

Influence of socio-economic conditions and maternal knowledge in self-effectiveness for prevention of childhood diarrhea

Influência de condições socioeconômicas e conhecimentos maternos na autoeficácia para prevenção da diarreia infantil

Influencia de condiciones socioeconómicas y conocimientos maternos en la auto-eficacia para prevención de la diarrea infantil

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ABSTRACT

Objective: To verify the association among socioeconomic conditions, maternal behaviors and knowledge with their self-efficacy to prevent childhood diarrhea. **Method:** Analytical, quantitative study. Interviews were conducted with 238 mothers of children under five admitted into a hospital from January to April 2016. Were collected Sociodemographic data, maternal knowledge on prevention and management of childhood diarrhea, and application of the Maternal Self-Efficacy Scale for Childhood Diarrhea. **Results:** Association between socioeconomic and maternal self-efficacy variables: family income ($p = 0.049$), child age ($p = 0.010$), house type ($p = 0.042$), garbage destination ($p = 0.037$), sewage ($p = 0.016$) and sanitary type ($p = 0.006$). Regarding knowledge about causes of diarrhea: warmth/heat ($p = 0.021$); dentition ($p = 0.030$). Association between self-efficacy and preventive behaviors: home hygiene ($p = 0.023$); breastfeeding practice ($p = 0.028$). **Conclusion:** Socioeconomic conditions and knowledge presented by mothers can influence the level of maternal self-efficacy for the prevention of childhood diarrhea.

Keywords: Childhood diarrhea; Self-efficacy; Knowledge; Child Health; Nursing.

RESUMO

Objetivo: O objetivo do estudo foi verificar a associação entre condições socioeconômicas, condutas e conhecimentos maternos com a sua autoeficácia para prevenção de diarreia infantil. **Método:** Estudo analítico, com abordagem quantitativa, realizado em um hospital. Realizaram-se entrevistas com 238 mães de crianças menores de cinco anos internadas na unidade hospitalar, no período de janeiro a abril de 2016 abordando dados sociodemográficos, conhecimentos maternos sobre prevenção e manejo da diarreia infantil, e aplicação da Escala de Autoeficácia Materna para Prevenção da Diarreia Infantil. **Resultados:** Verificou-se associação entre as seguintes variáveis socioeconômicas e autoeficácia materna: renda familiar ($p = 0,049$), idade da criança ($p = 0,010$), tipo de casa ($p = 0,042$), destino do lixo ($p = 0,037$), tipo de esgoto ($p = 0,016$) e tipo de sanitário ($p = 0,006$). Referente aos conhecimentos sobre causas da diarreia verificou-se associação entre autoeficácia e as variáveis: quentura/calor ($p = 0,021$) e a dentição ($p = 0,030$). Houve ainda associação entre autoeficácia e as condutas preventivas: higiene do domicílio ($p = 0,023$) e prática do aleitamento materno ($p = 0,028$). **Conclusão:** Conclui-se que as condições socioeconômicas e os conhecimentos apresentados pelas mães podem influenciar o nível de autoeficácia materna para prevenção da diarreia infantil.

Palavras-chave: Diarreia infantil; Autoeficácia; Conhecimento; Saúde da Criança; Enfermagem.

RESUMEN

Objetivo: Investigar la asociación entre condiciones socioeconómicas, conductas y conocimientos maternos con su auto-eficacia para la prevención de la diarrea infantil. **Método:** Estudio analítico, cuantitativo. Participaron 238 madres de niños menores de cinco años, ingresados en una unidad hospitalaria entre enero-abril de 2016. Fueron recolectados datos socio-demográficos, conocimientos sobre prevención y tratamiento de la diarrea infantil y aplicación de la Escala de Auto-eficacia Materna para Prevención de la Diarreia Infantil. **Resultados:** Asociación entre variables socioeconómicas y auto-eficacia materna: ingresos familiares ($p = 0,049$); edad ($p = 0,010$); tipo de casa ($p = 0,042$), destinación de basuras ($p = 0,037$); tipo de alcantarillado ($p = 0,016$); tipo de sanitario ($p = 0,006$). Referente al conocimiento de las causas de la diarrea: calor ($p = 0,021$); dentición ($p = 0,030$). Asociación entre autoeficacia y medidas preventivas: higiene del hogar ($p = 0,023$); práctica de la lactancia materna ($p = 0,028$). **Conclusión:** Condiciones socioeconómicas y conocimientos proporcionados por las madres pueden influir en el nivel de auto-eficacia materna para prevenir la diarrea infantil.

