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SOCIOECONOMIC AND CULTURAL FACTORS OF MATERNAL CARE IN CHILDREN'S RESPIRATORY DISEASE

FATORES SOCIOECONÔMICOS E CULTURAIS DO CUIDADO MATERNO NA DOENÇA RESPIRATÓRIA INFANTIL

FACTORES SOCIOECONÓMICOS Y CULTURALES DE LA ATENCIÓN MATERNA EN LA ENFERMEDAD RESPIRATORIA INFANTIL

Maíra Domingues Bernardes Silva¹, Leila Rangel da Silva², Adriana Teixeira Reis³, Inês Maria Meneses dos Santos⁴, Luciana Rodrigues da Silva⁵

ABSTRACT

Objective: to understand the social, economic, and cultural factors of maternal care in children's respiratory disease. **Method:** this is an ethnographic research, based on ethnonursing, with a qualitative approach and the frame of Madeleine Leininger's Culture Care Theory. It was carried out in the Family Health Strategy and in households at Morro do Fuba, in the district of Cascadura, Rio de Janeiro, Brazil, from August to December 2010. The key informants were 21 mothers of children with acute respiratory disease (ARD) and the general informants were 5 community health agents. The socio-economic-cultural form was used and the data were analyzed in accordance with the first level sociocultural factors of the Sunrise Model of Madeleine Leininger's Theory of Diversity and Universality. **Results:** among the 21 women, 4 were from the Northeast and 17 from the Southeast. Ages ranged between 20 and 45 years. Regarding the children's respiratory diseases, 13 had bronchitis, 2 had asthma, 4 had pneumonia, 2 had bronchiolitis, 2 had tonsillitis, 3 had allergic rhinitis, 8 had cold, and 1 had influenza. **Conclusion:** it was found that some factors facilitate (technological, religious, and philosophical ones, as well as fellowship and social life) and other hamper (economic and educational ones, as well as cultural values, lifestyles, and home environment) maternal care for children with a respiratory disease in the context of Morro do Fuba. **Descriptors:** transcultural nursing; ethnonursing; child health; respiratory tract diseases.

RESUMO

Objetivo: compreender os fatores sociais, econômicos e culturais do cuidado materno na doença respiratória infantil. **Método:** trata-se de pesquisa etnográfica, baseada na etnoenfermagem, de abordagem qualitativa e com o referencial da Teoria do Cuidado Cultural de Madeleine Leininger. Foi realizada na Estratégia de Saúde da Família e em domicílios do Morro do Fubá, no bairro de Cascadura, Rio de Janeiro-RJ, de agosto a dezembro de 2010. As informantes-chave foram 21 mães de crianças com doença respiratória aguda (DRA) e os informantes gerais foram 5 agentes comunitários de saúde. Foi utilizado o formulário sócio-econômico-cultural e os dados foram analisados segundo os fatores socioculturais do primeiro nível do Modelo de Sunrise da Teoria da Diversidade e Universalidade de Madeleine Leininger. **Resultados:** dentre as 21 mulheres, 4 eram do Nordeste e 17 do Sudeste. A idade variou entre 20 e 45 anos. Quanto às doenças respiratórias das crianças, 13 tinham bronquite, 2 tinham asma, 4 tiveram pneumonia, 2 tiveram bronquiolite, 2 apresentaram amigdalite, 3 tiveram rinite alérgica, 8 tiveram resfriado e 1 teve gripe. **Conclusão:** constatou-se que alguns fatores facilitam (tecnológicos, religiosos e filosóficos, além de companheirismo e vida social) e outros dificultam (econômicos e educacionais, além de valores culturais, modos de vida e ambiente domiciliar) o cuidado materno aos filhos com doença respiratória no contexto do Morro do Fubá. **Descritores:** enfermagem transcultural; etnoenfermagem; saúde da criança; doenças respiratórias.

