

COST MANAGEMENT IN A MULTI-PROFESSIONAL SMALL-SCALE CLINIC OF POPULAR HEALTH SERVICES

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ABSTRACT

It is well known that the hospital sectors of great complexity demand the management of the resources for their implementation and operation. The equipment ends up having a relatively short useful life and the expenses are high for the own characteristic of the patients attended, different from the specialized outpatient clinics, where the cost is aimed at skilled labour. The modern environment has been in favour of transformations, competitiveness, quality, and lower cost. Proposing a cost management system for small-scale, public health clinics help managers achieve better-negotiating skills. The objective of this study was to analyse the process of cost management, through absorption costing, of a multi-professional small-scale clinic of popular health services. The research is a research-action type. The data were been collect in primary documents and they were analysed through descriptive and documentary analysis. Absorption costing meets the requirements of the National Cost Management Program.

Keywords: Health Services, Health Management, Cost Management.

INTRODUCTION

It is well known that the hospital sectors of great complexity demand a great number of resources for their implantation and operation, being that the equipment end up having a relatively short useful life and the expenses are too high for the own characteristic of the patients attended, unlike outpatient specialties, where the cost is focused on skilled labour. (Komata & Rosa, 2015). Nowadays, health services have sought to control their spending, because, every day, the modern environment has been in favour of transformations, and competitiveness not only for quality but also for less cost, has been considered. Undoubtedly, the decisiveness regarding the time and efficacy of care, the medical care and administrative quality, and the low cost are the major performance indicators that aim at the excellence of their services (Martins, 2000; 2010).

For Martins (2000), cost-effectiveness, one of the elements of excellence in services, corresponds to the production of health services at the lowest possible cost, compared to other companies in the industry, even if it operates on the basis that they are not their costs. However, in order for the service to work at the lowest cost while meeting the prerogatives of quality, it is essential to know the construction of these costs, not only how much was spent but how for what purpose and for what was spent. Thus, the cost is seen as a result and a mean of measuring the efficiency of resource utilization and time.

This information and its accuracy can support decision making regarding the objects of cost and the objectives of the organization, as well as base estimates and forecasts. It is important especially in the case of health services that choose to work with diverse complexities and diversities of medical specialties where the cost generators will necessarily

be the technology necessary for the virtualization of care processes, the hiring of skilled labour and outsourcing, because all fixed and indirect costs are increasing (Martins, 2000). Another situation that makes the cost problem even more worrying is the escalation of fixed and indirect costs. Health service providers and the industrial sector have evidenced an increase in indirect equipment expenses and technological development (Martins, 2000). In the health area, there is a growing tendency for skilled labour to interpret the medical information generated by technology (Martins, 2000). Cogan (1998) reports that the high expenses in the health sector are due to indirect costs and fixed costs, especially in wages and labor costs.

A program of knowledge and cost control is essential for the area of health service delivery. According to the American Hospital Association, there are two classifications of the expense control process: (1) a basic cost information system and (2) a cost accounting system. The first only allocate the expenses in departments or consumer centres (Costs Centres). However, the second one individualizes the expenses analysing the costs for patients, diagnoses, paying doctors (Martins, 2000). Health services most commonly use a basic cost information system that uses the Total Absorption Costing Principle and the Cost Centre Method. Both of which begin the process of cost on the material consumption information systems, equity it is personal. These data are monthly allocated to the respective department in order to account for the total cost actually spent. In this step, the total costs with materials and medications, human resources, maintenance, etc., which were actually consumed in the cost centre can be identified. Traditionally, after the allocation of the total costs to the respective Cost Centres, pro rata is made for the purpose of obtaining the average cost of each service rendered (Martins, 2000).

According to Falk (2001), the American Hospital Association's conceptualization of this (basic) cost system only measures the volume of results output from each Cost Centre, and these analyses serve to financially tailor certain decisions taken in operational or related terms to capital expenditure. This is because the costing system through the Cost Centre does not individualize the cost of each service, since most hospital costs are fixed, because health services are obliged to operate at almost constant levels of personnel, and with a physical structure and very heavy equipment, and indirect, due to the division of services by specialties (Bittencourt, 2001).

