Cogent Business & Management

ISSN: 2331-1975 (Online) Journal homepage: www.tandfonline.com/journals/oabm20

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To cite this article: M. Saraiva, C. Alfaiate, L. P. Gomes, A. R. Correia & F. Jorge (2023) The Perception of quality and the performance in primary health Care of central Alentejo – Portugal, Cogent Business & Management, 10:1, 2208423, DOI: 10.1080/23311975.2023.2208423

To link to this article: https://doi.org/10.1080/23311975.2023.2208423

Published online: 08 May 2023.

Saraiva et al., *Cogent Business & Management* (2023), 10: 2208423
https://doi.org/10.1080/23311975.2023.2208423

cogent business & management

MANAGEMENT | RESEARCH ARTICLE

The Perception of quality and the performance in primary health Care of central Alentejo – Portugal

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Received: 08 December 2021
Accepted: 25 April 2023

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Abstract: Quality and performance are current issues and a strategic priority for the Portuguese National Health Service. Currently, there is a lack of studies in primary health care (PHC) that assess the relationship between the quality and the level of performance of the Primary Health Care Teams. In Portugal, those teams are monitored through the Global Performance Index (GPI), which demonstrates, through a score, the procedures and results obtained by electronic records and the metrics defined for each indicator. This paper aims to analyze the relationship between the perception of the quality of health professionals (service culture; leadership; service strategy; infrastructure and external resources; information and knowledge; processes; service management; human resource planning and skills development, commitment; conditions, satisfaction, performance, and recognition; and results) in the different Primary Health Care teams of the PHC of Central Alentejo—Portugal, and the level of performance of the given teams (care performance; professional training; organizational quality; and services). Self-Perception of Quality Questionnaire for Primary Health Care ($SPQQ_4PHC$) was used as an assessment tool. The population comprises 324 health professionals (Family Doctors, Nurses, and Medical Secretaries) distributed over 34 Primary Health Care Teams. When analyzing the global correlation of the variables in the $SPQQ_4PHC$

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questionnaire with the GPI, it´s possible to confirm that twenty-one out of twenty-five correlates with the GPI. Thus, this study allowed us to conclude that, as health professionals perceive the quality of the variables increases, the GPI also increases, demonstrating that the dimensions of quality and performance are closely related.

Subjects: Employment Relations; Human Resource Development; Quality Management; Public Policy

Keywords: Primary Health Care; Quality; Performance; Global Performance Index (GPI); health professionals

1. Introduction

In a complex and rapidly changing world, Primary Health Care (PHC) characteristics allow health systems to adapt and respond to the population's health needs (World Health Organization and United Nations Children´s Fund, 2018). With an emphasis on promotion and prevention, on addressing determinants, and with a person-centered approach, PHC is an effective and efficient way to address the major causes or risk factors of poor health, as well as a way to deal with emerging challenges that may challenge health in the future (World Health Organization and United Nations Children´s Fund, 2018). According to the same authors, universal health coverage and health-related sustainable development goals can only be achieved sustainably with an increased focus on primary health care. Thus, for the above reasons, a focus on primary health care is crucial (World Health Organization and United Nations Children´s Fund, 2018).

In Portugal, the Portuguese National Health Service (SNS) carries out the responsibility of the State in health protection. It is an organized and articulated set of public establishments and services directed by the Ministry of Health, divided into Primary Health Teams and Hospitals. It provides health care in the areas of promotion, prevention, treatment, rehabilitation, and palliative care.

Quality in health is now a requirement of everyone involved in health care. It is necessary to have demanding and systematic mechanisms to assess the care provided, verify that resources are appropriately used, and achieve the best possible quality. (Pisco & Biscaia, 2001). The quality of care must be quantified. Portuguese Primary Health Care has an internal contracting process, with all Primary Health Care Teams, monitoring, and evaluation being operationalized through a Global Performance Index (ACSS, 2018).

The Portuguese Primary Health Care (PHC) underwent a profound renovation in 2006, intending to improve access, quality, continuity of care, and increase the satisfaction of users and health professionals, obtain gains for the population, and improve the performance and efficiency of the National Health Service (NHS) (OECD, 2015).

The restructuring of Primary Health Care allowed for the reorganization of care, with the merging of a Grouping of Health Centers (ACES), under a new regional structure for each one of the Portuguese regions and the creation of five types of Primary Health Care Teams (Miguel & Sá, 2010):

(1) Family Health Teams (FHU) model A and B (FHT-A and FHT-B).
(2) Personalized Health Care Teams (PHCT).
(3) Community Care Teams (CCT).
(4) Public Health Teams (PHU).
(5) Shared Assistance Resources Teams (SARU).

