# Challenges for work in healthcare: comparative study on University Hospitals in Algeria, Brazil and France

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> Abstract This study compares the challenges for work in emergency services of publicuniversity hospitals in Algeria, Brazil and France. The description and analysis are organized in three topics: context and trajectory of the health systems; hospitals and emergency services; and the challenges that are faced. The research carried out interviews, surveys, observation and "groupes de rencontre du travail" / GRT. The data analysis was done using participatory appraisal techniques associated to triangulation of sources and data. The main challenges found were: workforce deficit; lack of hospitals beds in inpatient units; deficit of infrastructure and materials; excess of "chronophagic activities"; generational transition; and violence by patients and families. Despite their particularities, the countries coincide regarding the challenges. Measures to rationalize and restrain spending have a greater impact on Algeria and Brazil due to the low level of public funding, but they also occur in France. The hospital management cannot be dissociated from healthcare system planningconsidering the increasing pressures of the demographic and epidemiological transition. In medium term, measures that may mitigate "chronophagic activities", materials deficit and the violence should be considered to improve work in emergencies.

> **Key words** Health systems, Hospitals university, Emergencies, Health personnel, Labor force

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#### Introduction

In the discussion regarding the construction of healthcare systems it becomes relevant to understand and propose ways to organize work, management and training processes. The scarcity of studies about public teaching hospitals<sup>1</sup>, associated with the epistemological value of understanding the work of health care professions in this space are the origin of this study.

Teaching hospitals are strategic establishments that carry out at the same time, assistance, management, teaching and research<sup>2</sup>. This singularity presents challenges related to the organization, management of the labor process, protection and production of workers' health, as well as training of professionals. Reflecting on this problem in different contexts contributes to the identification of common problems and to the exchange of knowledge about how to face them.

The debate about health right and the universal health access shows tensions between the power structures, the financial sector and the expanded demand for services, besides those related to the way of working. The study aimed to compare labor challenges faced by professionals working in emergency services in teaching hospitals in Algeria, Brazil and France, using resources from the *demarche ergologique* developed by Yves Schwartz<sup>3</sup>.

According to this approach, to work is handling the distance between the hetero determined norms from the macro (social, political, economic) spaces and the meso and micro spaces of the work (management models, protocols) and demands of intervention arising from each situation. The environment may favor or hinder these handlings<sup>3</sup>. For this reason, the work in university hospitals is understood as establishing a relationship between the systems context with its successive transformations, and the hospital, with its repercussions on the practitioners' work.

# Method

This is a multicenter comparative study, carried out from 2014 to 2016 at the Hospitals of the University of Brasilia (HuB) and the Federal University of Santa Catarina (HuUFSC) in Brazil, at the University Hospital of Tlemcen in Algeria, and at Hospital Timone of the Public Hospital Administration of Marseille (*Assistance Publique des Hôpitaux de Marseille*) in France. The choice of these countries and hospitals in a convenience

sample is due to an existing research partnership and access to institutions for previous studies in the field of ergology. It also meets the criteria suggested by Yin<sup>4</sup> for case selection, both of which may have similar or contrasting contexts. This is the situation of the countries studied, which present economic and social development and distinct cultural characteristics. Similar findings in these cases would be more valid. In hospitals, adult emergency services were intentionally defined as being common and high priority in any system.

The description of the systems used literature review and secondary data, with a report drawn up by the country from a template adapted from the *European Observatory on Health Systems and Policies*<sup>5</sup>. The characterization of hospitals and emergencies has prioritized healthcare structure, financing, governance and the workforce. Data collection was done through documental analysis and interviews with key informants, and we used observation, interviews and questionnaires to inquire about the work process.