Cost mapping and budgeting for internal investment projects are critical to service success and quality, as several steps need to be taking before regular and centralized information on costs in health services can be obtained. This paper aims to present a simple and applicable proposal for managers of small health clinics to manage their expenses and costs. Among the main benefits of cost management in health institutions, we can mention the subsidy for making a decision, budget planning and strategic investment policy (Brazil, 2006). It should be noted that identifying inefficient sectors or activities in the use of resources or providing services helps in the transparency of the management of the institution and in the comparison with the result among similar institutions, allowing to evaluate and to increase its competitiveness. Analysing a cost management system for small health clinics helps to understand the organization's competitive capacity and assists in the construction of service value tables, making it easier to negotiate.

Theoretical Framework: Evolution of Costing Systems

To begin our understanding of costing systems, it is necessary a brief report of the main terms that involve cost accounting in industrial and service companies in order to define precisely the concepts that will be used frequently in this work. We will explain the main theories that study costing systems and, through the literature, justify the choice of a particular

theory to be implemented in popular clinics of small health services. The first concept is what accounting is a method of identifying, measuring and communicating economic information, in order to allow adequate decisions and judgments on the part of the users of the information (...) Iudícibus, quoted in Nakagawa (2001). The second concept is the cost that deals with the normal use of goods or services in the process of producing other goods or services. It satisfies the requirements of occurrence of use of an economic and objective resource to produce goods or services. To be considered cost, the use of the resource has to be normal and predictable within the productive process.

Costs occur in both the manufacturing and service industries. In the provision of services, production and consumption occur simultaneously, since services are not stocked (Martins & Rocha, 2010; Martins, 2010). Another concept is about operational cost, which involves the costs incurred in the productive activities of the company in its production process or final services. Operating costs add administrative, financial and tax expenses that exist in the period. This total is deducted from the gross revenue (gross sales result, it can be said in health that we sell consultations, examinations) obtaining the net margin or net profit. See the Table 1 below:

Table 1 GENERAL STATEMENT OF THE INCOME STRUCTURE
GROSS SALES REVENUE
(-) OPERATIONAL COST
(-) ADMINISTRATIVE COSTS
(-) SALES EXPENSES
(-) FINANCIAL EXPENSES
(-) TAX EXPENSES
(=) NET INCOME

The historical evolution of the proportion (or disproportion) between the operating costs and all other expenses of the company may allow the Board to evaluate global distortions in its operational or administrative processes. This demonstration method can be applied to calculate the price or unit profit of the product. In this case, it is necessary to divide all the general expenses incurred in the period (apportionment) and transform them into unit values, according to the volume of production (Table 2):

Table 2 GENERAL STRUCTURE OF THE UNIT NET INCOME STATEMENT
UNIT PRICE OF SALES
(-) OPERATING COST OF UNIT
(-) UNIT ADMINISTRATIVE EXPENDITURE
(-) UNIT SALES EXPENSES
(-) UNIT FINANCIAL EXPENSES
(-) UNITARY TAX EXPENSES
(=) NET INCOME OF UNIT

Standard cost means the best possible or ideal ratio between cost groups. It is ideal, for example, that the largest cost groups are the direct costs, consumed directly in the production process and that the indirect costs, representing the necessary infrastructure for production,

are the smallest possible ones. Expenditure is the use of goods or services in administrative, marketing and revenue generation processes with the purpose of maintaining the activity of the company as whole and generating revenue. In general, they can administrative sales and marketing, financial and tax. Thus, we have that the term cost refers to the moment in which the resources are been consumed or transformed and the expense designates the values confronted with the revenue, at the time of the realization of this (Martins & Rocha, 2010).

As an example of administrative expenses, the office facilities, and equipment used in the administration sections, maintenance of machines and installations, depreciation of machines and installations. Also the salaries, social charges, and benefits of the own or outsourced personnel of the general administration (Martins & Rocha, 2010). For financial expenses, there are expenses related to the remuneration of capital, own or third parties, interest, etc. including monetary and exchange variations. For tax expenditures, taxes, fees, compulsory contributions, licensing, etc. can be exemplified management (Martins & Rocha, 2010). The costs have the capacity to be attributed to the final product (end activity), expenses are of a general nature, which helps in the survival of the company (middle activity) (Martins & Rocha, 2010).

