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APPLICATION OF SITUATIONAL STRATEGIC PLANNING IN THE PHARMACEUTICAL SUPPLY CENTER OF A MIDSIZE PUBLIC HOSPITAL

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ABSTRACT

Strategic planning is fundamental for any organization, including health organizations that, in order to serve the population, need to manage a series of operations involving many professionals and diverse inputs. Among the basic and essential inputs are medicines, which are managed by a Central de Abastecimento Farmacêutico (CAF - Pharmaceutical Supply Center). Recognizing the importance and challenges related to the management of a CAF, the objective of this work is to prepare an operational plan for the CAF of a medium-sized public hospital, located in the city of Niterói, using the methodology of Planejamento Estratégico Situacional (PES – Situational Strategic Planning). Interviews were conducted with professionals involved with CAF activities and the current control and management mechanisms were analyzed; brainstorming sessions were also held to identify the problems faced by CAF. Among the main problems identified, epidemiological control and the lack of recognition of the pharmaceutical professional stand out. An action plan was elaborated detailing the actions, necessary resources and follow-up indicators. The PES proved to be a practical, efficient and easy to implement tool, important characteristics for its adherence, since CAF managers are health professionals with very specific training and with little knowledge in planning tools.

Keywords: Situational Strategic Planning; Operational Plan; Brainstorming; Hospital management.



1. INTRODUCTION

The planning process brings together several principles and techniques that can be applied to any type of organization that aims to achieve an objective and that induces a future change, involving thinking, before, during and after an action (Chorny, 1998; Huertas, 1996; Santos, 2010; Campos *et al.*, 2010).

Planning is not just decisions about the future, but it mainly questions the current moment in which it is inserted. To plan is to perceive reality, to evaluate possibilities, to direct the future, so as to evaluate in advance what will be done to change certain conditions in the present or to prevent favorable conditions from deteriorating in the future (Chorny, 1998; Huertas, 1996; Santos, 2010).

Planning becomes essential when it comes to securing a course, seeking a direction for developed actions, in order to correct and confront unforeseen events, directing the main objective that one wishes to conquer. In this way, planning becomes a necessary tool when it is desired to be clear in order to achieve complex objectives (Campos *et al.*, 2010).

In the area of health, which has a growing demand and scarce resources, planning is fundamental (Brazil, 2006). In the absence of planning, health services work in a disjointed manner, harming the service and the population (Vieira, 2009). Improving the organization of the health system implies changing paradigms and better planning. It is important that organizational changes that seek to reduce the fragmentation imposed on the work process facilitate communication and integrate health units into networks and functional systems that lead to better organization of the system occur (Dias *et al.*, 2012).

Among the most important and complex health care organizations are hospitals. These, in general, have an intensity of work and a high demand for specialized inputs, such as medicines. It is up to the Central Pharmaceutical Supply (CAF) of a hospital to manage the medicines that will be used. The importance of this input to hospitals and the financial volume in CAF inventories, usually costing millions of Brazilian Reais for medium-sized hospitals, justify the importance of this sector (Tumas *et al.*, 2009). Moreover, there are the difficulties of hospitals in implanting and maintaining the management of human, physical, logistical and financial resources (Braz, 2016).

Therefore, this work uses the methodology of Situational Strategic Planning (PES) developed by Carlos Matus (Matus, 1997), with the objective of identifying opportunities for improvement and developing an operational plan (OP) for a medium-sized public hospital located in the city of Niterói.

2. STRATEGIC SITUATIONAL PLANNING

The PES methodology was created in the 1970s by the Chilean economist Carlos Matus and, according to Artmann (2012, page 3), it can be defined as:

PES is a method of problem-solving and deals mainly with poorly structured and complex problems for which there is no normative or previously known solution as in the case of the well-structured ones. It is important to note that, although one can start from a specific field or sector, problems are always addressed in their multiple dimensions - political, economic, social, cultural, etc. and its multisectoral nature, because its causes are not limited to the interior of a specific sector or area and its solution often depends on sectoral extra resources and the interaction of the various actors involved in the situation.

It is considered that a problem is a synthesis of several realities (or varieties) that intersect and that must be understood and interpreted before making a plan (Gentilini, 2014). In this way, PES becomes a tool of great importance, since it is a method that evaluates the understanding and the necessary response to present or future changes in the analyzed environment, allowing overcoming the difficulties encountered in the course of a given problem, or even taking the consequences of such changes. (Castro *et al.*, 2005).