Twelve key informants in management posts were interviewed (2 at UFSC, 3 at HuB, 3 in Algeria and 4 in France). Interviews were conducted in the emergency services, (95 professionals in Brazil and France), questionnaires (89 in Algeria), observation (minimum of 35 hours in all institutions) and Groupes de Rencontres du Travail (GRT)6 in France and Algeria. In the HuUFSC these groups did not take place due to the shortage of staff and in the HuB due to absenteeism. Questionnaires were prioritized for data collection in the studies carried out in Algeria. For this reason, open questions were inserted in this instrument, so that they coincide with those of interviews conducted in other countries. The researchers followed a roadmap with common categories at all stages of information gathering.

The final composition of the sample was of 184 workers, encompassing at least 20% of each professional category, according to the composition of the workforce in each service. The inclusion of the participants was done according to availability during the work, generating differences in the composition of the sample and implying a bias and a limit to the research that should be considered. In Brazil, nursing technicians and nurses predominated; in Algeria doctors, nurses and various technicians; in France the *cadre infirmier* (nurse with a managerial role and specific training), nurses and nursing assistants. In France and Algeria there is no nursing technician and the care is performed by the nurs-

es (the assistants do not perform direct care activities to the patients).

The comparative analysis of the systems was structured according to the main political environment that influenced the reforms of the services, in order to identify elements of the macro-social context that could contribute to an understanding the work of the professionals. Preliminary data from hospitals, services and work in emergencies were presented in a Workshop (2016), being systematized in three dimensions: organizational, material and relational. In a new Workshop (2017), these findings were confirmed from an analytical process using participatory appraisal techniques. This resource come from the methodology developed by Chambers<sup>7</sup> and was initially used for intervention projects in developing countries. Its main characteristic is to privilege the joint production of knowledge with the use of qualitative approaches, group dynamics and visual resources. After the presentation of the main results by the researchers of each team, each one was asked to write a list of similarities and differences in the work in the emergencies of the studied hospitals, justifying it. The final list agreed between the participants, which summarizes the main challenges common to the three countries, has been further refined through triangulation of sources and data.

The project was approved by the Research Ethics Committee of the Faculty of Health Sciences of the University of Brasília – CEP/FS/UnB.

### Results

### The context of Health Systems

By 2015, Algeria had a population of 39 million, a Gross Domestic Product (GDP) of \$ 12,750 per capita (2012) and a Human Development Index (HDI) considered high (0.745)<sup>8,9</sup>. In 2014, the share of health in government spending was of the order of 9.9%, with a per capita US\$ 932 (73% public)<sup>8</sup>. The healthcare access is segmented and consists of three sub-sectors: beneficiaries of the *Caisse Nationale de Securité Sociale*, public sector and private sector.

According to the same sources and years of reference, Brazil had a population of 207 million, a GDP per capita of \$ 14,350 and an HDI of \$ 0.754, also considered high. In 2014, the share of health in government spending was 6.7%, with a per capita of US \$ 1,318, of which 46% came from public sources. The right to health has been

constitutionally guaranteed since 1988, through the organization of a universal system called the Unified Health System (SUS).

France had a population of 64 million in 2015, a GDP per capita of \$36.6906 and an HDI considered very high (0.897)9. In 2014, health spending on government spending equaled 16%, with a per capita of \$4,508 (78% from public sources). The majority of the population contributes to the *Caisse Nationaled 'Assurance Maladie (Securité Sociale*) and a law enacted in 2000 extended the benefits of this insurance to the small portion of the population still dependent on public assistance. Chart 1 summarizes the main demographic, socioeconomic, resource and epidemiological indicators of the three countries.

Beginning in the post-war context, from 1950 to 1970, there is an expansion of rights, coverage as well as the industrial medical complex. In France, the *Securité Social* is launched with the creation in 1958 of the *Centres Hospitaliers Universitaires (CHUs)*<sup>10</sup>. Algeria after the end of the war for independence began the reconstruction of the country at that time with a predominance of vertical public health programs<sup>11-14</sup>. In Brazil, there was an expansion of curative care through social security, with vertical programs for infectious and endemic diseases in the field of public health<sup>15</sup>.