RESUMEN

Objetivo: comprender los factores sociales, económicos y culturales de la atención materna en la enfermedad respiratoria del niño. **Método:** esta es una investigación etnográfica, basada en la etnoenfermería, con un abordaje cualitativo y el referencial de la Teoría del Cuidado Cultural de Madeleine Leininger. Fue realizada en la Estrategia de Salud de la Familia y en hogares del Morro do Fubá, en el barrio de Cascadura, Rio de Janeiro, Brasil, de agosto hasta diciembre de 2010. Las informantes clave fueron 21 madres de niños con enfermedad respiratoria aguda (ERA) y los informantes generales fueron 5 agentes comunitarios de salud. Se utilizó el formulario socio-económico-cultural y los datos fueron analizados según los factores socio-culturales de primer nivel del modelo de Sunrise de la Teoría de la Diversidad y la Universalidad de Madeleine Leininger. **Resultados:** entre las 21 mujeres, 4 eran del Nordeste y 17 del Sudeste. La edad varió entre 20 y 45 años. Con relación a las enfermedades respiratorias de los niños, 13 tenían bronquitis, 2 tenían asma, 4 tuvieron neumonía, 2 tuvieron bronquiolitis, 2 presentaron amigdalitis, 3 tuvieron rinitis alérgica, 8 tuvieron resfriado y 1 tuvo gripe. **Conclusión:** se constató que algunos factores facilitan (tecnológicos, religiosos y filosóficos, así como compañerismo y vida social) y otros dificultan (económicos y educativos, así como valores culturales, estilos de vida y ambiente del hogar) la atención materna a los niños con enfermedad respiratoria crónica en el contexto del Morro do Fubá. **Descriptores:** enfermería transcultural; etnoenfermería; salud del niño; enfermedades respiratorias.

¹Pediatric nurse at the National Institute of Women's and Children's Health Fernandes Figueira of the Oswaldo Cruz Foundation (Fiocruz). MS degree in Nursing obtained from the Graduate Program in Nursing of Universidade Federal do Estado do Rio de Janeiro (UniRio). Rio de Janeiro (RJ), Brazil. Email: mairinhadbs@gmail.com; ²Obstetric nurse. Ph.D in Nursing. Professor at the Department of Maternal-Child Nursing (DEMI) and at the Graduate Program in Nursing – MS course in Nursing and Ph.D course in Nursing and Biosciences of UniRio. Rio de Janeiro (RJ), Brazil. Email: angel.leila@gmail.com; ³Neonatology nurse. Ph.D in Nursing. Nurse at the National Institute of Women's and Children's Health Fernandes Figueira of the Oswaldo Cruz Foundation (Fiocruz). Adjunct Professor at the Department of Maternal-Child Nursing of Universidade Estadual do Rio de Janeiro (UERJ). Rio de Janeiro (RJ), Brazil. Email: drieafa@terra.com.br; ⁴Obstetric nurse. Ph.D in Nursing. Professor at DEMI and at the Graduate Program in Nursing – MS course in Nursing of UniRio. Rio de Janeiro (RJ), Brazil. Email: inesmeneses@gmail.com; ⁵Neonatology nurse. Professor at the Department of Maternal-Child and Psychiatric Nursing at the Aurora de Afonso Costa School of Nursing of Universidade Federal Fluminense (UFF). Ph.D student at the Graduate Program in Nursing – Ph.D course in Nursing and Biosciences of UniRio. Rio de Janeiro (RJ), Brazil. Email: lulurodrigues@gmail.com

INTRODUCTION

It's known that acute respiratory diseases (ARDs) comprise a wide spectrum of morbid events with different etiologies and various severities which compromise the respiratory tract. Its main clinical manifestations are cough, difficulty breathing, runny nose, sore throat, and earache.¹

In 2010, there were 1,450,653 hospitalizations due to respiratory tract diseases in Brazil, with a major impact on patients within the pediatric age group. ARDs were the leading cause of hospitalization among 664,203 children under 14 years, representing 46% of all hospitalizations in the Unified Health System (SUS) in this base year. These conditions were also the main reason for pediatric consultation in the health services.²

Because of the global magnitude of ARDs and the location of children under 5 years with these conditions, it's needed that both families and health services assign much of their time to provide assistance to these cases.

It's known that culture has an influence on human behavior. According to the nurse and anthropologist Madeleine Leininger, the nurse, in order to communicate with the client, must understand her/his world view, beliefs, values, and customs.

