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HEALTH EDUCATION IN THE PREVENTION OF ENTEROPARASITES: DESCRIPTIVE STUDY

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ABSTRACT

This study aimed to evaluate the process of behavioral changes of caregivers of children of preschool age, from an activity of Health Education regarding the prevention of intestinal parasitosis. Descriptive study, conducted with eight caregivers of children from a public nursery in Fortaleza, whose steps were: the development and implementation of strategy of pictures such as health education; home visits to assess the knowledge of caregivers about the prevention of intestinal disease and evaluation of process of behavioral changes. The members had adequate knowledge and the realization of most proposed daily conduct about prevention of intestinal disease. Thus, the practices of health education aimed adoption of healthy behaviors should be seen as a priority for nursing professionals, because it constitutes an important tool in health promoting.

Descriptors: Health education. Nursing. Health Promotion. Child.

INTRODUCTION

The children are seen as a vulnerable group to the acquisition of innumerous diseases, in relation to the immaturity of their immunologic system associated to the lack of knowledge of contamination through pathogens. Among the diseases that affect them, we find enteroparasitosis that, despite being evitable, paradoxically they don't show significant reduction of affected people.

The prevalence of intestinal parasitosis in Brazil is high, varying accordingly to each region of the country, based on geographical, economical, climate and social differences that there are in endemic areas. This problematic is worst than it seems as the absence of a consistent

sanitary education policy contributes to the fact that enteroparasitosis are considered a relevant problem of public health in the country[1].

When taken by vermin, many symptoms can appear as anorexia, diarrhea, nausea, vomits, abdominal pain, irritation, sleep deprivation, which compromise the physical and cognitive development of the children.[2] It is noted that in a global perspective, 11% of the risky health conditions of children are related to the presence of parasites, that enunciates the importance of preventing these illnesses[3].

The data connected to the epidemiology of enteroparasitosis normally are present in punctual studies because of the underscore of those diseases, as it is seems the use of anti-parasites anticipates or erases the coproparasitological analysis in some services. However, it is inferred that the occurrence of those illnesses have an elevated magnitude, especially among some specific populations, such as pre-school children, as the study taken in Belo Horizonte, Minas Gerais, on which 24,6% of the 472 children originated from daycares presented some sort of parasitosis, and from that, 6,6% had more than one parasite[1].

The prevention of vermin consists basically on the maintenance of personal and environmental hygiene habits passive from execution. Even though they are simple, the population most of the times hasn't been able to practice it in an interruptive way.

The adequacy to the care can depends on the abilities of the child's caretaker, who is often the mother, and on the intersubjectivity on which the child is inserted. The mother/caretaker needs of educational strategies that helps to empower herself of manners that will permit her to develop healthy habits. When empowered, the mother/caretaker can execute a quality care to the child, as well as to promote the pupil's health though a shared responsibility with the professionals related to the area[4].

Within this context, the empowered individual is free to take her own decisions based on the critic thought, capacitating her to promote her own general health conditions[4,5]. This way, the dissemination of information, especially through the educational activities in health becomes the sine qua non strategy for the changes of behavior aiming healthy habits of the individual and of the community, as it is believed that these changes summarize the scientific knowledge and through the health professionals, they reach the quotidian life of the general population[6].

And then, the nurse presents himself as an educator, fundamental in the promotion of health and in combat against diseases, and it is up to this professional to transform the process of caring and educating more coherent with the reality of each population[7].

Having in sight the importance of the care by adults in the prevention of child enteroparasitosis, the present study has as an objective to verify the knowledge and the behavior changes of mothers/ caretakers of pre-school aged children, based on an activity of Education in Health referred to the prevention of the mentioned diseases.

METHODOLOGY

This is a descriptive research, on which the production of data was developed in a participative model, through the application of a Health Education strategy made by eight caretakers of pre-school aged children enrolled in a public daycare of the city of Fortaleza.

The pre-school caretakers were invited to participate in this study from the moment the children were left in the daycare, having a room available made by the institution to run the educational activity. This way, they accepted to participate voluntarily of this study the following categories of caretakers: mother (six), father (one), and grandmother (one).

The study has developed in three stages, as follows:

STAGE I – ACTIVITY IN HEALTH EDUCATION

Consisted in the development of an educational activity, using eight graphical representations (images) that generate discussion, based on domestic situations that are specific and quotidian and explicit factors of risk or of prevention related to the acquisition of enteroparasitosis. The referred images were drawn by an awarded scholarship member of the Tutorial Education Program (PET, in Portuguese) and were named the Giant Memory Game.

