Attention to the emergency room with emphasis on pre-hospital care: integrative review

B. S. Santos, S. R. O. Maier, W. O. Souza
Federal University of Mato Grosso

Author for correspondence: bruno.ufmt@hotmail.com

Abstract. The study aims to identify the factors, which influence positively and negatively the implementation of public policies geared to the needs in scope of mobile, found in the publications of brazilian researchers since the implementation of the National Policy of Attention to the Emergency room in Brazil. This is a study of Integrative Literature Review. Composing the basis of methodology, have been used official documents to guide the findings that comprised the conceptual bases of the study and to guide the Integrative Review were used publications that report on the issue in question respecting all steps of the protocol review. The results show the changes in the organizational structure of the Service Mobile Emergency, given the regionalization as something positive for the growth of this service modality and discuss prematurely early articulation between the sectors that make up the public health system in Brazil. In conclusion, the policies of attention to the urgencies, in particular within mobile, have favored beneficially all of the users who require this type of care, in the meantime, make the necessary reflections about this theme in the attempt of a better understanding of the regionalization process and coordination among the municipalities that will offer the mobile care so as to ensure continuity of care through the mechanisms of reference and counter-reference.

Keywords: Policy. Urgency. Brazil.

Introduction
The National Policy of Attention to the Emergency services appeared at the beginning of the XXI century, based on the concepts that guide the Single Health System (SUS). This is the publication of various decrees, ministerial, that passes the regulatory attention to the emergency in the country, promoting greater integration between all spheres of health care.

The proposed initial policy had principles similar to those contained in the Organic Law no. 8.080/90, in line with the Federal Constitution of 1988, with: to ensure universality, equity and completeness in responding to emergencies; support the guidelines of the regionalization of assistance to emergencies; adopt the promotional strategies; foster, coordinate, and execute programs and projects strategic to customer service to the collective needs, emerging and transitional provisions; and to contribute to the development of processes and methods of data collection, analysis and organization of results of actions, and emergency services; to integrate the complex regulator of the SUS and qualify for the assistance, and to promote the permanent education of the health teams in the attention to emergencies (BRASIL, 2002).

Within the context of attention to the emergency room, it is worth highlighting the component pre-hospital mobile, this currently represented by the Service Mobile Emergency (SAMU), which came as something innovative, with a view to meet the victims early, in the framework of extra-hospital. This modality of attention it has as a differential of the other sectors, the institution of a Central Regulatory Medical own, which allowed greater integration with the other healthcare sectors, as well as favoring the organization and promotion of the service.

The pre-hospital care (APH) is defined as any service performed outside of the hospital environment, in response to a request for help from
the individual, has as its goal to stabilize the victim, preventing complications and avoiding death, having the speed in the transport of the victim to the hospital environment as its fundamental assumption, aiming at the maintenance of life or even preventing further damage to the health of the same (BRASIL, 2002).

After the implementation of the SAMU, the modality of APH in frank expansion in the national territory is still in the process of implementation, with a view to meet all that need. Periodic assessments on the pre-hospital attention mobile have been constant and punctual in the direction of seek the quality and the effectiveness in customer service.

On this point of view, that was in 2011, there were introduced the new guidelines for the deployment of the Service Mobile Emergency (SAMU 192) and its Regulation Center Medical Emergency, a component of the Network of Attention to the Emergency. The modifications about the process of implementation of new EMS and its Central Regulation and implementation of the already existing services came because of the changes that have occurred in the panorama of Brazilian morbidity and mortality rates relative to the emergency, including those related to trauma and violence, in line with the National Policy for Reduction of morbidity and mortality by Accidents and Violence (BRASIL, 2011).

The changes were motivated by the low coverage of the population, characterized by the insufficient supply of the service, to gain problem for the Network of Health care. With a view to meet everyone, it was instituted the principle of regionalization, seeking to: increase access to the populations of the municipalities throughout the national territory (time-response) and to ensure the integrality of care and improving access to health through greater coordination between all the sectors that constitute the attention to the emergency.

The process of regionalization came to favor the joint inter-municipal, as to which there was the deployment of the EMS in the smaller municipalities it was necessary agreements regional, so that there was the review of the ministerial with the aim of encouraging and funding this type of service. The joint intercity was necessary, so that each SAMU deployed happened to meet minimally 350,000 from 2011 (BRASIL, 2011).