Thus, we felt the need to deepen knowledge on the mothers care in ARD, investigating the sociocultural context within which they are included, understanding how the factors/cultural, social, and economic knowledge influence on/regulate the care to their children. By understanding this situation, it's expected to help them to care for these children, aiming to contribute to improve these families' quality of life.

These facts led us to the following question: "How have the social, economic, and cultural factors influenced maternal care in ARD in an urban settlement in the Northern Zone of Rio de Janeiro?"

According to the Health Indicators by Programmatic Area (PA) in the city of Rio de Janeiro, between 2005 and 2008³ the largest amount of respiratory diseases is found at PA 3.3, and this fact led us to choose the setting for this study, Morro do Fuba, in the district of Cascadura.

Therefore, this study aimed to understand the social, economic, and cultural factors of maternal care in children's respiratory disease.

♦ Madeleine Leininger's Theory of

Diversity and Universality of Cultural Care

To develop an ethnonursing study it's needed to survey data related to factors of the sociocultural dimension suggested by Madeleine Leininger's Sunrise Model. Identifying these factors implies knowing the informant's culture and her social environment. The study of these peculiarities is important — especially in maternal care for children with ARD —, because environment and culture directly influence on the standards of care and on these children's health expression.^{4,5}

Madeleine Leininger has proposed the Sunrise Model, symbolized by sunrise, in order to help analyzing the meaning of care in various cultures. In the upper half of the circle, one finds the interdependent factors of the cultural and social structure which facilitate the identification of world view and influence on care and health through language and the environmental context. These factors are connected to the healthcare system, which consists of the popular, professional, and nursing care, and they are found at the lower half of the circle. The upper and lower halves form a full sun, which corresponds to the universe.

This model consists of four levels, and level I, used in this study, consists of the interdependent components of social structure and world view, that, according to Leininger, lead us to the study of meaning, nature, and attributes of care. This stage comprises language and client's environmental context, besides technological, religious, philosophical, political, economic, and educational factors, as well as kinship, social structure, values, and cultural beliefs.⁴

METHODOLOGY

Ethnographic study, based on ethnonursing, using the Theory of Diversity and Universality, with a qualitative approach.

The first contact to the study setting occurred at a Basic Health Unit (BHU) of the Family Health Strategy (FHS) of Cascadura, located at PA 3.3 of the city of Rio de Janeiro, where the selection of informant mothers was held. This PA was chosen because it presented the highest incidence of respiratory diseases in the city of Rio de Janeiro between 2005 and 2008.³

The second research setting was the households of mothers caring for their children with ARD, trying, this way, to go into the social, economic, and cultural reality of maternal care in their households, in order to

be able to describe the study object in a more truthful manner.

Biological or adoptive mothers of children aged less than 5 years, enrolled in the BHU of the FHS of PA 3.3, who signed the free and informed consent term, participated in this research. The selection of mothers and children was carried out through the families' medical records, from the micro-areas 2 and 3, which met all the criteria for participation. The age between 0 and 5 years was chosen, because this is the age group most vulnerable to ARDs.⁷

Twenty one biological mothers of children with ARD were interviewed. It's noteworthy that no adoptive mother of a child with ARD participated. In this research, data collection took five months, from August to December 2010, totaling fourteen days in the study setting. The number of informants was established after reaching the saturation point in the data collection phase.⁸

To obtain data, we used as instrument the form on socio-economic and cultural profile. It includes the seven first level factors of the Sunrise Model.

Data were analyzed according to the first level sociocultural factors of the Sunrise Model of Madeleine Leininger's Theory of Diversity and Universality, which studies the seven factors of the dimensions of the social and cultural structure: technological, religious, and philosophical factors; fellowship; social life; cultural values; lifestyles; political and legal factors; and economic and educational factors.⁴

To ensure compliance with ethical issues, the study was approved, with no restrictions, by the Research Ethics Committee of the Municipal Health Council of Rio de Janeiro, under the Protocol 37/10, as provided by the Resolution 196/96, from the Brazilian National Health Council.⁶

RESULTS AND DISCUSSION

In the paragraphs below, are present data related to the social, economic, and cultural structure, encompassing the technological, religious, and philosophical factors, fellowship, social life, cultural values, lifestyles, the economic and educational factors, and the political and legal factors. These information provide a detailed view, thus, on the socioeconomic and cultural profile of these mothers.

