

Competencies and Perceptions of Quality Managers in Healthcare: A Study in Portuguese Primary Care Units

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Abstract

Purpose – In recent decades, the responsibilities and expectations placed on quality managers have grown considerably. Yet, there is a lack of research into the roles and competencies of quality managers, particularly within healthcare settings. This study has two main objectives: (1) to describe the professional profile and competencies of quality managers in healthcare; and (2) to understand how clinical directors perceive their role.

Methodology – To address these aims, a questionnaire based on the House of Competences framework was administered to a sample of quality managers and clinical directors working in Portuguese primary care units.

Findings – The survey results reveal that quality managers recognise the importance of many of the proposed competencies, while also acknowledging certain deficiencies, particularly in communication and team management skills. Clinical directors agree with this scenario, highlighting the need for a deeper understanding of healthcare-specific challenges and stronger communication abilities. Resistance to change and lack of involvement of healthcare professionals have emerged as main obstacles. Yet, quality managers are widely perceived as having a positive impact on the quality of care, especially in terms of error reduction and failure prevention, and are generally satisfied with their job.

Research Implications – The findings underscore the need for targeted training and offer insights into overcoming organisational barriers to enhance the effectiveness of quality managers.

Originality – To the best of the authors' knowledge, this is the first study to validate the House of Competences framework within a healthcare context. Moreover, it provides a comprehensive and up-to-date profile of quality managers in this sector.

Keywords: quality managers, skills, competencies profile, clinical directors, education and training

Paper type: Research paper

1. Introduction

Over the past few decades, quality management in the healthcare sector has evolved considerably, whether due to regulatory requirements from governments and oversight bodies, the advancement of scientific knowledge, or the increasing demands of patients and society in general.

The importance of leadership involvement in quality management—both at the top and intermediate levels—is widely recognised, particularly in promoting a culture of continuous improvement, defining quality policies, and setting goals and strategies. However, some studies (e.g. Parand et al., 2014) show that these activities are often neglected, jeopardising the sustainability of quality programs and initiatives.

While the development of standards, laws, and protocols that encourage, regulate, and dictate the implementation of quality management systems in healthcare is undeniable—as a consequence of growing concerns for patient safety and effectiveness of care—the literature analysing the profile and role of those who are in charge of quality departments, offices, or other structures within healthcare institutions, is very limited.

Nevertheless, existing studies highlight that the profile and functions of the quality manager or professional have changed significantly over the past decades. They no longer correspond to the traditional image of quality inspectors, who performed predominantly reactive tasks focused on detecting and correcting nonconformities (Carvalho & Paladini, 2012). Today, the role of the quality manager (QM) encompasses a much broader set of responsibilities, including preventive, supervisory, and assessment functions (Carvalho & Paladini, 2012). In carrying out preventive tasks, the QM is responsible for raising team

awareness and implementing a quality culture, managing risks, and developing continuous improvement plans. In their supervisory role, the QM not only monitors real-time indicators but also acts as a team developer, ensuring the implementation of methodologies, policies, and procedures. The QM's assessment tasks involve data analysis and internal audits. Some literature even refers the QM's role/responsibility in institutional sustainability and corporate responsibility (Carvalho & Paladini, 2012).

Thus, at the core of the contemporary QM's role is the implementation of quality assurance activities, which can be defined as “activities that are carried out to set standards and to maintain and improve performance so that the care provided is as effective and safe as possible” (Henker et al., 2018).

At the same time, the QM's functions are increasingly integrated into the organisation as a whole and cannot be performed in isolation. They depend on intra- and interdepartmental interactions (Ingason & Jónsdóttir, 2017).

Within this context, this paper seeks to examine the profile of the quality manager (QM) within the healthcare sector, focusing on the challenges they encounter, the core competencies required for their role, and how their function is perceived by healthcare professionals, particularly clinicians. With this purpose in mind, an empirical study was conducted based on the collection of primary data from those responsible for quality structures in Portuguese primary healthcare units and from the clinical directors of those units. Structured questionnaires were administered through the LimeSurvey platform.

The remainder of this paper is organised as follows. The next section presents a brief literature review, highlighting the competencies and skills identified in previous studies as essential for quality managers in general. This is followed by a description of the research design adopted in the study. The subsequent section outlines the main findings from the questionnaires administered to quality managers and clinicians. Finally, the paper concludes with some final remarks and implications.

2. Literature Review

2.1. Role and competencies of a QM

As the functions and responsibilities assigned to Quality Managers (QMs) have become more complex, it has become essential to adapt the competencies, knowledge, and skills required for effective performance (Ingason & Jónsdóttir, 2017).

Over the past decades, several authors have contributed to identifying the essential competencies for an effective QM. Table 1 summarises these contributions.