Palabras clave: Diarreia infantil; Auto-eficacia; Conocimiento; Salud Infantil; Enfermería.

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INTRODUCTION

Diarrhea is one of the main aggravations that affect children in the age group from zero to five years of age. This is because children are more susceptible to this and other diseases due to the immaturity in the immune system, especially reaching those with compromised nutritional status.¹ In addition, diarrhea can be caused by several infectious agents, being influenced by determinants of biological, environmental, economic and socio-cultural orders.²

In Brazil, mortality due to diarrhea showed a decreasing trend from 2,490 to 756 in the years of 2005 and 2011, respectively.³ In addition to hospitalization, there was a downward trend in children under one year of age and a discrete ascendancy among those aged 1-4 years, showing an impact on lowering the stay of these children in the hospital and the reduction of the mean value of admittance time, regardless of age and the region of the country. The highest coefficients of mortality and a higher percentage of children under one year of age related to childhood diarrhea were recorded in the North and Northeast regions.⁴

Although the infant mortality rate has declined by more than half in the last 25 years in the world, about 16,000 children die every day from preventable causes such as diarrhea. Diarrhea and other diseases, including pneumonia, malaria, prematurity, complications in childbirth, are among the major causes and reasons of death in children under five years of age worldwide.⁵

In addition, according to data from the Primary Care Information System (*Sistema de Informação da Atenção Básica* - "SIAB"), 511,893 children under 2 years of age with diarrhea were notified nationally in the year 2015, of which 71,113 were registered in Ceará.⁶

It is emphasized that many processes of morbidity and dysfunctions are avoided when mothers dominate, accomplish and provide good hygienic habits in the family. Studies show that mothers are the main decision makers in relation to the behaviors that must be carried out in the management of childhood diarrhea, among them it is worth mentioning the demand for the help of health service professionals during the diarrhea episode before the health of the child gets worse.⁷ At this moment, it is imperative that the health professional, especially the nurse, acts to promote health, since health education has been the most prominent intervention for the prevention of preventable diseases, such as childhood diarrhea.

So that mothers have information, is not enough, nor does it guarantee that they will put into practice what has been reported in lectures, waiting room meetings or individual orientations. Hence, the importance of self-efficacy is revealed, which consists in the individual's personal confidence in the event or situation.⁸ This concept is directly related to the security that the person has when performing a certain activity, that is, to feel able to perform a task based on their knowledge and skills.⁹

Thus, for an individual to have healthy habits, it is necessary that in addition to having knowledge, she also has self-efficacy to manage to keep them as routine. Therefore, in order to be successful in maternal care for the prevention of childhood

diarrhea, it is opportune to combine maternal knowledge, skill and self-efficacy, and it is imperative for the nursing professional to know these concepts so that she can act effectively in promoting the health of this population.

In view of the above, the objective of the study was to verify the association between socioeconomic conditions, behaviors and maternal knowledge with their self-efficacy to prevent childhood diarrhea.

METHOD

A cross-sectional and analytical study with a quantitative approach characterized by the use of measurement instruments to ensure the reliability of the findings through the quantification of data, especially when there is a need to compare events.¹⁰

The study was carried out in a hospital located in the interior of the state of Ceará, considered a regional reference in the area of maternal and child health and obstetrics, besides attending medical clinic, with 69 beds in total, being 19 pediatric beds.

