Organization of health practices and vulnerability to childhood diarrhea

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Abstract

Objectives: this study aimed at characterizing the organization of health practices concerning reduction of vulnerability to childhood diarrhea in an outpatient setting.

Methods: a longitudinal study with two interrelated cross-sections was carried out in 14 health services (11 health centers and three hospitals) located in six municipalities in the state of Pernambuco, Brazil. These sites participated in the diarrhea control program coordinated by the State Department of Health. Data were collected through observation, interviews with professionals and service users, and review of clinical histories.

Results: overall, we observed that a high proportion of patients were sent home without receiving care, and that there was a long wait before patients were seen by health professionals; in addition, patients did not receive information on home oral rehydration therapy, and little advice was given on signs and symptoms of aggravating diarrhea episodes; several drugs were prescribed to children with diarrhea; and very often, the child’s hydration status and the medical conduct adopted were not recorded in the child’s card. In only three services was the training concerning diarrhea control systematic, with nurses in charge of several activities and working together with health agents. On the second phase of the study, one of the changes identified was a slight increase in the number of times weight was measured and recorded on the child’s card. However, during the intervention period, 69.6% of the health care team members noticed an improvement the care provided to the child.

Conclusions: our results reveal the weakness of the services to develop training and curative actions that target diarrhea control. The observed practices contribute to increase childhood vulnerability, and show the need to reorganize disease control actions in this group.

Introduction

The concept of vulnerability was proposed by Mann et al.1 in order to analyze the response to policies and activities related to acquired immunodeficiency syndrome (AIDS). This concept translates the different situations of individuals and collectivities when facing the infection and the illness caused by the human immunodeficiency virus (HIV), considering social conflicts, education and information deficits, and problems in the access and quality of health and social services. It also defines three interdependent analytical plans: the individual or behavioral, the programmatic or institutional, and the social or contextual. The use of the concept of vulnerability has been extended to other health-related aspects and preventive strategies, such as the issue of drugs and violence in gender relations.2

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This formulation recognizes the limited scope of isolated interventions in producing significant changes in the health of population groups, and considers fundamental the development of actions that contemplate a wide set of necessities. Therefore, it reinforces the importance of organizing health practices concerned with integral care, favoring the complex integration of healing and preventive actions within individuals and groups in a healthcare system able to articulate the progressive levels of action. In addition, this concept clearly shows that the respect granted to dignity and human rights within each society (and among different societies) holds a close relation with a greater or lesser fragility to the disease. Thus, the political nature of the discussion about vulnerability points out the need for treating the problem as a not strictly technical challenge.

In regard to diarrhea, differences in social vulnerability are revealed through the inequalities seen in a set of characteristics that modify the conditions related to the appearance and capacity to respond to the disease during childhood. Included among these inequalities are the meanings, experiences and expectations related to diarrheal episodes; inadequate basic sanitary conditions; the mother being the only responsible for the child; elevated economical dependence; high frequency of illiteracy and low education among mothers and other supportive members; obstacles in the access to health services, as well as the quality of the assistance received.

In spite of the significant decline observed in mortality rates caused by diarrheal diseases, this malady remains as one of the main causes of illness and death among children below the age of 5 who live under unfavorable conditions. In the state of Pernambuco, Brazil, regardless of the limitations found in the morbidity record system and the characteristics of familial handling of childhood diseases, diarrhea represents, among children of the mentioned age group, one of the main reasons for searching assistance in health services. In Recife (Pernambuco’s capital), in 1997, diarrheal diseases were responsible for 8.7% of the hospitalizations of children under 1 year of age in hospitals maintained by the Unified Health System. In the year of 1995, the proportional mortality caused by diarrhea in this social group was 13.6% in the entire state, and 23.3% in Recife.

In the presence of nutritional deficiencies, the disease may last for 14 days (persistent diarrhea) and/or present an increased frequency of episodes. Studies have shown that for the age group between 6 and 11 months, in poor Latin American localities, the number of episodes/children/year is estimated in 10 or more. Regarding children under 5 years of age, 3% to 20% of acute diarrheas become persistent. The higher frequency of diarrheal episodes during a year and, especially, the longer duration of these episodes are closely related to an endangered nutritional status. Among survivors, an elevated proportion accumulates growth and developmental sequelae.

In regard to health assistance in childhood, despite the limited scope of sectorial actions, the activities to prevent and control diarrhea developed by the healthcare system are fundamental in order to reduce individual vulnerability to the disease and, consequently, childhood mortality rates. Programmatic healthcare activities - promotion of breastfeeding, improvement of weaning practices through dietary education, follow-up of the child’s growth and development, vaccination against measles and rotavirus (when available), promotion of personal and domestic hygiene - contribute to modify the intensity of transmission in cases of infectious origin and the frequency of the disease.

In the handling of cases, clinical history and physical examination, when carefully performed, are extremely important in order to establish an individualized diagnostic and therapeutic orientation. An adequate hydroelectrolytic and nutritional support are crucial for the reduction of mortality, and in acute cases, the use of medications should constitute an exception. Oral rehydration therapy - an efficient, easy-to-apply and inexpensive method - avoids the aggravation of episodes and reduces the lethality of acute diarrhea if performed in the due time. An educational approach must be part of every assistance given by any of the members of a health team.

However, since the hegemonic model of healthcare is focused on assisting the spontaneous demand, and since the population mostly seeks immediate response to the problem, integral care has been poorly developed. An integral care could combine individual medical assistance, based on the complain presented by the patient, with actions considered necessary from an epidemiological and sanitary point of view. Therefore, the deficiency in developing specific institutional actions against the disease is one of the several items contributing to the greater vulnerability of children to diarrhea. Other important factors are some specific behaviors that raise the chance of illness and/or aggravation of symptoms, along with the natural and social environmental conditions in which these behaviors usually occur (particularly the access to sanitation, information, and education).

The programmatic vulnerability becomes evident when problems concerning financial, material, human, and organizational resources emerge. In 1989, an evaluation of diarrhea management by the basic health services network in the northeast of Brazil was performed. This evaluation evidenced: flaws in the patients’ clinical history and physical examination; lack of oral rehydration solution and basic material for administering the oral therapy; incomplete instructions for the preparation and usage of oral therapy; abusive use of medications; and low frequency of educational activities. A study about the treatment of diarrhea performed in 1993 in the same region confirmed these previous findings, that is, the generalized deficiency in the clinical appreciation and treatment of patients with diarrhea. Only 1.0% of the cases received orientation about home care and preventive measures.
On the other hand, many children suffering from diarrhea are taken to a physician only when home treatment resources have finished.24,25 Mothers have a greater or lesser facility to deal with the wide range of traditional, popular, and technical resources available. This practice may increase the complications, sequel, and the lethality of diarrhea, since the accumulated experiences and information about the disease may not favor a greater understanding of its characteristics and of the preventive and healing care that must be offered to the children.

To several families, even those that are acquainted with the oral rehydration therapy and know how to distinguish a mild from a moderate diarrhea, the severity attributed to the disease by the health team and the banality of the treatment seem contradictory.26,27 The difficulties found when searching for health services, the dissatisfaction with the assistance received, and the characteristics of perceptions about diarrhea affect the recognition and valorization of needs, as well as the behaviors (individual and collective) related to the disease in different cultures and places.

Knowledge about the local reality (socially constructed meanings, subsistence conditions, access to social services, morbidity and mortality rates) and the systematic evaluation of activities developed by local health services are essential in redefining the path of action, both in community and institutional levels. In addition, this information allows a reflection about health practices, possibly stimulating a greater participation of medical team members in the transformation process required for the work organization in these services.19,28

In this sense, based on the perspectives opened by the concept of vulnerability, this study takes the programmatic plan as a front door to the question of diarrhea. We evaluate the development, in an outpatient setting, of primary and secondary health care services in regard to actions directed at diarrhea prevention and control in children under the age of 5 years. We examined the organization, infrastructure and work process of the analyzed units, trying to establish a strong connection with the daily reality of health care assistance, in order to understand the role of these services in infant susceptibility to diarrhea, and discuss the alternatives to reach its reduction.

The specific nature of infrastructure, work process, agreements, personal interests, and strategies within the evaluated health services indicate the need for extreme caution regarding generalizations of the results obtained. However, similar questions may emerge in other places, and the suggestions given to reduce programmatic vulnerability may certainly be useful in approximated contexts.

Methods

In order to evaluate preventive and control actions against diarrheal diseases, we performed a longitudinal study, with two interrelated transversal sections, in six towns of the state of Pernambuco (Recife, Camaragibe, Olinda, Agrestina, Brejo da Madre de Deus, and Araripina), which had implemented these activities under the coordination of State and City Departments of Health.29

The target population of the present work was constituted by 14 health services: eight in the metropolitan area of Recife (MAR) - all public health centers -, and six in other areas of the state of Pernambuco - three health centers, one public hospital, and two hospitals (one private, the other philanthropic) working under the Unified Health System. In the metropolitan area, these units were located in three selected neighborhoods, in order to intensify the intervention on diarrhea. The clientele in the metropolitan area of Recife corresponded basically to the population of these three neighborhoods, while in the interior of the state, the clientele was represented by the entire population of each town. In the period between the two stages of evaluation, the staff involved in the development of activities focused on child care was trained: 72.2% of the physicians (81.8% in the metropolitan area and 57.1% in the interior); 77.8% of the nurses (80.0% in the metropolitan area and 75.0% in the interior); 45.2% of the nursing assistants (42.3% in the metropolitan area and 50.0% in the interior); and 22.2% of the community health agents (88.9% from the interior).

The fieldwork was performed by a pediatrician, sanitarian, and physician, experienced in evaluation and properly trained, between February 26 and March 29 (first stage), and July 8 and August 9, 1996 (second stage). Through interviews with members of the administrative staff, information was gathered in order to characterize the infrastructure and organization of these health centers. Using standardized forms, data were collected about appointment scheduling, screening, offered activities, human resources, technical standards on diarrhea, permanent material, waste material for oral rehydration, and record of information.

In order to understand the work process, each service was submitted to a detailed examination of its care routine, in randomly selected week days, establishing what we called a “time sample”.30 Each unit was observed throughout three shifts, in a total of 123 hours and 25 minutes during the first stage, and 137 hours and 10 minutes during the second stage. Data were collected using separate forms - appointment scheduling, screening, access to care, educational work, preparation and offer of oral rehydration therapy, assignment of activities, pre-appointment, medical appointment, follow-up, reference system, articulation with community agents, and record system (hydration status and diarrhea management).

All mothers of children under 5 years of age seen at the sites were interviewed both before and after care - medical appointment or nursing assistance. They were questioned on the following items: children’s age; place of residence; previous scheduling; access to care; reason for searching the service; length of the disease; availability of the child’s...
health card and its use at that particular visit; weight measurement and recording; information provided about diarrhea during the appointment; content of the information received during the appointment and oriented conduct (including supply of rehydration salt and the prescription observation). In the first stage, we obtained an illustrative sample of 309 children - 33.7% were under the age of 1, and 66.3% belonged to the 1 to 4 years age group; 67.0% lived in the metropolitan area of Recife, and 33.3% in the interior of the state -, out of which 43 had diarrhea. In the second stage, out of 253 children - 40.3% were under the age of 1, and 59.7% belonged to the 1 to 4 years age group, 65.1% resided in the metropolitan area, while 34.9% lived in the interior of Pernambuco -, 38 presented diarrhea.

Based on the list obtained in the characterization of human resources in the studied services, we identified 26 physicians, 15 nurses, and 55 nursing assistants who perform some sort of activity related to child care, in addition to four community health agents. In order to better understand the perceptions of health team members about the execution of activities to prevent and control diarrhea, we interviewed, in the second stage of the evaluation, 18 physicians, 9 nurses, and 42 nursing assistants who were developing their routine activities during the observations, in addition to 36 community health agents who came to the reference services on a previously established date to answer the questionnaire.

For the analysis of the results, the health services were distributed according to their location: metropolitan area of Recife (Recife, Camaragibe, and Olinda), and interior of the state (Agrestina, Brejo da Madre de Deus, and Araripina). In the comparison of profiles of independent samples of children under 5 years of age seen at services in the two groups, the significance of the association was assessed by the chi-square test, or Fisher’s exact test (when necessary). The term “tendency” is here used to describe results that point out some differences, but do not reach statistical significance.

Results

Two distinct models are implemented by the 14 health services under investigation. In 11 units, we observed a model that may be called “traditional”, which responds only to spontaneous demand, out of which users are drawn to receive some programmatic actions; in one unit, a Family Health Program acts within a limited area with emphasis on education and prevention actions focused on risk groups. In two other units, we observed both care models occupying the same physical area and using the same equipment, although each provided care to their specific clientele (spontaneous demand and surrounding population).

In six health services (five in the metropolitan area and one in the interior of the state), appointments are scheduled in advance. In services located in the metropolitan area, appointments must be scheduled 24 hours ahead, while in the other services, advance scheduling is available only to the clientele who has private health insurance. In the first stage, 63.5% of the children got their appointment slip on the same day of the appointment; this percentage increased to 70.7% in the second stage of the evaluation. Twelve units presented negligence in childcare due to excessive demand. In the two units from the interior of the state that had emergency service and did not present negligence in childcare, we noticed that the mothers sometimes went back home without having their children examined, because, when the physician on duty was a general practitioner, they preferred to wait for an appointment with a pediatrician.

In all services, children were seen in order of arrival, regardless of their clinical status. Screenings aiming at excluding the possibility of receiving care on the same day or at defining access to a pediatrician were performed in three units of the metropolitan area and in two of the interior of the state, although this practice was not systematic. In the other units, after the appointment slips were passed around, patients who were not able to get a slip were told to return on the following day. Patients usually had to arrive very early in order to get an appointment, and then wait a long time to have access to it.

The units of lesser complexity involved in the project to prevent and control diarrhea have a formal reference units in only two non-metropolitan cities. These reference units serve as a support to emergency care, and to hospitalization in severe cases. In the remaining towns, it is the physician that decides to which service the child must be directed. In the first stage, only one unit of the interior of the state had its own means of transportation to transfer patients, but in the second stage, even this one vehicle was being repaired, with no schedule to arrive. Therefore, the family is the sole responsible for transferring the child, regardless of their financial situation or the child’s clinical status.

Figure 1 evidences, in both evaluation stages, a general deficiency in the execution of growth surveillance. However, the units from interior of the state presented a significantly worse performance (P=0.000) in regard to: (1) mothers’ omission in bringing their children’s health card; (2) performance of weight measurements regardless of the presence of the health card; (3) weight measurement and recording of those who had the health card; at the time of the appointment. In the interior of the state, a significantly higher proportion of children seen during the second stage (P=0.029) had their weight recorded on the card. In the metropolitan area, an important tendency was observed in the sense of raising the number of weighed children (P=0.096), as well as that of children who had their weight recorded on the card (P=0.100). Information on nutritional status in medical records was scarce. The evaluated services, regardless of the care model, presented a similar performance in weight measurement and interpretation in the assisted clientele. All these services have the basic material infrastructure to perform this activity - a scale and health cards.
Educational group work is not a routine activity in the services that offer only traditional care, but it is systematically developed in the three services with the Family Health Program. Only six services, four in the metropolitan area (three from the program) and two in the interior of the state, reported to perform this educational work (two mentioned to do it whenever they had the time); none had performed it during the first stage, and two carried it out in a second observation. Therefore, in the contact between the clientele and these services, very little exchange of experiences and knowledge about diarrhea is executed. Incentive to breastfeeding is performed during prenatal care by two units from non-metropolitan cities and by the team of the Family Health Program in the metropolitan area. We did not see, in any service, breastfeeding support experiences with groups of mothers.

Out of the 43 children with diarrhea seen during the first stage of evaluation, 44.2% were under the age of 1, and 55.8% were from 1 to 4 years old; 58.1% lived in the metropolitan area, and 41.9% lived in the interior of the state. Median time spent between the beginning of the diarrhea and the appointment was 3.0 days (2.0-6.0) in the metropolitan area and 2.0 (1.0-3.0) in the interior (P=0.071).

In the second stage, out of the 38 children belonging to this age group who presented diarrhea, 44.7% were under the age of 1, and 55.3% were between 1 and 4 years of age; 47.4% lived in the metropolitan area, while 52.6% in the interior. The median was 3.0 days (3.0 to 14.0) in the metropolitan area, and 3.0 (1.0-3.5) in the interior (P=0.032).

Figure 2 shows that in the metropolitan area, during the first stage, 20.0% of the children with diarrhea were sent home without receiving care. In the state interior, some cases were handled by the nursing assistants, although this assignment of the activity is not the first option in these services. The care is assigned only due to the absence of physician - absenteeism and times without offer of medical appointments - or in the presence of excessive demand. Of the children with diarrhea, 92.1% in the first stage, and 94.7% in the second stage were treated as outpatients. Only in the interior of the state we observed cases requiring hospitalization (Figure 3).

Only two services in the interior of the state had a separate place for delivering oral rehydration therapy; five performed oral rehydration therapy in the unit (one in the metropolitan area and four in the interior), and one of these, in the second stage, presented problems in supplying materials for the therapy. All units had oral rehydration solution. In the first stage, the solution storage was satisfactory in only six units; inadequate temperature was the most commonly detected problem. In the second stage, an improvement in storage was observed, and it was considered satisfactory in nine units. In three units, we
identified written rules for the management of oral rehydration therapy.

The two groups presented a very similar behavior, in the first stage, concerning the conduct oriented by physicians, with a slight tendency in the metropolitan area to indicate home oral rehydration therapy. The reevaluation of the diarrheal status was only indicated twice in the metropolitan area. In the second stage, we observed a clear decline in the frequency of orientations to increase the liquid intake, especially in the interior of the state. The prescriptions for home oral rehydration therapy and for drugs were similar in both groups of units, although the use of trimethoprim-sulfamethoxazole combination was more frequent in the interior. Only a small proportion of ill children in the metropolitan area, was advised to return for a reevaluation of their diarrheal condition (Figure 4).

Oral rehydration in the unit was performed, during the first stage, in five children with diarrhea in three different health services from the interior: two were prescribed by the physician, and the others by the nursing auxiliaries. In none of these cases the mothers watched the preparation of solution, and the researcher could only observe the preparation of rehydration solution in two cases, at different units, noticing that one was incorrectly diluted. Three children received oral rehydration for approximately 1 hour, and only one child remained for over 4 hours under therapy. In two units, the assistants responsible for the therapy had not received proper training. In the second stage, three children presenting diarrhea assisted by nursing assistants began oral rehydration at the service. However, their mothers did not watch the solution preparation - correctly diluted, as observed by the researcher -, and the treatment lasted for approximately 1 hour.

Figure 5 shows that 60.0% of the mothers of children with diarrhea, in the first stage of the evaluation, mentioned to have received some information about the disease during the medical appointment. These percentage was similar in both the metropolitan area and the interior of the state. Among mothers from non-metropolitan towns, we observed a tendency to receive simultaneous information about the importance of diarrhea and about risk signs for the management of oral rehydration therapy. When leaving the unit, in both stages, approximately half of the mothers ignored any signs of dehydration.

None of the evaluated health services performs follow-ups, and among the traditional care units, there is no counter-reference of diarrhea cases to the community health agents who act in the area. In the Family Health Program, home visits to the children with diarrhea are part of the set of activities.

Figure 6 shows the great omission in recording information about hydration status and conducts in cases of diarrhea assisted by the physicians at the studied sites. In the first stage, underrecording, was significantly higher in the interior when compared to the metropolitan area (P=0.031).
In the second stage, the total proportion of medical records with proper information presented a strong tendency to increase (P=0.088). We attributed this behavior to a general improvement in the performance of services in non-metropolitan cities. In the medical records containing records, the information regarding hydration status was the least appraised. This omission is emphasized when we compare the conducts oriented by the physicians and that were registered in the records to those reported by the mothers, to those observed by the delivery of oral rehydration envelops, and to those written on the prescriptions (Figure 7).

All the nurses, 77.8% of the community health agents, 63.4% of the nursing auxiliaries, and approximately half of the interviewed physicians, in the second stage, noticed changes in childcare during the intervention period (Figure 8). The main changes mentioned by the professionals, regardless of their function, were the improvement in the follow-up of malnourished children and the greater emphasis on educational work.

Only 16.7% of the physicians (9.1% in the metropolitan area, and 28.6% in the interior of the state), and 55.5% of the nurses (40.0% and 75.0%, respectively) had access to the report of the first stage of the evaluation.

**Discussion**

The importance of the studied units is reinforced when we consider the profile of utilization of these health services found through an inquiry performed from February 26 to April 2, 1996. This inquiry included a representative sample of 1,026 children under the age of 5, who lived in 11 geographic areas located in six towns of the state of Pernambuco where actions were implemented to prevent and control diarrhea. The results show that 2.9% of the children between 2 months and 4 years of age (all living in the interior) had never used a health service; 83.4% of the children (79.9% in the metropolitan area, and 87.4% in the

**Figure 5** - Children younger than 5 years with diarrhea seen at the health services. Information given to mothers about the disease at the medical appointment, Pernambuco, 1996

**Figure 6** - Children younger than 5 years with diarrhea. Percentage of records of hydration status and conducts, Pernambuco, 1996
interior) are users of one or more health units among the 14 evaluated services; and 13.7% are users of other services (20.1% and 6.3%).

The accessibility to health actions and the quality of the care are essential to reduce particularly the occurrence of complications and the mortality caused by diarrhea. Nevertheless, in the routine of the evaluated health services, the children frequently find obstacles, such as lack of access to the activities, need for arriving very early to get an appointment, long waiting time until care is performed, absenteeism, exclusively oral direction made by the archive employees, and absence of support to the transference, even if strictly prescribed by the physician. The fact that most children are brought to these services due to an illness contributes to the severity of the situation.

However, in spite of the low potentiality of emergency care as an isolated instrument of impact, few tries have been made in order to integrate the reason that originated the appointment and programmatic actions. Also, medical assistance is not articulated with a collective work (captivation, laboratory support, education actions, scheduling, call for absentees). Usually, after overcoming access difficulties, the medical appointments are limited to the patient’s complaint.

The reduced assignment of activities to the nursing team seen at services devoted on spontaneous demand in cases of diarrhea regardless of the degree of dehydration certainly prolongs the waiting time at the unit, provoking an aggravation of the child’s clinical status. The assignment of functions to other team members, with continuous training and supervision, allows a greater number of children to be assisted, also asserting the offer of activities in the due time of the care process. We should emphasize that, according to the severity scale established for diarrhea, patients with more acute clinical manifestations must have their medical appointment guaranteed.

Our research also acknowledged a low offer of education activities, such as incentive to breast-feeding, instruction about the main factors related to the occurrence of diarrhea, exchange of experiences and orientation about the conducts that are appropriate to decrease the frequency of both episodes and complications in affected children, although a tendency was observed, when comparing the two evaluation stages, to the increase in the frequency of weight measurements and recording on the card.

In spite of recognizing that the most opportune moment to teach mothers the proper management of oral rehydration...
therapy is when she takes her affected child to the health service. Most of the observed services remain not starting therapy at the unit. In the first stage of the evaluation, we identified inadequate procedures in preparing and offering the oral solution in some cases in which therapy was performed at the service. This fact shows the importance of training, recycling and accompanying care offered by units. The deficiencies found in the work process of these services are similar to those identified by other studies performed in the northeastern area of Brazil.

In addition, the great unfamiliarity with signs suggestive of dehydration shown by the interviewed mothers emphasizes the importance of the educational–communicational dimension of health care. Since we expect a change in the behavior of both mothers and social network involved in childcare, education actions must be carried out permanently, fulfilling the specific needs of each reality at different moments. These actions, associated with the work of community agents, must respect the cultural specificity of each social group, which is translated in the values and daily practices of the families, and help people overcome the difficulties in handling the prevention and treatment of diarrheal diseases.

The interpretations about health and disease, the realization and valuation of clinical manifestations of diarrhea, the barriers in the access to health services, the care characteristics, and the trust in the work performed at these services are deeply related to the decisions about seeking or not these health care units. The daily conflict between the needs of a population and the organization of the health practices reveals institutional vulnerability, with its consequences on the individual vulnerability. The offer and the use of actions in order to control diarrheal diseases are restrained by the contingencies of the plot of interests that involves health care in a certain assistance model.

Possibly, the difficulties found in the utilization of these services and the feeling of dissatisfaction with their power to resolve the cases reinforce the mobilization of the available knowledge and resources in the immediate social environment of the families. According to the findings of a work previously mentioned, during the course of an episode of diarrhea, only 31.1% of the children’s parents looked for a health service. The percentages in the metropolitan area were of 61.5% for children under 1 year of age and 43.5% for those between 1 and 4 years of age; and in the interior of the state, the percentages were 28.6% and 17.2%, respectively. Throughout life, around 29.1% of the children under the age of 1 (19.6% in the metropolitan area, and 35.5% in the interior), and 33.7% of those between the ages of 1 and 4 (21.1% and 45.5%) had presented one or more episodes of diarrhea treated without the search for any member of a health team.

Maternal autonomy should even be stimulated, but only if the conducts adopted in childcare are correct. However, in the studied population, among the children presenting diarrhea on the day of the interview, or who had suffered an episode during the previous 2 weeks, the management of the disease was considered adequate - the child maintained the usual diet, took rehydration solution, increased intake of other liquids (optional), and, when taking drugs, they had been prescribed by a physician - in only 30.0% of the cases of children under the age of 1 (33.3% in the metropolitan area, and 28.6% in the interior), and in 24.5% of the cases of children from 1 to 4 years of age (15.9% and 30.6%).

The fulfillment of health needs and the adequate use of human, material and organizational resources in the health sector impose that the services organized in growing levels of complexity ensure equity of access based on the characteristics of each situation. Nevertheless, the deficiency in performing the roles that must be executed by each unit in the health network, associated with the absence of formal articulation between the different services, and between these services and the community health agents, strengthens the extension of the institutional vulnerability. A vulnerability that has a great repercussion on the attention to individual or collective health problems.

Evaluation activities are essential in orienting the process of implementation, consolidation and reformulation of these actions. In this sense, in order to follow the whole dynamics of actions and its repercussions, it is fundamental to structure an information system that backs up the establishment of the needs on which to intervene, also setting the infrastructure required to operate the interventions, and allowing that the results on the users of these services, which can be attributed to the performed actions, get publicized. The information must be systematically discussed with all the participants of the intervention, assisting, at every moment, the decisions about the work process.

In the units assessed, the information system showed a great omission in the record of the clinical history, physical exam, diagnosis, orientations, and conducts indicated to the assisted children. This fact compromises childcare, considering that the recording of information is a fundamental instrument for qualified clinical practice, enabling patient follow-up. Such omission also affects the epidemiological surveillance, since it hinders adequate notification of diarrheal diseases to the National Center of Epidemiology of the Brazilian Ministry of Health, as well as the evaluation of the agreement between adopted conducts and established norms. The use of information at the local level certainly stimulates a greater attention to the quality of the records.

The results of the first evaluation stage, which showed the most important aspects present in each service, and which were sent to and discussed with the decision-makers in each town, were not communicated to the majority of members of the local health teams. This procedure is partially due to the absence of tradition in the use of information produced having as its basis the demand care, which indicates the need for strengthening its utilization in the routine of these services, in a way to turn it into an everyday instrument of reflection over health actions.
In this context, we must recognize that, although individual assistance has a role to perform, the great inequalities of opportunities in a socially structured life should provide the starting point for interventions on health services, and, at the same time, it should indicate the limits wherein individual assistance should act. Thus, the reduction of vulnerability to childhood diarrhea would necessarily go through a concentration of efforts for the development of integral care, which would include the present or potential adverse conditions faced by families and social groups in their everyday life, besides stimulating a more qualified clinical practice, focused on maintaining the balance between curative and preventive activities, given the latter its due value.

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