Since 1970, the expenditures of a hospital-centered model begin to appear with the emergence of reforms to rationalize care (community oriented care, hierarchization), including primary health care (PHC). Algeria goes through a period of development driven by the nationalization of oil, opting for free of charge health-care and establishing a planned and hierarchical supply of services<sup>11-14</sup>. In Brazil, such proposals were restricted to some municipalities and experimental projects, which will disseminate principles guiding the organization of a public system of integrated and decentralized services, which will start to occur in 1988<sup>15</sup>.

But the decades of 1980-1990, the context of SUS implementation in Brazil took place in the midst of an international and national set of macroeconomic adjustments. It stimulates a subsidiary action of the State with expansion of the private market and cuts of social policies<sup>10</sup>. The financing shortages led to a gradual scrapping of specialist supply and the public network, including university hospitals. In Algeria, the CHUs were created in 1986, in a context of significant expansion of supply. But the recession (oil crisis) also affected the country with cuts in social poli-

Chart 1. Synthesis of demographic, socioeconomic, resource and epidemiological indicators.

Indicators	Algeria	Brazil	France
Demographic (2015)			
Population /millions- 2015	39	207	64
(% pop. urban)	(75%)	(85%)	(87%)
≤ 15 years(%)	28.5	23	18.5
≥ 65 years	9	11.7	25
Socioeconomic			
GDP/hab.(US\$)-2012	12.750	14.350	36.690
Gini	0.537 (2006)	0.547 (2009)	0.303 (2012)
HDI (2015)	0.745 –HIGH	0.754 - HIGH	0.897 –VERY HIGH
Financing			
% GDP health- 2014	7.2	8.3	11.5
% public	73	46	78
Expenditure/capita (US-PPC)	932	1.318	4.508
% Health expenditure gov.	9.9 (30% social security)	6.7	16 (95% social security)
Resources			
Physicians/1000 hab.	1.2 (2007)	1.8 (2013)	3.2 (2015)
Nurses*/1000 hab.	1.9	7.4	10.6
Beds/10.000	17	24 (2010)	69 (2009)
Epidemiological(2015)			
Life expectancy (years)	75	75	83
Child mortality	22	14	3
(deaths/1000 births)			
Mortality ≤5years	24	16	4
(deaths ≤5/pop.≤5years)			
Maternal mortality	140	44	8
(maternal/100.000 births)			
Main causes of mortality	Circulatory,	Circulatory,	Neoplasms,
	perinatal, neoplasms.	neoplasms, external	Circulatory, external

Sorce: OMS, Global Health Observatory, http://apps.who.int/gho/data/?theme=main, access, 3/12;2017 UNDP, 2016, ,dossiers of the countries, years vary as indicated years.

cies, private sector growth, and direct household expenditures12.

Measures of rationalization were gradually introduced in France: médecin traitant for coordination of care, changes in the financing of hospitals with the introduction of the tarification à l'activité (T2A), Law Hôpital, patients, santé, territorie-HSPT, besides the creation of Regional Health Agencies for the integration of services8. Changes in hospital governance have led to important subordination of the professionals to the new management rules, establishing the poles d'activité. These pôles are defined as unites médico-économiques and work with contractual objectives that seek to associate quality and efficiency16.

Although in France the role of general practitioner is historically and socially recognized, PHC policies have never been predominant, and the presence of hospitals, especially CHUs, remain strong. The same pattern is observed in Algeria. But, contrary to what happened in this country and in Brazil, the rationalization measures of the French system did not significantly cut public spending, nor did it lead to an increase in private insurance, although there was a decrease in beds for acute patients<sup>10</sup>.

In Brazil, outpatient care has been expanded and guided by the principles of PHC and the Family Health Strategy-ESF that is present in most municipalities<sup>17</sup>, acting as care coordinator. Despite the increase in public beds, there was an increase in hospitals with low technological density18 contributing to delayed specialized care and excessive, often inadequate, demand for emergency services.

<sup>\*</sup>Includes nursing staff.