The selection of the mothers in this study was by convenience, according to the demand for hospital admissions, making a sample of 238 mothers who had their children hospitalized for any pathology in the referred hospital from January to April 2016. It was adopted as an inclusion criteria that mothers should have at least one child under the age of five. The exclusion criteria adopted were: mothers with restrictions that made it impossible to understand the instruments; mothers whose children were in an unstable health condition or in the hospital emergency because they were situations that could possibly cause them emotional upheaval.

The data collection was performed in the first four months of 2016, the mothers were invited to participate in the research at the time they were with their children hospitalized. Performing semi-structured interviews in a reserved place, presenting the Term of Free and Informed Consent, respecting the ethical principles involving researches with human beings. The instruments used to collect data were: a form that addressed the data of identification of the mother/family regarding the social, economic and demographic profile, involving aspects related to age, marital status, schooling, occupation, family income, type of water supply, sewage collection, garbage, occurrence of diarrhea in children, as well as research questions about maternal knowledge on prevention and management of childhood diarrhea; and a second instrument that consisted of the Maternal Self-efficacy Scale for Prevention of Childhood Diarrhea ("MSESPCD"), which was constructed and validated by Joventino et al. (2013a) with Cronbach's alpha of 0.84 and Intraclass Correlation Coefficient (ICC) of 0.45, demonstrating its validity and reliability to evaluate the said construct.

The MSESPCD is a Likert scale consisting of 24 items distributed in 2 domains (family hygiene with 15 items, food/general practices with 9 items), whose standard of response ranges from 1 (totally disagree) to 5 (totally agree). Each mother, in responding to MSESPCD, could choose only one of the five options referred to. Thus, the total scores of the scale can vary

from 24 to 120 points in the sum of the responses of the items, and the lower the sum of the scores, the lower the maternal self-efficacy to prevent childhood diarrhea.¹¹

The collected data were organized and analyzed by means of the Statistical Package for the Social Sciences - SPSS (version 20.0) program, comparative statistical analysis using Pearson's Chi-square tests, linear association by linear and likelihood ratio, establishing a level of significance of less than 5%. It was opted to use the median as a parameter of division between the results from the Kolmogorov-Smirnov test. Thus, dependent variables were organized in the results as follows: sum of MSESPPD scores below the median (< 113); or sum of the MSESPPD scores equal to or greater than the median (≥ 114).

The study respected the ethical principles of research involving human beings according to Resolution No. 466/12 established by the National Health Council and obtained approval from the Research Ethics Committee of the Universidade da Integração Internacional da Lusofonia Afro-Brasileira through the Brazilian platform, under opinion 1,378,638.

RESULTS

The predominant age group among the interviewed mothers was 18 to 29 years ($n = 146$, 61.3%), the majority of mothers had between 9 and 12 years of study ($n = 132$, 55.5%) and lived with a partner ($N = 168$; 70.6); the main occupation identified was being a housewife ($n = 98$, 41.2%). Table 1 shows the association between the socioeconomic factors of the mothers interviewed with the levels of maternal self-efficacy for the prevention of diarrhea presented. It was observed that, in relation to socioeconomic factors, there was a statistically significant association between family income ($p = 0.049$), child's age ($p = 0.010$) and maternal self-efficacy scores to prevent childhood diarrhea.

It can be verified that there are statistically significant associations between sanitary conditions and maternal self-efficacy level for the prevention of childhood diarrhea in relation to the following variables: house type ($p = 0.042$), waste destination ($p = 0.037$), type of sewage ($p = 0.016$) and sanitary type ($p = 0.006$).

Table 2 presents the relationship between maternal care, children's health conditions and levels of self-efficacy, being that the hygiene of the bottle ($p = 0.037$) and scald of utensils ($p = 0.017$) had a statistically significant relationship with the levels of self-efficacy.

Regarding children's health conditions, the occurrence of hospitalization in the first month of life ($p = 0.028$) also showed an association with maternal self-efficacy for the prevention of diarrhea.