Through the construction of a plan, PES is able to detect the feasibility of a problem (Artmann, 2012), in which the present reality is evaluated, in order to ascertain whether the current results follow the line of the results that are sought to reach (Matus, 1997).

For Rieg (2014), PES has three basic characteristics. The first is that the basis of planning is problems rather than goals, as in other planning methodologies. The second is that it presents the world in a subjective way, generating points of view of the individuals composing the problem situation, as well as the way in which they interpret reality. And the third is the recognition that the future is uncertain and incapable of being foretold. These possibilities on the future are called scenarios (Heredia et al., 2011), and necessarily include the construction of plans, which are like bets for the future in which predictions are possible, but not foretelling. Plans will depend on scenarios and may be cyclical (usually short-term and medium-term) or structural (long-term) scenarios. It is in this sense that we can verify the importance that the PES gives to those who make decisions and have the power to change reality (Gentilini, 2014).

In order to guarantee the effectiveness and comprehension of the process, Matus (1997) focuses on three aspects that are said to be fundamental and independent and that are dynamically interrelated, known as the Government Triangle: Government Project, Governance Capability and Governability. The "balance" between these strands is necessary to clarify which interventions should be performed against the so-called "weak" points, in order to define which variable needs to be improved in order to achieve the desired result through the planning process (Matus, 1997; Tancredi *et al.*, 1998; Campos *et al.*, 2010).

The PES method provides four key moments that are articulated and interrelated for the technical-political processing of problems, namely: explanatory, normative, strategic and tactical-operational (Matus, 1997; Gentilini, 2014).

- Explanatory moment: moment in which the problems considered relevant as a whole are analyzed, from its content, its causes until its comprehension. It is the analysis of reality made by the actor who plans, either by identifying, describing and prioritizing strategic problems. Questioning period such as: "what is it?", "What does it tend to be?"
- Normative moment: aims to define actions necessary to attack the critical nodes of the problems identified in the explanatory moment. At that moment, the critical causes and nodes will give rise to the general and specific objectives, as well as the actions that will be taken to achieve the desired result. A plan is drawn up to deal with the problem, from the following question: "what should it be?" (Alves et. al., 2008; Artmann, 2012).
- Strategic moment: at this moment the viability of the plan in the political, economic, cognitive and organizational dimensions is analyzed and constructed, as well as the strategies are defined when negative interferences that make the process unfeasible are identified. This is the moment to think how the articulation between the "must be" (desire) and the "can be" (reality) should be (Artmann, 2012). The feasibility analysis will be based on questions such as "what to do?", "With whom?", "How?", "For what?"
- Tactical-operational moment: moment that is based on a plan that will be put into effect, that is, that will be implemented, aiming to achieve the results and impacts proposed by it. At that time, the plan can also be recalculated and improved in the face of the diversities of the period in which it is being implemented (Alves *et. al.*, 2008; Veber *et al.*, 2011; Artmann, 2012; Gentilini, 2014).

For Borba (2006), strategic planning is directly linked to the thinking and rethinking "of an organization" in order to **Electronic Journal of Management & System** Volume 12, Number 1, 2018, pp. 25-35 DOI: 10.20985/1980-5160.2018.v13n1.1120



focus on its future and the external environment that surrounds it. In other words, and by bringing it to the health perspective, planning interconnects the professionals who make up the health team, how it is organized and structured, and the external sectors that supply, manage, and often of which the internal means is dependent on.

Many health organizations present a limited reality due to the lack of planning, but have been changing since health services began to implement the management process in their activities, including strategic planning (Santos, 2010; Artmann, 2012).

3. METHODOLOGICAL ASPECTS

This article used the PES methodology to help improve CAF's management of a medium-sized public hospital located in the city of Niterói, RJ, in the year 2015, resulting in the construction of a OP.

It is an exploratory research of qualitative character, since it seeks to analyze deeply a situation, its mishaps and stages. This research was carried out by means of a field study seeking the collection of data through consultation and observation.

The hospital, which is the scenario for the study, is composed of 120 beds, distributed in a female acute care ward, a male acute care ward, a long-stay sector, an alcohol and drug sector, an infant and juvenile sector, and an outpatient emergency room, as well as the pharmacy and administrative sectors. CAF is a sector of the hospital pharmacy, where the pharmaceutical professional is responsible for managing one of the most strategic supplies of the hospital: medicines.