From 2008 on, the functioning of Algeria's health system has been modified (Decree 07-140 of May 19, 2007) with the suppression of sanitary sectors and the Établissements publics hospitaliers (EPH) e Établissements publics de santé de proximité (*E.P.S.P.*), which has separate management. This has aggravated the difficulties of coordinating the services burdening the specialized care including CHUs, in the country<sup>11-14</sup>. Figure 1 compares the trajectory of the three countries highlighting the main policies and legal framework at each period.

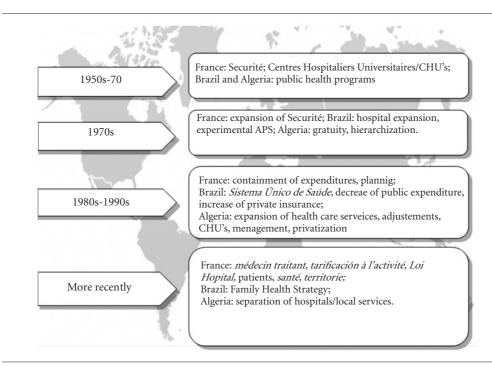
# The characteristics of University Hospitals and Emergency Services

The hospitals have public financing and serve the population as a whole, being a reference for specialized care. Regarding structural characteristics, large hospitals are prevalent in France and Algeria while medium-sized hospitals are more frequent in Brazil. In 2015, HuB had 229 beds, HuUFSC with 319, Tlemcen with 646 and Timone with 1070, with occupancy rates of 47.28%, 78.85%, superior to 100%, and 85% respectively.

They are administratively linked to the Ministries of Health (France and Algeria) and Education (Brazil), but in all countries there is a link between health and education, expressed through funding or certification. There are collective management boards composed mainly by the medical staff in France and Algeria, while in Brazil there is participation of other professional categories. France and Brazil include users' participation in both in decision-making and control instances.

The hiring practices in the three countries use public calls for aspirants. There are differences in working hours especially for doctors: France and Algeria about 40 hours / week; Brazil from 20 to 40 hours. In the other categories, in Algeria it is 40 hours, in France around 35 hours while in Brazil it varies between 30 and 40 hours a week.

In Brazil, in 2011 a public company linked to the Ministry of Education was set up in order to administer the University Hospitals, the Brazilian



**Figure 1.** Comparative trajectory of health systems Algeria, Brazil, France: main policies and norms according to period and country.

Source: own elaboration

Company of Hospital Services (EBSERH). HuB entered into an agreement with EBSERH in 2013 and HuUFSC opted in at the end of 2015. The operationalization of this contract took place in 2014 and 2017 respectively, therefore after the collection of data at UFSC.

All have emergency services for adult care (clinical and surgical), pediatric and obstetric. The French hospital adds a psychiatric emergency. They face patients demand ranging from 230 / day patients in France and HuUFSC, being higher in Algeria (350 / day) and lower in HuB (around 90 / day). It should be noted that France, Algeria and HuUFSC have an "open door" scheme meaning that they accept spontaneous demand. In the case of HuB the emergency service is only by reference.

Brazil and Algeria have an emergency services length of stay that varies from two to five days, while France has an average time of four to five hours. Regarding the number of beds, France has 38 beds, Algeria 27, HuUFSC 13 beds and 07 stretchers and HuB 12 beds. Chart 2 summarizes indicators for hospitals and emergency services.

Chart 2. Comparative table of hospitals and emergency services.