The association between maternal knowledge and beliefs with their self-efficacy levels to prevent diarrhea is represented by Table 3. The beliefs about the risks and causes of diarrhea that showed a significant relation with the levels of self-efficacy were heat/warm ($p = 0.021$) and the dentition ($p = 0.030$).

Concerning the mothers' knowledge on diarrheal preventive behaviors which had relation to self-efficacy levels were home hygiene ($p = 0.023$) and breastfeeding ($p = 0.028$).

DISCUSSION

Socioeconomic conditions are cited in the literature as a preventive or risk factor for the occurrence of diarrhea and other diseases. The same happens with self-efficacy, since it is believed that the conditions of life of an individual influence their self-efficacy, considering that this is a powerful predictor for health promoting behaviors.¹²

Some variables of the present study related to maternal age, schooling, marital status, and occupation had no significant association with maternal self-efficacy to prevent diarrhea in the sample investigated. On the other hand, a study carried out in Fortaleza, Brazil, with 90 mothers of children under 5 years of age, found a significant level of self-efficacy with these same variables. However, such study resembles this one insofar as family income was determinant for self-efficacy.¹³

Thus, in relation to family income, it was observed that the lower the family income, the lower was also the sum of the mothers in the Self-efficacy Scale for Prevention of Childhood Diarrhea, being lower or equal to the median of the self-efficacy scores. Another variable that had an association with self-efficacy for the prevention of diarrhea was the age of the child who presented as inversely proportional to self-efficacy, so that the lower the age of the child, the higher the level of maternal self-efficacy to prevent childhood diarrhea.

Thus, family income is perceived as a relevant social determinant of health and that this affects the health status of individuals. Corroborating with these findings, a study in rural Tanzania, Africa, showed that children from wealthier households were less likely to receive home care compared to children living with poorer families. Regarding their age, children younger than 1 year of age were more likely to become ill with fever, diarrhea and acute respiratory infection, compared to children between 2 and 5 years of age, which contrasts the findings of the present study. Similarly, older children (aged 2 to 5 years) with diarrhea were more likely to receive home care rather than care in health facilities compared to young children (< 1 year of age).¹⁴

A study carried out in a Chinese city investigated the association between income, depression, self-efficacy and health variables and the tensions associated with the population, and it was verified that poverty is the main cause of tensions, since it exerts mediating effects of depression, low self-efficacy and health status.¹⁵

This study found association between house type, waste destination, type of sewage and type of toilet, and the median of maternal self-efficacy scores for the prevention of childhood diarrhea. Thus, the house being made of bricks is a positive factor for maternal self-efficacy, a fact that can be justified in the extent that houses that are not made of bricks, especially

Table 1. Association between family socioeconomics factors and levels of maternal self-efficacy for the prevention of childhood diarrhea. Ceará, 2016.

Variables	Scores of maternal self-efficacy				p
	Below median (≤ 113)		Equal to or greater than median (≥ 114)		
	N	%	N	%	
Age Group of the Mother (N = 238)					
≤ 19 years	32	13.4	28	11.7	0.563 ^a
20-34 years	74	31.1	80	33.6	
≥ 35 years	14	5.9	10	4.2	
Mother's years of study (N = 238)					
≤ 4	04	36.4	07	63.6	0.497 ^b
5-8	27	55.1	22	44.9	
9-12	69	52.3	63	47.7	
≥ 13	20	43.5	26	56.5	
Marital Status of the Mother (N = 238)					
Without partner	37	54.4	31	45.6	0.486 ^a
With partner	83	49.4	85	50.6	
Occupation (N = 238)					
Housewife	54	55.1	44	44.9	0.203 ^b
Farmer	43	51.8	40	48.2	
Others	19	39.6	29	60.4	
No. of people in the house (N = 238)					
2-3	34	47.2	38	52.8	0.389 ^c
4-5	51	50.0	51	50.0	
≥ 6	35	54.7	29	45.3	
Family income (MW)* (N = 238)					
0 – $\frac{1}{4}$	24	51.1	23	48.9	0.049^a
$\frac{1}{4}$ MW – $\frac{1}{2}$	23	50.0	23	50.0	
$\frac{1}{2}$ MW – 1	35	40.7	51	59.3	
≥ 1	38	64.4	21	35.6	
Number of children (N = 238)					
1	53	46.5	61	53.5	0.072 ^b
2	32	47.3	35	52.2	
≥ 3	34	60.7	22	39.3	
Age of the child (N = 238)					
≤ 11 months	70	44.6	87	55.4	0.010^b
12 - 35 months	25	58.1	18	41.9	
≥ 36 months	25	65.8	13	34.3	
House type (N = 238)					
Brick with plaster	102	48.1	110	51.9	0.042^a
Others	18	69.2	08	30.8	