The concept of spending is the expenditure or expense is the purchase of goods or services. It necessarily generates the obligation to pay, but expense and payment (or disbursement) are distinct events since they usually occur at different times (Martins & Rocha, 2010). Thus, resources acquired and stocked within the hospital will only be costs if they are used in the internal processes of patient care, since the drugs may have their expiration date constituting losses, or may be loaned or donated to other institutions directly from the hospital warehouse constituting transfers.

Cost Management

The costing methods differ from each other in what they consider to be the cost of the product, as opposed to what they consider to be cost of the period or, as has been seen, expenses. The main cost categories are fixed costs, variable costs, direct costs, and overhead costs. These main categories can be combined, generating subcategories that have mixed characteristics.

In economics, we mainly study fixed and variable costs, as components of total cost: Total Cost (TC)=Total Fixed Cost (TFC)+Total Variable Cost (TVC). Fixed costs are those costs that do not vary in relation to the rate of production (Miller, 1981). They can be sub classified in fixed structural costs (CfEs) and fixed operational costs (Cfs) (Martins & Rocha, 2010). The CfEs are related to the maximum productive capacity of the facilities of a certain business plant. These costs generally remain unchanged at any level of installed capacity utilization, considering only the short term. Thus, even if the company is paralyzed these costs remain. In this sense, related to the Heads, we can also consider the existence of fixed structural expenses, which are necessary to provide administrative support and support to the company as a whole, nor are they affected by the quantities produced, plants or by facilities in operation (Martins, 2010). They may increase medium or long term if there is an investment in increasing the productive capacity of the plant or equipment.

Cfos are affected by the quantity produced and the volume of production of the plant. They are fix costs, but their value can be modified by changes in the organization's tactical decisions. Their values can be adjusted to the different levels of activity, within the limits of the installed capacity and in the short term according to the variations of the needs of the production. Economically variable costs are considered as the costs that the company incurs for the use of variable inputs in the production process. They are the direct function of the rate of production. They can also be considering fixed in each individual unit produced if the plant

capacity will be maintained. We can see that for economists what matters is the aggregate view of the production process, involving everything that was spent to produce the commodity or the service, unlike the accounting technique.

According to Martins & Rocha (2010), the classification of direct and indirect costs identifies the level of precision of the measurement of each cost element in relation to a given costing entity. For a direct cost to a product unit, there must be a consumption factor or a measure through which it is possible to measure the number of resources consumed. For example, the salaries of production supervisors are direct costs in a particular production department. If the department has only one production line, these supervisory costs will be assigned directly to the product. However, if the production line generates different products, A and B, the supervisory costs will have to be divided and prorated among the different types of products generated, constituting indirect costs, since they cannot be attributed directly and integrally to each product or service.

Direct costs in hospitals are the medicines given to patients, nursing materials, dressings, requested exams, medical gases, and medical fees contracted based on procedures. Already, the indirect costs are allocated to each cost object through estimates, apportionments, and approximations. Its accuracy is lower than that of direct costs and may contain some degree of subjectivity or value judgment (Martins & Rocha, 2010), should be brought closer to reality. It can be seen that if a cost is variable in relation to the volume of production of a given product, it is also direct in relation to this product. In turn, the fixed costs in relation to the volume of production of a given product will also be indirect in relation to these units produced. These concepts intersect (Martins & Rocha, 2010).

Each company has its production characteristics and can form several proportions in the distribution between costs, whether fixed or variable (or direct and indirect) (Miller, 1981). The main differences between the methods consist of what each method considers as a cost of the product as opposed to what is treated as a period charge and record directly in the company's income statement (Martins, 2010). Costs are been confronted with prices (or revenue) for gross profit margin determination. The charges (also including expenses) are deducted from the margin. The needs of companies are different generating criteria to consider what will be included in the cost or deducted from the margin. These costing systems will also lead to different results and have different methods of calculation - simpler or more time consuming, more or less expensive broad or sectorized, etc.

