

**55 - PREVENTION AND TREATMENT OF DENGUE BY FEEDING OF CHILDREN UNDER FIVE YEARS OLD: AN INTERVENTION IN HEALTH EDUCATION**

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**INTRODUCTION**

Dengue is an emerging infectious disease, recognized as a major public health problem in the Brazilian population, and its transmission is essentially urban (Medronho, 2008; Rouquayrol & Almeida Filho, 2003).

The literature shows the correlation between the low prevalence of breastfeeding and the emergence of communicable diseases and chronic diseases (PAHO/WHO; 2003).

Recently, the National Demographic and Health Survey, in 2008, revealed a prevalence of 39.8% exclusive breastfeeding in children under 6 months, well below the 80% recommended by World Health Organization. There is evidence that the breastfeeding is the single strategy with the greatest impact on infant mortality, the ability to reduce deaths by 13% of children under five years of preventable diseases around the world (Ministério da Saúde, 2009a,b).

In the last years, Brazil has seen an increase in breastfeeding indicators, mainly in its prevalence and duration. This occurrence, associated with other factors such as the intensification of the actions of basic maternal and child health, has impacted to a significant decrease in infant mortality rates, particularly of children belonging to groups less favorable living in the poorest regions Brazil (Ministério da Saúde, 2006; WHO, 2003). However, breastfeeding rates are still below the desired level in the Brazilian population, also Macaé, in the group of cities where breastfeeding rates are still lower than expected.

Another important factor of public health concern is the increased risk of malnutrition in babies after 6 months of life, when breast milk is no longer sufficient to fulfill nutritional needs of organic (Accioly & Lacerda, 2009), increasing susceptibility to the emergence of infectious diseases, as for example dengue, or worst disease already existent, as established in the literature the synergism between infection and malnutrition, and possibly death (Rouquayrol & Almeida Filho, 2003).

In this sense, health education activities focused at encouraging breastfeeding have been developed to minimize the negative impact of these diseases in the population.

This article presents results of a health intervention focused at prevention and treatment of dengue by feeding to parents and responsible of children under 5 years old in a Health Centre located in the city of Macaé, RJ.

**SUBJECTS AND METHODS**

Macaé city is located in the Norte Fluminense, has a total area of 1,219.8Km<sup>2</sup>, representing 12.5% of this area. It is divided into six districts: Sede, Cachoeiros de Macaé, Córrego do Ouro, Glicério, Frade and Sana. It has a latitude of -22°37'08" and longitude -41°78'69" and borders on the cities: Carapebus, Conceição de Macabu, to North; Rio das Ostras and Casimiro de Abreu, to South; Trajano de Moraes and Nova Friburgo, to West; and Oceano Atlântico, to East (Prefeitura Municipal de Macaé, 2011).

With 23 Km of coastline, the climate is hot and humid most of the year, with temperatures ranging between 18°C and 30°C temperature range considerable occasioned by trade winds between the coast and mountains, relatively close (Prefeitura Municipal de Macaé, 2011).

Macaé is 182Km from Rio de Janeiro city and has a population of 200.000 (169.513 thousand fixed and 50 thousand floating) population, and population density of 103.11 inhabitants/Km<sup>2</sup> (Prefeitura Municipal de Macaé, 2011).

We conducted an educational intervention on the prevention and treatment of dengue by feeding to parents and responsible of children under five years at the Center for Health Jorge Caldas, located in Macaé, Rio de Janeiro, during the D-Day Campaign for Vaccination Polio on August 13, 2011, from 9 am to 5 pm.

During the activity, two academics of the School of Medicine, UFRJ - Macaé, inserted in the Health Surveillance PET/Ministry of Health, between 2010-2011, delivered flyers about the issue and clarify possible questions presented by parents and responsible, and a banner with topics on prevention (information about exclusive breastfeeding until six months of age, use of crushed fruit and propolis) and treatment (exclusive breastfeeding until the age of six months, oral rehydration, coconut water and specific fruits) of dengue by feeding.

In the activity, were also collected information on maternal age or responsible and children under five who participated in health education activities. We performed a qualitative and quantitative analysis of the activity developed.