This study covers only the first three teams (FHU, PHCT, and CCT). Biscaia and Heleno (2017) state that Family Health Teams (FHU) are self-organized teams providing health care with technical assistance and functional autonomy. They are divided into two models, A and B. In model A, the family health team is in the process of learning and improving work. In model B, the teams are more developed, from an organizational point of view, being possible to require a more demanding level of contracting. Both teams follow the rules and remuneration defined by the Portuguese Public Administration.

According to the same authors, the Personalized Health Care Teams (PHCT) are at an organizational level before the Family Health Teams, a vertically hierarchical and less autonomous model.

On the other hand, the Community Care Teams (CCT) develop their work with the community to improve the health status of the local population, providing home and community health care (Administração Central dos Sistemas de Saúde, 2018).

The study did not include the other two Primary Health Care teams (PHU and SARU). They do not have sufficient electronic records or metrics to contract indicators and, as such, do not present Global Performance Index (GPI) values or metrics for the activity performed.

The GPI is an instrument that allows monitoring and evaluating the performance level of each Primary Health Care team through electronic records and the metrics defined for each indicator into quantitative results (Administração Central dos Sistemas de Saúde, 2019).

Therefore, this article aims to analyze the relationship between the perception of the quality of health professionals (service culture; leadership; service strategy; infrastructure and external resources; information and knowledge; processes; service management; human resource planning and skills development; commitment; conditions, satisfaction, performance, and recognition; and results) from different Primary Health Care teams, of the primary health of Central Alentejo, and the level of performance (care performance; professional training; organizational quality; and services) of the respective teams, in Portugal.

This study's main contribution was to understand the relationship between the perception of quality by health professionals and the performance of Primary Health Care Teams in primary health care, which has yet to be discovered.

1.1. Quality and performance in healthcare

According to Pisco and Biscaia (2001), healthcare quality differs from other sectors, as it seeks to satisfy and reduce needs instead of responding to demand. It is also initiative-taking in preventing and responding, not looking for new market opportunities. Finally, it holds attributes such as effectiveness, efficiency, acceptability, and equity and is not the only requirement for acceptability.

The quality of healthcare services is defined as the provision of care that exceeds the user's expectations and achieves the highest possible clinical outcomes with available resources (Øvretveit, 2009). According to Mitropoulos (2019), improving service quality can increase adherence to clinical treatment and improve the proper use of health care.

A healthcare system must aim to improve its capacity to produce superior results. An improved quality system must be an ongoing and systematic process that needs to be followed up to improve the health status of users and services. Furthermore, quality is achieved when patients get desired health outcomes because of the healthcare provided (Faloudah et al., 2015).

Organizational quality allows supporting the entire activity of the health organization, namely in the structure of the planning, monitoring, and evaluation processes of the activity, contributing to more efficient use of technology, knowledge, and human resources and considering the context of

each health team (Biscaia & Heleno, 2017). A study by Veenstra et al. (2020) found that top leaders should support autonomous motivation, supplemented with incentive-based improvements, and facilitate initiative-taking health professionals to improve the quality of healthcare provided.

Performance is the most visible area of the activities, which gives rise to the success and quality of the entire healthcare organization (Biscaia & Heleno, 2017).

Performance management is an organization-wide approach based on quality, which incorporates and aligns strategic and organizational guidelines with achieving results (Beitsch et al., 2015).

The evaluation of health system performance is based on four principles: 1) achieving health improvements for the population; 2) ensuring satisfaction in high quality and accessibility to health services; 3) guaranteeing social solidarity, and 4) maintaining the sustainability and efficiency of the health system (Regional Office for Europe of the World Health Organization, 2018).

For Braithwaite et al. (2017), performance indicators help measure healthcare quality and facilitate quality improvement and systems management. They are measurable elements of performance actions to assess the quality of care—they allow monitoring of routine aspects of health performance, such as effectiveness, efficiency, safety, and quality. Currently, we are not looking for just a quality indicator but multidimensional structures composed of a set of indicators, which combine characteristics of structure, process, and evaluation of results.

The performance indicators used in the contracting process of Portuguese Primary Health Care are of four types to assess the "structure, processes, results and gains in health, based on the structure suggested by Donabedian, which is at the base of best European practices" (Pestana et al., 2019, p. 54).

Contracting is a process between financiers and providers, which involves a relationship between the funding awarded and the expected results, whose main objectives are production, accessibility, and quality goals. If the contracting is demanding and correct, it encourages performance, monitors, and demonstrates gains in health (Soranz & Pisco, 2017).

A study by Vainieri et al. (2019) concluded that top management's systematic sharing of information on performance results, goals, and organizational structure effectively engages employees. On the other hand, Elkomy et al. (2020) refer that leadership quality matters for the quality of healthcare provision. Furthermore, Vashdi (2013) stresses that public organizations have increasingly adopted work teams as an organizational tool to improve task coordination, communication, and knowledge transfer.