	ALGERIA	BRAZIL		FRANCE		
CATEGORIES	CHU TLEMCEN	HuB	HuUSFC	CHU TIMONE		
Founded in	1954	1972	1980	1950		
Level of Complexity	Average and High Complexity	Average and High Complexity	Average and High Complexity	Average and High Complexity		
N.º of Beds	646	229	319	1070		
Occupancy rate	Superior to 100%	47,28%	75,85%	85%		
Governance	General direction, pedagogical and medical direction, scientific council, formed by the heads of the services, always doctors and representatives of other professional categories.	In 2013 join EBSERH. General Direction (doctor), Executive Collegiate (indicated by the University), Collegiate Manager Expanded and, local collegiate. There is representation of the Faculties of medicine and health, the students, the ombudsman, the heads and the professionals.	General directorate with the board of directors, with representation of the director general of the HU, representatives of the directorates, coordination of the courses of health and the users. Defines the general policies of the HU. In 2016 adhesion to EBSERH.	Board of Directors of Assistance Publique des Hôpitaux de Marseille AP-HM, involving the general director (administrator), 3 physicians, director of the faculty of medicine, in charge of research, coordinator of assistance, assistant director, general secretary. Has advice of control, monitoring, strategic orientation (elected politicians of the region, workers and users.		
Financing	Public, overall budget	Public, resources of the Ministry of Health and Education	Public, resources of the Ministry of Health and Education	Public with resources from social security (Fee-for-Activity) and the Ministry of Health		
Workforce	Admission by public calls	Admission by public calls	Admission by public calls	Admission by public calls		
EMERGENCY SERVICES						
NºAttendances / day	350	93	230	220		
Average stay	2,1 dias (2013); 5,3 dias (2014)	1,63 dias (2015)	2,31 (2015)	4h45 (2015)		
Nº of Beds	28	12	13+10 stretches	51		
Working hours	Doctor 40 h; Nurses40 h	Doctor 24h; Nurses 36h	Doctor 20 ou 40h; Nurses ,30h	Doctor 48 h; Nurses 35 h		
Nº Doctors 40 hours	12	7,5	14	32		
Mortality rate	2,80%	6,46%	8 a 10%	0,4%		

Source: Research reports from the three countries, 2015.

# Challenges of emergency work in university hospitals

#### Labor force deficit

The three countries coexist with workers' deficits, related to turnover and absenteeism, and in France there is structural insufficiency of doctors resulting in overload and dissatisfaction. Differences in the practice of nursing professionals between countries may be summarized as: in France and Algeria, nurses perform care activities and the nursing assistants the actions of hygiene and comfort; in Brazil care is performed by nurses and by nursing technicians under the supervision of the nurse.

In Algeria this situation is expressed in major problems. First, it reinforces the role of family members as caregivers, which has contributed to reduce nurses' workloads; on the other hand, caring for family members is a new task that distances them from patients. Second, it generates a deviation of function with the accomplishment of tasks reserved for nurses, generating complaints and legal sanctions. A third problem associated with turnover relates to the need of having inexperienced professionals with poor job security.

The two Brazilian hospitals suffer from absenteeism and turnover, but in HuUFSC this situation is exacerbated by the large volume of care provided to patients in a context of precarious structure and materials.

In both, the staff shortage generates conflicts because of difficulties in filling the shiftsthus influencing the way of working and hampering teaching activities. Residents and students are led to assume responsibilities out of their scope of action.

In HuUFSC, integral care (when a worker carries out all the care of a number of patients) is kept on the day shift, but at night the way of work organization is re-normalized changing to perform care by tasks. This change is justified by nursing professionals due to a smaller number of staff.

In France, since the end of 2014, the emergency service is the result of the merger of the services of two hospitals aiming to gain economies of scale. There was increase in beds and patients with the same number of professionals resulting in strenuous shifts. Nurses and nursing assistants work 12 hours / day, with a weekly average of 35 hours aiming to avoid changes in the middle of the day, as this is considered to be a cause of information losses and breaks in the continuity of care. This organization, according to the workers,

makes work difficult and has an impact on quality (nervousness, less vigilance, less technical mastery, demotivation, restrictions on the shift handover time). The 25 urgency doctors should work 33 hours a week but they perform 48-hour week schedules, with 90% of them doing overtime workload. They transfer many of the activities to the residents and report feelings of working too fast, fearful of making mistakes, and having difficulties in reconciling work and personal life.

# Lack of beds in inpatient units

Lack of beds is a common problem in all four hospitals impacting on overcrowding in the emergency room. In Algeria there is congestion in the inpatient units, and the workers have difficulties dealing with the flow of patients and this shortage that generates feelings of demoralization and impotence.