Under this perspective, the need for this commitment regionalized and the insufficiency of support services to pre-hospital care mobile was that motivated us to look for more data in the national literature in order to problematic this current situation in Brazil.

The restlessness came from the institution of the new ordinance, which regulates the deployment of the EMS, based on the principles of regionalization and articulation, since these are placed, as essential to the functioning of the financial and organizational suitable for this type of care, however, the population served is still at the mercy of the lack of continuity of health care.

After reading about the subject, both at undergraduate as at the graduate school, which turned its attention to the search for data that foster further discussion on the subject, by means of secondary sources (database), which allowed us to verify the existence of the publications of Brazilian authors about this new model of health care in an emergency pre-hospital care.

Therefore, this study has as general objective to identify the factors, which influence positively and negatively the implementation of public policies geared to the needs in scope of mobile, found in the publications of Brazilian researchers since the implementation of the National Policy of Attention to the Emergency.

As a specific objective we sought to understand the position of the authors about the process of regionalization, joint, inter-municipal and structuring of the service by following the decrees of government regulating the deployment of new services and the implementation of the services already existing.

After the establishment of the objectives was established the route methodology which outlined the composition of the integrative review of the literature, with a view to strictly meet the method, according to the protocol of the review proposed.

The results were extracted after the readings, which allowed us to verify the convergence between the information disclosed in the articles by brazilian authors on the problem of the study, listing the factors that have influenced deployment and implementation of the new model of attention to urgencies within the mobile, in particular, after the dissemination of the model of regionalization with incentive agreements inter.

The results may allow us to make reflections about the effectiveness of this modality of attention to the emergency services and seek the understanding of these changes in health and policy, at national and regional levels.

**Methods**

The research in question was built from the design integrative, with data collection, carried out from secondary sources, by means of bibliographical survey. The literature search is one of the best ways to start a study, looking for similarities and differences among the papers found in the reference documents. The integrative review provides a synthesis of this knowledge, allowing applying.

With the aim of organizing and directing, the integrative review of literature was sought using the following inclusion criteria:

- The Articles produced by brazilian researchers;
- The Articles related to the topic in question;
- The Studies that contained in your body of the textual (summary and/or title), the...
keywords listed in the research protocol (as appendix);
- The Publications in Portuguese;
- The full-Text available;
- The Published in the last ten years (2002 – 2012).

With views, to direct the study to the theme in question and filter the information to meet the objectives proposed, we established the following exclusion criteria:
- The Studies that did not contain the keywords in the abstract or in the title;
- The Publications out of the year of selection;
- The Theses and dissertations;
- The Texts in the form of editorial or letters;
- The Texts that were characterized as books;
- The Lack of relevance with the topic under study;
- The Full Text is unavailable in the database.

As a search, strategy it was used the Virtual Library of Health (BIREME), throwing the following descriptors: Policy, Urgency, and Brazil. During the search it became clear that all the texts were published in the two databases are indexed, in this case the Scientific Electronic Library Online (SciELO) and Scientific and Technical Literature of Latin America and the Caribbean (LILACS). And so began the step of reading and encoding of the publications so

The search of articles was carried out with the access to the database, by means of the portal of BIREME, were found an hundred and thirty and nine publications, and after review of the titles have been applied the inclusion and exclusion criteria, only ten were submitted to the abstraction of the work to read of the abstracts, and only four, assisted in the responses to the objectives of the study.

The data were collected being used the descriptors mentioned earlier, in order to respond to the proposed objectives. In the first moment it was made read-floating in the summaries to check if you may be covered in the proposed thematic, and after this check has been given to the readings in the text character of the integral according to the inclusion and exclusion criteria previously defined.

Because it is an integrative review the data collection was made to follow the proposal of Souza, Silva and Carvalho (2010), with a view to organizing activities in stages.

In this way, the data collection was carried out from secondary sources, by means of bibliographical survey. The literature search is one of the best ways to start a study, looking for similarities and differences among the papers found in the reference documents and the integrative review provides a synthesis of that knowledge, enabling the applicability of the results in practice, is composed of six steps, mentioned in the following.

Step 1: central Theme: The politics of attention to the Urgencies in the framework of pre-hospital care in Brazil. With the goal of identifying the factors that impede the implementation of public policies, geared toward pre-hospital care, found in the Brazilian publications in the last ten years, through the following research question: There are publications concerning the policies of attention to needs in Brazil, in the scope of mobile service?