Currently, the internal contractualization of the Primary Health Care Teams of Primary Health Care in Portugal has as its main objective to articulate the dynamics between strategic and operational management, valuing the creation of effective gains in health and not just the production of acts (Monteiro et al., 2017).

The progress in the performance of the Personalized Health Care Teams (PHCT) and the Family Health Teams (FHU) has been quantified by the achievement of targets associated with a set of contractualization indicators. The negotiation focuses on the teams' evolutionary history through implementing the Primary Health Care teams' Action Plan, which includes activity and training plans for applying monetary incentives and the Community Health Centers own Performance Plans (Pestana et al., 2019).

The same authors also state that the Action Plan of each Primary Health Care Team allows for qualifying its performance level, attributing monetary incentives based on the performance level,

and monitoring and improving the teams that present lower performance levels. The main objectives are to help achieve better health outcomes and strengthen clinical and health governance based on shared principles for all teams.

According to a study developed by the Portuguese Health Regulatory Authority (P Health Regulatory Authority, 2016), Family Health Teams—model B (FHT-B) performs better on the indicators compared to Family Health Teams—model A (FHT-A) and Personalized Health Care Teams (PHCT). This superior performance level may be associated with the financial incentives that only professionals from Family Health Teams—model B (FHC-B) received until 2017.

Since 2017, the contractualization model has been modified and updated, moving towards a perspective oriented towards continuous quality improvement and better health outcomes, moving away from a perspective centered on a limited number of process indicators and goals (OPSS 2018, cited by Pestana et al., 2019).

In Primary Health Care, the pay-for-performance model in Portugal is more than a remuneration scheme. It establishes a structured organizational change oriented toward the autonomy of professionals, organized according to the healthcare needs, and sustained in contracting (Monteiro et al., 2017).

According to Miguel and Sá (2010), the successful implementation of Portuguese Primary Health Care is proven, with clear gains and results in health, through increased access to health care and the satisfaction of users and professionals. It also emphasizes that this contractualization model allows for more and better results in Primary Health Care in Portugal.

2. Method

A study method is simply a technique for collecting data (Bryman, 2012) or specific strategies for conducting research (Teddlie & Tashakkori, 2009). The strategy used in this paper is the survey. The survey strategy is a systematic method of collecting data to predict a given population's attributes, behaviors (Creswell, 2009; Teddlie & Tashakkori, 2009), or trends (Creswell, 2009) Generally associated with a deductive approach and is most often used to questions of who, what, where, and how much, and thus tends to be used in exploratory and descriptive research (Teddlie & Tashakkori, 2009, 2009). The survey strategy gathers quantitative data, which allows for quantitative analysis through descriptive statistics and statistical inference. It can also be used to search for the existence of ween variables and produce models of these relationships (Saunders et al., 2009).

This study aims to analyze the relationship between the perception of the quality of health professionals from different Primary Health Care Teams of the Primary Health of Central Alentejo and the respective teams' performance levels. The Primary Health Care Teams included in the study were Family Health Teams (FHU), models A and B, Personalized Health Care Teams (PHCT), and Community Care Teams (CCT) because they are the only ones to have electronic record support and metrics in the indicators in Portugal (Administração Central dos Sistemas de Saúde, 2018).

The data collection method applied in this work is characterized by Saunders et al. (2009) as a quantitative multi-method study. Multi-method since two sources of data collection are used: the to collect primary data, the Self-Perception of Quality Questionnaire for Primary Health Care ($SPQQ_4PH$), and the Global Performance Index (GPI) to obtain secondary data. The $SPQQ_4PHC$ assesses the perception of quality of health professionals, and the Global Performance Index, which allows monitoring and evaluating the internal contracting of each Primary Health Care team, as it translates the procedures and results through electronic records and the metrics defined for each indicator, into quantitative results from 0 to 100 (Alfaiate, 2020).

The performance evaluation is based on a multidimensional matrix composed of areas, subareas, and dimensions, allowing a view of the global performance of each Primary Health Care team (Administração Central dos Sistemas de Saúde, 2019). "For each area of the multidimensional matrix, different sub-areas, dimensions, metrics, and indicators are defined, identifying the expected results" (p. 20).

Each Primary Health Care team contracts four assessment areas, among the five available areas, according to Administração Central dos Sistemas de Saúde, I. P. (ACSS) guidelines. Within each area, the respective sub-areas and dimensions are to be assessed (Administração Central dos Sistemas de Saúde, 2020). Table 1 shows the areas, sub-areas, dimensions, and weighting of each one to calculate the GPI.

