

ORIGINAL ARTICLE

QUALITY ASSESSMENT OF THE SURGERY CENTER REGARDING STRUCTURE, PROCESS AND RESULTS

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ABSTRACT

Objectives: to assess the quality of the surgery centers in Portuguese hospitals regarding structure, process and results.

Method: a quantitative and cross-sectional study conducted between January and May 2018. The sample consisted in 1,019 professionals from 71 Portuguese hospitals. Three different instruments were used to assess quality in structure, process and results in the surgery center, namely: the Scale of Structure Indicators in the Operating Room, the Scale of Care Quality Processes in the Operating Room and the Scale to measure the Quality Results in the Operating Room.

Results: the "specificities of the professional groups", "communication flows", "control for safety" and "teamwork" factors were considered as of high quality.

Conclusion: the quality assessment of the surgery center in the structure, process and results categories allows identifying gaps that can be improved and require greater attention.

DESCRIPTORS: Assessment in Health; Operating Rooms; Quality Management; Nursing; Quality Improvement.

EVALUACIÓN DE LA CALIDAD DEL CENTRO QUIRÚRGICO EN RELACIÓN CON LA ESTRUCTURA, EL PROCESO Y LOS RESULTADOS

RESUMEN:

Objetivos: evaluar la calidad de los centros quirúrgicos en hospitales de Portugal en relación con la estructura, el proceso y el resultado. **Método:** estudio cuantitativo y transversal, realizado entre los meses de enero y mayo de 2018. La muestra estuvo compuesta por 1.019 profesionales de 71 hospitales de Portugal. Se recurrió al uso de tres instrumentos distintos para medir la estructura, el proceso y los resultados de la calidad en el centro quirúrgico, a saber: Escala de Indicadores de Estructura en la Sala Quirúrgica, Escala de Procesos de Calidad Asistencial en la Sala Quirúrgica y Escala para medir los Resultados de Calidad en la Sala Quirúrgica. **Resultados:** los factores "especificidades de los grupos profesionales", "flujos de comunicación", "control para la seguridad" y "trabajo en equipo" se consideraron como de alta calidad. **Conclusión:** la evaluación de la calidad del centro quirúrgico en las categorías de estructura, proceso y resultado permite identificar deficiencias que pueden mejorarse y que exigen mayor atención.

DESCRIPTORES: Evaluación en Salud; Salas Quirúrgicas; Gestión de la Calidad; Enfermería; Mejora de la Calidad.

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INTRODUCTION

Surgery has changed dramatically in the last decades: safety, quality and efficiency have become the priority objectives of the surgical care of the century⁽¹⁻²⁾. The surgery center is one of the most complex structures in the hospital system, with a high degree of complexity of equipment and procedures, due to its multidisciplinary and its intersection with the several sectors of the hospital⁽³⁾. The surgery center is often the biggest contributor to the financial success of a hospital; however, it is also one of the most important units in this environment, due to the high associated costs⁽⁴⁻⁵⁾. The surgery center needs adequate management that leads to better efficiency and efficacy, maintaining or desirably improving the current levels of care quality⁽⁶⁾. Numerous studies have highlighted the importance of using quality indicators in the surgery center, monitoring care quality and safety⁽⁷⁻¹⁰⁾.

One of the main challenges in assessing quality consists in identifying which relevant indicators to include. Donabedian's work remains significant for what is now an international health care quality movement, integrating the core concepts of structure, process and result, in order to measure and improve quality in health⁽¹¹⁾. Donabedian clarifies that these categories must not be confused with quality attributes, but that they are the important classifications for the types of information that can be obtained, in order to infer whether care quality is adequate⁽¹²⁾. These concepts remain the basis of the current quality assessment⁽¹³⁾. An example of this are the World Health Organization (WHO) guidelines for Safe Surgery that propose the Donabedian model for measuring health care provision⁽¹⁴⁾.

Despite the special importance that has been given to quality in health in recent years, in the scope of the surgery center, this concern falls on the recommendations associated with care safety.