**RESULTS AND DISCUSSION**

The educational intervention was conducted with 226 parents or responsible and 271 children under five years old. According to the Immunization Program Management Macaé (Municipal Health Macaé), the number of doses at the health center during the D day of the vaccination campaign was 322 doses in children under 1 year and 1039 in children between 1 and 4 years.

Of the 271 children attending the intervention, 56 were younger than 1 year and 215 were between 1 and 4 years, representing respectively 17.4% and 20.7% of children vaccinated by age group.

According to the Health Surveillance Management of Macaé, in 2007 were 1098 cases, a decrease of 402 cases last year. In 2009, despite being considered an epidemic year throughout the state, the numbers had decreased considerably compared to 2007, also epidemic. In 2010, 1575 cases were confirmed (Torres, 2010). Already the records showed a number of classic cases of 479 and 197 with complications; and to hemorrhagic fever, 19 cases were confirmed (Torres, 2010). However, Macaé is one of the few cities in the State of Rio de Janeiro that decreased the number of official cases of the disease, comparing the periods January to September 2010 and January to September 2011. In 2011, 569 cases were confirmed, representing a fall of 61.4% (Cardoso, 2011).

According to Cardoso (2011), this disease may be aggravated by the introduction of the four virus types in the state of Rio de Janeiro. Being a new virus, the population has no immunity against this type.

Currently, the dengue situation is configured in a major public health problem, with their complex control since there are numerous factors that determine the maintenance and spread of the disease and its vector (Marzochi, 1994).

Factors associated with its appearance are transportation, travel, migration and urbanization. According to Farmer (1996), social inequalities will probably exert great influence on the emergence of dengue, among other emerging diseases. However, social factors have also been appointed to its emergence as poverty and urban decay (Centers for Disease Control and Prevention, 1994). Therefore, worldwide, millions of individuals are in areas at risk of dengue transmission.

In Brazil, dengue is recognized as important public health problem, and its transmission is essentially urban. The intense urban population growth associated with poor conditions, sanitation, unhealthy housing and educational and cultural factors create favorable environment for transmission of dengue virus (Lines et al., 1994).

The socioenvironmental conditions, coupled with the low effectiveness of programs to combat the vector in the Brazilian states, gave the opportunity for the spread of *Aedes aegypti* (Rouquayrol & Almeida Filho, 2003). Thus, actions of health education aimed at prevention, control and treatment has been used as tools to minimize the impact of dengue in the population.

Education is strongly present in everyday life in the health sector is a fundamental practice in the context of the Unified Health System (SUS) in Brazil. The concept of health education and practices developed in recent decades significantly, shifting the theoretical reflections in this field of study (Gazinelli et al, 2005).

Education in health can be seen as a field of practice that occurs in social relations established by the health professionals together with the institution, and especially with the user in developing their daily activities (L'Abatte, 1994). It is understood as an educational process of building knowledge in health that aims to issue ownership by the population, becoming a set of industry practices that contribute to empowering the people in their care. Finally, it seeks to achieve an attention to your needs, but also enhance the exercise of social control over the policies and health services so that they meet the needs of the population (Brasil, 2008).

Prevention and control through health education activities allow reverse possible frameworks that lead to worsening of health status in children who present chronic diseases.

The most common way of transmitting information through educational activities is the verb form. However, the use of printed educational materials has been recommended to stimulate the memory and increase adherence to treatment and information given (Hoffmann & Worrall, 2004).

The educational materials complement and reinforce the information given by the professional or together (speech + educational material), facilitate learning and understanding of the health service user in relation to information the health professional want to transmit, promoting autonomy, satisfaction, improves knowledge and adherence to treatment or counseling (Moreira & Silva, 2005).

The experience of health intervention in the field of nutrition in the prevention and treatment of dengue allowed little known disseminate information and clarify the doubts of the population.

## CONCLUSION

The intervention reached a important proportion of the population that demanded the center of health, suggesting the positive impact of educational activities at the time of national immunization campaigns.