Absorption costing is a methodology derived from the accounting principle, differing from other methods because it has, as a criterion, the appropriation of all production costs to goods or services (Fernandes, 1993). The information generated by the absorptive costing system will be of greater importance in institutions that do not have any effective method or basic accounting or cost control system because they are unable to establish precise parameters for the definition of their final prices (Nakagawa, 2001). In Brazil, the Ministry of Health suggests that health institutions standardize their cost management methodology and adopt the cost-benefit system for full absorption.

Absorption cost can be defined as the criterion that appropriates the costs of production. This system attributes to the product of all production costs (operating) and fixed administration and sales expenses (Martins & Rocha, 2010). The absorption cost also called integral costing or integral cost is the one that makes the cost of the products to charge all the costs of the manufacturing area, being direct or indirect, fixed, variable or operational costs. The procedure is to make each product or production, in the case of the health area, the service, to absorb part of the direct and indirect costs related to the manufacturing process.

There are some steps to calculate costs in this absorption method, such as the separation of expenses from the period into expenses, costs, investments and the segregation of indirect and direct costs (Megliorini, 2007). Direct costs need to be allocated to each cost

centre, sector, product, or activity to be calculated. Indirect costs must be allocated by the apportionment method between cost centres, departments, and activities. It should be emphasized that the costs of support centres do not need to be distributed to production centres that do not benefit from these services, the same applies to the apportionment of auxiliary centres, never costing auxiliary centre to auxiliary centre (Falk, 2001).

Another method is a sequential allocation that recognizes service exchanges from one helper centre to another. In this case, an initial centre must be chosen and its costs apportioned to the auxiliary centres it supports. The reciprocal allocation can be applied and this method recognizes the reciprocity between the various auxiliary centres, seeks to improve the sequential method, not using the sequence for cost sharing to auxiliary centres (Falk, 2001).

Thinking about the advantages that the method of costing absorption allows us to mention the aggregation of all costs (fixed and variable) and is an inexpensive method to implement. Already as a disadvantage one can think that costs that do not relate to a given activity (product) are always distributed through apportionment criteria, which can cause a bias in the information; the fixed cost per unit depends on the size of production and fixed costs will always remain independent of production (Grell & Rosa, 2015).

Activity Based Costing is a method by which indirect manufacturing costs and expenses are initially used to the activities to be allocated to the products/services or other cost objects through cost drivers (Nakagawa, 2001). This method aims to fragment the company's production processes and to analyse in detail its effectiveness, contributing to the increase of its competitiveness in the market. It enables decisions to track processes, reduce costs, administrative or production reengineering and improve quality. We see that its importance is mainly managerial and strategic. The resources are also allocated to activities that are assigned to cost objects based on their use (Player et al., 1997). It assumes that activities consume resources, generating costs that our products and services. Thus, through this analysis of activities, it facilitates the planning and the most efficient use of resources, favouring the optimization of profit and the creation of value for the clients (Komata & Rosa, 2015). ABC's tracking of the most relevant activities that consume most of the resources of the company has the meaning of identifying, classifying and measuring, in a first step, the way in which activities consume resources (resource drivers) and, in a second stage, as the products consume the activities of the company (activities drivers) (Nakagawa, 2001).

MATERIALS AND METHOD

The method of costing adopted in the study was that of integral absorption. This costing system is used by institutions that do not have an effective method, basic accounting or the cost control system since they are unable to establish precise parameters for defining their final prices (Cogan, 1998). Absorption costing meets the requirements of the National Program of Cost Management (PNGC) and is a method used by the State Department of Health (such as São Paulo, Belo Horizonte & Santa Catarina) to standardize cost information for hospital units and outpatient clinics. The type of research approach was action research. This method is one of the different forms of action research, defined as a continuous, systematic and empirically based attempt to improve practice.