All four times provided for in the methodology were applied in the CAF and the methodological aspects related to each moment are reported below.

At the moment of explanation, a meeting was held with the employees of CAF, the pharmacist responsible for the sector and two pharmacy technicians, in which, through the technique of brainstorming, problems related to the activities of the sector were raised and contributed to the relevant characteristics for the elaboration of the OP (Table 1).

Then, in order to guide which problems are priorities, five criteria were used: magnitude, transcendence, vulnerability, urgency and feasibility, which are detailed below, according to Leite *et al.* (2013):

 Magnitude – it measures the number of people and the frequency with which the problem reaches a cer-



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tain area or population; the greater the number of people affected, the greater the problem;

- Transcendence it measures the interest of neighborhood or community people in solving the problem; the greater the interest, the greater the importance and transcendence of the problem;
- Vulnerability it is the degree of fragility that the problem has when developing possible interventions with the available technology; the easier it is for a problem to be resolved or diminished through intervention, the more vulnerable it is;
- **Urgency** deadline for coping with the problem; the seriousness of the risks and consequences define the urgency for solving the problem;
- Feasibility it refers to the availability of material, human, physical, financial and political resources to solve the problem; the more available the resources are, the more feasible is the resolution.

Each problem was scored according to each of these criteria, using a scale ranging from 0 (minor importance in the criterion) to 4 (greater importance in the criterion). Finally, the points were summed and ordered to obtain the main problem (Table 2).

The prioritization was followed by the explanatory moment, and again, the brainstorming technique was used to raise the causes and consequences of the prioritized problem.

It was about informing the size of the problem, the population affected, the location and the temporality of the problem. This description later oriented the result descriptor, that is, how much of the problem would be solved with the set of actions defined in the plan, and the expected effect of the planning process. Following that, we set out to know the reasons that would lead to this problem and the consequences of maintaining it. It was also established a situational flow chart, as proposed by Carlos Matus, with the use of pictures and arrows, also called "Explanatory network of the problem".

As a product of the explanatory moment we obtained: the problem prioritization matrix, the list of descriptors, the diagram of the explanation of the prioritized problem, and the explanatory network of the problem.

At the normative moment, the general objective, the specific objectives and certain operations and actions to achieve the objective image of the prioritized problem were determined. At the moment, the plan has taken the form of proposals for decisions that should be taken. From the causes and consequences of the prioritized problem determined at the time of explanation, the general and specific objectives were constructed. In this way, the specific objectives express what needs to be done to fulfill the general objective. To construct the objectives, the following questions were asked, "What is causing the problem?", "What are the consequences of the problem?" and "What can be done to change this?" Based on the conclusions, there were proposed operations and actions to be developed to address the problem, related in a spreadsheet, prioritizing the achievement of each of its specific objectives.

At the strategic moment, the viability and the feasibility of the actions and operations determined in the normative moment were analyzed. Here, we analyzed the actions that could be taken to solve the prioritized problem and the capacity of the hospital's CAF team, in relation to the power to decide, execute and maintain the proposed actions. The existing resources and the necessary resources for carrying out the actions were also raised. The implementation did not depend only on the CAF team, due to the need for other resources and support to be carried out, so that the Coordinator and the Hospital Heads were offered strategic awareness-raising activities, since, for the feasibility of operations and actions, political and financial support would be needed. All the analyzed data were inserted in the spreadsheet of the strategic moment.

At the tactical-operational moment were determined: the financial resources necessary to execute the actions; the identification of the main actor (organ or sector or technician) and other partners (body or sector or technician) responsible for the execution of the actions; the deadlines for carrying out the actions; and the evaluation indicators of the stages carried out (%). In some actions, the main actor was CAF's pharmaceutical assistance team, and in others, the team presented itself as a partner for the execution of the action.

4. CONSTRUCTION OF THE OPERATIONAL PLAN

Explanatory moment: identification and prioritization of problems

The process of problem identification used the brainstorming technique and used two main questions to raise awareness: "What are the activities developed by the Hospital?" and "What are the problems related to these activities?".

For the first question, we obtained different answers, such as: the control performed by means of a "control sheet", the forecast (of requests for the next two months), acquisition



(through requests sent to the Coordination of Technical and Pharmaceutical Follow Up – COFAR), (emergency) purchases and dispensing of medicines. The answers obtained to the second questioning are presented in Table 1.