♦ Socioeconomic and cultural profile of mothers caring for children with ARD

Among the 21 women, 4 are from the

Northeast, being 2 from Pernambuco, 1 from Bahia, and 1 from Alagoas. Only 1 is from Minas Gerais and the other 16 mothers are from Rio de Janeiro. Their age ranged between 20 and 45 years. One may identify the presence of three different age groups in the study: 13 women aged between 20 and 29 years; 4 women aged between 30 and 39 years; and 4 women between 40 and 49 years. The age difference is of great value for this research, since, after each decade of life, it's possible to glimpse cultural changes in a society.⁹

Regarding the number of children, 5 mothers have only 1 child; 4 mothers have 2 children; 9 mothers have 3 children; 1 mother has 4 children; and 2 mothers have 7 children. Of these children, 13 had bronchitis; 2 had asthma; 4 had pneumonia; 2 had bronchiolitis; 2 presented tonsillitis; 3 had allergic rhinitis; 8 had cold; and 1 had influenza.

♦ Technological factors

To observe technology in a community of Rio de Janeiro, it's needed to know the social environment where these people live and what is considered something technological by this community.

Regarding the use of water, all have drinkable water, except 2 mothers who need to get water in the neighboring house (where the children's grandmother lives) and 1 mother who has water, but it's not drinkable.

Regarding the availability of light at home, all have it, something which confirms the report on the community by the community health agent, electricity came to Morro do Fuba in 1996, through the Favela-Bairro Program.

The Favela-Bairro Program, created in 1994 and concluded in 2000 by the Rio de Janeiro City Hall, implemented interventions in 62 communities and had as its main mission to integrate and solve problems such as sanitation, drainage, containment, and social services. To be included in the Favela-Bairro Program, the community should have from 500 to 2,500 households and present an infrastructure deficit, the possibility of urbanization, and a socioeconomic deprivation. This program turned the communities accessible to the public services and created public spaces which allowed social interaction.¹⁰

It was possible to notice that mothers and children living in the micro-area 3 have their garbage collected weekly (three times per week) by the Municipal Urban Cleaning Company (COMLURB) at defined points near their homes; in turn, those living in the micro-

area 2 need to take bagged garbage to the micro-area 3, which is at the flattest region of the community, near the main avenue of Cascadura (Ernani Cardoso Avenue).

COMLURB is the largest organization of public sanitation in Latin America. Its main aim is the urban cleaning in the city of Rio de Janeiro, and its main tasks are collecting household garbage and cleaning public areas, beaches, public parks, the street furniture, tunnels, bridges, and, especially, providing the cleaning and sanitation of municipal hospitals.¹¹

Concerning transport, no mother has a car of her own, they use the following means of transport: bus, train, and Kombi® passing through the main avenue of Cascadura, or close to it. It's noteworthy that there's a motorcycle taxi service in the community, but no mother reported to use it, because it's paid; they prefer walking up the hill to save money.

Regarding the use of nebulizer and/or vaporizer, most have nebulizer (14 mothers) and no mother has vaporizer. This technological factor was used to know a little more about the field of inquiry (maternal care in children's ARD), since the mother can use this factor to improve the care for her child.

◆ Factors religion and philosophy

The survey of religious data is of paramount importance for studies focusing on the cultural aspect, since religiousness, as well as a philosophy of life, influences on the way how people live and see the world surrounding them.⁴ It was possible to identify the existence of 3 religions among the 21 mothers living in the community of Morro do Fuba: the catholic, the spiritualist, and the evangelical. It's important to stress that 8 mothers were raised in a religion, but, nowadays, they do not profess a particular religion, and out of these 5 reported having "faith in God".