The caretakers were divided in two groups of four participants each. This was necessary to create an environment to ease their interaction and their development during the proposed activity.

In the Giant Memory Game, as the pairs of images were found, a discussion was established about the meaning of the scenes. The caretakers commented if they found the action displayed would let the child exposed to vermin and the facilitators complemented with data that can be used in their daily routine.

STAGE II – EVALUATION OF THE KNOWLEDGE OF THE CARETAKES

In this stage, the home accompanying of the families involved started through the first activity done in the daycare, which also consisted in a first visit to their homes a month after the beginning of the whole health education process.

The reality on which the families were inserted was taken into consideration, as well their knowledge about the prevention of enteroparasitosis. Two structured instruments were used to evaluate these facts: the first was a questionnaire of fourteen questions related to the structure of the family and the characteristics of the housing, and the second, a list of sixteen elements that evaluated the knowledge acquired through the pictures from the educative strategy, and both related to the syllabus of the educational activity risen and described on Stage I.

The data collection was done through interviews and open observation. Besides that, after the application of the referred instruments, the behavior of prevention of enteroparasitosis in children were ratified, looking for its insertion on the families' everyday life routine.

STAGE III – EVALUATION OF BEHAVIOR CHANGE

It was constituted of a self-evaluation of the caretakers about the adoption of preventive actions against enteroparasites, guided by an instrument that was given on the first home visit, as it was believed that after the first educational activity, and then later confirmed by the ratification about the amount of information previously known about the prevention of vermin in the referred visit, these families were already empowered by this sort of knowledge.

Each family received the instrument, composed by eleven procedures (according to the pictures used in the educational activity) that needed to be followed daily for the prevention of enteroparasitosis. Then, it was suggested a weekly review of those proposals, during one month, of the frequency and consistency of the actions described in the instrument. They should rate them as "always", "sometimes", "never" or "it doesn't apply".

The referred instrument was taken back by the researches on the second visit (Stage III), a month after the previous Stage, on which there was the opportunity to discuss the motives that took the caretakers to follow or not the orientation given.

This research was approved previously by the Ethics in Research Committee of the Universidade Federal do Ceará (Ceara Federal University), thru the Acceptance #260/06. The interviewed people,

after acknowledging the proposal of the research, signed the Free and Clear Consent Term, and the research accordingly followed the ethical standards, based on the Resolution #196/96 of the National Health Council from the Ministry of Health of Brazil.

RESULTS

The eight families involved in this research were composed from four to nine persons, from those, one to five children in each home. The level of schooling from the caretakers varied from illiteracy to full High School level. The net income per capita varied from R$ 70,00 to R$ 285,00, originated mostly from informal/temporary job positions out of the domestic environment, which justified why they used to leave the children in daycare institutions.

During the educational activity in the daycare, it was observed that explanations given by the participants of this study were coherent with the measures taken to prevent enteroparasitosis, demonstrating previous information about the topic, despite the fact two caretakers mentioned they never had any sort of information about the theme.

However some participants mentioned their difficulty based on their social, economical and environmental factors for the good practice of preventive actions. With that, it became possible the advance of the reflections about the questions related to the housing realities of those families.

The application of the Giant Memory Game showed as an innovative manner of developing a educational activity, as it brought some impact among the participants that declared they were used to the transmission of data, and many times, in a monotonous and uninteresting way that did not gave opportunity to the debate of common problems.

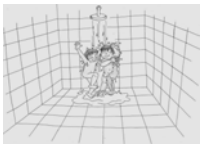
On Stage II, which is consisted in the characterization of the families and of their homes, besides the theme of previous knowledge about the topic, it was verified from the participants the existence of piped water service in their homes, as well as regular public garbage service, even though some families reported that they took their thrash everyday out.

Most of the families related the presence of a considerable amount of rubbish around their homes, mud pools, trash bags, pests and vagrant animals around their neighborhoods, which the researchers confirmed those facts. Only on e family didn't have a water filter at home, but used to by bottled mineral water. This same family declared that when they didn't have money to buy the water, they would consume non-treated water normally.

On the second visit (Stage III), the families prepared a self-evaluation about the practice or no practice of preventive measures against enteroparasitosis.

The results of the questions referred to the knowledge of the families (Stage II) and their self-evaluation (Stage III) are on the tables 1 and 2, that it is visible which image orientated each questions about the information and the praxis of the caretakers related to the habits of prevention (table 1) or risk (table 2) of the acquisition of vermin.

Table 1 – Distribution of knowledge and behavior of caretakers of pre-school children about the preventive measures against enteroparasitosis. Fortaleza, 2008.