Table 1. Problems listing

Problems foundAMonthly average consumption doubled without demand controlBAbsence of power generatorCLack of air conditioner maintenanceDInappropriate ventilation systemEAbsence of moisture controlFLocation of storage of controlled medicines has no padlockGMedicines in cardboard boxesHAbsence of sealing machine to package medicinesILack of epidemiological control and pharmacovigilanceJPoor infrastructure with multiple corners that collect dustKLack of recognition of the pharmaceutical professionalLLack of communication between pharmacist and new physiciansMThere is no physical space for drug wasteNPharmacist had no access to medical recordsOMedications were rolled up in the laminated paper and without any kind of sanitization of the manipulatorPFailure to control the receipt of medicines from suppliers Source: The authors themselves (2014).		
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 J Poor infrastructure with multiple corners that collect dust K Lack of recognition of the pharmaceutical professional L Lack of communication between pharmacist and new physicians M There is no physical space for drug waste N Pharmacist had no access to medical records O Medications were rolled up in the laminated paper and without any kind of sanitization of the manipulator P Failure to control the receipt of medicines from suppliers 	Н	Absence of sealing machine to package medicines
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physicians M There is no physical space for drug waste N Pharmacist had no access to medical records O Medications were rolled up in the laminated paper and without any kind of sanitization of the manipulator P Failure to control the receipt of medicines from suppliers	К	Lack of recognition of the pharmaceutical professional
 M There is no physical space for drug waste N Pharmacist had no access to medical records O Medications were rolled up in the laminated paper and without any kind of sanitization of the manipulator P Failure to control the receipt of medicines from suppliers 	L	Lack of communication between pharmacist and new
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 Medications were rolled up in the laminated paper and without any kind of sanitization of the manipulator P Failure to control the receipt of medicines from suppliers 	Μ	There is no physical space for drug waste
without any kind of sanitization of the manipulator P Failure to control the receipt of medicines from suppliers	Ν	Pharmacist had no access to medical records
P Failure to control the receipt of medicines from suppliers	0	Medications were rolled up in the laminated paper and
		without any kind of sanitization of the manipulator
Source: The authors themselves (2014).	Р	Failure to control the receipt of medicines from suppliers
		Source: The authors themselves (2014).

For the prioritization of the problems, the actors used the problem prioritization worksheet, in which the following criteria were scored: magnitude, transcendence, vulnerability, reversal, urgency, and feasibility. After the sum of these values, the problems with the highest score were: "there is no epidemiological control" and "lack of recognition of the pharmaceutical professional", as presented in Table 2.

The problems that obtained the highest score and therefore were considered the most important were "lack of epidemiological control and pharmacovigilance" (I) and "lack of recognition of the pharmaceutical professional" (K). The purpose of epidemiological control is to detect and investigate diseases of compulsory notification in the hospital, while pharmacovigilance aims to identify, evaluate, understand and prevent adverse effects or any drug related problems. All these activities are important in the context of hospital medicine management. As an example, we can cite the evaluation of notifications regarding the indiscriminate use of antimicrobials, considered one of the major health problems nowadays, since they are responsible for the emergence of multiresistant microorganisms. **Table 2**. Prioritization of problems by the PES methodology

Pro- blem	Mag- nitude	Trans- cen- dence	Vulne- rabi- lity	Ur- gency	Feasi- bility	Tetel
	Size	Inte- rest	Rever- sion	Wait	Re- sour- ces	Total
А	2	0	3	1	3	9
В	3	4	3	3	2	15
С	1	2	3	1	2	9
D	1	2	3	1	2	9
Е	1	2	3	1	2	9
F	2	4	3	3	2	14
G	2	2	4	0	2	11
Н	0	1	4	0	2	7
I	4	4	2	4	2	16
J	2	1	2	1	0	6
К	4	4	3	3	2	16
L	3	4	4	1	2	14
Μ	3	1	4	1	2	11
Ν	4	3	2	4	2	15
0	2	0	4	2	3	11
Р	4	1	3	2	2	12

Source: The authors themselves (2014).

The second problem reflects a potential absence of multiprofessional culture in the hospital, which culminates in the non-recognition of the role of the pharmaceutical professional. It is worth mentioning that this professional can contribute to the optimization of drug therapy and to the resolution of problems related to medications. Pharmaceutical care was regulated by Law No. 8080/1990, in an attempt to establish the role of the pharmacist in the search for a rational, safe and cost-effective therapy for patient care.