It is to be reminded that all residents in Portugal have access to health care provided by the National Health Service (*Serviço Nacional de Saúde, SNS*), mainly financed through taxes. Health care is provided by public and private health services⁽¹⁵⁾. There are four health care levels in Portugal, namely: 1) primary (targeted at the community), 2) secondary (in hospital units), 3) post-hospital care in the rehabilitation process, and 4) palliative care⁽¹⁶⁾. Among others, the reforms implemented since 2011 by the Ministry of Health include the strengthening of hospital care⁽¹⁵⁾. The hospital network in Portugal has undergone a number of important changes in the last 40 years, not only in terms of institutional contracts but also in its Legal status⁽¹⁷⁾.

These reforms can be seen in the available care network. In 2014, Portugal had 225 hospitals, 113 of which belonged to the National Public Health System, with a number of mergers between public sector hospitals occurring in the last few years⁽¹⁵⁾.

Currently, in the universe of the Portuguese National Public Health System, there are nearly 170 surgery centers, with 569 operating rooms, distributed in 45 entities and 82 hospital units. Optimizing the quality and efficiency of the operating room is a critical key to success and, in this sense, assessment plays an important role.

Quality assessment is increasingly recognized as an important factor in improving the health care quality, especially in surgery centers. Thus, this study aims to assess the care quality in the operating rooms of Portuguese hospitals with regard to their structure, process and result.

METHOD

A quantitative and cross-sectional study. The questionnaires were sent to 174 hospitals, with answers received from 71 (40.8%). The sample by convenience consisted of 1,019 professionals working in the surgery center. The following were considered as eligible for this study: physicians and nurses working in the operating room, with direct involvement in care for at least two years, and who were willing to participate.

The data collection instruments were the following: a sociodemographic questionnaire; three scales referring to the assessment of the Structure, Process and Result (Structure Indicators in the Operating Room - SIOR Scale, Care Quality Processes in the Operating Room - CQPOR Scale, and Quality Results in the Operating Room - QROR Scale). The instruments were filled out by means of an electronic questionnaire sent to the boards of directors of the hospitals, which forwarded them to the professionals in question. The survey was conducted between the January and May 2018.

The 28 items of the Structure Indicators in the Operating Room (SIOB) scale are grouped into seven dimensions: environment and equipment (five items), resources for quality and safety (seven items), circuits in the surgery room (four items), facilities and operational requirements (six items), training and praxis in the operating room (three items), continuity in Nursing care (two items), and specificities of the professional groups (one item)(17). The scale questions include variables associated with the facilities (dimensions, infrastructure, circuits), environment (temperature, humidity), equipment (technology, maintenance), human resources (ratios, schedules), and financial and organizational (training, teaching, etc.).

Chart 1 - Criteria of the Structure Indicators in the Operating Room (SIOR) scale. Porto, Portugal, 2019 (continues)

FACTORS	MIN_MAX	QUALITY LEVEL	VALUES
Environment and equipment	5-25	Low quality	5 to 14
		Medium quality	15 to 19
		High quality	20 to 25
Resources for quality and safety	6-35	Low quality	7 to 20
		Medium quality	21 to 27
		High quality	28 to 35
Circuits in the operating room	4-20	Low quality	4 to 11
		Medium quality	12 to 15
		High quality	16 to 20
Facilities and operational requirements	6-30	Low quality	6 to 17
		Medium quality	18 to 23
		High quality	24 to 30
Training and praxis in the operating room	3-15	Low quality	3 to 8
		Medium quality	9 to 11
		High quality	12 to 15
Continuity in Nursing care and Specificities of the professional groups	2-10	Low quality	2 to 5
		Medium quality	6 to 7
		High quality	8 to 10

Specificities of the professional groups	1-5	Low quality	1 to 2
		Medium quality	3
		High quality	4 to 5

Source: Authors (2019)

The Care Quality Processes in the Operating Room (CQPOR) scale consists of 17 items, validated for the Portuguese population, and is made up by four factors: communication flows (seven items); strategies to support the assistance work processes (six items); control for safety (two items), and teamwork (two items)⁽¹⁸⁾. The scale questions include variables associated with teamwork (interpersonal relationships, leadership), communication, records, know-hows of the professionals, use of checklists, briefing and debriefing, among others.