In Brazil, the lack of beds for hospitalization affect the emergency room. In HuB because of the plethora of oncologic patients, beds remain occupied due to a lack of Palliative Care Unit; in HuUFSC, many patients are hospitalized in the emergency until discharge, compromising the entry flows. These set of elements are factors in neglecting biosafety norms and imposes a burden on professionals.

In France, due to the lack of beds in inpatient units, due to the large volume of hospitalizations scheduled six patients are redirected to private hospitals every day and 50% of hospitalization requests are not accepted. There is permanent saturation, especially in the short-term hospitalization unit (an average of 8 undue hospitalizations per day for 19 beds), contributing to the increase of waiting time at reception.

#### Deficit of infrastructure and materials

There is inadequacy of the physical space that is generally small and without privacy to perform care, as well as insufficiency or precariousness of materials, both representing problems for hospitals in Brazil and Algeria.

Algeria lacks a triage unit and the structure does not conform to the provisions in the ministerial rules. The tight spaces are crowded with beds, stretchers on the ground and heavy flow of patients and families. The situation resembles that of the HuUFSC, where there are patients hospitalized in stretchers and chairs, attended in the corridors in temporary beds that often become permanent. In a context of complete disorganization of emergencies, these factors are combined thus making hospital work an especially difficult

experience and moving professionals away from the patient's bed.

The spaces for treatment and hospitalization do not guarantee privacy, even in institutions with structural renovations, as is the case of hospitals in Brazil. With the exception of France, in other hospitals the materials and equipment are inadequate in quantity and quality, causing the workers to seek loans in other services and make adaptations. The experience in France is quite different as the services are in new and spacious places and the lack of infrastructure and materials does not seem to be a problem. However, professionals are scarce because of the extensive service area, which is a source of fatigue and communication difficulties due to distances.

#### Excess of "chronophagic" activities

In Brazilian hospitals and in France, professionals, especially doctors and nurses, complain about the excess of "chronophagic" or "time-eating" activities, an aspect that focuses on the quality of care.

In Brazil, the administrative activities occupy a great part of the time and would be related to the lack of administrative technicians. Workers pointed out that administrative recording and searching for materials generate wear and duplicate time. There are computerized systems with electronic medical records and intranet for communication between the hospital sectors but due to the fast pace of patient care, professionals often make drafts at bedside in order to be later transcript to paper form and computer.

The interviewees mention the incorporation of the cellular telephone as a working tool. Communication between teams and managers is often performed via WhatsApp® app, facilitating contact, at the same time overloading and requiring constant attention that is added to the care of the patients.

In France, due to the tarification a l'activité (T2A), all procedures must be recorded to be billed. The computerized appointments and consultations are frequent, with computers in cabins and rooms, activities that distance the professional respect to the patient, consuming time to the detriment of care, contributing to dehumanize the work. The problem is further aggravated because computer equipment is complex and subject to recurring failures. According to professionals, this time used in the computer should be taken into account in the process of estimating the necessary workforce for the good operation of the service.

Working time in France is also composed by time-consuming search for hospital beds, relocations, phone calls, and the routine of a daily meeting between staff members. These activities are identified by the team and especially by physicians as reducing patient care.

#### Generational transition

In Algeria, there was a massive departure of staff with accumulated emergency experience, and younger ones replaced them. This situation is related to retirements or transfers of physicians to other services, the turnover of residents and the departure of several non-medical professionals that were able to change their workplace. As per these circumstances first-year residents need to assume the patients' care.

In Brazil, with the management of EBSERH, HuB's emergency service was renewed in 2014, with a majority of workers hired by the company using private sector practices and timetables, differently from the old employees that remained in the hospital. The majority of newcomers is young and with little experience, and they mention the lack of protocols and training.

# Violence by users and family members

In Algeria and France, the violence arising from the direct relationship with patients and their families generates psychic overload for the workers. This situation points to the need to have spaces for dialogue, especially between teams and managers in the search for solutions.

In Algeria, targeted violence to workers is generated by the lack of triage process done by nurses, as well as because of the lack of resources, scarce training of support staff, difficulties in admissions and transfers to other services, endless waiting, "clogging" due to the intense presence of family members and the saturation of reception capacity.

Professionals, especially physicians point out that they are not receiving support from the superiors in the hierarchy or colleagues when they are confronted with this situation. They feel alone and that they have been deceived, because from their point of view the source of the problem resides in the failures tolerated by the superiors.

The general practitioners and especially the newly formed face the greatest difficulties as they are exposed to psychological and organizational pressures. These risks are not exclusively due to the exposure to a multitude of factors - work overload, inaccurate varied and growing prescriptions. They perceive that those risks are also

linked to the fact that they work in an environment of professional isolation marked by loneliness, insecurity and fear against the discontent of families and their reactions. They experience a sense of depreciation toward their fellows that are specialists, the devaluation of the tasks in the long shifts, and the paradox between the need to act quickly and without fail, and the awareness of their own limits. The professionals regret that the space for dialogue to discuss with management about work and professional difficulties is no longer existent.

In France, professionals remark the growing lack of "civility" and increased impatience among patients and families, who disregard priorities for pathologies. They reported being exposed to yelling and menaces, as well as having experienced violence. The large flow of patients potentiates the problem and nurses consider patients and their families to be overly demanding and aggressive. In order to face this situation, the function of "mediator" was created to act in the reception areas, allowing the reduction of tensions, but the setoff problems in the services imposed limits to this initiative. Leaders have sought to resolve some of these issues with regular meetings, brainstorming and working groups on various issues. However, the number of managers has recently been reduced and it is increasingly difficult to deal effectively with all the problems.

# **Discussion and Conclusion**

Despite degrees of development and distinct cultural aspects, the three countries have similarities regarding the challenges to the work process. The increasing measures of rationalization and containment of spending have a more intense repercussion in Algeria and Brazil, where there is a low level of public financing, but also in France.

In France, the reduction of beds for patients with acute problems associated with population aging and the growth of comorbidities makes continuity of care problematic. This aspect shows that supply planning and hospital management cannot be dissociated from the demographic and epidemiological characteristics and the care network. In Algeria, poor maternal and infant mortality indicators point out the importance of expanding PHC in order to decrease the emergency overload. In Brazil, there is no resource investment as well as high waiting times for specialized care<sup>19</sup>.

Hospitals have been questioned about their role in health systems, but they remain central to providing care. They concentrate specialized knowledge and technology, accounting for about half of the expenditures and are generally perceived as the privileged place for health care<sup>18</sup>. The contexts of budgetary constraints, forced the introduction of administrative-organizational measures, economy with labor costs and several technological innovations<sup>20,21</sup>.

The tendency of the new public management is to optimize human resources without measuring consequences in the labor relations, living conditions or health of the professionals, and the negative impacts on the quality of the care<sup>3,16</sup>. In the case of the hospitals studied, the deficit of the workforce, expressed not only by the insufficient number of workers, but also by the turnover and absenteeism, associated with the excess of "chronophagic activities", seems to be a symptom of our times. There are objective conditions that influence the performance of work such as numerical labor force contingency, material infrastructure and available information and communication technologies. But human activity is always subject to changes, as subjects decide how to act considering values, personal and institutional goals<sup>6</sup>.

The results show that the array of challenges relates to the nature of emergency services: intense relationship with all sectors of the hospital and with the external environment, unrestricted access, diversity, severity and unpredictability of demand. These findings corroborate studies that show the problems of overcrowding, the lack of doctors, the predominance of young professionals, lack of privacy, stressful journeys, multiplicity of functions, scarcity of resources and inadequate hospital beds<sup>16,22</sup>. In this scenario the workers are called to act1,6 and can adopt different ways of being up to the challenges of meeting the needs of users, using tools such as delegating activities to other workers that are unfit for the task or to family members generating new demands or increase workloads, with negative consequences for professionals and users.

Related to the nature of services and the shortage of materials, turnover and absentee-ism make urgencies "a place of passage, triage and classification not only for patients but also for professionals" his, which can lead to de-skilling of collective competencies associated with the multiple changes, that along with the young unexperienced staff, impact on teamwork. This set of circumstances difficult the building of bonds and trust resulting in losses regarding cooperation as well as requiring constant investments in training.

A study in France associates the urgency doctors' rotation to the fact that they perceive that they work more but they lack the same status of other specialties, characterizing a low symbolic capital. These professionals, in the same fashion that nurses, seek more stable and autonomous places18.

The generational transition is a phenomenon that needs follow-up alerting not only to the issue of competencies, but also closely related to absenteeism. When the workforce is predominantly young and female, absences are related to this condition (maternity leave, sick children, among others) while in the case of the older ones, physical and psychological illnesses that are aggravated by poor working conditions. The recent retirements reforms, which extend the lifetime at work, bring new challenges to hospital management, hampering the management of this aging group that limits the execution of certain tasks14. The relationship between age and work is complex and difficult to pinpoint because it involves both internal and external issues to hospitals as well as individual and social issues23. Schwartz and Durrive6 states that the intensification of work is a matter of the present times, just as multiple tasks require multiple skills. Absenteeism and withdrawals reduce the available workforce and require new hires or replacements, as well as the delayed time to retirement generates changes in the way the activities are performed. The way in which this phenomenon will be handled by workers and institutions will interfere positively or negatively in the workforce6.

In revealing the excess of "chronophagic activities", this study removes from invisibility a set of tasks that compete with the care, many of them resulting from the daily coping that workers face due to the distance between what is prescribed and what the environment offers as a possibility to be effective<sup>6</sup>. At the same time, with the computerization and use of whatsApp®, new tasks are being instituted. The time spent on the set of "chronophagic" tasks is not accounted for in staff planning.

Computerization can be approached from the perspective of billing, but also by the benefits it brings to professionals and managers regarding the speed of information, as well as to protect the professional in the case of judicial processes. However, professionals experience this change in the way they work as an "administrative work robbery", corroborating the study of Gheorghiu and Moatty<sup>16</sup> where doctors reported feelings of self-depreciation. The fact that professionals do not use the records data for analysis and research can be an element that makes it difficult to make sense at work.

Violence in the emergency services of France and Algeria may be related to the characteristics of the workplace and the professionals showing how the communication with users and their relatives is given. This problem occurs increasingly in other countries. Specific training on early identification, relationship strategies and conflict resolution techniques, such as the role of the mediator in France, as well as management support, can help in coping<sup>24,25</sup>.

There is a process of instituting new modalities of action in the emergencies' work that require regulation. This process is not always visible and the workers have difficulties to reconcile demands, quality and efficiency. They are faced with the following dilemmas: what do I do? What should stop doing? Who do I care for and whom should be sent back home?

In this context, emergency professionals from public university hospitals seem to face increasing difficulties in their daily work. High absenteeism, turnover and violence are warning signs of the exposure of these workers to psychosocial risks such as anxiety, stress, professional exhaustion that defy the management of human resources and human activity in the hospital.

Concurring with Schwartz<sup>3</sup>, this study shows how the rationalizing norms at the macro level of health systems will impose pressures for greater efficiency at the meso level, with the introduction of new management modalities, tending to the reduction of the work process in the micro level to mere technical act that do not take into account the variability and particularities of caring. In the medium term, the implementation of measures that may attenuate "chronophagic activities", structural shortages and violence should be considered in the improvement of this situation.

# **Collaborations**

MDA Scherer, EM Conill, R Jean, FL Gelbcke and A Taleb participated in the design of the article, the collection and analysis of data, writing and approval of the final version; DEP Pires and EMG Joazeiro participated in the analysis, writing and approval of the final version.

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