"The monitoring and evaluation of the different dimensions are operationalized through 4 types of metrics" (Administração Central dos Sistemas de Saúde, 2020, p. 25):

(1) Indicators—of the composite type or indices and result, defined annually by the ACSS. Composite indicators or indices are formed by two or more simple indicators on the same subject. There are two types of intervals for each indicator: the expected range, which corresponds to a score of 2, and the acceptable range, which corresponds to a score of 1.
(2) Degree of implementation of internal audit processes (clinical or organizational) – measured using a specific grid, with a score of 2, 1, or 0 obtained for each audit.
(3) Assessment of the team's commitment to providing care and non-care services—metrics defined between the CHC Alentejo Central and each Primary Health Care Team during the internal contracting process, with a score of 2, 1, or 0, depending on the number of metrics fulfilled.
(4) Explicit compliance criteria comply with good organizational or clinical practice standards.

The value of the GPI is calculated through the "weighted sum of the Indexes of Sectorial Performance of the Areas, which in turn is obtained by the sum weighted of the Sectoral Performance Indices of the Sub-Areas, which is consequently obtained by the weighted sum of the Sectoral Performance Indices of the Sub-Areas Dimensions," being the value obtained through a "real continuous scale," between 0 and 100 (Administração Central dos Sistemas de Saúde, 2019, p. 20).

In this study, all Primary Health Care Teams had the same contracted areas—care performance, services, organizational quality, and professional training.

The Global Performance Index values used in the study were the December 2019 ones, representing each team's annual activity. The data is freely accessible and available online.[1]

The study population comprises 34 Primary Health Care Teams of the Community Health Centers of Central Alentejo, namely: 12 Community Care Teams (CCT); 9 Personalized Health Care Teams (PHCT); 8 Family Health Teams (FHU) – Model A; and 5 FHU—Model B, with a total of 324 health professionals (see Figure 1).

The statistical analysis used was firstly descriptive and later applied to Spearman's Correlation to test whether there is a strong and statistically significant correlation between the quality measurement variables and the Global Performance Index, using the IBM SPSS Statistics® V24 software.

In the first stage, data collection was planned for the entire month of March 2020. However, given the COVID-19 worldwide pandemic, data was collected between the 9th and 19th of March 2020 after declaring a state of emergency in Portugal.

Table 1. Multidimensional Matrix

Area (A), Sub. area (S) or Dimension (D)	Weighting FHT and PHCT	Weighting CCT
A—Assistance Performance	50	
S—Access	20	
D—Coverage or Utilization	10	30
D—Personalization (FHU and PHCT)	10	-
D—Telephone Service (FHU and PHCT)	10	-
D—Distribution of Activity (CCT)	-	20
D—Maximum Guaranteed Response Times	40	50
D—Same-Day Appointment (FHU and PHCT)	10	-
D—Path of the User in the Primary Health Care Team (FHU and PHCT)	10	-
D—Distribution of On-site Consultations on the day	10	-
S—Health Management	20	
D—Children and Adolescence (CCT)	-	25
D—Child and Youth Health (FHU and PHCT)	25	-
D—Reproductive Health (CCT)	-	25
D—Women's Health (FHU and PHCT)	25	-
D—Adult Health	25	
D—Elderly Health	25	
S—Disease Management	20	
D—Diabetes Mellitus (FHU and PHCT)	25	-
D—Hypertension (FHU and PHCT)	25	-
D—Respiratory System Diseases (FHU and PHCT)	25	-
D—Multimorbidity and Other Types of Disease (FHU and PHCT)	25	-
D—Rehabilitation (CCT)	-	20
D—Mental Health (CCT)	-	20
D—Palliative Approach (CCT)	-	20
D—Chronic Disease (CCT)	-	20
D—Integrated Continuing Care Team (CCT)	-	20
S—Qualification of Prescription (FHU and PHCT)	20	-
D—Pharmacotherapeutic Prescription	50	-
D—Complementary Means of Diagnosis and Therapeutics Prescription	30	-
D—Prescription of Care	20	-
S—Community Intervention (CCT)	-	20
D—School Health	-	30
D—Early Intervention	-	10
D—Support Centre for Children and Young People at Risk	-	10
D—Local Insertion Unit	-	10
D—Commission for the Protection of Young People at Risk	-	10
D—Adult Violence Prevention Team	-	10
D—Social Network	-	10
S—Users Satisfaction	20	

(*Continued*)

Table 1. (*Continued*)

Area (A), Sub. area (S) or Dimension (D)	Weighting FHT and PHCT	Weighting CCT
D—Users Satisfaction	100	
A—Services	10	
S—Services of a welfare nature	80	
D—Services of a welfare nature	100	
S—Services of a non-assistance nature	20	
D—Clinical governance activities in the CHC Alentejo Central	50	
D—Other Non-Assistance Activities	50	
A—Organizacional Quality	20	
S—Continuous Quality Improvement	40	
D—Acess	25	
D—Continuous Quality Improvement Programs and Integrated Care Processes	75	
S—Safety	40	
D—User Safety	40	
D—Professionals Safety	30	
D—Risk Management	30	
S—Citizien Centricity	20	
D—Citizien Centricity	100	
A—Professional Training	10	
S—Internal Training	80	
D—Formation of the Multiprofessional Team	50	
D—Training of Interns and Students	50	
S—External Training	20	
D—External Training Services	100	
A—Scientific Activity	10	
S—Authorship of Written Articles, Presentation of Communications, and Participation in Conferences	50	
D—Authorship of Written Articles, Presentation of Communications, and Participation in Conferences	100	
S—Research Work	50	
D—Research Work	100	

Source: Adapted from ACSS (2020, p. 15, 16, 18, and 19)

Note: FHU—Family Health Teams; PHCT—Personalized Health Care Teams; CCT—Community Care Teams; CHC Alentejo Central—Community Health Centers of Alentejo Central

The data protection methodology was performed, and authorization was first requested from the Executive Director of the Primary Health Center of Central Alentejo to carry out the study. The research project was submitted to the Ethics Committee for Health (ECH) of the Alentejo Regional Health Administration (ARHA) and the Data Protection Officer of the University of Évora, which was approved. It guaranteed the right to anonymity and confidentiality of the participants.

The health professionals received the link to the questionnaire, sent by e-mail, through the administrative secretary of the Executive Director of the Primary Health Center of Central Alentejo, ensuring the confidentiality and concealment of the participant's entity. Before completing the questionnaire, participants signed an informed consent to participate in the study, authorizing their participation.

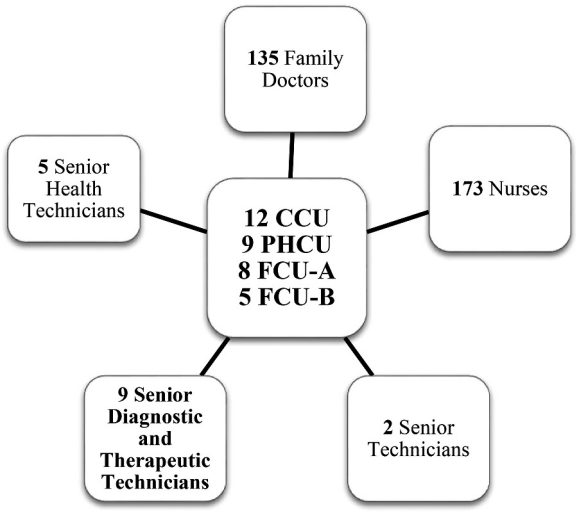

Figure 1. Primary Health Care Teams and Health Professionals understudy.

Note: CCU – Community Care Team; PHCU– Personalized Health Care Team; FHU – Family Health Team.

3. Results

The Primary Health Care Teams of the Primary Health Centers of Central Alentejo and their health professionals were all surveyed in this study ($n = 34$ and $n = 324$, respectively). However, considering the total number of health professionals surveyed, there was an adequate number of responses ($n = 112$) distributed over 29 Primary Health Care Teams of the four types of Teams: CCT ($n = 43$); PHCT ($n = 17$); FCU-A ($n = 22$); and FCU-B ($n = 30$). Therefore, a response rate of 85.3% was obtained in the Primary Health Care teams of the Primary Health Centers of Central Alentejo—Portugal, and a response rate of 34.6% for health professionals.

Table 2 presents the study population and sample concerning the type of Primary Health Care team and allows us to visualize the distribution of the number of professionals per Primary Health Care team.

Table 2 shows that the FHT-B had the highest response rate (100%), and the health professionals from the Community Care Teams had the highest number of responses ($n = 43$). Regarding the response rate of the number of professionals for each Primary Health Care Team, the FHT-A has the lowest percentage (24.18%). It is also possible to see that the FHT-B has a more similar distribution between the sample (26.79%) and the expected population (27.78%)

After descriptive analysis, statistical analysis was performed using Spearman's Correlation to observe whether there are measures of association between the $SPQQ_4PHC$ variables for each Primary Health Care team, and between the questionnaire variables with the Global Performance Index, using the global value of that Index of each Primary Health Care team.

It was found that most $SPQQ_4PHC$ variables are correlated with each other, as they present statistically significant values for $p < 0.01$ and $p < 0.05$ for all Primary Health Care teams and global results ($n = 112$).

Regarding the correlation of the $SPQQ_4PHC$ variables with the Global Performance Index for each Primary Health Care team, to facilitate the reading of the data, only those variables that are statistically significant at a significance level of 5% are presented. Table 3 demonstrates the correlation between the perception of quality and the Global Performance Index of Community Care Teams (CCT), Personalized Health Care Teams (PHCT), and Family Health Teams (FHT-A and FHT-B).