Key Areas Relevant to the Role of a Quality Manager	Year	Author
Motivation and performance feedback, problem analysis and decision-making, interpersonal management skills	1992	Jeffrey
Specific skills such as oral and written communication, planning, and the ability to work under pressure	2000	Wilson
A diversified role with multiple aspects, increasing importance of soft skills	2004	Addey
Specific topics such as risk analysis, documentation practices, and data traceability	2006	Imler
Leading improvement teams, handling customer complaints, data analysis, audit management	2006	Palmer
General management, ISO 9001 practices, health and safety issues, IT skills; experience, technical skills, teamwork, and change management	2008	Burcher
Emotional intelligence	2009	Parthasarathy
Specialized support, internal consultant, analyst, educator and trainer, method developer, auditor, strategist	2011	Elg
General experience in quality management; independence and organisation, initiative, communication skills, positive attitude	2014	Jónsdóttir & Guðmundsdóttir
Paradigm shift from a technical focus to a broader vision, integrating ideas from the social sciences	2015	Weckenmann

Table 1: Competencies of the Quality Manager (adapted from Ingason & Jónsdóttir, 2017)

One particularly relevant study was conducted by Icelandic researchers who, based on a literature review and brainstorming sessions, defined a list of competencies, which was later validated through a questionnaire administered to 500 members of a specialised subgroup of quality professionals. The validated list was structured into what became known as the ‘House of Competences of the Quality Manager’ (Figure 1). The result of this study is a unique and easy-to-understand conceptual model that defines the attributes and competencies associated with an exemplary QM profile. According to the authors,

there is a strong interconnection between the competencies represented by the “pillars” and those of the “roof,” with the pillars representing the foundational characteristics that support the more complex attributes depicted in the roof of the house (Ingason & Jónsdóttir, 2017).

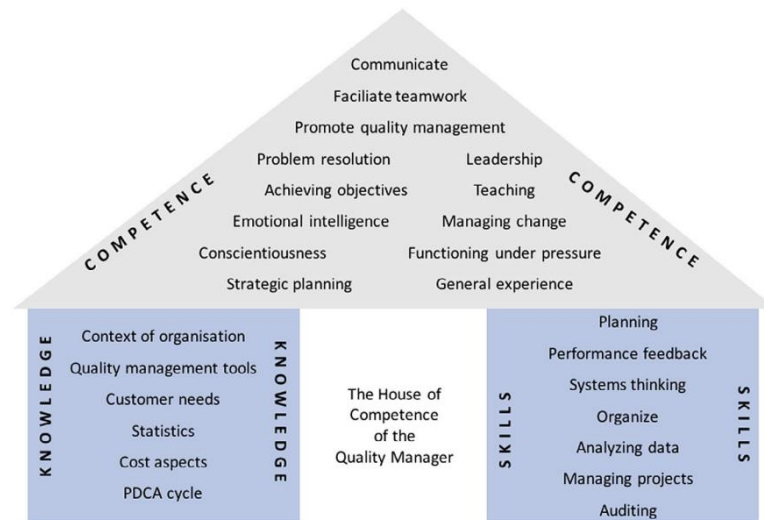


Figure 1: The house of competence of the quality manager (adapted from Ingason & Jónsdóttir, 2017)

2.2.QMs in Healthcare

While the studies mentioned above refer to the general profile of quality managers, it is reasonable to assume that the healthcare sector imposes specific characteristics and competencies on QMs.

Given that healthcare organisations are strongly encouraged by governments and regulators to implement quality management systems, QMs are entrusted with a wide range of responsibilities, including:

- Implementing and coordinating integrated quality programs to improve patient care and hospital efficiency;
- Ensuring compliance with regulatory standards and hospital policies;
- Analysing and reporting data related to resource use, patient safety, and staff and patient satisfaction;
- Developing policies, clinical information systems, and incident review processes;
- Overseeing medical records and occupational health and safety issues;

- Educating and supporting healthcare professionals in quality management activities.

The lack of training and competencies among those responsible for quality management in healthcare is frequently cited in the literature as a key reason for difficulties in implementing behavioural and organisational changes that would improve the quality of the services provided (Wilson, 2000). These deficiencies are described as a barrier to quality improvement in healthcare.

Research also reveals that there is still considerable confusion among healthcare managers regarding the role of the QM. This often results in putting in charge of quality management structures professionals who lack the necessary experience or training, leading to problems of coordination and suboptimal outcomes (Wilson, 2000).

A recent study (2022) brought together 56 professionals responsible for quality management in healthcare, aiming to understand which profile characteristics they consider most relevant to their roles. The findings highlight that ‘traditional managers’ (without clinical training) tend to have deeper knowledge of quality management tools, but often face difficulties in implementing initiatives due to a lack of understanding of the healthcare context. The study shows that these managers are more likely to lack contextual and interpersonal competencies, which often results in initiatives being misunderstood or perceived as merely symbolic. Managers in this group are advised to invest more time immersing themselves in the healthcare context to become more effective (Adeel Akmal, 2022). On the other hand, managers with a clinical background often neglect competencies related to leadership, processes, and long-term strategies. By focusing on short-term actions (such as solving isolated problems), they may end up hindering comprehensive system transformation (Akmal et al., 2022).

The specific profile, competencies, and functions of QMs in healthcare units remain an area where the literature is scarce, and misconceptions about their role persist. It is not uncommon for QMs to be asked by clinical team members to make decisions related to specific patient cases. However, quality of care rarely requires QMs to be directly involved in patient care, despite this common misunderstanding. One of the QM’s responsibilities is to standardise procedures, which may include issuing medical guidelines on what actions are or are not permitted in certain situations. However, this must not be confused with clinical decision-making (Wilson, 2000).

An Australian study proposes a detailed profile of the QM in healthcare, grouping the required competencies into three categories: knowledge, skills, and education/experience (Wilson, 2000). The main items included in each category are described in Table 2.