Step 2: inclusion Criteria - the Articles produced by brazilian researchers that deal with the theme of study, even though the analysis of the division of labor is not the object of the study; studies that contain the descriptors; publications in Portuguese and available in full-text that are published in the last ten years (2002 to 2012).

Step 3: exclusion Criteria - Studies which did not contain the descriptors listed; out of the year of selection; editorial, letter, protocols, and books; lack of relevance to the topic and full-text unavailable.

Step 4: For the survey of articles in the literature, we performed a search in the databases: Scientific Electronic Library Online (SciELO) and Scientific and Technical Literature of Latin America and the Caribbean (LILACS). Were used, to search for the articles, the descriptors and their combinations in Portuguese language: Policy, Urgency, and Brazil. Were found in total one hundred and thirty-nine articles, and in accordance with the exclusion criteria, being used only four, these being used for the synthesis of the articles and the presentation of results.

Step 5: Evaluation in full of the selected articles, including the publications, which conducted the evaluation/analysis/discussion of pre-hospital Care in Brazil and the influence of public policies of attention to needs. The extraction of the information (title; authors; objective; methodology; results and conclusions), which have been prepared and presented in form of tables for synthesis of the data in the Microsoft Excel program.

Step 6: Grouping of results according to the implications of the difficulties for the implementation of policies of attention to needs, and discussion of the results, in three axes based on listed, according to the research question Structuring a Policy of Pre-hospital Care Mobile, Regionalization Motivated and Articulation Difficult.

Results

After the reading of the articles selected for the integration of the results, writing the integrative review of the literature, as the protocol review previously structured was the need to articulate the presentation of the overview of the articles evaluated.

Of the articles included in the integrative review, three of them are authored by nurses, and only one article was authored by doctors. Among the articles evaluated, as to the characterization of the productions, all of the articles have been developed in the education institution, at undergraduate, while the other was produced in the framework of post-graduate studies, all of which are being published in
The synthesis of a literature review allowed to highlight the points of converging of the publications found in the database search, data these that allow you to make inferences about the deployment and implementation of the Policy of Attention to the Emergency in the country.

With the purpose of to organize the discussion about the theme in study, made it necessary for the encoding of the converged data of the publications found, which were received the following subtitles that represented the discussions in the following:

- The Design Policy of Pre-hospital Care Mobile;
- The Regionalization Motivated;
- The Articulation Hampered.
These were separately discussed with the aim of presenting data, promoting reflections momentary about these and suggest discussions largest for the network of attention to the public health of Brazilian.

**Discussion**

**Structuring the Policy of Pre-hospital Care Mobile**

According to Silva et al. (2010) the first records on the pre-hospital care are in the Bible, during the attack of robbers to a certain man in Jerusalem and this was taken care of by priests, and transported to another location with the aid of the animal to a place with greater possibilities of service.

The landmark, which gave support to the idea of transportation of the wounded occurred by means of Dominiue Jean Larrey through the creation of transport units and the wounded during the battles, which later received the name of the ambulances (SILVA et al., 2010).

With industrialization in the XXI century, there were motor vehicles that performed these services. In particular during the wars of Vietnam and Korea these have demonstrated rapid removal of victims, with the possibility of stabilization of these during the transport, which came to promote the reduction of mortality at the time (SILVA et al., 2010).

Under this prism, Silva et al. (2010) and Machado, Salvador, and O’Dwyer (2011) running in its publications, the participation of military agencies in the pre-hospital care, in particular the Fire department, which prior to implementation of the National Policy of Attention to the Urgencies from 2003, have had significant participation and unique in the attention to the population that needed this type of care.

In some care services to the emergency services within the mobile, healthcare professionals, corporations and the military work together in the provision of APH mobile, however, this is not a reality extended to all regions of the country, considering that Axe, Savior, and O’Dwyer (2011) highlight that despite the period of about ten years of pre-hospital care in some regions of the country, taking into account the continued validity of the ordinances, governing the SAMU in Brazil, there is still a lack of coordination between corporations, the military and the network of attention to the emergency in the context of mobile.