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## **PREVENTION AND TREATMENT OF DENGUE BY FEEDING OF CHILDREN UNDER FIVE YEARS: AN INTERVENTION IN HEALTH EDUCATION**

### **ABSTRACT**

Dengue is an emerging infectious disease, recognized as important public health problem in the Brazilian population, and its transmission is essentially urban. The literature shows the correlation between the low prevalence of breastfeeding and the emergence of communicable diseases and chronic diseases. In this sense, actions to encourage breastfeeding have been developed to minimize the negative impact of these diseases in the population. This study aimed to present results of a health intervention conducted with parents and responsible of children under 5 years old in a Health Centre located in the city of Macaé, RJ. We conducted an educational intervention on the prevention and treatment of dengue by feeding with parents and responsible of children under 5 years old at the Center for Health Jorge Caldas, located in the city of Macaé, Rio de Janeiro, during the D-Day Campaign for Vaccination polio on August 13, 2011, from 9 am to 17h. During the activity, two academics of the School of Medicine, UFRJ - Macaé, inserted in the Health Surveillance PET/Ministry of Health, between 2010-2011, delivered flyers about the issue and clarify possible questions presented by parents and responsible, and a banner with the following topics: prevention and treatment of dengue by feeding. In the activity, were also collected information on maternal age or responsible and children under 5 years old. We performed a qualitative and quantitative analysis. The educational intervention was conducted with 226 responsible and 271 children under five years. We conclude that the intervention has achieved an important proportion of the population that demanded the center of health, suggesting the positive impact of educational activities at the time of national vaccination campaigns.

**KEYWORDS:** Health Education, Breastfeeding, Dengue.

## **PRÉVENTION ET TRAITEMENT DES DENGUE EN ALIMENTATION DES ENFANTS MOINS DE CINQ ANS: UNE INTERVENTION EN EDUCATION DE LA SANTÉ**

### **RÉSUMÉ**

La dengue est une maladie infectieuse émergente, reconnue comme un problème majeur de santé publique dans la population brésilienne, et sa transmission est essentiellement urbaine. La littérature montre la corrélation entre la faible prévalence de l'allaitement maternel et l'émergence de maladies transmissibles et maladies non transmissibles. En ce sens, les actions pour encourager l'allaitement maternel ont été développés pour minimiser l'impact négatif de ces maladies dans la population. Ce travail présente les résultats d'une intervention de santé menée avec les parents et tuteurs des enfants de moins de 5 ans dans un centre de santé situé dans la ville de Macaé, RJ. Nous avons mené une intervention éducative sur la prévention et le traitement de la dengue en l'alimentation avec les parents et tuteurs des enfants de moins de cinq ans au Centre de Santé Jorge Caldas, située dans la ville de Macaé, Rio de Janeiro, lors de la Campagne du Jour-D pour la Vaccination La Poliomyélite, le 13 août 2011, de 9 h à 17h. Durant l'activité, deux boursiers de l'École de Médecine, UFRJ - Macaé, inséré dans la conception de Surveillance de la Santé PET/Ministère de la Santé, année académique 2010-2011, livré des dépliants sur la question et de clarifier les questions possibles présentés par les parents et les responsable, et une bannière avec les thèmes suivants: la prévention et le traitements de la dengue dans l'alimentation. Dans l'activité, ont été également recueilli des informations sur l'âge maternel et le tuteur de les enfants de moins de cinq ans. Nous avons effectué une analyse qualitative et quantitative de l'activité exercée. L'intervention éducative a été réalisée avec 226 responsable et 271 enfants de moins de cinq ans. Nous concluons que l'intervention a atteint une proportion importante de la population qui exigeait le centre de santé, ce qui suggère l'impact positif des activités éducatives à l'époque des campagnes de vaccination nationales.