Continued Table 1.

Variables	Scores of maternal self-efficacy				<i>p</i>
	Below median (≤ 113)		Equal to or greater than median (≥ 114)		
	N	%	N	%	
Floor type (N = 238)					
Ceramics	44	48.4	47	51.6	0.616 ^a
Others	76	51.7	71	48.3	
Waste destination (N = 238)					
Public collection	79	46.2	92	53.8	0.037^a
Others	41	61.2	26	38.8	
Sewage type (N = 238)					
Sewer public line	12	35.1	22	64.7	0.016 ^b
Septic tank	93	50.8	90	49.2	
Others	15	71.4	06	28.6	
Type of toilet (N = 233)					
With flush	68	43.9	87	56.1	0.006^a
No flush	49	62.8	29	37.2	
Water supply (N = 238)					
Public line	88	49.4	90	50.6	0.602 ^a
Others	32	53.3	28	46.7	

* Minimum wage prevailing during the study: R\$ 880; ^a Qui-Square of Pearson; ^b Linear association by linear; ^c Test of likelihood ratio.

without masonry finishes, represent a risk factor for occurrence of childhood diarrhea, since it is not possible to perform adequate and complete hygiene in the same,¹⁶ and may, as demonstrated, compromise maternal self-efficacy to prevent diarrhea in their child.

It is emphasized that socioeconomic factors were related to mothers' confidence to prevent diarrhea, since self-efficacy is based on the belief that goals are achieved through own resources, since such resources are limited, the chance of success is diminished and it still negatively influences health care, knowing that self-efficacy may depend on personal experiences and environmental elements.⁸

Regarding maternal behaviors, there was a statistically significant association in bottle hygiene with soap and water, and the practice of scalding utensils with maternal self-efficacy, demonstrating that mothers feel more confident about preventing diarrhea in their child. Hygiene practices are generally considered a protective factor for diarrhea.¹⁷ Although it is a preventive measure for diarrheal diseases, the process of scalding utensils should be used when the product is suitable for such action. Studies have shown that there is an increase in the migration of Bisphenol A, through thermal processes of heating the food directly in the polycarbonate plastic container. This substance, used in packaging, was prohibited in Brazil in the manufacture of bottles to reduce exposure to infants, since

it interferes with endocrine function, has hepatotoxic, mutagenic and carcinogenic effects.¹⁸

It was observed that the level of maternal self-efficacy for the prevention of diarrhea was high when the child was not hospitalized in the first month of life. This finding is similar to that found in a study that presented a statistically significant relationship with maternal self-efficacy to prevent diarrhea, with the highest self-efficacy of the mother among families whose children never had any diarrheal episodes, no pathology, as well as in those children who were not hospitalized in the first month of life.¹⁹ Thus, maternal self-efficacy to prevent childhood diarrhea was related to health behaviors among children, with the conclusion that these mothers feel more confident to take care of their children properly.

From the maternal conducts with the feeding of the child during the diarrheal episode, none of the variables had a significant relationship with maternal self-efficacy for the prevention of diarrhea. It is known and diffused in the literature that the recommendations for diarrhea management and prevention of dehydration are to increase fluid intake during episodes of diarrhea, including oral rehydration solution (ORS) and maintenance of adequate diet for age.²⁰

With relation to knowledge and beliefs about the risks and causes of diarrhea, the variables of heat/warm and dentition presented a significant relation with self-efficacy. These two

Table 2. Association between maternal care, children's health conditions and levels of maternal self-efficacy to prevent childhood diarrhea. Ceará, 2016.