Other problems, such as "lack of access to medical records" (N) and "absence of energy generator" (B), also scored significantly. The first refers to greater control of the delivery of medicines to patients, because CAF could check whether the quantities requested for each patient are in accordance with what was prescribed by the physician, increasing the control of the system. In addition, this problem is related to problem K, since the absence of the medical record prevents the pharmacist from being able to clinically analyze the medications requested, in order to identify problems and errors that may result in inadequate consumption and harm to the patient. The second problem is a matter of infrastructure, which is necessary for drug stocks, since some are thermo sensitive and the absence of electricity for long periods can damage them. It is emphasized that, often, this loss of quality is not perceptible when looking at the product and it is only identified in laboratory tests. In addition, it may result in the absence of expected effect on the patient or damage due to the appearance of some degradation product presenting a toxic effect.



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4.1.1 Explanatory moment: explanation of the problem

At the moment of explaining the problems prioritized, the brainstorming technique was adopted with the following key questions: "What is causing this problem?", "Why is this occurring?" And "What are the consequences of these problems?".

The answers to these questions allowed us to identify descriptors that help to understand their causes and consequences (Table 3).

With the data collected, it was possible to create an explanatory network of the problem, which, in PES methodology, allows visualizing the causes and consequences of the prioritized problems (Figure 1).

The reading in Figure 1 provides information that allows us to visualize the causes and consequences of the prioritized problems that prevent the goal, posed as the solution of the problems and expressed in the term "pharmacological and epidemiological control", to be achieved.

4.2 Normative Moment

The analysis of causes and consequences (Figure 1) allowed us to identify the convergent cause and the convergent consequence, which synthesize the essence of the problem. Together with the general objective, this information, presented below, was an input for the construction of Table 4.

- Convergent cause: lack of recognition of the importance of the pharmaceutical professional;
- Convergent consequence: lack of pharmaceutical assistance;
- General objective of the OP: to implement attitudes that show the importance of the pharmacist and his actions, and to develop, over time, tactics for epidemiological and surveillance control.

4.3 Strategic moment

At this time, the data in Table 4 (specific objectives, operations and actions) were analyzed with the help of the pharmacist, responsible for the management of the CAF, to identify the feasibility and factuality of each action.

The feasibility analysis consisted of identifying whether the CAF management has power over the decision, execution and maintenance of the action, while the factuality analysis sought to perform a critical analysis in relation to the resources required to execute each action, through the collection of resources needed and existing and hence of the deficit.

Finally, strategic activities that must be carried out to reach the proposed actions and operations were defined (Tables 5 and 6).

4.4 Tactical-operational moment

From all the information gathered in the previous moments, a plan of action was elaborated. Tables 7 and 8 present the necessary or estimated resources, the responsibility and centrality, that is, the definition of the main actor and other partners, the determination of the deadlines for carrying out the actions and indicators of evaluation of the development of operations. It was not possible to estimate the financial resources related to each of the actions.

5. FINAL CONSIDERATIONS

PES is a useful tool in the construction of new ideas, notes of difficulty and/or problems and organization of operational plan for future improvements (Matus, 1997).

Prioritized problems	Descriptors	Indicators		
Lack of epidemiological control and	D1 – Lack of communication between new doctors	Revenues from the last weeks with medicines that were not included in the ratio of the hospital		
pharmacovigilance (I)	D2 – No prescription analysis	Pharmacist did not control adverse drug reactions (ADR) and did not participate in clinical meetings		
	D3 – Neglect, in part, with the pharmacy	Requests not approved even though they are indispensable for the pharmacy		
Lack of recognition of the pharmaceutical professional (K)	D4 – Need for more pharmacists	Absence of pharmacist responsible for clinical or pharmacovigilance		
	D5 – Desire to work in pharmacovigilance	Pharmacist showed interest in this area, but said he did not have the time and resources to act in it		

 Table 3. Prioritized problems and the list of descriptors

Source: The authors themselves (2014).

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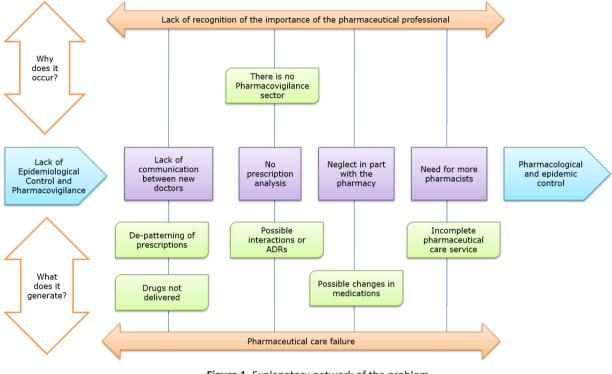


Figure 1. Explanatory network of the problem Source: The authors themselves (2014).

Table 4. Normative Moment

Specific objectives	Operations	Actions	
	OE.1.1 - To implement the control of	OE.1.1.1 - Standardize Procedures	
	drug use.	OE.1.1.2 - Implement medication entry and exit control	
	OE.1.2 - Collect information on unwan- ted reactions with the use of medicines	OE.1.2.1 - Conduct questionnaires, addressing patients about adverse reactions	
OE.1 - Implement an epidemiology and pharmacovigilance team	OE.1.3 - Recognize professionals directly related to the use of medicines	OE.1.3.1 - Conduct team meetings, where the pharmacist acts in close contact with other health professionals	
	OE.1.4 - Control irrational use	OE.1.4.1- Encourage the pharmaceutical professiona to maintain contact with the patients, aiming to adap the best treatment	
	OE.1.5 - Standardize widely used drugs	Oe.1.5.1 - Make spreadsheets with drug divisions by therapeutic class and account monthly for the most dispensed drugs	
	OE.2.1 - Improve the role of the phar- macist	OE.2.1.1 - Effect the presence of the professional and increase their insertion in the multiprofessional scope	
OE.2 - Encourage the opening of	OE.2.2 - More targeted performance in	OE.2.2.1 - Increase contact with patients, promoting their safety	
calls for tenders to increase the number of qualified pharmacists	order to optimize functions	OE.2.2.2 - Promote a division of charges among pharmacists	
	OF 2.2 Effect the attention of the phar	OE.2.3.1 - Increase control over medication	
	OE.2.3 - Effect the attention of the phar- macist on pharmaceutical care	OE.2.3.2 - Create forms of control (books, minutes), in which the information of each shift is interlaced	

Source: The authors themselves (2014).



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The work in question showed the usefulness of the procedures provided in the PES to analyze and solve problems in the scope of hospital pharmaceutical management. This pointed to practical, feasible, creative, rational and possible solutions to be performed, some of which have a great impact on the improvement of health care processes and on the patient.

The PES methodology proved useful to help CAF managers organize and prioritize the problems faced by the sector, so that they can be dissected them in search of causes and consequences and elaborate action plans. The objectivity and ease of application of the methodology makes it an interesting support tool for managers, especially those who, in their technical training, do not get much managerial knowledge. CAF, for example, is managed by pharmacists who have a technical background, usually with little management focus. The same occurs with several sectors of the hospital managed by health professionals.

In health organizations, the degree of interdependence is quite high, and some actions depend on others to take place beforehand. Thus, pharmacists who play a central role in the execution of the action plans presented need the support of top management so that they can perform a good part of the actions. This support is essential, for example, so that they can join the hospital's health team and have access to documents and information to improve the pharmacovigilance and epidemiological surveillance service.

Through the problems listed and prioritized, there is a need for a change in the services provided by CAF. This is because the prioritized problems are directly related to the patient's health; therefore, their existence impairs the quality of care that the hospital provides to the pop-

Specific objective 1 - Establish an epidemiology and pharmacovigilance team									
	Sr		bjectiv		tablish an epi	demiology and pha Factuality analy	1		
Operations	Actions	Decide	Execute	Maintain	Existing resources	Necessary resources	Deficit	Strategic Activity	
OE.1.1 _	OE.1.1.1	Yes	Yes	Yes	HR	HR / training	Training	Raise awareness of the importance of minimizing errors / costs	
	OE.1.1.2	Yes	Yes	Yes	HR / inven- tory system	HR / accuracy in the stock system	Improvement in stock control	Reformulate the drug control system	
OE.1.2	OE.1.2.1	Yes	No	No	None	HR / Access to medical records / availability	HR / access to medical records / availability	Promote the need to control adverse reactions	
OE.1.3	OE.1.3.1	Yes	No	No	None	Appropriate room	Appropriate room / relationship between team members	Promote explanato- ry meetings on the needs of pharma- ceutical action	
OE.1.4	OE.1.4.1	Yes	Yes	Yes	HR	HR / training / specific procedures	Training / procedimentos específicos	Training of the pharmacy team with elaboration / use of specific SOPs	
OE.1.5	OE.1.5.1	Yes	Yes	Yes	Inventory system	Adverse Reaction Control / Inventory System	Control of adverse reactions and improvement in stock control	Avoid wasting and misusing medicines	

Table 5. Detailing of actions for specific objective 1

Source: The authors themselves (2014).