Chart 2 - Criteria of the Care Quality Process in the Operating Room (CPQPOR) scale. Porto, Portugal, 2019

FACTORS	MIN_MAX	QUALITY LEVEL	VALUES
Communication flows	7-35	Low quality	7 to 20
		Medium quality	21 to 27
		High quality	28 to 35
Support strategies for the assistance work processes	6-30	Low quality	6 to 17
		Medium quality	18 to 23
		High quality	24 to 30
Control for safety	2-10	Low quality	2 to 5
		Medium quality	6 to 7
		High quality	8 to 10
Teamwork	2-10	Low quality	2 to 5
		Medium quality	6 to 7
		High quality	8 to 10

Source: Authors (2019)

The Quality Results in the Operating Room (QROR) scale with 13 items consists in three factors: assessment of care quality, assessment of processes, and control systems⁽¹⁹⁾. The scale questions include variables associated with the assessment instruments (indicators, satisfaction, number of complications), assessment of human resources, processes and results.

Chart 3 - Criteria of the Quality Results in the Operating Room (QROR) scale. Porto, Portugal, 2019

FACTORS	MIN_MAX	QUALITY LEVEL	VALUES
Assessment of care quality	6-30	Low quality	6 to 17
		Medium quality	18 to 23
		High quality	24 to 30
Assessment of the processes	4-20	Low quality	4 to 11
		Medium quality	12 to 15
		High quality	16 to 20
Control systems	3-15	Low quality	3 to 8
		Medium quality	9 to 11
		High quality	12 to 15

Source: Authors (2019)

In the three scales, the items consist of a Likert scale containing five answer options: "totally disagree", "partially disagree", "indifferent", "partially agree" and "totally agree". The IBM Statistical Package for Social Sciences (SPSS v.24) program was used for data treatment. Descriptive and inferential statistics with measures of central tendency and dispersion was used in data analysis. To investigate the association between the items surveyed, non-parametric tests were used, namely the Kruskal-Wallis test, adopting a 95% confidence interval, with a p-value < 0.05.

The research project was approved by the ethics committee of a hospital unit (No. CES246-16) and then forwarded to the other institutions. Anonymity and data confidentiality were guaranteed throughout the different stages.

RESULTS

The sample was made up by 1,019 participants, of which 747 (73.4%) are nurses and 271 (26.6%), physicians. The female gender prevailed with 702 (69.2%) participants; the participants' age varied between 24 and 68 years old (mean of 43 and standard deviation of 9.7). With regard to the time of professional practice in the operating room, it varied between 2 and 42 years old (mean of 14.6 and standard deviation of 9.1).

A total of 15 types of surgery center were identified according to the type of intervention. Considering the professional practice, 879 professionals work in a central surgery center (corresponding to all types of intervention) (86.3%), followed by the ambulatory sector with 68 (6.7%) and the Orthopedics sector (2.7%). The remaining surgery centers have little representation (two in Pediatrics, four in Ophthalmology, five in the Cardiothoracic specialty, four in Otorhinolaryngology, one in Stomatology, one in Urology, two in Neurosurgery, two in Peripheral (Periphery sector), one in Exams, five in Delivery, and four in Gynecology/Obstetrics).

With regard to the regional distribution of the professionals, there is predominance of those from the North region with 453 (44.5%), followed by those from the Central region with 239 (23.5%), those from Lisbon and Vale do Tejo with 188 (4%), Alentejo with 46

(4.5%), Algarve with 12 (1.2%), Madeira with three (0.3%) and Azores with 19 (1.9%), with 59 professionals (5.8%) from undefined regions.

Table 1 shows the results of the descriptive measures resulting from applying the instruments for the quality assessment in the surgery center.