"It is a generic term for any process that follows a cycle that enhances practice by the systematic oscillation between acting on the field of practice and investigating it. We plan, implement, describe and evaluate a change to improve their practice, learning more in the process, both in practice and in research"(Tripp, 2005).

Tripp (2005) considers fundamental this cycle of continuous improvement in the solution of problems since the problem is to identify a solution and its implementation is

proposed. The monitoring and evaluation of its effectiveness are also part of this management proposal.

Data collection has been performed from January to September 2014 at the Dr. Family clinic, after authorization from the organization's executive director. It is a popular clinic with multi-specialty care and multi-professional, located in the region of Vila Prudente (East Zone of SP). This clinic was inaugurated in January 2014 and is in a growing process of expansion, having in its portfolio 17 medical specialties and 8 non-medical specialties suitable for customer service. In addition, it offers services of clinical analysis, ultrasonography, echocardiography, electrocardiogram, ergometric test, spirometry, audiometry, colposcopy, and physiotherapy. It performs small procedures (outpatient) such as biopsies, cauterizations and injury exercises.

Serves health care programs and specialized care groups: Health Care Programs: (Women, Man, Child, Elderly and Occupational Health); Specialized care groups (for diagnostic evaluation and treatment of learning disorders, new-born and premature care, physical exercise counselling and healthy nutrition, early detection of dementia, cardiovascular, respiratory and motor rehabilitation, early diagnosis of childhood cancer and action in popular health care).

The data were collected through primary documents (excel tables of financial control of the studied organization (with inputs and outputs as the financial balance sheet), control of purchases of medicines, of materials, of inventory control, of invoices for the purchase of equipment, payroll. Marconi & Lakatos (1990) point out that primary documents are historical, bibliographical, statistical, and historical data, information, research and cartographic material, official files, private documents, personnel documentation, records in general, among others.

Regarding data analysis, costs and expenses were classified to organize the calculations. It was observed in detail all the items that make up each service provider. They are sorting, classifying them and respecting the units of measurement, quantity, unit costs and total costs of each material/labour employed. The first step in systematizing costs was the recognition of aspects related to cost systematization, identification of cost centres, main expenses incurred and grouping of costs according to each cost centre and the assessment criteria used. The subdivision of these expenditures has been carried out in a grouping recognizing the most significant expenses. The expenses divided into four groups, identified by the letters:

1. A=group A was represented by personnel expenses and include salaries; charges, which is presented monthly.
2. B=is represented by third-party services. These correspond to all expenses that the institution has with outsourced companies to perform services that are not performed by the employees themselves. Examples include surveillance and security, hygiene and cleaning, laboratories and other services. The effectiveness of the service has given through contracts that occur or not through a bidding process.
3. C= contemplates the consumption material used in the maintenance of the facilities and execution of the services (purchase of equipment will also be contemplated in this item). The drugs and materials come from purchases made.
4. D=general expenses: include expenses with water, electricity, telephone, etc.

The grouping of cost centres was done through affinities between services. The calculation of costs took place through the following cost centres:

1. Administrative cost centers (Administration and Human Resources);
2. Basic cost centers (Condominium, Warehouse, Maintenance, Janitorial, Laundry, Pharmacy, Medium File and Statistic Sector (MFSS));
3. Auxiliary cost centers (radiology, ultrasound, laboratory tests);
4. End-of-production cost centers (outpatient clinic, specialist consultation).

With the recognition of the expenses and the identification of the structure of the cost centres described above, the cost centres will be divided. Some of the expenses will be appropriated directly to the cost centres of origin. However, others needed a proration. For group A, the allocation was determined according to the number of employees filled in each centre. For this identification, he used the work schedule of health professionals (also considering the fact that they worked in more than one cost centre) to verify the work time dedicated to each centre and, later, the apportionment was made through of percentages.

Group B refers to contracts between outsourced companies. The remuneration of personal services (or pro-labour) is a particularity that has been evaluated, for instance, the doctors' salaries. The other subgroup represents smaller contracts that were been allocated to each cost centre according to usage. On group C, expenditures on consumables were prorated based on requisitions requested from the sector responsible for guarding/requesting such materials. The group of "general expenses", represented by the letter D, was composed of the expenses with water, electricity, and telephone. The apportionment criterion used for allocating water expenditures was applied on water points. It means the water outlets (faucets, drinking fountains, toilets, etc.).