In a current context, the APH is characterized by any of the assistance provided, directly or indirectly, outside of a hospital setting, and this can vary from simple medical advice to the shipping of a car of basic support or advanced support to the place of occurrence, aiming at the maintenance of life and the minimization of after effects (MINAYO; DESLANDES, 2008).

In Brazil, the EMS was structured based on the models of French and North American emergency service. Machado, Salvador, and O’Dwyer (2011) place in to a research that was inspired on the French model, because in Brazil we use the System of Care through a medical professional regular and the introduction of professional doctors, nurses and technicians in Nursing to carry out the consultations, unlike the model North American, use of professional first responders, without training in courses considered to be in the area of health.

However, the principle of fast service, based on the protocols of attention to the emergency services was adopted in Brazil, following the molds of North America, which allows us to assert, that the model APH Brazilian is a mix of the principles of the models previously described, adapted to the Brazilian reality.

In national character, the discussions about the National Policy of Attention to the Urgencies were beginning soon after the return of the Republic, in particular in the large urban centers of the country. Machado, Salvador, and O’Dwyer (2011) stated that the construction of the federal policy for the attention to the emergency in Brazil involved three main stages.

Being the first time featured chronologically, from 1998 to 2002, with the first initiatives for the regulation of attention to urgencies within the mobile; the second, between 2003-2008, with the formulation and implementation of the National Policy of Attention to the Emergency services, with prioritization to the SAMU; and finally in the third, from 2008 onwards with the implementation of the EMS and the deployment of emergency Units (UPA).

The establishment of the UPA came with the intention of promoting the APH, in the direction of receive persons met in the context of mobile service, and it is characterized as one of the components of attention urgencies in a pre-hospital fixed.

Thus the Policy of Attention to the Emergency in the country has been guided since the beginning of the discussions by the following ministerial orders ministerial: Ordinance nº 1.828/2004, Ordinance nº 2.420/2004, Ordinance nº 1.863/2003, Ordinance nº 1.864/2004, Ordinance nº 2.072/2003, Ordinance nº 2.048/2002, Ordinance nº 2.026/2011, which until the present has promoted reflections about the true standard of care both within mobile, and in the framework fixed.

These decrees gave support to the creation of the Network of Attention to the Emergency which justifies the need for the deployment and implementation of the component of pre-hospital care mobile in the country.

**Regionalization Motivated**

The process of regionalization became a reality from 2011, after the implementation of the Ministerial Decree no. 2026, having as watchwords reflective “regionalization” and “decentralization” in an attempt to expand the assistance to all municipalities of the national territory, by means, of pact regional, in which the organization among the
municipal excelled, in which the organization among the municipal it was highlighted, with a view to meet their respective populations, according to the regional characteristics.

In the study of Minayo and Deslandes (2008), the regional characteristics were highlighted for the implementation of SAMU in five different capitals. According to the Ministerial Decree no. 2048 of 2002, to ensure the implementation of the SAMU there is a need to know, demographically, and epidemiologically, the population that will receive this type of service, with a view to offer all the support material and the human is essential to the service, as Silva et.al (2010), with excellence.

Valentine and Santos (2009) argue that the increasing demand for this service due to the growing number of accidents and urban violence, and lack of structuring of the network of attention to health, being modified the panorama epidemiological of the population that favored the deployment of a new political model in an attempt to expand the network of attention to the emergency in the country.

Under this strand, the Ministry of Health in partnership with the National Council of Secretaries of Health (CONASS) created the programme QUALISUS, with a view to improve the delivery of care to the emergency room in the country, and implemented in some cities of the national territory, the SAMU (VALENTIM; SANTOS, 2009).

In the study of Minayo and Deslandes (2008) it was verified the implementation of SAMU in five Brazilian capitals, in which they noted that in Curitiba, the care network of the emergency, was more structured in comparison with Manaus, Brasilia, Recife and Rio de Janeiro. In relation to the index of violence in Rio de Janeiro and Recife had the largest numbers of the five studied; motivated the acceleration in the deployment of the service with a view to meet, the more early those who need care.

Silva et al (2010) states that the service APH plays an important role in Brazilian healthcare, as the cardiovascular diseases and the external causes are the situations of higher prevalence during the appointments. Under this strand, Valentine and Santos (2009) pose in their study that the external causes are represented mostly by violence, with an emphasis on automobile accidents.