Images (Stage I)	**Questions of evaluation of knowledge (Stage II)**	**Score of Stage II (%)**	**Behavior of prevention of caretakers (Stage III)**	**Accession of caretakers to preventive practices (Stage III) (%)**
A 	- Do families protect themselves from vermin when they wash fruits and vegetables only with water?	5 (62,5)	- Allow fruits and vegetables in one liter of water with one soupspoon of chlorine without bleach for 30 minutes.	Always- 4 (50) Sometimes- 3 (37,5) Never-1(12,5)
B 	- Do families prevent themselves from vermin drinking filtered or previously boiled water? - Does the cleaning of the filtering agent have to be done on a weekly basis? - Do families prevent from vermin when they clean the filtering agent with current water and a proper brush?	8 (100) 8 (100) 8 (100)	- Clean the filter agent of water filters with current water and a proper brush at least once a week.	Always-5 (62,5) Sometimes-1 (12,5) Never-1 (12,5) It doesn't apply-1(12,5)
C 	- Do people prevent from vermin when they take at least two showers a day? - Do families prevent themselves from vermin when they trim the nails at least once a week?	8 (100) 8 (100)	- Take a shower, at least twice a day, using a soap bar. - Trim the nails at least once a week.	Always-8(100) Sometimes-0(0) Never-0(0) Always-5(62,5) Sometimes-2(25) Never-1(12,5)
D 	- Do families prevent themselves from vermin when the wash their hands with a soap bar after they used the bathroom? - Do families prevent themselves from vermin when they wash their hands before the meals?	8 (100) 8(100)	- Wash the hands before all meals and after going to the bathroom with water and soap.	Always – 7 (87,5) Sometimes – 1 (12,5) Never – 0 (0)

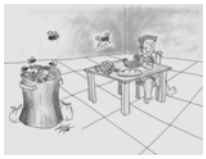
It is possible to infer that about the evaluation of the knowledge of the caretakers (Stage II) only the information about the washing of fruits and vegetables before consumption (table 1 / image A) did not have the full scoring from the participants, verified in only 5 (62,5%) of all members of this study. Besides that, it was also noted as the less frequent behavior, being always frequent in only 4 (50%) of the caretakers. Some mentioned that the cleaning of those products in running water was enough, without the use of any product, not even soap.

What can be said about the behavior (Stage III), it is observed that the habit of frequent showers became always present in the families of the caretakers, while the other orientations were followed continuously by a number of four to seven families.

It is also observed that the preventive behavior related to the hygiene of the filtering agent (table 1 / image B) has one family which this item did not apply, as they did not have a water filter at home. Adding to that, some caretakers reported they used salt, sugar and sponges, which are elements that are known to gradually destroy the filtering capacity of the agent.

It was also verified that it is not always that the presence of information will imply in the execution of preventive measures, having in mind the necessity to also consider the personal and structural abilities, the conditions to execute those actions and the critical conscience of the individual.

Table 2 – Distribution of the knowledge and the behavior of caretakers of pre-schooled children about the risk measures for the acquisition of enteroparasitosis. Fortaleza, 2008.

Images (Stage I)	**Questions of evaluation of knowledge (Stage II)**	**Score on Stage II (%)**	**Behavior of prevention of caretakers (Stage III)**	**Accession of caretakers to preventive practices (Stage III) (%)**
E 	- Can families acquire any vermin if they drink tap water?	8 (100)	- Filter, boil or apply chlorine without bleach in the drinking water (2 drops for every one liter for 30 minutes).	Always – 5 (62,5) Sometimes– 2 (25) Never – 1 (12,5)
F 	- Do families prevent themselves from vermin if the garbage stays away from the place of meals? - Can families acquire vermin if insects lay on food?	8 (100) 8 (100)	- Protect food from insects and pests.	Always – 7 (87,5) Sometimes – 0 (0) Never – 1 (12,5)
G 	- Can children acquire vermin if after scratching their behinds they place their hands in their mouths? - Can families acquire vermin if they get in contact with garbage?	8 (100) 8 (100)	- Not allow children to place dirty hands in their mouths. - Not allow children to play around places with garbage and animal feces.	Always – 1 (12,5) Sometimes – 2 (25) Never – 5 (62,5) Always– 3 (37,5) Sometimes – 0 (0) Never – 5 (62,5)
H 	- Do children prevent themselves from vermin if they don't play in places around garbage and animal feces? - Can families acquire any vermin if they walk barefoot because vermin can penetrate the human skin? - Can families prevent from vermin if they leave feces in open air spaces?	8 (100) 8(100) 8(100)	- Bag all trash and place it outside only during collection days. - Keep children always wearing shoes indoors and outdoors.	Always – 5 (62,5) Sometimes – 2 (25) Never – 1 (12,5) Always – 4 (50) Sometimes – 4 (50) Never – 0 (0)

In relation to the risk behavior for the acquisition of enteroparasitosis, the totality of caretakers mastered the information about the practices (8, or 100%), however the behavior of these families did not correspond to their knowledge, as seen, for example, about the habit of wearing shoes by the children (table 2 / image H), a habit which all participants were aware, but only 4 (50%) resulted in full accession.