Variables	Scores of maternal self-efficacy				p
	Below median (≤ 113)		Equal to or greater than median (≥ 114)		
	N	%	N	%	
Treated water (N = 238)					
Yes	24	51.1	23	48.9	0.202 ^a
No	38	63.3	22	36.7	
Type of treatment (N = 238)					
Boil	01	25.0	03	75.0	0.471 ^a
Filters	08	38.1	13	61.9	0.653 ^a
Hypochlorite	06	60.0	04	40.0	0.244 ^a
Leaching	10	58.8	07	41.2	0.144 ^a
Exclusive breastfeeding (N = 238)					
Yes	119	50.4	117	49.6	0.990 ^a
No	01	50.0	01	50.0	
Time of breastfeeding (N = 238)					
≤ 4 months	94	50.3	93	49.7	0.806 ^a
5 months	03	42.9	04	57.1	
6 months	15	48.4	16	51.6	
> 6 months	07	63.6	04	36.4	
Use of the bottle (N = 231)					
Yes	27	48.2	29	51.8	0.787 ^a
No	88	50.3	87	49.7	
Bottle hygiene (N = 58)					
With water	01	33.3	02	66.7	0.595 ^a
Water and soap	23	57.5	17	42.5	0.037^a
Sterilizing the tip of the bottle	16	47.1	18	52.9	0.825 ^a
Sterilizing the tip and bottle	16	40.0	24	60.0	0.058 ^b
Hand washing (N = 238)					
Running water and soap	96	47.5	106	52.5	0.057 ^a
Standing water and soap	21	65.6	11	34.4	
Sterilizing utensils (N = 238)					
Yes	93	46.5	107	53.5	0.019^a
No	22	68.8	10	31.2	
Acute or chronic diarrhea (N = 238)					
≤ 13	39	53.4	34	46.6	0.360 ^a
≥ 14	05	71.4	02	28.6	
Admission in the first month of life (N = 238)					
Yes	19	70.4	08	29.6	0.028^a
No	101	47.9	110	52.1	

^a Qui-Square of Pearson; ^b Linear association by linear.

Table 3. Association between maternal knowledge and behaviors and levels of maternal self-efficacy to prevent childhood diarrhea. Ceará, 2016.

Variables	Scores of maternal self-efficacy				p
	Below median (≤ 113)		Equal to or greater than median (≥ 114)		
	N	%	N	%	
Maternal conduct regarding feeding during diarrhea (N = 238)					
Suspend normal feeding	36	51.4	34	48.6	0.290 ^a
Offers the same feeding	08	72.7	03	27.3	
Improves nutrition and hydration	76	48.4	81	51.6	
Beliefs of risks/causes of diarrhea (N = 238)					
Undercooked food	108	49.3	111	50.7	0.247 ^a
Contaminated water	119	50.6	116	49.4	0.551 ^a
Fatty food	113	49.3	116	50.7	0.094 ^a
Heat/Warm	82	46.1	96	53.9	0.021^a
Dentition	109	48.7	115	51.3	0.030^a
Hands/Objects in the mouth	108	49.8	109	50.2	0.519 ^a
Early weaning	70	47.9	76	52.1	0.336 ^a
Scare <i>orevil eye</i>	96	50.5	94	49.5	0.948 ^a
Flu	108	49.1	112	50.9	0.152 ^a
Medicines	84	49.4	86	50.6	0.623 ^a
Verminosis	107	49.1	111	50.9	0.173 ^a
Contaminated food	113	49.8	114	50.2	0.369 ^a
Previous information on diarrhea prevention (N = 238)					
Yes	14	38.9	22	61.1	0.133 ^a
No	106	52.5	96	47.5	
Mother's knowledge of actions for the prevention of diarrhea (N = 238)					
Handwashing	19	40.4	28	59.6	0.126 ^a
Dirty hands/objects in the mouth	12	50.0	12	50.0	0.965 ^a
Boil the water	03	37.5	05	62.5	0.457 ^a
Hygiene of utensils	26	44.8	32	55.2	0.327 ^a
Hygiene of the house	11	32.4	23	67.6	0.023^a
Food hygiene	30	42.3	41	57.7	0.100 ^a
Not walking barefoot	10	62.5	06	37.5	0.317 ^a
Offer quality food	35	53.0	31	47.0	0.618 ^a
Not offering fatty food	12	63.2	07	36.8	0.247 ^a
Cover the food	10	71.4	04	28.6	0.105 ^a
Not offering contaminated water	06	50.0	06	50.0	0.976 ^a
Cooking food well	08	50.0	08	50.0	0.972 ^a
Offer filtered water	02	40.0	03	60.0	0.638 ^a
Offer breastfeeding	05	26.3	14	73.7	0.028^a
Not offering food leftovers	02	50.0	02	50.0	0.986 ^a
Hydrating the children	02	28.6	05	71.4	0.241 ^a
Sanitizing the bottle	02	50.0	02	50.0	0.986 ^a