Knowledge	Skills	Education and experience
• Laws, regulations, and standards related to quality management. • Concepts of quality management, quality assurance, medical records management, use review, and risk management. • Basic statistical concepts and their applications. • Techniques for data collection, analysis, and presentation. • Group dynamics and organisational change theory.	• Communicate effectively, both orally and in writing. • Plan, set, and achieve objectives. • Work independently and under pressure. • Organise activities efficiently, with attention to detail. • Initiate and guide problem-solving across departments and promote acceptance of quality management activities.	• Degree or qualification in medicine, nursing, medical records administration, or related fields. • Advanced qualification in education, administration, or a related clinical area is desirable but not mandatory. • 3 to 5 years of experience as a healthcare professional in an acute care setting, with 2 to 3 years in quality management. • 1 to 2 years of supervisory experience.

Table 2: Profile of the Quality Manager in Healthcare (adapted from Wilson, 2000)

The same study suggests that a QM capable of performing their duties effectively should possess a wide range of capabilities (see Table 3).

Competencies identified	Associated tasks
Policy Development	• Monitor relevant regulations and laws, and advise medical staff and administration accordingly. • Manage the development of a quality management plan for the organisation. • Manage clinical information systems. • Advise and assist administration on issues related to liability insurance and malpractice claims management. • Communicate with external organisations related to quality management. • Coordinate and organise an annual assessment of the quality management program, update plans, and revise policies as needed.

Data Collection and Analysis	• Support data collection and analysis, including identifying data sources and conducting studies to assess patient care and corrective actions. • Monitor hospital service utilisation, including admission appropriateness, length of stay, and discharge planning procedures. • Develop data collection systems and reporting formats that promote consistency and avoid duplication across hospital departments and service functions. • Identify opportunities to coordinate concurrent and retrospective data collection from patient medical records, analysis, and reporting with risk management, incident reporting, infection control, and patient safety. • Develop and manage medical record processes. • Identify, investigate, and resolve issues related to patient care, and monitor care standards. • Develop patient and staff satisfaction surveys to identify problems and suggest improvements. • Analyse and evaluate patient complaints and compliments. • Investigate, follow up, and report incidents. • Supervise and coordinate matters related to occupational health and safety.
Communication and Reporting	• Prepare and disseminate quality management reports, such as quality assurance reports, utilisation reviews, and patient and staff satisfaction reports. • Participate in medical staff meetings, when appropriate, as well as in quality management and other committees. • Assist in preparing agendas, reports, and meeting minutes. • Prepare and receive all relevant data, minutes, reports, and outcomes, summarising them for presentation to the administration, the medical executive committee, and the board of directors.
Education and Support	• Assist the hospital, medical staff, and relevant committees in identifying key aspects of care and in establishing indicators and criteria for evaluating the care and services provided to patients. Help identify and analyse inappropriate utilisation, high costs, or inefficiencies. • Participate in quality management committees and collaborate in the integration of these committees. • Support the hospital and medical staff in identifying and prioritising problems, as well as in determining actions to address them. • Contribute to the development and delivery of internal education programs for medical staff, hospital support staff, administration, and the board of directors.

Table 3. Specific competencies of a QM

3. Research Design

The questionnaires used in the current study were designed based on the study conducted by Icelandic researchers in their work *The House of Competence of the Quality Manager*, which outlines the exemplary profile of a Quality Manager (QM) (see Figure 1). To better reflect the specificities of the healthcare context, additional items—such as knowledge of sector-specific requirements, laws, and regulations—were added to these attributes.

The instruments developed were distributed to QMs and clinical directors or senior physicians (CDs) from various organisations in the healthcare sector (primary care units). In addition to some basic demographic questions, the questionnaires included items related to: the QM profile, technical competencies, main challenges, and barriers faced.

Regarding each of the competencies, QMs were asked to indicate, on a 5-point Likert scale, the degree to which they believe they possess each one and the importance they attribute to it. To understand whether clinicians shared a similar view, they were asked to indicate the importance they placed on QMs possessing those same characteristics.

The surveys were created using digital platforms (Lime Survey) and distributed via email, allowing for a more diverse sample and broader geographic coverage.

Out of a total of 1,578 questionnaires sent, the data collected and analysed in this study refer to a sample of 74 QMs and 80 clinical directors/senior physicians, gathered between April 4, 2025, and June 12, 2025.

4. Main Findings

4.1. Educational background and experience

Among the 74 quality managers who responded to the survey, the majority (73%) are female, aged between 31 and 40 years (38%), and hold a master's degree (79%). Significantly, over 89% of respondents reported having an educational background related to the healthcare field, while only 5% indicated having academic qualifications in management. Regarding work experience in healthcare units, responses were fairly balanced, although the 1 to 3 years range stood out slightly.

Regarding perceived training needs, it is worth noting that the majority of surveyed QMs (69%) consider it advantageous to have specific knowledge in the healthcare field at the

undergraduate level. This percentage rises to 76% among the clinicians who participated in the study.

When asked about the job title they hold, the responses revealed a wide variety of designations (Table 4), reflecting the broad scope of functions, responsibilities, and challenges faced by these professionals.

Job Title	Count	% of Total
Quality Specialist	1	1%
Process/Quality Systems Manager	22	30%
Quality Improvement Manager	12	16%
Quality Manager	18	24%
Head of Quality	21	28%

Table 4. Job Title Designations

4.2.Characteristics of Healthcare Units

Approximately 86% of the surveyed QMs indicated that the units where they work employ between 10 and 50 professionals.