Machado, Salvador, and O’Dwyer (2011) claim the hypothesis that the strategy SAMU was deployed in the country not only to minimize the harms to health, so as to improve the survival of those who needed emergency care outside of a hospital setting. The authors claim that this policy was based, also, on the argument that the central regulation would be important for the organization of the flows of attention, according to the principle of integrality, so as to exercise the role of observation of the entire network of care in the health system, a process favored by the regionalization of service in several areas of the national territory.

The expansion of the service from APH to the interior also brought with it fragments of a joint little bit democratic, in the sense of putting to the test the quality of the services, factor this evidenced by the absence of numbers, statistics, national reporting indicators of the quality of the service, such as, for example, the “response time” and “time” gold, aspects which are essential to verify the effectiveness of this type of care (SILVA et al., 2010; MINAYO; DESLANDES, 2008).

Still with reference to regionalization little democratic, can-if evidence of qualification or insufficient in the professionals of this modality of care. Aspects of these highlighted by Minayo and Deslandes (2008) mentioned in their study, Manaus and Brasilia are the capital more handicapped, with regard to professional qualification, it is believed that by the modality employment of the servers working in the SAMU, that is, professionals from the network of general health being used to develop their professional activities in their specialized service needs.

The absence of centers of learning, education in urgency and emergency and the proposition of a curriculum for the training of human resources in the area. Valentine and Santos (2009) argue that the theoretical base and leadership capacity, in addition to initiative, and skills assistance are indispensable features to the staff member of this type of service.

Valentine and Santos (2009) go one step further and proposes a methodology of care to the emergency room, called “case management”, a strategy used by APH North American picturing, emphasizing the completeness of the assistance, by means of a work process optimizer actions, which orient the path necessary of the patient within the network of services, able to ensure the efficiency and quality of care to the public health (SILVA et al., 2010).

The case management allows the evaluation and re-evaluation during the process of assistance to the emergency services. This can be beneficial in the context of North America, however, this strategy in Brazil may not succeed because of the network of health little structured and articulated when related to the demand in the local attention to the emergency in the country (VALENTIM; SANTOS, 2009).

Articulation Hampered

The unit of emergency and urgently has to meet, in an appropriate way, the patients that require emergency care services or urgent. The goal of this service is the rapid assessment of the patient, stabilization, and prompt admission to the hospital, the dynamic this that has appointed itself as the counter-reference, when related to SAMU and the unit that will receive this victim after the pre-hospital care.

The articulation between the services of attention to the emergency services has been
something that is quite discussed and put to the test by several scholars in the area, as well as has issued reflections on the population of the municipalities considered to be the inside Brazilian (outside of cities).

Minayo and Deslandes (2008) found that the adversity caused by the articulation between the services of attention to the urgencies and the other services, which make up the network of general health has not been a problem just on the interior of the country, as evidenced this factor as negative in the carioca capital, as the reference and counter-reference are aspects still to be improved in their region of the country.

Silva et. al (2010) states that there is still much to improve in this context, not only in the distribution of services throughout the national territory, as also in the aspect of the structuring of the hospitals of reference, in order to guarantee the continuity of treatment for those who need emergency attendance.

Valentine and Santos (2009) state that for the design of service with excellence there is the need of the involvement of the entire network of health care assistance. Not just the creation/expansion of EMS throughout the national territory, the structuring of the services of the reference and against-reference is of extreme importance, for a network of health surveillance reflects, negatively, and affects users and professionals in the service.

Machado, Salvador, and O’Dwyer (2011) state that the joints are not required and the involvement of segments such as: police, fire departments, managers of health and education are needed to expand the discussions about the subject matter.

Minayo and Deslandes (2008) describe that in addition to the coordination between all the sectors of the network of health care, bringing information to the population about how it works the network of health care and the resolvability of such sectors, can come to assist in the process of reduction of the overcrowding in the services of attention to the urgencies, which would facilitate the process of counter-reference of APH for units of service fixed urgently.

In summary, it can be highlighted the strategy SAMU, as structuring within the policies of attention to needs, and not just as a program visibility for the government, because the brazilian population needs a service, which meets the cases of urgency and emergency form termination and efficient, because the attention to the emergency requires much more than health care, for several times to guarantee survival of those in need to customer service competent in this type of service.

Final considerations

At the end structurally this text, since the issues raised about the integrative review still foster a lot of discussion around the effectiveness of the system of attention to emergencies in the country.