HR: human resources; SOP: standard operating procedures



		Feasibility analysis				Factuality analysis			
Operations	Actions	Decide Execute Maintain		Maintain	Existing resources	Necessary resources	Deficit	Strategic Activity	
OE.2.1	OE.2.1.1	Yes	Yes	Yes	Human Resour- ces	Greater interaction with the hospital's general routine	Greater interaction with the hospital's general routine	Increase interaction of the pharmacist	
OE.2.2	OE.2.2.1	Yes	No	No	None	Port access / avai- lability	Port access / avai- lability	Indicate the importan- ce of rational use and basic care	
	OE.2.2.2	No	No	No	None	Human Resources	Human Resources	Invitation to tender	
OE.2.3	OE.2.3.1	Yes	Yes	Yes	Human Resour- ces	Human Resources	Training	Training of the pharmacy team with elaboration / use of specific procedures	
01.2.5	OE.2.3.2	Yes	Yes	Yes	Human Resour- ces	Human Resources / availability	Availability	Demonstrate the importance of registry against errors to the team	

Table 6. Detailing of actions for specific objective 2

Source: The authors themselves (2014).

Table 7. Action plan related to specific objective 1.

	Specific objective 1 – To establish an epidemiology and pharmacovigilance team										
Operations	Actions	Financial resource*	Main actor	Other partners	Term (Months)	Evaluation indicators					
05.4.4	OE.1.1.1	/	Pharmacist	Pharmacy technician	1	Evaluation of the service through the quantitative records of errors					
OE.1.1	OE.1.1.2	/	Pharmacist	Pharmacy technician	1	Monthly graphs					
OE.1.2	OE.1.2.1	/	Pharmacist	Pharmacy technician	1	% of questionnaires answered					
OE.1.3	OE.1.3.1	/	Pharmacist	Pharmacy technician / nursing	6	Qualitatively evaluate meetings, rounds, lectures in which the pharmacist is invited to attend.					
OE.1.4	OE.1.4.1	/	Pharmacist	Pharmacy technician / nur- sing /doctors	2	% of prescriptions analyzed					
OE.1.5	OE.1.5.1	/	Pharmacist	Pharmacy technician	2	Monthly graphs					

Source: The authors themselves (2014).

* It was not possible to estimate the financial resources needed.



Table 8. Action plan related to specific objective 2.

Specific objective 2	Encourage the opening of calls for tenders to increase the number of qualified pharmacists							
su		_ *	Responsibility and centrality		Term (Months)	Evaluation indicators		
Operations	Actions Financial resource*	Financia resource	Main actor	Other partners				
OE.2.1	OE.2.1.1	/	Board of Directors / Phar- macist	Pharmacist	1	Pharmacist insertion in team meetings and rounds		
OE.2.2	OE.2.2.1	/	Board of Directors	Pharmacist	1	% of patients assis- ted		
	OE.2.2.2	/	Board of Directors	Pharmacist	6	Open tenders		
	OE.2.3.1	/	Pharmacist	Pharmacist	1	% of drug evalua- tions		
OE.2.3	OE.2.3.2	/	Board of Directors	Pharmacist / nurses doctors	/ 2	Reduction of errors and improvement in the quality of care		

Source: The authors themselves (2014).

*It was not possible to estimate the financial resources needed

ulation.

The study proposed a schedule for the execution of the actions based on the reality of the place of study. The suggested actions aim to solve the problems and achieve the specific objectives defined in the PES, in order to improve the local service and the external environment that is directly interconnected.

The aspects observed in the course of this article pointed out the importance of planning for organizations to achieve their organizational objectives. Thus, it is suggested that the PES methodology be applied in a wide-spread way in the hospital sectors, due to its ease of application, its strategic and situational character and the possibility of involving several actors throughout the process, which contributes to facilitate the implementation of the action plan and the resolution of problems, contributing to the improvement of the service provided to the population.

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