**MOTS CLÉS:** Éducation de la Santé, L'allaitement Maternel, La Dengue

## **PREVENCIÓN Y TRATAMIENTO DE DENGUE EN LA ALIMENTACIÓN DE LOS NIÑOS MENORES DE CINCO AÑOS: UNA INTERVENCIÓN EN EDUCACIÓN PARA LA SALUD**

### **RESUMEN**

El dengue es una enfermedad infecciosa emergente, reconocida como un importante problema de salud pública en la población brasileña, y su transmisión es esencialmente urbana. La literatura muestra la correlación entre la baja prevalencia de la lactancia materna y la aparición de enfermedades transmisibles y las enfermedades no transmisibles. En este sentido, las acciones para fomentar la lactancia materna se han desarrollado para minimizar el impacto negativo de estas enfermedades en la población. Este trabajo presenta los resultados de una intervención de salud llevado a cabo con los padres y tutores de niños menores de 5 años en un centro de salud ubicado en la ciudad de Macaé, RJ. Hemos llevado a cabo una intervención educativa sobre la prevención y el tratamiento de la dengue por la dieta con los padres y tutores de niños menores de cinco años en el Centro de Salud Dr. Jorge Caldas, ubicada en la ciudad de Macaé, Rio de Janeiro, durante la Campaña del Día-D para la Vacunación la Polio el 13 de agosto de 2011, de 9 a 17h. Durante la actividad, dos becarios de la Escuela de Medicina de la UFRJ - Macaé, inserta en el Vigilancia de la Salud PET/Ministerio de Salud, año académico 2010-2011, entregó volantes sobre el tema y aclarar posibles dudas presentadas por los padres y responsable, y una bandera con los siguientes temas: la prevención et le tratamiento del dengue en la alimentación. En la actividad, también se recogieron información sobre la edad de la madre y los niños menores de cinco años. Se realizó un análisis cualitativo y cuantitativo de la actividad realizada. La intervención educativa se llevó a cabo con 226 padres y los niños 271 menores de cinco años. Llegamos a la conclusión de que la intervención ha alcanzado una proporción significativa de la población que requiere el centro de salud, lo que indica el impacto positivo de las actividades educativas en el momento de las campañas nacionales de vacunación.

**PALABRAS CLAVE:** Educación para la Salud, La Lactancia Materna, Dengue.

**PREVENÇÃO E TRATAMENTO DE DENGUE PELA ALIMENTAÇÃO DE CRIANÇAS MENORES DE CINCO ANOS: UMA INTERVENÇÃO EM EDUCAÇÃO EM SAÚDE****RESUMO**

Dengue é uma doença infecciosa emergente, reconhecida como um importante problema de saúde pública na população brasileira, sendo a sua transmissão essencialmente urbana. A literatura apresenta a correlação entre a baixa prevalência da prática do aleitamento materno e o aparecimento de doenças transmissíveis e não transmissíveis. Neste sentido, ações de incentivo ao aleitamento materno vêm sendo desenvolvidas de modo a minimizar o impacto negativo dessas doenças na população. Objetivou-se apresentar resultados de uma intervenção em saúde realizada com pais e responsáveis de crianças menores de 5 anos em um Centro de Saúde situado na cidade de Macaé, RJ. Realizou-se uma intervenção educativa sobre prevenção e tratamento da dengue pela alimentação com pais e responsáveis de crianças menores de 5 anos no Centro de Saúde Dr. Jorge Caldas, situado na cidade de Macaé, Rio de Janeiro, durante o dia D da Campanha de Vacinação Contra Poliomielite, em treze de agosto de 2011, entre 9h e 17h. No decorrer da atividade, dois bolsistas do curso de Medicina, do campus UFRJ – Macaé, inseridos no projeto do PET Vigilância em Saúde/Ministério da Saúde, anos letivos 2010-2011, entregavam filipetas sobre o tema e esclareciam possíveis dúvidas, utilizando um banner com os seguintes tópicos: prevenção e tratamento da dengue pela alimentação. Na atividade, também foram coletadas informações sobre as idades materna ou do responsável e das crianças menores de cinco anos. Realizou-se uma análise quali-quantitativa da atividade desenvolvida. A intervenção educativa foi realizada com 226 responsáveis e 271 crianças menores de cinco anos. Conclui-se que a intervenção atingiu uma parcela importante da população que demandou o centro de saúde, sugerindo o impacto positivo de atividades educativas no momento de campanhas nacionais de vacinação.

**PALAVRAS CHAVE:** Educação em Saúde, Aleitamento Materno, Dengue.