Some of the non-adopted practices can be related to the precarious social-economical conditions of living of these families, as exemplified by the comment of a caretaker mother, who cited the impossibility of treating all the drinking water enough for the whole family, forcing the adults of the residence to consume untreated water.

On image G, we can observe the attitudes do not have complete accession by all caretakers, despite the risk factors for the process of illness-health related to the enteroparasitosis, since the ideal would be that the caretaker never allowed the children to place their dirty hands in their mouths, as well as to let them play around places that store garbage.

DISCUSSION

The prevention of risk factors for the acquisition of enteroparasitosis demonstrate as a knowledge already understood by the caretakers, risen from the health educational activity developed that is considered to be relevant for the desired behavior changes that promotes health.

The education in health is consisted of a group of awareness and practices that are objective to the prevention of illnesses and the promotion of general health. The promotion of health helps individuals and the collectivity to obtain health through the health professionals[6].

Despite that, as seen by the social-economical situations of the families, there are some hindrances to fulfill the proposed behavior, as it was sometimes seen that the families did not have enough income to purchase a water filter or to pay for butane gas to be able to boil some water.

Recognizing the role of the caretakers in preventing the vermin, taking into consideration that mothers were the majority of the subjects in this study, it is also known that the women with higher educational level usually demonstrate conditions to improve their own and their families' quality of life, then generating alternate opportunities and supporting structures for themselves[8].

It was observed that the only knowledge that did not have a high score was the hygiene of fruits and vegetables that made us analyze about the little information given to the general population about this practice.

It is also worth describing that some families referred to the use of chlorine as efficient to the treatment of raw food, but they did not know which were the amounts. Besides the basic health services hold this information, it was noted that probably there is some level of failure about this data between the health team and the community. Related to that, the Ministry of Health recommends to wash and sanitize raw food, such as vegetables with a chlorine solution of 2,5% during 30 minutes, with a proportion of one soupspoon (15 milliliters) for each liter of water[9].

Regardless of the correct information about the treatment of water was properly demonstrated to the families, it was verified that those interventions were not placed by some of the families during the period of home visits, either by the not proper way of filtering water or by the bad maintenance of the filtering agent of the water filters. This behavior can be attributed to the absence of any alternative method to improve the quality and the taste of the drinking water, or also to necessity of a higher effort from the health professional about the attention that need to be placed to the drinking water.

The body hygiene of the members of the family was questioned, including hand washing before meals and after using the bathroom, as well as daily showers and weekly nail trimming, as it was evidenced that those actions were not performed by all families at some time, raising the risks of infection by enteroparasitosis, and there is a necessity of a more rigid position in places of human agglomeration, as daycare centers[10].

Even with the educational activity in the daycare and with the reinforcement of the information related to the prevention of enteroparasitosis, the behavior of the caretakers was not always positive, and sometimes not placed into action because of the cruel reality that these families share, in a context of poverty and absence of favorable sanitary conditions to the promotion of health.

Based on those facts, we recall the use of participative methodologies that favor the dialogue between the population and the health professionals, taking the members of the community to understand the reasons which they must participate in behavior changes in order they feel able to adopt healthy habits that have as the goal to reach better results in their ordinary lives.

FINAL CONSIDERATIONS

Educational health activities are relevant strategies to a further proximity between the health professional and the community, allowing the exchange of information, the resolution of doubts, as well as the visualization of how the home visits are going.

However, the health educational activities do not guarantee behavior changes in everyday life, on which an effective follow up is necessary to bring to light to the families the urgency of the adoption of such practices.

Then, it was acknowledged that the subjects of this study learned mostly the information transmitted during the educational activity and during the home visits, although, the behavior change was not effective in all the practices emphasized on this paper.

Therefore, health professionals, above all the nurses, have to show an extra effort in the execution of creative educational activities, looking to reach the population senses about its necessities. This way certainly these people will feel responsible por their realities and will become the health promoters of their families.

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