Table 2. Characterization of the population, sample, and Distribution of the number of health professionals by Primary Health Care Teams of the Community Health Centers of Central Alentejo – Portugal

Primary Health Care Team	Expected Teams	Obtained Teams	Response rate per FT (%)	Expected Population Distribution (%)	Sample Distribution (%)
Population and Sample					
CCT	12	10	83,33	35,29	34,48
PHCT	9	7	77,78	26,47	24,14
FHT-A	8	7	87,50	23,53	24,14
FHT-B	5	5	100	14,71	17,24
Total	**34**	**29**			
Healthcare professionals					
CCT	79	43	54,43	24,38	38,39
PHCT	64	17	26,56	19,75	15,18
FHT-A	91	22	24,18	28,90	19,64
FHT-B	90	30	33,33	27,78	26,79
Total	**324**	**112**			

Note: FT—Primary Health Care Team; CCT—Community Care Team; PHCT—Personalized Health Care Team; FHT—Family Health Team.

Bearing in mind the healthcare professionals of the Community Care Teams, the correlations between the variables in the questionnaire, with the Global Performance Index, reveal that most of the variables are statistically significant, as they present p^{Value} less than 0.05. The variables that entirely correlate with the Global Performance Index are "service culture"; "Infrastructure and external resources"; "Information and knowledge"; "Processes"; and "commitment," which means that the more the variable increases, the more the Overall Performance Index increases. That is, in the case of Community Care Teams, for example, the greater the perception of safety culture and results, the greater the Global Performance Index relative to the Personalized Health Care Teams, the greater the perception of infrastructure and resources external and the commitment, the greater the performance index and, in the FHT-A, the greater the perception of the results, the greater the Global Performance Index.

Agrawal et al. (2020) states that a higher performance index significantly impacts the likelihood of users adhering to primary health care in future health needs.

It should be noted that only the variables "leadership and competence of Human Resources" and "development of competencies" do not correlate with the Global Performance Index. This means that regardless of the perception of healthcare professionals regarding these variables, they do not influence the Global Performance Index of the Teams. These results are corroborated in the study by Lahariya et al. (2020). The authors state that "political will" at the highest level significantly impacts performance more than proximity leadership.

The correlations between the $SPQQ_4PHC$ variables and the Global Performance Index of the Personalized Health Care Teams allow us to verify that only the "commitment" variable is fully correlated; that is, the greater the commitment of employees, the greater the Performance Index Global, noting that the greater the involvement of professionals, the greater the performance, in a global manner.

Table 3. Spearman correlation between SPQQ$_4$PHC and Global Performance Index items in Community Care Teams, Personalized Health Care Teams, and FHT-A

		Global Performance Index	
		r	*PV^{alue}*
CCT (*n* = 43)			
Service Culture	I.1	0,461**	0,002
	I.2	0,309*	0,044
Service Strategy	I.5	0,433**	0,004
Infrastructure and External Resources	I.7	0,338*	0,027
	I.8	0,410**	0,006
Information and Knowledge	I.9	0,495**	0,001
	I.10	0,410**	0,006
Processes	I.11	0,325*	0,034
	I.12	0,374*	0,013
Service Management	I.13	0,500**	0,001
Commitment	I.17	0,348*	0,022
Conditions, Satisfaction, *Performance*, and Recognition	I.18	0,324*	0,034
Results	I.23	0,358*	0,018
	I.24	0,408**	0,007
	I.25	0,422**	0,005
PHCT (*n* = 17)			
Infrastructure and External Resources	I.7	0,486*	0,048
Commitment	I.17	0,516*	0,034
FHT-A (*n* = 22)			
Results	I.24	0,466*	0,029
FHT-B (*n* = 30)			

Note: CCT—Community Care Team; PHCT—Personalized Health Care Team; FHT—Family Health Team; I. – SPQQ$_4$PHC item; r—Correlation coefficient; p^{Value} – correlation significance level; ** Significant correlation at p^{Value}<0.01; * Significant correlation at p^{Value}<0.05.

Regarding FHT-A, most variables are correlated. However, only one question of the variable "results" correlates with the Global Performance Index since all p^{Value} values are greater than 0.05, except for item 24 - Results, in which the value of p^{Value} is 0.029. In other words, it is impossible to state that the perception of the quality of the professionals at the FHT-A is related to the obtained Global Performance Index.

Relatively to the FHT-B, all the questionnaire variables are correlated among them in the vast majority. However, none of the variables is correlated with the Global Performance Index, and it is impossible to establish a relationship between the perception of the quality of FHT-B professionals and the Global Performance Index obtained.

To complete the analysis of Spearman's Correlation, whether correlations between the questionnaire variables and the Global Performance Index globally were also analyzed, presented in Table 4.