By means of a survey in the complete physical structure that we determine the number of points of each centre of costs. For the process of apportioning, electric energy that we adopt the same principle of proportionality of the water allocation, through a survey of the number of sockets, lamp nozzles, exclusive exits among others. In the allocation of telephone expenses, two criteria were used. Extensions that make direct calls receive an individual invoice from the telephone operator, while extensions that do not make direct calls request the same from the operator of the institution. A report has been made with the total value of the connections made (requested) by the sector, with the aid of specific software.

The criteria used in the distribution of the expenses of each centre focused on the identification of the units of measures that each centre has. Some cost centres were analysed in isolation for particularities. The process of cost allocation involved the absorptive costing method. The final cost centres absorb all the costs of the other cost centres: administrative, basic and auxiliary. The identification of the total value of the expenses was necessary to determine the apportionment criterion used for the Administration cost centre, in order to allocate its costs to the other centres. This information was obtained with the criterion of the number of employees filled in each cost centre.

RESULTS AND DISCUSSIONS

The purpose of this study was to analyse the cost management process using the absorption cost method. In order to calculate costs in this method, the first step was to segregate expenses into expenses and costs (direct and indirect). It was initially based on a data collection in the accounting and a 9-month expense map has organized for later classification as to nature and variability, considering a broad base of its behaviour, thus meeting the accounting principle of consistency.

It has observed that the financial balance in the period studied was negative at the amount of R \$200,272.38. It is understood that any business in the first 5 years has an investment and often the return is not immediate, thus justifying this value since the business is new and was only active for 9 months (Falk, 2001). The total costs for the final activity (patient care) from January to September 2014 was R \$73,312.46. In order to manage the unit cost of the final cost centre, which in the case of the object of this study was the Ambulatory, it was necessary to start the process of cost by absorption by the systematization of costs. This was the phase of segregation of major expenditures. The direct costs were allocated directly to

the production cost centre (Ambulatory) and the indirect costs allocated by the apportionment method between cost centres.

The apportionment method performed by cost centre, such as direct allocation, where all the expenses of each auxiliary centre were been prorated directly in the production cost centre. It should be emphasized that the costs of support centres do not need to be distributed to production centres that do not benefit from these services, the same applies to the apportionment of auxiliary centres, never costing auxiliary centre to auxiliary centre (Falk, 2001). Considering these concepts, the first stage of the work was to organize the subdivision of these expenses according to the grouping described by data collection procedures in the methodology (groups A, B, C & D). The data collection period was from January to September 2014, Table 3 shows the distribution of the expenditure subdivision.

Table 3	
DISTRIBUTION OF EXPENDITURE GROUPS. SÃO PAULO, 2014	
Groups of Expenses	Total Expenses for the Study Period
A- PERSONAL	Reais (R\$)
Personnel and charges (administrative, cleaning)	19135,03
Nursing Technician	16391,49
Medical Fees	12116,18
Multiprofessional Fees	3908,09
Sub-Total – A	35159,30
B - THIRD PARTY SERVICES	
Consulting (Civil Engineering, Architectural Design, Webdesigner)	11816,00
Marketing, press relations	2200,00
Advertising (ads, clipping interviews, visual communication, magnets, signs, radio program)	13974,79
Registration of Trademarks and Patents	1500,00
Security Person (lookout)	1860,00
Accounting services (accounting)	9979,78
Clinical analysis	3425,80
Electrocardiogram	135,00
Motoboy	102,50
Computer Support	9536,00
Sub-Total - B	54529,87
C - CONSUMER MATERIALS	
Food kinds	1817,46
Kitchen and pantry	2195,36
Computer Hardware	4811,08
Cleaning material (sanitation, trash)	5395,28
Hospital supplies	5121,83
Office material	14350,58
Tickets and Taxes	4542,79
Several	37453,87
Graphic material (flyers, printed)	4835,28

