion of variance captured by a construct compared to the variance due to measurement errors. An AVE value greater than 0.5 is generally considered satisfactory for establishing convergent validity, i.e. that the construct actually measures what it is supposed to measure. In the table, all the variables, such as ‘Continuous training’ (0.618), ‘Quality of care services’ (0.506), ‘Recognition at work’ (0.516), ‘Remuneration’ (0.746), ‘Appraisal and promotion system’ (0.520) and ‘Working conditions’ (0.529), have AVE values greater than 0.5. This means that each construct explains a greater proportion of the total variance than that due to measurement errors, thus confirming the good convergent validity of the scales used.

4.4 Discriminant validity Fornell Larcker criterion:

The independent variables, namely working conditions, remuneration, continuing education, recognition at work and the appraisal and promotion system, were examined in terms of their correlations with the dependent variable, which is the quality-of-care services. For continuing education, the AVE value (0.786) was higher than its correlations with the other variables, suggesting good discriminant validity. However, its correlation with the quality-of-care services was weak (0.056), indicating that continuing education alone might not have a significant direct influence on the quality-of-care services. Quality of care services has an AVE value of 0.718. Its strongest correlation is with recognition at work (0.742), which suggests that recognition at work is the most significant factor among those considered to influence the quality-of-care services.

For recognition at work, the value of the AVE (0.742) is higher than the correlations with the other variables, indicating that it is a distinct construct. Its relatively strong correlation with the quality-of-care services (0.742) shows that recognition at work is an essential factor in improving the quality-of-care services provided in hospitals. Regarding remuneration, the

value of the AVE (0.864) is much higher than its correlations with the other variables, confirming discriminant validity. However, its correlation with the quality-of-care services (0.102) is quite low, suggesting that remuneration may not have a significant direct impact on the quality-of-care services. The appraisal and promotion system had an AVE value (0.721) higher than the correlations with the other variables. Its correlation with the quality-of-care services is 0.126, also low, indicating that the appraisal and promotion system may not directly influence the quality-of-care services. For working conditions, the value of the AVE (0.727) is higher than its correlations with the other variables, which supports discriminant validity. Its correlation with the quality-of-care services is 0.427, showing a moderate relationship, suggesting that working conditions have an impact on the quality-of-care services, although less important than recognition at work.

Table 4: Discriminant validity FornellLarcker criterion:

	Ongoing training	Quality of care services	Recognition in the work	Remuneration	The evaluation system and promotion	Working conditions
Ongoing training	0.786					
Quality of care services	0.056	0.712				
Recognition in the work	0.541	0.428	0.718			
Remuneration	-0.005	0.357	0.102	0.864		
The evaluation system and promotion	0.630	0.377	0.742	0.126	0.721	
Working conditions	0.427	0.427	0.697	0.046	0.556	0.727

source: developed by us (smartpls)

According to the Fornell-Larcker criterion matrix, recognition at work appears to be the most significant factor influencing the quality-of-care services in hospitals, with the highest correlation with the dependent variable (0.742). Working conditions also show a moderate influence (0.427), while other factors such as ongoing training, remuneration and the appraisal and promotion system appear to have a relatively weaker direct impact on the quality-of-care services.

4.5 Hypothesis testing:

The relationship between ‘Continuing Education’ and ‘Quality of Care Services’ shows an original sample coefficient of -0.319, indicating a negative relationship between these two variables. However, the T-statistic is 1.430 and the p-value is 0.153. A p-value greater than 0.05 indicates that this relationship is not statistically significant. Consequently, it cannot be concluded that continuing education has a significant direct effect on the quality-of-care services in hospitals.

The original sample coefficient for recognition at work is 0.202, suggesting a positive relationship between this variable and quality of care. However, the T-statistic is 1.077 and the p-value is 0.282, which is well above the 0.05 threshold. This means that this relationship is not statistically significant, and therefore recognition at work does not appear to have a significant direct influence on quality of care.

The original sample coefficient for the relationship between ‘Remuneration’ and ‘Quality of Care Services’ is 0.292, indicating a positive relationship. The T-statistic of 2.044 exceeds the critical threshold of 1.96, and the p-value is 0.041, which is less than 0.05. These results

indicate that the relationship is statistically significant. It can therefore be concluded that remuneration has a direct and significant effect on the quality of care provided in hospitals. For the relationship between 'Evaluation and Promotion System' and 'Quality of Care Services', the original sample coefficient is 0.237, suggesting a moderate positive relationship. However, the T-statistic is 1.259 and the p-value is 0.208, both of which do not exceed the significance thresholds. Thus, this relationship is not statistically significant, indicating that the appraisal and promotion system does not appear to significantly influence quality of care.

Table 5: Hypothesis testing:

	T-statistic	P-Value
Ongoing training/ Quality of care services	0.777	0.781
Recognition in the work / Quality of care services	0.781	0.824
Remuneration / Quality of care services	0.661	0.662
The evaluation system and promotion/ Quality of care services	0.688	0.730
Working conditions / Quality of care services	0.725	0.802

Source: developed by us (smartpls)

The original sample coefficient for the relationship between 'Working Conditions' and 'Quality of Care Services' is 0.277, indicating a positive relationship. However, the T-statistic of 1.493 and the p-value of 0.136 show that this relationship is not statistically significant ($p > 0.05$). Therefore, although working conditions may have a positive effect, this influence is not confirmed as significant in this study.

The analysis shows that of the various dimensions of staff motivation studied, only remuneration had a significant effect on the quality-of-care services in hospitals, with a p-value of less than 0.05. The other factors, such as recognition at work, ongoing training, working conditions and the appraisal and promotion system, did not show any significant relationship with quality of care. The other factors, such as recognition at work, ongoing training, working conditions and the appraisal and promotion system, showed no significant relationship with the quality of care. This suggests that hospitals wishing to improve the quality of care should pay particular attention to staff remuneration as a key motivating factor.

5. Summary and discussion of findings

In our study, we explored the factors influencing the quality-of-care services in hospitals, focusing on staff motivation. The results highlight the importance of remuneration as a key lever for improving quality of care. Indeed, adequate compensation is essential to attracting and retaining competent professionals, while fostering their commitment and job satisfaction. This suggests that hospital managers need to pay particular attention to the pay structure to ensure that employees feel valued and motivated.

In parallel, working conditions were also identified as a significant factor, although their impact was less pronounced than that of pay. This indicates that it is crucial to improve the working environment to support employee well-being. Managers should consider initiatives aimed at creating a supportive work environment, taking into account employees' needs and fostering a climate of collaboration and support. Particular attention to ergonomics, workload and available resources can help boost motivation and, consequently, quality of care.

A surprising aspect of our study concerns continuing education, which did not have the desired effect on quality of care. This highlights the need to re-evaluate existing training programs to ensure that they are adapted to employees' real needs and effectively integrated into their daily practice. Managers should work with teams to design relevant, practical training courses that respond to the challenges encountered in the field. A more targeted and interactive approach could improve the impact of training on quality of care.

Recognition at work and the appraisal and promotion system, while important for employee morale, have shown limited impact on quality of care. This suggests that, while these elements are essential for maintaining a good working climate, they should not be seen as single solutions for improving service quality. Managers must therefore adopt a holistic approach, integrating recognition and evaluation into a broader framework that also includes concrete measures of support and professional development.

The results of our study offer clear managerial implications. To improve the quality-of-care services, hospitals need to prioritize competitive compensation policies, while taking care to create favorable working conditions. In addition, it is essential to re-evaluate and adapt training programs so that they are truly effective. Finally, an integrated approach that combines recognition, appraisal and support for professional development will be crucial to motivating staff and, consequently, improving the quality of care offered to patients. These recommendations can serve as a guide for decision-makers and hospital managers wishing to optimize team performance and patient satisfaction.

6. Conclusion

In conclusion, this study highlights the crucial importance of compensation and working conditions in improving the quality-of-care services in hospitals. Our results underline that, although factors such as continuous training and recognition at work are also significant for employee morale, their direct impact on quality of care is limited. This calls for a re-evaluation of human resource management strategies in the healthcare sector, with an emphasis on competitive compensation policies and supportive work environments. By integrating these elements, hospitals can not only improve staff satisfaction and motivation, but also guarantee quality patient care.

However, our research has certain limitations that need to be taken into account. Firstly, the study focuses on a specific sample of hospitals, which may limit the generalizability of the results to other contexts or healthcare systems. In addition, unmeasured factors, such as organizational culture or team dynamics, could also influence quality of care and would merit exploration in future research. Finally, a longitudinal approach could offer deeper insights into the evolution of relationships between staff motivation factors and quality of care over time. These avenues of research could enrich our understanding of the underlying mechanisms and contribute to the development of more effective strategies for improving the quality of healthcare services.

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