During the search in the database data were found relating to the historical aspects of pre-hospital care mobile world, Brazilian and local, in this case, the research outlining historical issues of the state of Goiás.

It was referenced also in the process of transition between APH military, commanded by the Fire department and APH institutionalized commanded by health professionals, in order to outline to the reader the hierarchical difference of the two models of attention to urgencies and emergencies.

After the completion of the synthesis of the data, it became evident the concern of the authors in discussing the quality of the service to suggest the methodology of attention to the problems met by the APH-mobile: “Case Management”, as the solution to a system of customer service excellence, as described in ordinances of the ministry.

However, how to apply this methodology of operation in the APH if there is not a coordinated network to meet the users of this service? How to conduct this service in the scope of mobile as the reference and counter-reference is impaired by overcrowding of the emergency services due to the attention deficit of basic care to health? That way the effectiveness of this management would occur if the training and update of professional are impeded by the lack of incentives to do so?

The questions previously posed are the only questions made with regard to the analysis made of the articles, which composed the review and of the knowledge of the authors about the ordinances, which regulate the attention to the emergency in the country.

Is likely to recognition the attempt of the executive branch of the national joint across the care network of health, with the aim of improving the urgent care in the country, was commendable the conference is made between the Ministry of Health and the National Council of Secretaries of Health (CONASS), in order to deploy the QUALISUS, with a view to make the entire health care network with the goal of improving care in the emergency department.

However, there is much to be discussed and made, especially with regard to the direct action of the APH in the country and organize the service network, fixed, with qualified professionals for the practice of attention to the emergency services, enforcing the principle of counter-reference with the basic health unit, mainly, the Strategy Health of the Family, in addition to ensuring that the actions are restricted to the care, as equipment suitable and in perfect condition for use during the appointments, periodic maintenance of the same, and the assurance of material consumption in the unit of urgency and emergency, with a view to excellence, customer service, the so spoken, and with as few investments.
Another point raised in the Brazilian publications was the lack of knowledge of the population about the dynamics of the attention to the emergency. The population does not distinguish what is urgent or not urgent; simply search the service due to resolvability of the service in relation to the reason which led to customer service fixed urgently. This aspect that has negative impacts to the APH, because at the time of the reference users are met is difficult due to overcrowding in the local fixed attention to the emergency room, factor this that does not guarantee the principle of rapid attention priority contained in various ordinances of the ministry about the attendance of the emergency nature of the situation.

Therefore, many points were raised during the collection of data, in order to accurately reflect the results of the research related to the topic in question. However, it is important to note that all of the articles raised were of professionals entered in the academy, in the area of Medicine and Nursing, all of these factors allows us to investigate the reason by which, the policies are deployed, implemented and poorly evaluated by managers? There are studies done by the managers themselves, or by teams formed at the ministerial level?

These questions allowed us to infer, that more studies on the subject need to be carried out and along with them, an evaluation of the panorama of national and local attention to the emergency services, aiming at the implementation periodically with the goal of giving the proper customer service.

Finally, this study was finalized, recognizing the importance of all this articulation is made in favor of attention to the needs, particularly within mobile. There is a considerable commendable throughout this attempt of the articulation of the network of attention following the principle of integrality of care, but there is still much to be done it is necessary that each constituent part of the process of attention will have been worth the performance of your service (mobile or fixed) and the network to be articulated so that users can receive a service of excellence.

References


DE NEGRI FILHO, A. et al. Bases para uma política nacional de atenção às emergências. In. IV Congresso Internacional da Rede Brasileira de


FERREIRA, C. S. W. Os serviços de assistência às emergências no município de São Paulo: implantação de um Sistema de atendimento pré-hospitalar. 199. 82f. Dissertação (Mestrado em Enfermagem) - Faculdade de Medicina/Universidade de São Paulo, 1999.


LEAL, K. R. Adesão do uso de equipamento de proteção individual (EPI), previamente, às exposições ao material biológico em profissionais do corpo de bombeiros de Sinop-MT. 2011.65F. Monografia (Graduação em Enfermagem) - Universidade Federal de Mato Grosso, Sinop, 2011.


POLIGNANO, M. V. Histórias das Políticas de Saúde no Brasil. Minas Gerais, 2005. Disponível em:


