Quality of assistance of acute chest pain patients in the State of Ceará, Brazil

Qualidade da assistência à pacientes com dor torácica aguda no estado do Ceará, Brasil

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ABSTRACT

BACKGROUND AND OBJECTIVES: Chest pain is a major reason for hospitalization in the public network due to its subjectivity, non-specificity, lack of nurses and physicians' qualification, quality of assistance and the fact that chest pain patients satisfaction is still far away from ideal. This study aimed at evaluating the quality of assistance of acute chest pain patients in the State of Ceará, Brazil.

METHODS: This is a descriptive, exploratory and analytical study. After applying a form, a sample of 430 patients and 50 professionals of a reference hospital was obtained. Non-parametric statistics was used for analysis and discussion. Dependent variables and users' satisfaction were correlated for the development of tables and simple descriptive statistical analysis.

RESULTS: Three hundred and eighty-one patients (65.65%) have looked for assistance more than once, returning for several reasons, even when there were other units for health follow up in their respective region. Most users (n=422) have not noticed assistance barriers with regard to materials and human resources (83.17). However, delay in assistance (9.0%) was the most important barrier perceived by those referring difficulties (n=38).

CONCLUSION: The complex assistance to acute chest pain patients affects the analysis of the quality of assistance provided to users. The high number of patients makes the service chaotic because the relationship between health professionals and structure is not satisfactory, requiring the insertion of more professionals and improvement in assistance time.

Keywords: Chest pain, Patients' satisfaction, Quality.

RESUMO

JUSTIFICATIVA E OBJETIVOS: A dor torácica é uma das principais causas de internação na rede pública e devido ao caráter subjetivo da dor, à inespecificidade da dor torácica, e à deficiência na capacitação de profissionais enfermeiros e médicos, à qualidade dos atendimentos e à satisfação dos pacientes com dor torácica que ainda está longe de ser o ideal. Neste contexto, este estudo teve como objetivo analisar a qualidade da assistência à pacientes com dor torácica aguda no estado do Ceará-Brasil.

MÉTODOS: Pesquisa do tipo descritiva, exploratória e analítica. Aplicou-se um formulário e obteve-se uma amostra 430 pacientes e 50 profissionais do hospital de referência. Utilizou-se estatística não paramétrica para análise e discussão. As variáveis dependentes e a satisfação dos usuários foram correlacionadas para a construção de tabelas e análise estatística descritiva simples.

RESULTADOS: Trezentos e oitenta e um pacientes (65,65%) já buscaram o serviço mais de uma vez para atendimento, retornando por diversos motivos, mesmo existindo outras unidades para o acompanhamento de saúde em sua respectiva regional. A maioria dos usuários (n=422) não percebeu barreiras no atendimento quanto a materiais e recursos humanos (83,17%). No entanto, a demora no atendimento (9,0%) constituiu a maior barreira percebida por aqueles referiram haver dificuldades (n=38).

CONCLUSÃO: A complexidade do atendimento à pacientes com dor torácica aguda afeta a análise da qualidade da assistência prestada aos usuários. O elevado número de atendimentos torna o serviço caótico, pois a relação entre profissionais de saúde e estrutura é insatisfatória, requerendo a inserção de mais profissionais e a melhoria do tempo de atendimento.

Descritores: Dor torácica, Qualidade, Satisfação do paciente.

INTRODUCTION

The Federal Constitution of 1988 reformulated the Brazilian health paradigms leading to a new system till then scarcely seen and later praised by many First World countries, the so-called *Sistema* Único *de Saúde* (SUS), bringing in its formulation relevant principles to an equitable, integral and universal healthcare, among other[1]. Enrollment to the new healthcare system also generated new administrative and managerial needs to meet all the demands of a system of this magnitude and complexity. Thus, the optimization of resources, as well as the search for quality and resolvability in healthcare became imperative[2].

In this perspective, it is important to listen and to understand the demands of the users regarding care expectations since

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other studies have already demonstrated that expectations associated with the care received point to measures about the user's satisfaction[3]. Moreover, currently, the user's view can be extended to the evaluation of the SUS quality with opinions regarding the environment and the relationship with the professionals[4].

The term quality is defined by QualiSUS as an index that healthcare services are meeting the needs, expectations, and standards of care of the individuals and their families. The collection of this information generates a true database to build the knowledge about the reach of the quality of care[4].

Hospital units partnering with SUS are supported by the health managers in the process of strategical care planning, following the ideal of meeting health needs and the expectations of the human being, enabling efficiency and effectiveness in the care of the patient, promoting the quality of care[2].

Chest pain has been one of the main causes of hospitalization in the public network since cardiovascular diseases account for greater mortality rate and its proper evaluation is a challenge. Due to the subjective nature of pain, the unspecificity of chest pain the deficiency in the training and qualification of professional nurses and physicians, the quality of care, and the satisfaction of patients with chest pain is still far from ideal[5]. In this context, the purpose of this study was to analyze the quality of care of patients with acute chest pain in the State of Ceará-Brazil.

METHODS

The study was categorized as an exploratory survey with a quantitative approach, in which the quality of care of patients with acute chest pain was evaluated.

The population consisted of 430 users and 52 professionals (physicians, nurses, technicians and nurse practitioners) of a cardiopulmonary emergency unit of reference in the State. During March 2007 to February 2010, we included users and professionals with ages from 18 to 60 years from both genders and excluded those who had reports of psychiatric disorders, verbal, auditory incongruity and irritation.

A questionnaire was applied to the users with questions on socio-demographic data (gender, age, marital status, educational level, occupation, and origin) and the difficulties in care (material, equipment, human resources, and user' satisfaction). For professionals, a form containing questions about socio-demographic data, academic training and the difficulties perceived about materials, equipment, and human resources. In addition to these data collection tools, we looked for information about the number of care at hospitalization emergency service of the hospital.

The study was submitted to the Committee on Ethics in Research of the Hospital participating in the study, according to Resolution number 196, of the National Health Council, of October 10, 1996, that it regulates studies with human beings. After a favorable opinion from the Committee on Ethics in Research with registry number 431/07, we received the registry of acceptance of the patients participating in the study by means of Free and Informed Consent Term (FICT). Patients were informed about the objectives of the study and the confidentiality of the information and identities.

Statistical analysis

The data was organized in an Excel 2007 spreadsheet to provide a cross-section reading of the results. Dependable variables (perception of difficulties in care) and users' satisfaction were placed on a list and cross-referenced read to build tables for the descriptive statistical analysis with discussion according to relevant literature on responsiveness, user's satisfaction, and QUALISUS texts.

RESULTS

In the emergency sector of the cardiovascular reference hospital in the macro-region of Fortaleza, the total number of medical care in 2008 and 2009 was 242,276 thousand patients with an average (M±) of 80758.67 and standard deviation (SD) of 122394.67. The organization of this demand as risk management includes patients admitted to the cardiac arrest stay and observation room, as well as those scheduled for appointments and clinical care for acute chest pain in the Emergency Department.

Of this total, the part that is of interest for the study (n=430) were users who have been cared for acute chest pain and were not hospitalized, representing 57.07% of the total care. On average, there were 10,593 patients in 2008 (52.47%) and 9.597 (47.53%) in 2009. Both had a difference between monthly averages (M±) of 6.9314 and standard deviation of 8.1738, with significant results for the Fisher t (t=1.19) with 95% confidence interval, with a value of p=1.

Of the users cared for in this sector after screening and medical consultation, the sample was 430 patients with chest pain. The majority were female (53.4%) aged from 61 to 70 years (33.79%), with incomplete elementary school (47.32%), married (52.56%), retired (39.07%), native or with residence in the city of Fortaleza (96.78%).

These users have looked for care in the Emergency Department of this State reference hospital for different reasons (n=429) (Table 1) and had previous clinical care (n=281) (Table 2).

Table 1. Reason for going to a reference unit. Fortaleza/CE, Brazil, 2007-2010

Reason for seeking care (n=429)	n (%)
Near home	28 (6.52)
Search for cardiopulmonary care	146 (34.03)
Due to the quality and speed of service	19 (4.42)
Referral of other health units	124 (28.9)
Guidance of family or friends	22 (5.12)
Is already a patient of this hospital	66 (15.38)
Others	24 (5.59)

Source: primary data.

The predominant reason manifested by users (n=429) was because the service in question is a reference unit in cardiopulmonary care (34.03%) (Table 1).

The health macro-region of "Fortaleza" provides services of low, medium and high complexity, available in several healthcare units. The Family Health Basic Units (UBASF) provide free access to healthcare services and programs, especially to users with cardiovascular and pulmonary risk, highlighting the "Hypertension," "Diabetes" and "Elderly Health" programs, which theoretically should contribute to decreasing medical visits and the overload in cardiovascular emergencies. In this context, only 28.9% (Table 1) of the participants in this study said they were referred from other health care units.

Thus, 65.65% (381) have been to the service more than once for care, returning for several reasons, even existing services of reference for health monitoring in their respective Regional Healthcare.

Most users (n=422) did not perceive any barriers in the service related to materials, equipment and human resources (83.17%). However, the delay in attendance (9.0%) was the biggest perceived barrier for those who reported having trouble (n=38) (Table 2).

In the professionals' perception, the majority (n=40) reported as a predominant barrier the insufficient number of physicians in the sector (80%) (Table 2). Nevertheless, 84.61% of these professionals have considered the team qualified to perform the activities successfully. Concerning the resolution of health problems at the service, most of the sample 71.6% (n=281) stated that the service was decisive (Table 3).

The percentage of those who declared that the service care of acute chest pain did not have a resolution as very small, 2,04%, however, they reported some difficulties faced previously at the service, for example, delay in attendance, lack of professionals and disorganization. Those who described difficulties in attendance (Table 2) were the same users who declared that the service was in the process of resolution (24.82%) showing the difficulties listed in Table 2, and who were also being attended at the service for the first time.

Therefore, we find satisfaction poles with respective levels. The first pole is of those who were satisfied, represented by levels between being "very satisfied" and "satisfied," and the second pole of those who were unsatisfied, represented by "not much satisfied" and totally "unsatisfied." Thus, it was observed that the level of satisfaction (Table 4) of users cared for chest pain had a predominance in the category "satisfied" with 63.8% (n=268).

Table 2. Barriers to the service for users and professionals. Fortaleza/CE, Brazil, 2007-2010

Service barriers	n (%)
User's perception (n=422)	
None	351 (83.17)
Delay	38 (9.0)
Occupancy	12 (2.84)
Few professionals	9 (2.13)
Disorganization	5 (1.18)
Bureaucracy	4 (0.94)
Lack of priority	1 (0.23)
Lack of efficiency	1 (0.23)
Professionals' perception (n=50)	
High demand of patients	13 (26.92)
Shortage of professionals for the demand	14 (28.84)
Lack of some materials and equipment (material for dressing, clothing of patients, stretcher, wheelchair) and pulse oximeter)	8 (17.30)
Insufficient number of physicians in the sector	40 (80.00)

Source: primary data.

Table 3. Resolution of the problem that leads to a search for care reported by the patients in this study. Fortaleza/CE, Brazil, 2007-2010

Resolution (n=392)	n (%)
Resolvability	281 (71.6)
No resolution	8 (2.04)
In progress of resolving	103 (26.27)

Source: primary data.

Table 4. Satisfaction and difficulties according to the users of the service. Fortaleza/CE, Brazil, 2007-2010

Level of Satisfaction	Difficulty in care		
	Inexistent (n=351)	(n=69)	n=420
Very satisfied	106 (30.19%)	5 (7.24%)	111 (26.42%)
Satisfied	229 (65.24%)	39 (56.52%)	268 (63.8%)
Somewhat satisfied	13 (3.7%)	19 (27.53%)	32 (7.61%)
Unsatisfied	3 (0.8%)	6 (8.69%)	9 (2.14%)

Source: primary data.

However, we noticed that even being satisfied, 39 patients reported difficulties with regards to the attendance, which can be related to several factors, and even though did not interfere with the satisfaction index since there is a difference between what really happens and what is perceived by the patient. This percentage is sluggish when compared to those who did not report difficulties.

DISCUSSION

The clinical care of people with chest pain must be included at the beginning of the planning process until the execution, with continuous evaluation and with the participation of users and professionals. In this way, the social participation gains space in health management and allows the development of effective strategies to assess and treat these patients, avoiding delays in care that can lead to complications, and therefore providing quality service and satisfaction[6].

The emergency care for patients with chest pain is extremely valuable because every year in Brazil there are more than 4

million patients with chest pain, and according to the data from 2001, cardiovascular diseases were the third major cause of hospitalization at SUS[7,8].

This reality is in agreement with the statistics of the hospital of the study since by the data provided by SAME (Service of Medical Attendance and Statistics), the number of hospitalizations of patients with this pain in the sector emergency represents a significant value. These data has already been presented in the results and the literature evidence that the situation of the emergency services, in general, is a reason for concern because we've seen a significant growth in the last decades[9].

The emergency sector is the best entrance door for public healthcare, and it is widely used by patients with chest pain since cardiovascular diseases are the main causes of death in Brazil, in both genders, with no significant impact on gender[10].

The causes for gender-related differences have not been defined yet[11]. However, the presence of a higher number of women (53.4%), especially between 61 and 70 years, in the present study, can be associated with the fact that they are in the menopausal period. Studies show that the period of decrease in hormone production can lead to the likelihood of cardiovascular diseases[12].

Other pieces of evidence found in the characterization of the sample, as the prevalence of retirees, married and low educational level were similar to a study carried out in the city of Campinas[13].

The motivation to look for care at the hospital of this study brings to light the fact that the unit is a reference at SUS since 33.95% went there because it is a reference in cardiopulmonary care and 28.84% being referred from other health units.

Other notes regarding the reason for looking for care, even with a lower percentage, confirms the recognition by users that it is a service that provides qualified care, and they accept and rely on the assistance.

The use of the service shows a working flow in the offices of experts cardiologists and pneumologists with a high percentage (65.65%) of previous visits. This is corroborated by the number of patients who validate the overcrowding of the unit since there are alternative health care units to follow-up the treatment, and the population should be properly oriented to allow a better organization of the hospital system. This can also be prevented visits by implementing health education strategies, that lead to a greater pharmacological treatment compliance decreasing hospital rehospitalizations[13].

Rehospitalizations can be related to flaws existing in the organizational system of the institution and to behavior factors of the users of the service, for example, non-compliance with the pharmacological treatment, difficulty to change lifestyle, and even the delay in looking for health care when the clinical situation worsens[13].

The resolvability of healthcare services is a way to evaluate institutions and the quality of the professional care from the results obtained from user's care service, reflecting the final resolution of the problems plus the patient's satisfaction[14]. Among the 281 remaining patients, the service proved to be decisive for 65.35%, meeting patients' expectations, motivating them to go back to the service whenever they feel necessary.

The unit in question showed effectiveness to meet the needs of the population. However, due to high demand, there are some difficulties that were reported by professionals and users of the service, such as the insufficient number of physicians to meet the demand (83.14%) and the delay in attendance (63.45%), respectively.

According to reports from patients, care satisfaction was positive; 26.24% reported being very satisfied, and 63.35% were satisfied. These values can be attributed from the analysis of their perception of a hospital system that is run with quality, since only 16.31% have experienced difficulties in attendance, although the number of elderly (>65 years) and the low educational level of the sample of this study might indicate a greater acceptance of the public services offered.

Currently, the authors support the idea of the importance of patients' perception when evaluating the quality of care[15,16]. In Brazil, the National Council of Health Secretaries along with the Prosecution Office, conducted in 2003 the study "Health in the Brazilians' Opinion," to analyze users' satisfaction with the health system[17]. This satisfaction is considered a goal to be reached by the services, so, therefore, it shall be studied in order to improve the healthcare system.

The Public Healthcare System in its guidelines aims to provide fair health access, and together with the Prosecution Office is working to elaborate programs to provide quality care, with principles to raise the quality level, generating greater patient' satisfaction, legitimizing, the country's healthcare policy[4].

CONCLUSION

The complexity of care of patients with acute chest pain offered by the cardiopulmonary care reference unit of Ceará affects the analysis of the quality of care provided to users.

The high number of attendances makes the service chaotic, since the relation between healthcare professionals, the structure, and the organization is unsatisfactory, requiring the addition of more professionals and improvement in the attendance time. These elements were considered major barriers to the service, although the level of satisfaction was good with a low percentage of difficulties in attendance.

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