Material Mutirão (tapes for dextro, linen)	1444,00
Sub-Total - C	81967,53
D - GENERAL	
Water	200,00
Electricity	895,96
telephone	2540,07
Condo+Real Estate	19926,32
SubTotal - D	23562,35
Total General (A+B+C+D)	195219,05

The second step was to identify the Cost Centres. For this, it was organized according to the affinity of the activities developed by each sector. The calculation of the costs of the Dr. Family clinic occurred according to the following cost centres: administrative cost centres (Administration and Human Resources); base cost centres (Condominium, Nutrition and Dietetics, Maintenance, Janitorial, Pharmacy); auxiliary cost centres (Diagnosis and Therapy, Marketing) and final-cost cost centres (outpatient). The next phase consisted of grouping expenditures according to each Cost Centre, recognizing the expenses and identifying the structure of the cost centres, respecting the distribution between the expenses of origin and others that needed apportionment.

Starting with group A, we evaluate the work schedule of each employee for his allocation in each cost centre. It can be done by analysing the weekly workday dedicate to each centre and later we make the apportionment through percentage. Group B refers to the outsourced services are allocating the expenses for the centres of origin and, when necessary, apportioned as well. Group C was prorated based on requisitions requested from the purchasing sector. Foodstuffs were allocated directly to the nutrition and dietetics sector. Group D was used as apportionment.

For the allocation of water, expenditures made a survey of the physical structure to identify the number of water points (faucets, drinking fountains, toilets) the structure provides. Subsequently, the number of available points allocated by cost centre. For electric energy, the same process of apportionment adopted by means of the number of sockets, lamps, exclusive outputs of energy. For the telephone, two criteria were been considered: extensions for direct use. The individual account was analysed and the other extensions were used the operator control worksheet, since it makes the calls and transfers, thus facilitating the analysis of the monthly report by the centre of the cost.

The distribution criteria used in the distribution is present in Table 4:

TYPE	COST CENTER	CRITERIA OF RATIO
Cost Center (CC)	Administrativo/Recursos	CRITERIA OF RATIO
Administrative	Humanos	employee/center
Base DC	Condomínio	Allocated
	Nutrição e Dietética	employee/center
	Zeladoria	Square meter of the working area
Auxiliary CC	Diagnóstico e Terapia Marketing	Meal per employee
Final-productive CCs	Ambulatório	Square meter of clean area Exams done Weighted Package Customer service

The process of cost allocation involves the absorption costing method. The final costs always absorb all the costs of other centres. As an example, the administration costs to the other centres of the organization. Once the costs of this centre were been surveyed (Table 5).

Spending	Amount in Reais (R\$)
Staff and Charges	11386,28
Third Party Services	6000,00
Consumables	379,90
General	1313,22
Total Geral (\$)	19079,40

With the identification of the total value of the expenses of the administration centre of costs, we allocate its costs to the other centres according to the apportionment proposed in the distribution of the unit of measure of each cost centre. During the period under study, the organization consisted of 41 employees:

1. 02 administrative staff and 01 Human Resources (HR),
2. 01 for center Condominium (finance control),
3. 01 kitchen attendant,
4. 02 security guards,
5. 04 for diagnostic and therapy center,
6. 01 marketing and 29 outpatient clinic, including 01 nursing technician and 28 health professionals (physiotherapists, speech therapists, doctors, social worker, neuropsychologist, nutritionist, psychologist, psychologist).

To the purpose of apportioning the administration's cost centre, 02 professionals from this sector of the staff who deducted the costs have subtracted, therefore, for this apportionment, we will have 39 professionals. For the apportionment of this CC, it is sufficient to divide the total costs (R\$ 19,079.40) by the number of employees for the apportionment (39). Therefore, the unit value was R \$489.21. This value was the portion of costs to be absorbed for the different cost centres. Table 6 presents the allocation of administration costs to other CC.