Also with regard to the religious factors, 4 are catholic, 8 are evangelical, and 1 is Kardecist spiritualist. The most interesting thing is that out of the 21 mothers, 10 have changed religion and/or the way how they express faith, this fact may be explained by the maternal need to find sources of comfort and hope, strengthening them and promoting well-being. Religiousness influences on care, because these beliefs often drive popular care in the health-disease process.⁴

◆ Factors fellowship and social life

Another factor discussed with the mothers in the community of Morro do Fuba was

fellowship and social life. The presence of a partner is always positive in the process of maternal care for children with ARD. It may be noticed that most mothers live with a partner, who, in most cases, is the child's father, however, even with the paternal presence, many mothers reported taking care of the child alone when she/he is sick.

It was possible to notice that many mothers have a longstanding relationship with the partner, as 16 said to live with someone, i.e. they have a partner, and the length of relationships ranged from 2 to 13 years.

◆ Factors cultural values and lifestyles

To analyze maternal care for the child with ARD, it's needed to take into account the cultural aspects of a community, and also survey the factors related to the values and lifestyles. One of them concerns the issue of the house where the mother and child live together, and, for this reason, it's relevant to know, in detail, the environment where the child grows up and receives maternal care. Home environment is approached in the following paragraphs.

Out of the 21 mothers, 8 reported being smokers, and, in 3 cases, the father is also a smoker, and just in 1 household the father is the only smoker. This result shows that, despite evidence that passive smoking increases the incidence of respiratory infections and the existence of legislation (Law 9,294, enacted in 1996) prohibiting smoking in some public places, the rates of children's exposure to passive smoking are high in Brasil.¹² With this, we found a high rate of children exposed to household smoking, especially maternal smoking, as observed in this study.

It's important to highlight the positive points of the households observed: most mothers have an airy house, with at least one window, and floors. However, this positive observation didn't happen in every home, as some respondents haven't floors or an airy environment, with windows. Hence, children with allergic problems can have their crises triggered by the hot and humid environment, where mites live and multiply.

Furthermore, it's known that a large number of bacteria, which cause respiratory tract infections, die in the presence of sunlight. For this reason, it's extremely needed to maintain an airy environment and exposed to the sunlight, in order to prevent the child from contracting some infectious respiratory disease.

Regarding the presence of animals¹⁸, informants said to have dog/cat, however,

only 2 allow the domestic animal to stay inside home. It's known that the presence of animal fur exacerbates the allergic reactions in the respiratory tract, and, for this reason, the atopic child must avoid direct contact to these allergens, as they have genetic predisposition to a high production of immunoglobulin E (IgE) specific to environmental allergens.¹³

Concerning where the children sleep, 15 informants reported that their children sleep in the same bed with parents. It's known that children with previous medical history of respiratory tract disease submitted to precarious home conditions, with a greater concentration of people sleeping in the same room, present, when compared to those not exposed to these factors, higher incidences of ARD.¹⁴

Regarding the number of people living in the same home environment, we identified that 7 families have ≥ 4 people living in the household, however, most of them, totaling 14 families, have ≥ 5 people living in the same house, and there's also 1 household with 9 people and another one with 12 people. It's known that household crowding and maternal smoking had a clear dose-response effect: the higher the number of household members and the greater the amount of cigarettes smoked by the mother, the greater the risk of acute lower respiratory tract disease in children.¹⁴

During the observation of home environment, it was possible to notice housing conditions which potentially can influence on the behavior of ARDs in children, being adequate to 7 families studied, however, 13 families were living in inadequate conditions with regard to space, ventilation, and lighting, and 1 child was living in an extremely poor household (shack).

♦ Economic factors

Another relevant datum found in the survey is the economic status of families established in Morro do Fuba. The income of a family has a large weight on the way how children are cared for, as it's the economic power which determines, among other things, the purchasing power of medicines for children. These aspects directly impact on the quality of life of children and their family.¹⁵

The income of the families studied is low, most of them (14 mothers) earn from 1 to 2 minimum wages. And the most interesting thing, which must be stressed, is that only 4 mothers contribute to family income through their work, while the others live with money provided by the father or a brother, or, in some cases, they receive unemployment

insurance. It's worth highlighting that 1 among the 21 mothers reported to have no source of income.

The influence of economic factors on the morbimortality in ARDs during childhood is well described in the literature¹⁴, since it's known that the socioeconomic status is related to poor conditions of the house (facilitating the accumulation of allergens), low educational level of parents (leading to incorrect care and even to the lack of child care), as well as poor access to medical care and medicines procurement.