Regarding the number of patients served (Figure 2), 61% of QMs reported that their units serve a population between 10.000 and 30.000 patients. Meanwhile, 28% stated that their units serve fewer than 10.000 patients, and only 10% reported serving a population of more than 30.000 patients.

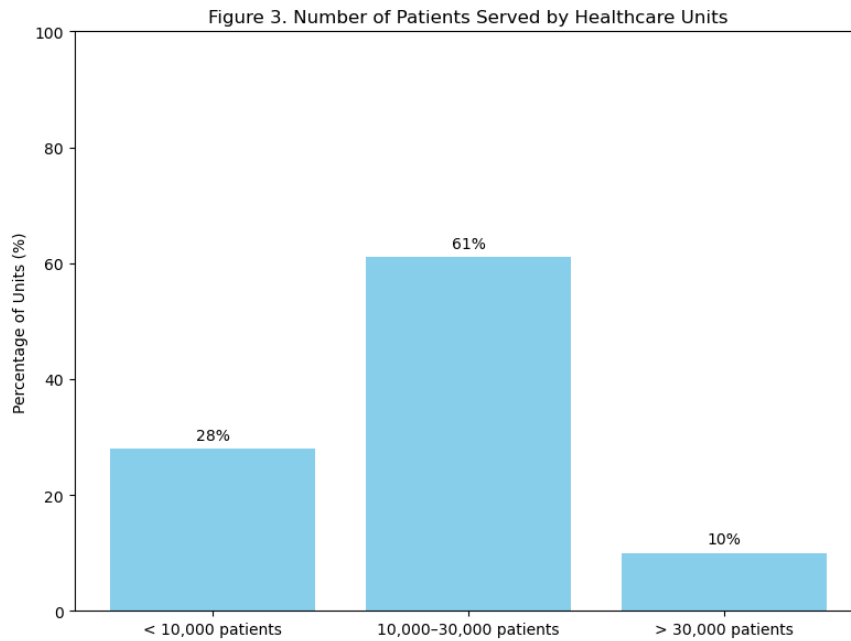


Figure 2. Population served by the primary care units

4.3.Competencies Needed and Possessed

As previously mentioned, the questionnaires distributed to QMs included two dimensions: the perception of their own competencies through self-assessment, and the evaluation of the importance of those competencies for performing their role. In parallel, the questionnaire presented to senior physicians asked only for an assessment of the importance of each attribute.

As shown in Table 5, most of the listed technical and interpersonal competencies were considered highly relevant for the effective performance of a Quality Manager's duties (average scores above 4). *Awareness and responsibility* (Mean=4.88), *effective communication* (Mean=4.81), and *problem solving* (Mean=4.81) received the highest ratings.

Competency	Mean	Standard Deviation	Min	Max
Effective Communication	4.81	0.46	3	5
Teamwork Promotion	4.76	0.46	3	5
Continuous Quality Improvement Practices	4.76	0.49	3	5
Problem Solving	4.81	0.43	3	5
Leadership	4.68	0.58	2	5
Acting as a Quality Role Model	4.69	0.64	2	5
Training and Empowering Other Professionals	4.59	0.74	1	5
Emotional Intelligence	4.60	0.66	1	5
Change Management	4.74	0.44	4	5
Awareness and Responsibility	4.88	0.37	3	5
Working Under Pressure	4.27	0.89	1	5
Strategic Planning	4.77	0.45	3	5
Practical and Professional Experience	4.57	0.62	2	5

Table 5. Assessment of the importance of the various technical and interpersonal competencies by QMs

The responses from CDs were quite similar (Table 6). In this case, the most highly valued items were *effective communication* (Mean = 4.84), *teamwork promotion* (Mean = 4.82), and *awareness and responsibility* (Mean = 4.79).

Competency	Mean	Standard Deviation	Min	Max
Effective Communication	4.84	0.37	4	5
Teamwork Promotion	4.81	0.39	4	5
Continuous Quality Improvement Practices	4.72	0.50	3	5
Problem Solving	4.70	0.52	3	5
Leadership	4.62	0.51	3	5
Acting as a Quality Role Model	4.61	0.54	3	5
Training and Empowering Other Professionals	4.43	0.67	3	5
Emotional Intelligence	4.54	0.59	3	5
Change Management	4.64	0.48	4	5
Awareness and Responsibility	4.77	0.45	3	5
Working Under Pressure	4.35	0.75	3	5
Strategic Planning	4.59	0.61	3	5
Practical and Professional Experience	4.30	0.77	2	5

Table 6. Assessment of the importance of the various technical and interpersonal competencies by CDs

To assess whether there were statistically significant differences between the two groups regarding the perceived importance of technical and interpersonal competencies, an independent samples t-test was conducted, followed by the Mann-Whitney U test for correction.

Table 7 shows that only for the competencies “*Training and empowering other professionals*” and “*Practical and professional experience*” were the mean differences considered statistically significant.

Competency/Dimension	t-test (p)	Mann-Whitney U (p)	Interpretation
Effective Communication	0.691	0.948	No significant difference.
Teamwork Promotion	0.420	0.497	No significant difference.
Continuous Quality Improvement	0.693	0.639	No significant difference.
Problem Solving	0.138 ^a	0.131	No significant difference.
Leadership	0.530	0.316	No significant difference.
Acting as a Quality Role Model	0.421	0.143	No significant difference.
Training and Empowering Other Professionals	0.152	0.045	Only Mann-Whitney test is significant → possible difference to consider.
Emotional Intelligence	0.495	0.329	No significant difference.
Change Management	0.175 ^a	0.175	No significant difference.
Awareness and Responsibility	0.114 ^a	0.079	Tendency toward difference, but not significant.
Working Under Pressure	0.687	0.898	No significant difference.
Strategic Planning	0.038 ^a	0.053	Marginal significance (t significant, U slightly above 0.05) → interpret with care.
Practical and Professional Experience	0.019 ^a	0.026	Significant difference confirmed by both tests.

Table 7. Importance of competencies - QMs vs. CDs

Regarding the self-assessment made by QMs on the extent to which they possess the various identified competencies, the variability is considerably greater. As shown in Figure 3, QMs consider themselves particularly competent in the following areas: *awareness and responsibility* (Mean = 4.55), *teamwork promotion* (Mean = 4.22), and *effective communication* (Mean = 4.2). On the other hand, it is important to highlight

the competencies with the lowest average scores: *leadership* (Mean = 3.84), *training and empowering other professionals* (Mean = 3.86), and *strategic planning* (Mean = 3.82).

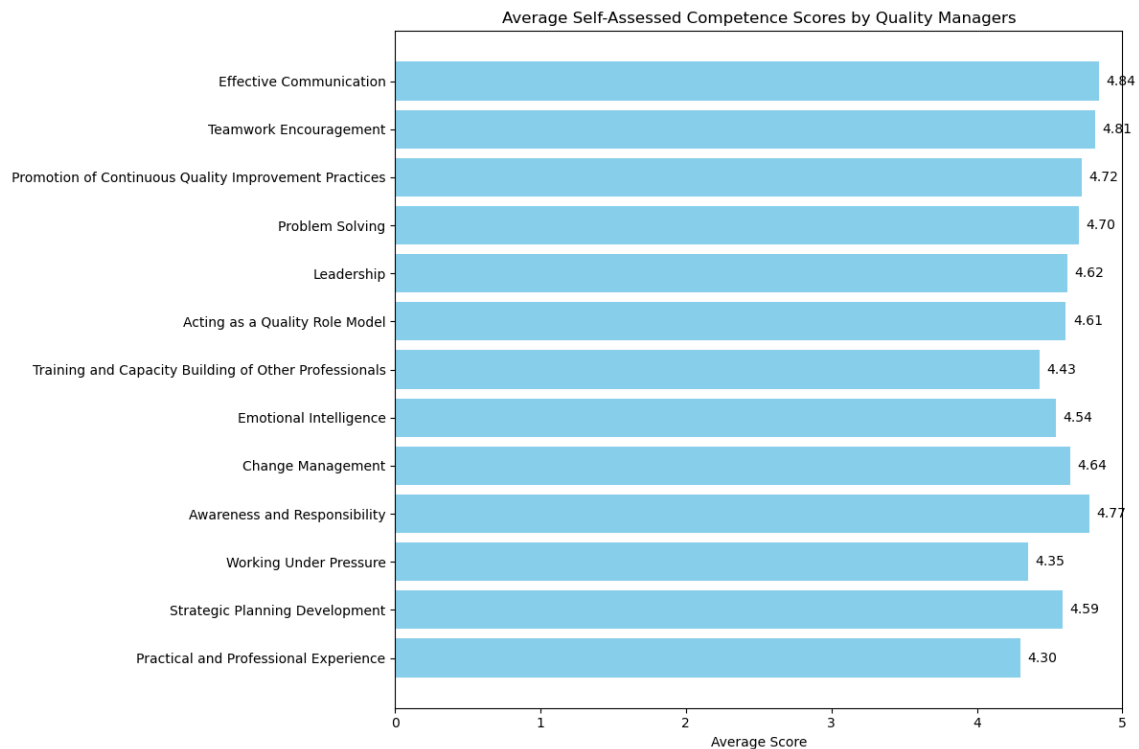


Figure 3. Self-assessment of the possession of technical and interpersonal competencies

When comparing these self-assessment results with the competencies they consider most important, it is evident that QMs perceive themselves as quite competent in the areas they highlight as most important (*awareness and responsibility* and *communication*, in particular). However, there are six items to which QMs assign an importance score above 4, but for which their perceived level of competence is below this threshold. These are: *strategic planning* (4.77 vs. 3.82), *leadership* (4.68 vs. 3.84), *change management* (4.74 vs. 3.91), *emotional intelligence* (4.6 vs. 3.9), *training and empowering other professionals* (4.59 vs. 3.86), and *working under pressure* (4.27 vs. 3.97).

4.4. Specific knowledge

Table 8 presents the importance attributed by QMs to specific knowledge areas considered fundamental in the literature for the effective performance of their roles. Based

on the average scores, the following knowledge areas stand out as the most relevant: *knowledge of the organisational and sector context* (Mean = 4.81) and *understanding of patient needs* (Mean = 4.81). Nevertheless, all aspects received an importance rating above 4.6.

Knowledge	Mean	Standard Deviation	Minimum	Maximum
Mastery of quality management tools and methods	4.64	0.54	3	5
Knowledge of the organizational and sector context	4.81	0.40	4	5
Knowledge of sector requirements, laws, and standards	4.74	0.50	3	5
Understanding of patient needs	4.81	0.43	3	5

Table 8. Importance given to different knowledge areas by QMs

The same question was posed to CDs. On average, the importance attributed by CDs to each knowledge area tends to be lower than that attributed by QMs. However, the same aspects were highlighted, with importance scores of 4.72 for *understanding patient needs* and 4.58 for *knowledge of the organisational and sector context*.

Regarding the degree of mastery of these knowledge areas by QMs, the scenario is less positive. As shown in Figure 4, with the exception of *understanding patient needs*, the other items received scores below 4, with particularly low ratings for the mastery of quality tools (3.35).

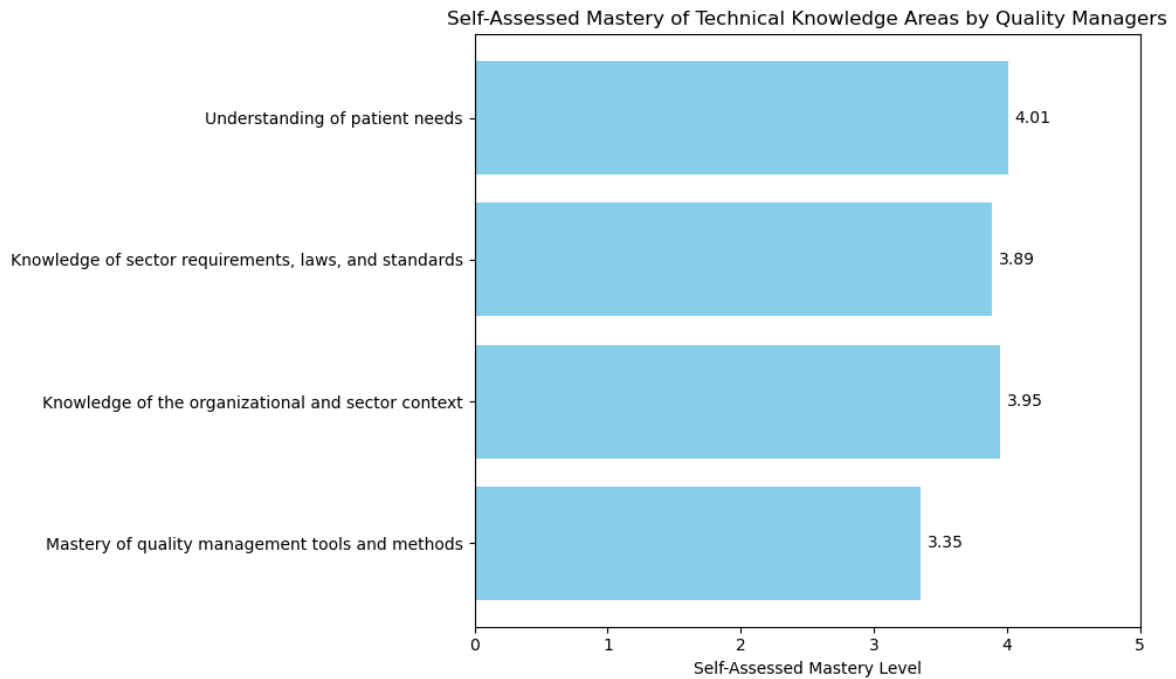


Figure 4. Mastery level self-assessment

Thus, in terms of more specific competencies, there is a substantial gap between the recognised importance and the actual mastery of these areas.

4.5.Skills

Table 9 presents the importance attributed by QMs to the skills considered essential to be highly-performant. Once again, a high level of importance is observed across all these skills (always above 4.6), with no significant differences between the various items identified.

Skill	Mean	Standard Deviation	Minimum	Maximum
Planning and implementation of internal strategies and policies	4.70	0.46	4	5
Project management	4.68	0.50	3	5
Organisational management	4.73	0.50	3	5
Systems thinking	4.72	0.51	3	5
Data analysis	4.69	0.49	3	5
Organisational performance analysis and evaluation	4.77	0.42	4	5

Table 9. Assessment of the importance of the various skills by QMs

CDs were also asked to assess the importance of these skills. Although the values obtained were slightly lower, they were always equal to or greater than 4.2. Additionally, both QMs and CDs agree that the most relevant skills are *planning*, implementation of internal strategies and policies, and organisational management.

Regarding the degree to which the surveyed QMs believe they possess each of the identified skills, the results (Figure 5) show some variation. The skill with the highest self-assessment was the *analysis and evaluation of organisational performance* (3.8), while *project management* was the least possessed (3.55).