Table 1 - Characterization of the Quality level by dimensions and factors. Porto, Portugal, 2019

Factors	Descriptive measures						Quality level
	Min	Max	Median	Mode	Mean	SD*	
Structure Dimension							
Environment and equipment	5	25	19	20	17.9	4.7	Medium quality
Resources for quality and safety	8	35	26	28	25	5.6	Medium quality
Circuits in the operating room	4	20	12	4	11.6	4.8	Medium quality
Facilities and operational requirements	7	30	21	22	20.4	5.9	Medium quality
Training and praxis in the operating room	3	15	12	12	11.2	2.9	Medium quality
Continuity in Nursing care	2	10	2	2	4	2.7	Low quality
Specificities of the professional groups	1	5	4	4	3.9	1.1	High quality
Process Dimension							
Communication flows	8	35	29	30	28	4.7	High quality
Support strategies for the assistance work processes	6	30	21	22	20	5.1	Medium quality
Control for safety	2	10	10	10	9	1.4	High quality
Teamwork	2	10	9	10	9	1.5	High quality
Results Dimension							
Assessment of care quality	6	30	19	18	18.4	6.4	Medium quality
Assessment of the processes	4	20	12	12	12.0	4.1	Medium quality
Control systems	3	15	10	10	10.1	3.3	Medium quality

*SD – Standard Deviation

Source: Authors (2019)

Table 2 shows the results of comparisons of the dimensions and factors of the scales with the type of operating room. In the assessment, the Central, Urgency, Outpatient, and Orthopedics sectors stood out, with Others integrating Pediatrics, Ophthalmology, Cardiothoracic specialty, Otorhinolaryngology, Stomatology, Urology, Neurosurgery, Peripheral, Exams, Delivery and Gynecology/Obstetrics.

Table 2 - Quality comparisons by type of surgery center. Porto, Portugal, 2019 (continues)

Fatores	Dimensão Estrutura			
	Valores da Escala		Tipo de centro cirúrgico	
	Média	Desvio Padrão	Estat. teste	Valor-p
Environment and equipment				
Central sector	17,8	4,7	32,5	< 0,001
Urgency sector	12,4	3,2		
Outpatient sector	19,3	4,6		
Orthopedics sector	21,3	3,8		
Other sector	18,1	4,5		
Resources for quality and safety				
Central sector	24,8	5,5	36,1	< 0,001
Urgency sector	18,9	4,4		
Outpatient sector	27,5	5,3		
Orthopedics sector	29,4	4,7		
Other sector	24,3	5,9		
Circuits in the operating room				
Central sector	11,5	4,7	23,1	< 0,001
Urgency sector	9,3	3,6		
Outpatient sector	14	4,6		
Orthopedics sector	14,4	4,3		
Other sector	7,1	3,9		
Facilities and operational requirements				
Central sector	20,3	5,7	27,2	< 0,001
Urgency sector	13,6	4,3		
Outpatient sector	22,5	5,2		
Orthopedics sector	26	6,2		
Other sector	16,4	6,7		
Training and praxis in the operating room				
Central sector	11,2	2,8	21,4	< 0,001
Urgency sector	6,9	3,1		
Outpatient sector	11,8	2,5		
Orthopedics sector	12,8	2,3		
Other sector	9,8	2,9		
Continuity in Nursing care				
Central sector	3,9	3,6	22,1	< 0,001
Urgency sector	2,8	1,7		
Outpatient sector	5,3	2,9		
Orthopedics sector	5,4	2,9		

Other sector	3,9	2,5		
Specificities of the professional groups				
Central sector	3,9	1,1	2,3	0,517
Urgency sector	4,2	0,8		
Outpatient sector	3,8	1,1		
Orthopedics sector	3,6	1,4		
Other sector	3,9	1		
Process Dimension				
Communication flows				
Central sector	28,8	4,6	12,3	0,007
Urgency sector	24,2	5,6		
Outpatient sector	28,9	4,8		
Orthopedics sector	31,5	3,5		
Other sector	26,5	5,5		
Support strategies for the assistance work processes				
Central sector	20,3	5	24,5	< 0,001
Urgency sector	16,5	5,9		
Outpatient sector	22,8	5		
Orthopedics sector	24,3	5,1		
Other sector	18,9	5,1		
Control for safety				
Central sector	9,3	1,4	4	0,258
Urgency sector	9,6	0,7		
Outpatient sector	9,4	1,2		
Orthopedics sector	8,8	1,7		
Other sector	8,5	2,5		
Teamwork				
Central sector	8,6	1,5	4,7	0,196
Urgency sector	8,2	1		
Outpatient sector	8,9	1,3		
Orthopedics sector	8,6	1,9		
Other sector	8,5	1,4		
Results Dimension				
Assessment of care quality				
Central sector	18,3	6,4	24,7	< 0,001
Urgency sector	12,8	5,4		
Outpatient sector	21,3	5		
Orthopedics sector	23,2	6,4		
Other sector	15,5	5,6		
Assessment of the processes				