The global results (n = 112) between SPQQ$_4$PHC and the Global Performance Index show statistically significant correlations between 21 variables and the Global Performance Index. Meaning that the greater the perception of the quality of health professionals concerning "safety culture,"

"leadership," "strategy for the service," "infrastructure and external resources," "processes," "service management" and "Human Resources planning and skills development," "commitment," "conditions, satisfaction, performance and recognition" and "results," the greater will be the Global Performance Index.

Table 5 summarizes the SPQQ$_4$PHC dimensions that correlate with the Global Performance Index according to the Primary Health Care Team type.

The obtained results show that the Community Care Teams are the Primary Health Care Teams that present the most statistically significant correlations with the Global Performance Index, and the variables that entirely correlate are "service culture"; "infrastructure and external resources,"; "information and knowledge"; "process"; and "commitment." Thus, it is possible to state that, for Community Care Teams, the greater the perception of the quality of the variables mentioned above, the greater the Global Performance Index of these Primary Health Care Teams.

It is increasingly understood that universal health coverage could be better in quality, efficiency, and equity when it is based on comprehensive primary health care, predominantly public financing and service delivery, and state regulation to ensure access and a view of health care as a public good (Lahariya, 2019).

4. Discussion

This study confirmed the dimensions of the correlated SPQQ$_4$PHC with the Global Performance Index (GPI) of each type of Primary Health Care Team in Portugal.

When analyzing the global correlation of all SPQQ$_4$PHC variables with the Global Performance Index, it is possible to verify that 84% of the variables are correlated with the Global Performance Index, with the variables being fully correlated with "service culture"; "strategy for the service"; "information and knowledge"; "process"; "service management"; "Human Resources planning and skills development"; "commitment"; and "results."

Thus, and comparing the perception of the quality of health professionals in Primary Health Care teams with the level of performance of the respective teams globally, it is possible to see that there are statistically significant correlations in almost all variables, meaning that as the perception of the quality variables increases, the Global Performance Index also increases. Hence, it is possible to state a relationship between the perception of quality and the level of performance of the Primary Health Care Teams of the Community Health Centers of Central Alentejo.

However, comparing the perception of the quality of health professionals in the Primary Health Care teams with the level of performance of Primary Health Care teams, Community Care Teams present a considerable number of statistically positive correlations. On the other hand, comparing the perception of the quality of Primary Health Care teams with the level of performance of Primary Health Care teams, it is impossible to establish a relationship for all teams, only for the Community Care Teams.

According to Tsai et al. (2015), higher-quality hospitals usually perform better than low-quality ones. This study, now conducted in Portugal, corroborates the research of Tsai et al. (2015) since the Community Care Teams are the Primary Health Care Teams with the highest results in the Overall Performance Index and, in turn, the teams which the most positive correlations with the Overall Performance Index.

Knowing that quality of care is a valued and desired outcome in health performance systems because it helps to increase the effectiveness of care delivery (Mitropoulos, 2019), it would be expected that, in this study, the Primary Health Care Teams, FHT-A and FHT-B, would show more statistically significant correlations with the Overall Performance Index, since they are more

Table 4. Spearman correlation between SPQQPHC and Global Performance Index items

		Global Performance Index	
		r	p^{Value}
Primary Health Care Teams (*n* = 112)			
Service Culture	I.1	0,395**	0,000
	I.2	0,269**	0,004
Leadership	I.4	0,218*	0,021
Service Strategy	I.5	0,394**	0,000
	I.6	0,272**	0,004
Infrastructure and external resources	I.8	0,197*	0,037
Information and Knowledge	I.9	0,428**	0,000
	I.10	0,324**	0,000
Processes	I.11	0,322**	0,001
	I.12	0,262**	0,005
Service Management	I.13	0,358**	0,000
	I.14	0,198*	0,036
Human Resources Planning and Skills Development	I.15	0,212*	0,025
	I.16	0,244**	0,009
Commitment	I.17	0,295**	0,002
Conditions, Satisfaction, *Performance*, and Recognition	I.18	0,290**	0,002
Results	I.21	0,262**	0,005
	I.22	0,251**	0,008
	I.23	0,318**	0,001
	I.24	0,444**	0,000
	I.25	0,310**	0,001

Note: I. – $SPQQ_4PHC$ item; r—Correlation coefficient; p-value—correlation significance level; ** Significant correlation at $p < 0.01$; * Significant correlation at $p < 0.05$.

structured and organized teams, with more autonomy. Furthermore, FHT-B receives financial incentives depending on their performance, and both receive institutional incentives based on performance. Pestana et al. (2019) point out some reasons that can justify the above, relating it to the differences between the populations to which different units provide care and a lack of human resources.