♦ Educational factors

It was possible to obtain information on the educational level of mothers, an important datum, which is essential and influences on maternal care.⁴ Regarding the educational level of women and the reasons that made led them to quit formal studies, we identified that most of them (7 mothers) didn't complete elementary school and 3 mothers completed it. In addition, 10 mothers quit their studies in the high school, and only 1 mother completed higher education; the 1 remaining hasn't concluded it, yet.

Through the data obtained, we concluded that many mothers (9) didn't continue their studies when they got pregnant, because they failed to combine motherhood to the school. However, some mothers (7) quit their studies simply because they didn't want to study anymore. We found 2 mothers who said to have no money to study and other 2 who failed to combine the studies to work. On the other hand, we found 1 mother who prefers waiting to gain experience with the completion of high school (technical) to continue her studies.

One knows the influence of educational level in children's respiratory diseases. Several studies show that the lower level of maternal education is associated to a higher prevalence of ARD.^{14,16}

This finding further reinforces the urgent need of health education, based on the lifestyles of mothers and children with ARD, so that this primary care is offered in accordance with the particular reality of each family.

It's known that maternal education presents itself as a risk factor more influential than family income.¹⁴ This result suggests that maternal education has a role which is independent of other family socioeconomic characteristics. The higher education would provide a set of actions related to a more appropriate care of the child and the knowledge on preventive health measures

which reduce morbidity due to ARD. Moreover, there's the influence and interaction of maternal education level on other variables related to the risk of respiratory disease, such as smoking and early weaning.

♦ Political and legal factors

Regarding the community leader, she/he is chosen by the community to be the president of the neighborhood association. However, no details were provided on her/him. Moreover, in order to protect the researchers, no further information was requested in this regard.

CONCLUSION

Through the data presented, it was possible to construct the social, economic, and cultural profile of mothers of children with respiratory disease and draw the home environment where they live. We used data on the cultural and social dimensions permeated by the technological, religious, and philosophical factors, fellowship, cultural values, lifestyles, and economic and educational factors.

We could approach the social, economic, and cultural structure, permeated by technological, religious, and philosophical factors, fellowship, social life, cultural values, lifestyles, and economic and educational factors of the key informants. We had the opportunity to observe that some factors facilitate (technological, religious and philosophical ones, fellowship and social life), and others hamper (cultural values and lifestyles, home environment, economic and educational factors) the maternal care to children with ARD in the context of the community of Morro do Fuba, in the city of Rio de Janeiro.

Regarding the social and economic factors which hamper the process of caring for children with a respiratory disease, we realized something which many quantitative studies have already found: low educational level and low family income are strongly associated to children's vulnerability to ARDs.

In addition, home environment and lifestyles also have a great negative impact with regard to this care; despite numerous ways of knowing about the harmful effect of passive smoking, we still find, even in a small amount of subjects, as it is a qualitative research, many children exposed to tobacco. Besides, we also find some mothers who don't care about the exposure of children susceptible to allergic reactions, such as asthma and allergic rhinitis, to environments with dust, mites, and animal fur.

With the high rates of respiratory conditions in Brazil, it's expected that more investments occur for the promotion and prevention of ARDs in childhood and, for this, there's a need for knowing the social, economic, and cultural characteristics of mothers caring for children with such conditions. When we know this reality, it's possible to adapt to professional care, respect the community's culture, encourage primary prevention, and respect individuals, either within the public or private healthcare system.

We believe that understanding the social, economic, and cultural dimensions of maternal care for children with ARDs can help to build the best professional care.

As a result, there's a need for further studies focused on the social, economic, and cultural context where mothers caring for children with ARDs live, so that the actions and decisions of nursing care proposed by Madeleine Leininger can be drawn, such as preservation, accommodation, and/or negotiation, which are essential to the well-being of these children and their families.

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Corresponding Address

Maíra Domingues Bernardes Silva
Rua Chaves Pinheiro, 81, Ap. 702 – Cachambi
CEP: 20771-470 – Rio de Janeiro (RJ), Brazil