Cost Center (CC)	Total CC Costs	Criteria for apportionment (No. Employees)	Index for apportionment (R\$)	Amount to allocate to the center	BALANCE in R\$ (R\$)
				(R\$)	
Administration	19079,40	2	489,21	-	19079,40
Human Resources		1	489,21	489,21	18589,98
Condominium		1	489,21	489,21	18100,77
Nutrition and Dietetics		1	489,21	489,21	17611,56
Janitorial		2	489,21	978,51	16633,14
Diagnosis and Therapy		4	489,21	1956,95	14676,3
Marketing		1	489,21	489,21	14187,09

Outpatient		29	489,21	14187,10	0
TOTAL		41	-	19079,40	

Note that the cost centre balance represents the number of costs the centre still has as the other centres absorb it. The allocation process must be repeated for each of the existing cost centres. At the end of this process, we have the costs of the production centre in this study was the Ambulatory. With the apportionment information of each item that should be apportioned, it was possible to determine the unit cost of the services provided by the Dr. Family Clinic in the period studied.

The last step was to describe the balance of the cost centre after absorption of costs by other centres. In this study, we only have one productive cost centre, in the case of the ambulatory its unit of measure represented by the number of consultations performed. The calculation for costs obtained by dividing the total costs obtained for the production center by the number of measurement units of the service provided by the center. The total cost of the outpatient clinic in the period studied was R \$73,312.46 plus R \$489.21 of the apportionment of the administration in a total of 1051 visits performed in the period (unit of measurement chosen in the cost centre apportionment criterion). The unit cost is obtained by dividing the total cost by the number of services performed in the period. With this, we have the unit cost the amount of R \$65.61/service.

The study proposed to present a model of cost management by the absorption method, making it easier for managers of small clinics to allocate their costs better, thus guaranteeing business liquidity, competitiveness and performance analysis in relation to expenses. Similarly, a cost system model assists the manager in making product price decisions. Another utility of the proposed model is that it allows simulations in a calculation worksheet, to determine to operate and cost conditions, compatible with a given level of costs per unit of work adequate to the company's competitive strategy. It shows the use of the information generated to calculate the Cost of non-Quality. This study provided subsidies for the design and construction phases of cost management by proposing an accounting system for controlling and managing expenditure information, allowing a reflection of actions aimed at improving the management of expenditures of a multi-professional health services clinic.

CONCLUSION

This study was specific to a clinic with its own characteristics and aimed to describe the method of absorption costing for a popular multi-professional clinic of health services. Despite the existence of vast scientific material regarding cost management for hospital units, there is a shortage of work relating to the management of popular clinics. The basis for choosing the absorptive costing system is that one can use the indirect costs of a company with specific activities by sector in the form of an input-output matrix in which the columns represent the cost centres and indirect inputs. With the proposed information system, the accounting process for recording information becomes clear and objective, making it easier to identify the indirect costs and at what level they are generated in each cost centre. The most representative work unit also identified for each direct cost centre, which facilitated the allocation of costs and costs to each cost centre.

The proposed method is an interesting managerial tool that enables us to determine and to control the volume of business activity spending by sectors with the purpose of executing it within viable economic standards for the operation of the profitable operation of the company. It includes propitiates the analysis of productivity, leading to actions for process improvements, always aiming at optimizing production and obtaining the basic information for determining the expected cost of a given quote quoted by a customer assisting in the negotiations. It subsidizes the decision to fix the sale price of the company's products,

informing the estimated costs, the evaluation and the control the contribution and profit margins obtained at the level of the various products according to the pricing policy and the cost structure.

This proposal allows the company to recover the total expected costs if it operates the expected quantity of work units per cost centre within the expected level of indirect costs, regardless of the composition of the services provided. The use of spread sheets makes it possible to perform simulations to find a given cost situation and operational activity that results in costs per unit of work that must be aligned with the company's competitive strategy. Regarding the limitations described in the methodology, the proposed system should not be seen as unidirectional. It is up to the manager to evaluate the characteristics and the particularities of each apportionment criterion adopted. It is a model that intends to portray the behaviour of the costs of the company in a given situation. Regarding the apparent complexity of the system and its adequacy to the administrative structure of a small company, it is important to emphasize that when the operations are complex and clearly sectorized, the risk of errors in the determination of costs is greater and requires even more attention.

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