Central sector	11,8	4	19,7	0,000
Urgency sector	9,6	3,8		
Outpatient sector	13,8	3,9		
Orthopedics sector	15	4,2		
Other sector	9,9	3,4		
Control systems				
Central sector	9,9	3,2	31	< 0,001
Urgency sector	6,2	2,8		
Outpatient sector	11,5	3,2		
Orthopedics sector	12	3,3		
Other sector	9,1	3,1		

Source: Authors (2019)

Table 3 presents the result of the comparisons between the dimensions and factors of the scales and the region of the country, with the North, Central, Lisbon and Valle do Tejo, Alentejo, Algarve, Madeira and Azores regions standing out.

Table 3 - Quality comparisons by regions. Porto, Portugal, 2019 (continues)

Dimensão Estrutura				
Factors	Values of the Scale		By Region	
	Mean	Standard Deviation	Stat. test	p-value
Environment and equipment			46,1	< 0,001
North	17,9	4,7		
Central	17,4	4,6		
Lisboa Vale do Tejo	17,9	4,9		
Alentejo	20,5	3,1		
Algarve	13,4	5,9		
Madeira	20,3	0,6		
Açores	14,5	4,7		
Resources for quality and safety			32,5	< 0,001
North	25,7	5,6		
Central	23,8	5,3		
Lisboa Vale do Tejo	24,9	5,7		
Alentejo	24,4	4,2		
Algarve	18,6	7,3		
Madeira	26	3,6		

Açores	25,1	3,9		
Circuits in the operating room			36,1	< 0,001
North	11,6	4,9		
Central	12,3	4,4		
Lisboa Vale do Tejo	11,4	4,9		
Alentejo	8,4	3,5		
Algarve	7,9	4		
Madeira	13	3,6		
Açores	13,2	3,2		
Facilities and operational requirements			35,1	< 0,001
North	20,8	6		
Central	19,5	5,3		
Lisboa Vale do Tejo	19,8	6,1		
Alentejo	23,5	4,5		
Algarve	14	7		
Madeira	19,6	4,9		
Açores	20,7	4,9		
Training and praxis in the operating room			13,6	0,035
North	11	2,9		
Central	11,1	2,8		
Lisboa Vale do Tejo	11,5	2,8		
Alentejo	11,4	2,5		
Algarve	8,7	3,5		
Madeira	9,7	2,5		
Açores	10,9	2,9		
Continuity in Nursing care			16,2	0,013
North	4,2	2,8		
Central	3,9	2,6		
Lisboa Vale do Tejo	4,1	2,7		
Alentejo	2,7	1,5		
Algarve	3,6	2,6		
Madeira	6	3,4		
Açores	3,4	1,8		
Specificities of the professional groups			12,2	0,059
North	3,8	1,2		
Central	3,9	1,1		
Lisboa Vale do Tejo	4,1	0,9		
Alentejo	3,8	1,2		
Algarve	4,3	0,7		
Madeira	4,3	0,6		

Açores	3,6	1,3		
Process Dimension				
Communication flows			17,3	0,008
North	28,6	4,6		
Central	27,9	4,5		
Lisboa Vale do Tejo	27,7	4,9		
Alentejo	28,8	3,4		
Algarve	25,3	7,6		
Madeira	29	1		
Açores	27	4,2		
Support strategies for the assistance work processes			19,7	0,003
North	20,8	5,3		
Central	19,9	4,7		
Lisboa Vale do Tejo	20,6	5,3		
Alentejo	19,9	4,6		
Algarve	17,5	5,6		
Madeira	22,3	1,5		
Açores	16,6	6,1		
Control for safety			22,1	0,001
North	9,1	1,5		
Central	9,4	1,2		
Lisboa Vale do Tejo	9,2	1,7		
Alentejo	9,7	0,8		
Algarve	10	0		
Madeira	10	0		
Açores	8,9	1,7		
Teamwork			7,6	0,273
North	8,6	1,6		
Central	8,5	1,6		
Lisboa Vale do Tejo	8,7	1,3		
Alentejo	8,5	1,4		
Algarve	8,5	1,2		
Madeira	9,7	0,6		
Açores	9	1,9		
Results Dimension				
Assessment of care quality			42	< 0,001
North	19,2	6,4		
Central	17,9	6,3		
Lisboa Vale do Tejo	17,5	6,3		
Alentejo	17,1	5,8		

Algarve	15,3	6,2		
Madeira	21,7	2,5		
Açores	12,2	5,5		
Assessment of the processes			37,2	< 0,001
North	12,6	4,1		
Central	11,3	3,9		
Lisboa Vale do Tejo	11,4	4,2		
Alentejo	11,9	3,4		
Algarve	9,5	4,2		
Madeira	15,3	3		
Açores	8,7	4,3		
Control systems			38,7	< 0,001
North	10,3	3,3		
Central	9,7	3,2		
Lisboa Vale do Tejo	10,3	3,3		
Alentejo	8,5	3,1		
Algarve	7,5	2,1		
Madeira	9	4,4		
Açores	8,8	3,7		

Source: Authors (2019)

DISCUSSION

The indicators are typically classified in specific care areas using the conceptual model developed by Donabedian⁽¹⁵⁾. These indicators assess health care structures, processes and results and can provide a quantitative basis for improving quality.

Structure indicators assess the settings in which health care occurs. These include physical resources, human resources and the administrative structure⁽²⁰⁾. The structure includes the stable and necessary characteristics for the provision of care, integrating resources, physical and organizational structure, new technologies, materials, and adequate equipment, among others^(3,17,21).

The application of the instrument used, with regard to its structure, shows average quality in most of the factors. Of the different factors of the scale, the one referring to "continuity in Nursing care" stands out, negatively, where quality was considered lower. This factor reflects the importance of the pre- and post-operative visits made by nurses in the surgery center. Using different support tools, peri-operative Nursing allows for a positive impact on client satisfaction, safety, care quality and cost savings^(17,22-23). The pre- and post-operative assessment visits have become a common practice, increasing care efficiency and efficacy in the human and economic sense⁽²³⁾.

Also within the scope of the Structure, the "specificities of the professional groups" factor was considered as of high quality; this factor highlights the need for proper management and coordination of the different professional groups for better planning and

efficiency of the surgery center⁽¹⁷⁾. The professionals who work in the surgery center have different characteristics and share responsibilities, which vary according to the specialties so, in the face of the enormous variability, management must be conducted dynamically and efficiently⁽³⁾.

In the same way that the structure attributes are indispensable, the quality of the assistance processes is also important, guaranteed by the implementation of continuous quality improvement systems that influence the level of surgical care^(6,24).

Within the scope of the process assessment, high quality in the “communication flows”, “control for safety and” teamwork” factors is reported, where the indicators allow improving the quality of the processes. According to Donabedian, even what is done well can be improved⁽¹¹⁾. The “strategies to support the assistance work processes” factor was considered as of medium quality, which includes, among others, the use of Checklists as a quality and safety strategy, which has gained strong momentum in recent years^(5,18), associated with the investment in national and international safe surgery policies.

Result indicators allow assessing the impact, reflecting the changes, in the desirable or undesirable sense of care⁽⁵⁾. Today, there is a strong concern with the identification of indicators, particularly of results that must go beyond those classically used in the production of services, essentially economic⁽¹⁹⁾.