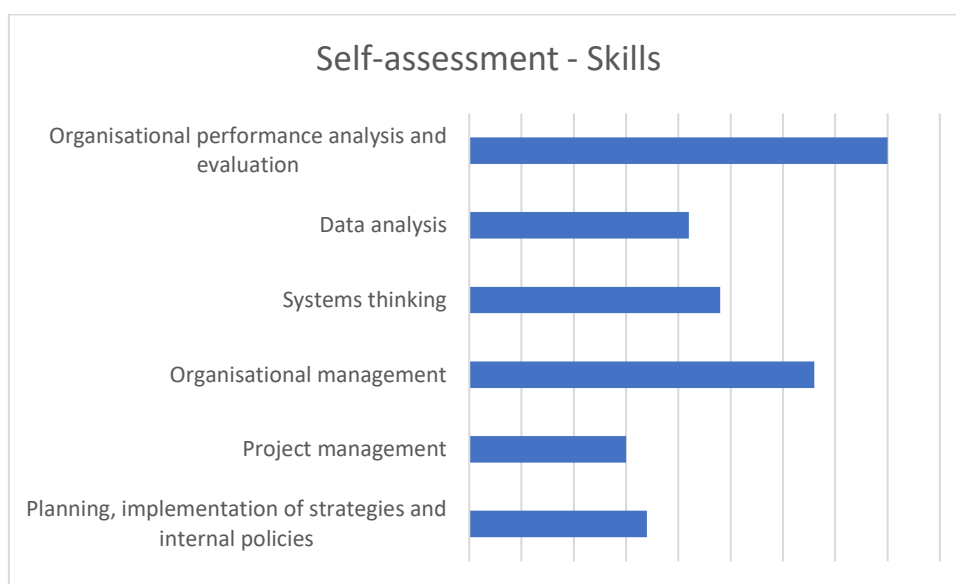


Figure 6. Self-assessment of the possession of technical skills by QMs

Given the importance attributed to these skills and the extent to which they are possessed by QMs, Table 10 reveals a significant gap across all items, indicating substantial training needs in each of these areas.

Skill	Importance (QMs)	Perceived Possession (QMs)	Gap (Possession - Importance)
Planning, implementation of strategies and internal policies	4.7	3.57	-1.13
Project management	4.68	3.55	-1.13
Systems thinking	4.72	3.64	-1.08
Organizational management	4.73	3.73	-1.00
Data analysis	4.69	3.61	-1.08
Analysis and evaluation of organizational performance	4.77	3.80	-1.03

Table 10. Importance-possession gaps

4.6.Responsibilities of QMs and perceived impact on the organisation

A list of responsibilities, based on Wilson's (2000) study, was presented to respondents, who were asked to indicate which ones were assigned to them. Table 11 presents the results obtained

Responsibility	%
Implement and coordinate integrated quality programs to improve patient care and organisational efficiency	77%
Ensure compliance with regulatory requirements	85%
Analyse and report data related to resource use, patient safety, and staff and patient satisfaction	82%
Develop policies, clinical information systems, and incident review processes	64%
Oversee medical records and occupational health and safety issues	41%
Train and support healthcare professionals in quality management activities	67%

Table 11. Responsibilities assigned to QMs

As shown, the responsibilities most frequently assigned to QMs in Portuguese healthcare units are: *ensuring compliance with regulatory requirements* (85% of affirmative responses) and *analysing and reporting data related to resource use, patient safety, and staff and patient satisfaction* (82%). On the other hand, only 41% of QMs reported being responsible for *overseeing medical records and occupational health and safety issues*.

The work of QMs is highly valued by the CDs surveyed, with particularly positive impacts noted in the quality of care provided, process efficiency, and the performance of healthcare teams. Notably, in response to the question, "*In your opinion, do you believe that the Quality Manager contributes to reducing errors and failures in healthcare?*", clinicians responded with near unanimity (only one dissenting response), affirming that this is indeed the case.

4.7.Challenges faced by QMs

QMs and CDs were asked to identify the main challenges faced by quality professionals in the healthcare sector. Table 14 summarises the responses from both groups.

Challenges	QMs – Yes (%)	Clinicians – Yes (%)
Resistance to change	72%	74%
Lack of financial resources	55%	66%
Time management	92%	88%
Lack of engagement from healthcare professionals	61%	44%
Ongoing team training	45%	20%
Keeping up with constant developments (scientific knowledge, regulations, standards...)	59%	45%

Table 14. Challenges identified

Time management emerges as the main challenge faced by QMs in primary healthcare units in Portugal, with around 90% of affirmative responses. This is followed by resistance to change, with over 70% agreement. On the other hand, the need for ongoing training is seen as a challenge by 45% of QMs but only 20% of clinicians.

4.8. Overall satisfaction of QMs

The final set of questions aimed to assess QMs' overall satisfaction regarding their competencies, the effectiveness of their work, and the quality of service provided by the healthcare unit where they work (on a scale from 1 – Not at all satisfied to 5 – Very satisfied). Figure 7 presents the results.