^a Qui-Square of Pearson.

variables are considered to be of risk for diarrhea, although high levels of self-efficacy have been observed to prevent diarrhea. Although heat has an additional effect on childhood diarrhea, and this effect increases with the intensity and duration of heat waves,²¹ there is no evidence that the primary dental eruption has an association with diarrhea, however, children with low birth weight have had more manifestations related to dentition, and were 2.9 times more likely to develop diarrhea compared to children born with adequate weight.²²

Maternal knowledge and beliefs are important predictors for the prevention of childhood diarrhea, since they increase mothers' confidence in promoting care that reduces their incidence.²³

The preventive practices pointed out by the interviewed mothers who had a relation with self-efficacy were the breastfeeding and the hygiene of the home, being considered an important finding. As already mentioned, both hygiene practices and breastfeeding are variables referred to in the literature as ways of preventing diarrhea.^{24,25} This finding suggests that knowledge of effective practices against diarrhea may raise mothers' self-efficacy scores, that is, their personal confidence to prevent such an injury to their children. However, it was noticed that the number of mothers who mentioned these behaviors as effective in combating this condition was small, reaffirming the lack of knowledge about preventive practices of diarrhea.

As limitations of the present study, the univariate analysis and the convenience sampling are pointed out, due to the absence of calculation of sample size.

CONCLUSION

It was possible to observe with the present study that socioeconomic and environmental conditions had a significant association with maternal self-efficacy levels for the prevention of childhood diarrhea. The family income, age of the child, type of house of brick with plaster, waste destination, type of sewage and type of toilet are variables that are involved with the occurrence of episodes of diarrhea when these are precarious, in the same way occurred with self-efficacy.

It is necessary to interfere in the socioeconomic and sanitary conditions as environmental measures to prevent diarrhea, as well as the implementation of strategies that act on the self-efficacy of mothers to have success in preventing diarrhea in their children.

Regarding maternal behaviors and practices, the variables of bottle hygiene with soap water and scalding utensils presented as positive factors for maternal self-efficacy. Likewise, knowledge about the risks and causes of diarrhea, such as heat and dentition, as well as the preventive practices of diarrhea such as home hygiene and breastfeeding provision were significant for high levels of self-efficacy.

The combination of knowledge on the management and prevention of diarrhea are strong allies for high rates of maternal self-efficacy for the prevention of diarrhea, since a mother with knowledge and self-efficacy is more likely to practice daily

care with her child for the prevention of diarrhea. There is also a need for frequent interventions with the mothers of children under five years of age, since both self-efficacy and knowledge are variables modifiable through strategies directed to this end.

Health professionals, especially nurses, should work through health education practices to disseminate knowledge about the management and prevention of childhood diarrhea, as well as encourage mothers to carry out such knowledge in their daily lives.

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