Within the scope of the result dimension, the three factors of the scale were considered as of medium quality, namely in the “assessment of care quality”, of the processes and of the “control systems”. The result must reflect the changes, in the desirable or undesirable sense, but most institutions select different combinations of metrics based on local requirements and criteria, many of which are familiar⁽¹⁹⁾. The difficulty arises in determining which indicators are more important for inclusion. Ideally, indicators should consist of data already available in information systems, readily measurable, as well as of qualitative measures⁽²⁵⁾.

Type of surgery center

Table 2 shows the correlations of the application of the scales by type of activity in the operating room, and Table 3, by region of the country. With regard to the type of surgery center, within the scope of the structure, with the only exception of the “specificities of the professional groups” factor, it is concluded that there are significant differences in all factors. In the application of the process assessment scale, it is observed that there are significant differences only in the “communication flows” and “strategies to support the assistance work processes” factors.

From the application of the scale on the results, significant differences are observed in all factors. These differences found assign better quality to the ambulatory operating sectors in all the items, followed by the central sector and, finally, the emergency sectors. This asymmetry by operating sector typology is in line with the report on the assessment of the national situation of operating rooms carried out by the Ministry of Health in 2015, which states that, from the analysis of some indicators, it was verified that there are wide variations between the different types of Operating Rooms⁽⁶⁾.

The supremacy of the outpatient surgery centers is in line with what was mentioned by these authors, where they state that the Portuguese quality indicators for outpatient surgery are well adapted to the current international practices⁽²⁶⁾. This aspect can be related to the strong increase given by the Portuguese National Health System in the development of outpatient surgery.

Assessment by regions

In a study carried out to assess the efficiency of hospital units in Portugal, in the

results of 27 hospitals the authors showed disparities that should deserve special attention from policy makers and hospital managers⁽¹⁶⁾. This aspect was also evidenced in this study.

In the structure assessment, with the only exception of “specificities of the professional groups”, it was concluded that there are significant differences in all the other factors. In the scope of applying the process assessment scale, the only exception was “teamwork” and, when applying the scale on the result, it was noticed that there are significant differences in all factors.

Such data are in line with the assessment report on the national situation of operating rooms, both in their typology and by region. This report stresses that the optimization of surgery centers must be encouraged, proposing the development of periodic monitoring benchmarking that allows identifying mismatches and inconsistencies and promoting cases of good practices in efficiency, quality and safety⁽⁶⁾.

Regarding this, it is important to highlight that the structure, process and results categories were first described by Donabedian, who sought to provide a vocabulary to understand what many began to intuit: the fact that some patients seem to have better care than others⁽²⁴⁾. Since then, it has become a reference in improving health care quality, with the recommendation of its use in surgery center safety.

It is not possible to achieve excellence without observing and acting on the health system. In addition to what Donabedian anticipated, this demonstrates the value of a better scientific understanding of health care as a system, as well as the importance of defining and continually redefining care processes that allow for continuous improvement⁽²⁵⁾.

As a limitation of this study, we must consider the fact that it is restricted to part of all the national institutions, data collection having been performed by the professionals who work there. The assessments are very different in each of the dimensions and in the different factors of the scales. Of the various relationships analyzed, it was not possible to quantify the quality of the operating sector by region, given the diversity of discrepancies in the different factors of the scales used.

CONCLUSION

Regarding this study, it is emphasized that, of the 71 hospitals included, in the various factors of the scales, the assessment is mostly average, being considered low in the “continuity in Nursing care” factor. In contrast, it is emphasized that the “specificities of the professional groups”, “communication flows”, “control for safety” and “teamwork” factors were considered as of high quality.

This study points to the existence of inequalities by type of sector and by region. Conducting this type of research aimed at assessing the quality of the surgery center in the structure, process and result categories allows identifying gaps that can be improved and that require greater attention. The guarantee of quality in health requires the full and unconditional commitment of all the professionals working in the sector, where the prominent role of Nursing is asserted.

At this level, this study allowed identifying areas in need of improvement, constituting a valuable tool for use in a hospital environment or in research, and capable of being replicated in future studies. The identification of these findings assumes special relevance for Nursing, as nurses actively participate in the decision-making, strategic and health care scopes.

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