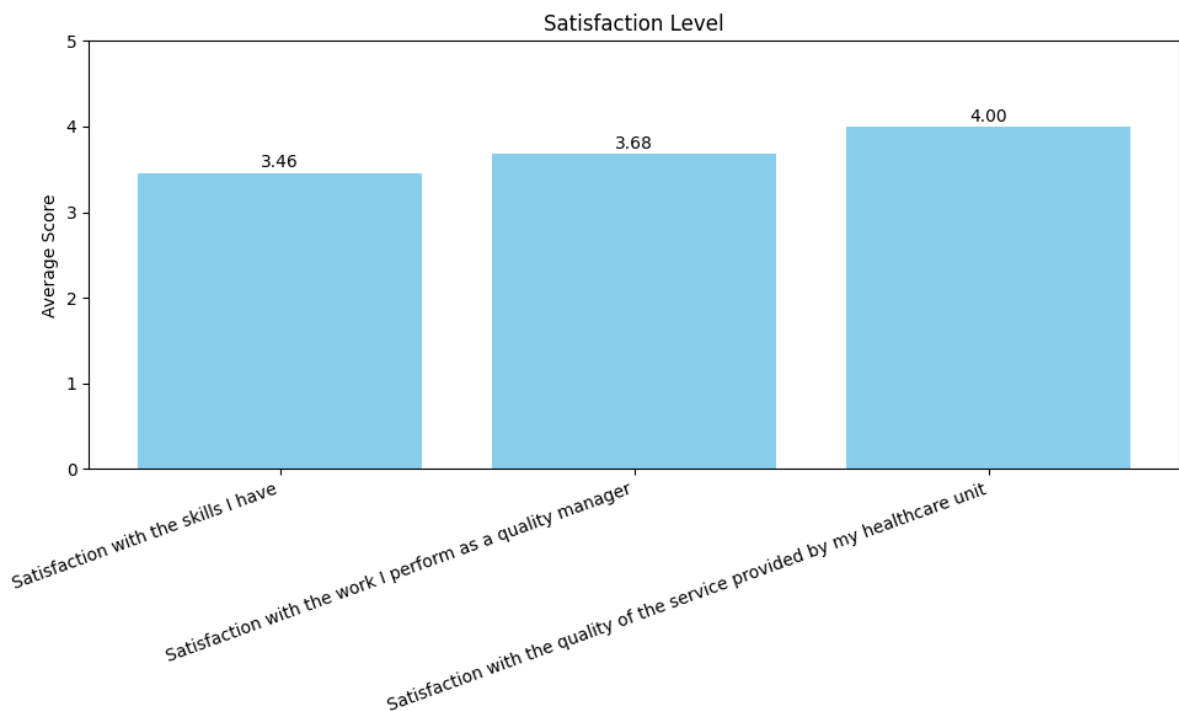


Figure 7. Satisfaction as perceived by QMs

Overall, QMs reported a moderately high level of satisfaction with their skills, the work they perform, and the quality of service provided by their healthcare unit. The highest average score (4) refers to the perceived quality of the service provided by the unit, suggesting a positive view of institutional performance. Conversely, the lowest average score (3.46) relates to their self-assessed competencies, which may indicate a need for further investment in professional development.

5. Conclusion

The evolution of quality in healthcare and the increasing demand for quality standards have made the role of the Quality Manager (QM) and their responsibilities more complex. This complexity requires skills, knowledge, and abilities different from those traditionally associated with quality inspectors. The criticality of the sector also demands that QMs possess a broad range of attributes.

The literature review revealed that the role of a QM in healthcare is still defined in a rather ambiguous and broad manner. Regarding the responsibilities assumed by QMs, it was concluded that these are not yet standardised for professionals in similar positions.

The empirical data collected through the questionnaires have shown that the attributes described in the literature as essential for the effective performance of QM functions are also applicable to the healthcare sector. At the same time, the results indicate a significant gap between the importance that QMs themselves attribute to certain competencies, skills, and knowledge and the level of mastery they believe they possess in these areas. This highlights important education and training needs.

Moreover, the literature points to a positive contribution of QMs to the effective performance of healthcare institutions. The analysis of the data collected from the questionnaires sent to CDs of healthcare units has revealed that healthcare professionals understand the importance of the role of QMs and recognise their effective contribution not only to error reduction but also to the improvement of care quality, operational efficiency, and patient safety.

On the other hand, QMs report facing difficulties related to time management. According to the data analysed, resistance to change and the involvement of healthcare professionals are also relevant obstacles to the effective performance of QM functions.

However, some limitations of the current study must be acknowledged. The scarcity of recent and sector-specific literature on QMs required the adaptation of generic instruments, which may have led to the underrepresentation of certain healthcare-specific aspects. Additionally, the use of questionnaires that include self-assessment questions regarding skills, knowledge, and abilities may introduce some bias. The tendency to overestimate or underestimate one's own capabilities is common and recognised in the literature. Despite efforts to distribute the questionnaires, the response rate was relatively low (approximately 10%). Therefore, the generalisation of the results should be approached with caution. Furthermore, the research was conducted exclusively in primary

healthcare units in Portugal, which limits its generalisability to other contexts, such as hospitals or international settings.

Nevertheless, given the clear lack of academic studies in this area, the current study contributed to a detailed and empirically supported characterisation of the profile, attributes, and challenges faced by QMs in the healthcare sector. The results obtained provide a relevant source of information for defining future curricula and for the professional development of QMs. Additionally, this study reinforces the institutional and regulatory recognition of the QM's role as an essential element in promoting safer, more effective, and patient-centred healthcare.

REFERENCES

- Akmal, A., Podgorodnichenko, N., Stokes, T., Foote, J., Greatbanks, R., & Gauld, R. (2022). What makes an effective Quality Improvement Manager? A qualitative study in the New Zealand Health System. *BMC Health Services Research*.
- Carvalho, M. M., Paladini, E. P. (2012). *Gestão da Qualidade: Teoria e Casos*. Rio de Janeiro: Elsevier Editora.
- Henker, H., Fox-lewis, S., Tep, N., Vanna, D., Pol, S., & Turner, C. (2018). Healthcare workers' perceptions of an organizational quality assurance program implemented in a resource-limited setting: a qualitative study. *Health Promotion Perspectives*, 8(3), 179–186. <https://doi.org/10.15171/hpp.2018.24>
- Ingason, H. Þ., & Jónsdóttir, E. R. (2017). The house of competence of the quality manager. *Cogent Business and Management*, 4(1), 1–16. <https://doi.org/10.1080/23311975.2017.1345050>
- Parand, A., Dopson, S., Renz, A., & Vincent, C. (2014). The role of hospital managers in quality and patient safety: a systematic review. *BMJ Open*, 4. <https://doi.org/10.1136/bmjopen-2014-005055>
- Wilson, L. L. (2000). The quality manager. *Journal of Quality in Clinical Practice*, 20(4), 127–130. <https://doi.org/10.1046/j.1440-1762.2000.00375.x>