The factor analysis and the Varimax method allow verification that for the health professionals involved in the study, the dimension results explained about 63.2% of the variance, i.e., health professionals assign more importance to the quality dimension. The results obtained in the factor analysis also revealed that health professionals of the ACeS Alentejo Central region attach greater importance to the results, associating quality as a product rather than a service. These results corroborate some of the characteristics of Western management presented by Li (2018), namely improving the productivity and efficiency of the whole management, through a capacity for constant innovation, depending on the results obtained. According to this author, this type of Western management is based on quantitative standards and evaluation methods and can lead to quick, short-term success thinking, belittling the long-term strategy and interest of the organization.

Table 5. SPQQ$_4$PHC dimensions correlated with the Global Performance Index

Primary Health Care Teams	SPQQ$_4$PHC dimensions correlated with the Global Performance Index
CCT	Service Culture (I.1; I.2)
	Service Strategy (I.5)
	Infrastructures and External Resources (I.7; I.8)
	Information and Knowledge (I.9; I.10)
	Processes (I.11; I.12)
	Service Management (I.13)
	Commitment (I.17)
	Conditions, Satisfaction, Performance, and Recognition (I. 18)
	Results (I. 23; I.24; I.25)
PHCT	Infrastructures and External Resources (I.7)
	Commitment (I.17)
FHT-A	Results (I.24)
FHT-B	No variable correlates with the Global Performance Index

Note: CCT—Community Care Team; PHCT—Personalized Health Care Team; FHT—Family Health Team; I. - item

5. Final considerations

Compared to hospital health care, primary health care has little evidence regarding the relationship between quality and performance. Thus, this study's main contribution was to understand the relationship between the perception of quality by health professionals and the performance of Primary Health Care Teams in primary health care.

It is possible to state with this study that there is a significant relationship between the perception of quality of health professionals and the level of performance, verifying that the greater the perception of quality, the greater the level of performance.

It should be noted that, in this study, we only intend to analyze the relationship between the health professionals' perception of quality in the different Primary Health Care Teams of primary health care in Central Alentejo and the level of performance of the respective teams.

Donabedian (1988) mentions that quality results in health are achieved when quality is verified in the structure, processes, and services. This study allows for the conclusion that, despite the extreme relevance that outcomes have for health professionals, it is necessary to continue working on the quality structure and processes with the goal of continuous improvement.

Mitropoulos (2019) found that the Portuguese Health System is growing in t service performance and quality dimensions. Fulop and Ramsay (2019, p. 2) argue that organizations should "link financial incentives to quality performance." These studies are in line with the restructuring of the Primary Health Care contracting model in 2017, which, according to Administração Central dos Sistemas de Saúde (2019, p. 5), defines as one of the pillars of this "organizational reengineering process", the "progressive implementation of a rewards system linked to performance". This is because the financial incentives and the FHTs have been extended to the PHCTs, but the CCTs have yet to be included.

The study had some limitations, mainly the small percentage of the sample (34.56%) since it was collected in only one week and a half, being the planned month, due to the global pandemic that hit Portugal in March. The second is only representative of a small part of the Portuguese mainland. It was impossible to compare each unit and its own GDI, and it was necessary to work with the global GDI values

and each Primary Health Care team group since, due to the pandemic, it was impossible to collect higher sample percentages for each Primary Health Care unit. Another limitation of this study, also related to the COVID-19 pandemic, was that it did not make it possible to conduct interviews to triangulate the data obtained through the questionnaires.

Therefore, for future studies, we recommend the following:

- Conducting the same study only with the Family Health Teams, model A and B, and Personalized Health Care Teams, because they are more similar, providing direct care to the user, as described above, to deepen the knowledge between quality and performance by type of Primary Health Care team.
- Correlate only the variable of care performance, from the Global Performance Index, with the variables of perception of quality since this variable is composed of different indicators, contrary to the other variables of the GPI.
- Compare the perception of quality and performance of primary health care in Central Alentejo with the reality of English primary health care since they have a similar national health service.

Acknowledgments
This study was conducted at the Research Center in Political Science (UID/00758/2020), University of Minho/University of Évora. It was supported by the Portuguese Foundation for Science and Technology and the Portuguese Ministry of Education and Science through national funds.

Funding
The work was supported by the Fundação para a Ciência e a Tecnologia (UIDP/00758/2020).

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Disclosure statement
No potential conflict of interest was reported by the authors.

Citation information
Cite this article as: The Perception of quality and the performance in primary health Care of central Alentejo – Portugal, M. Saraiva, C. Alfaiate, L. P. Gomes, A. R. Correia & F. Jorge, *Cogent Business & Management* (2023), 10: 2208423.

Note
1. Available in https://bicsp.min-saude.pt/pt/Paginas/default.aspx.

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