



Epidemiological clinical profile of hospitalized children: a cutting out of the pandemic and non-pandemic period

Perfil clínico-epidemiológico de crianças hospitalizadas: um recorte do período pandêmico e não pandêmico

Perfil clínico epidemiológico del niño hospitalizado: una salida del período pandémico y no pandémico

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ABSTRACT

Objective: Analyzing the epidemiological clinical profile of children and adolescents hospitalized in the medical clinic of a pediatric hospital in a non-pandemic and pandemic period by COVID-19. **Method:** This is a comparative study of quantitative nature with cross-sectional design. Data collection was performed in 219 medical records of the Medical Archives and Statistics Service of a pediatric complex in the municipality of João Pessoa-PB. For data analysis, descriptive statistics and statistical tests were used to compare the groups. **Results:** The profile of hospitalized children and adolescents was predominantly male and infant for the non-pandemic and pandemic period, equally. The mother was the main caregiver and companion of the child. The variables, nature of the social benefit, diagnosis according to medical specialty and length of stay showed a statistically significant difference between the non-pandemic and pandemic periods by COVID-19. **Conclusion:** The data found indicate that there were no significant changes in the sociodemographic profile of hospitalized children. The pandemic due to COVID-19 resulted in greater change in the clinical profile of hospitalizations. **Implications for the practice:** Knowing the profile of children and adolescents in the hospitalization process in a pandemic period for COVID-19 can help in the development of care flows and strategies that can meet the real demands properly.

Keywords: Hospitalization; Coronavirus Infections; Pandemics; Pediatrics; Health Profile.

RESUMO

Objetivo: Analisar o perfil clínico-epidemiológico de crianças e adolescentes hospitalizadas na clínica médica de um hospital pediátrico, referente aos períodos não pandêmico e pandêmico por COVID-19. **Método:** Trata-se de estudo comparativo de natureza quantitativa, com delineamento transversal. A coleta de dados foi realizada em 219 prontuários do Serviço de Arquivo Médico e Estatística de um complexo pediátrico, no município de João Pessoa-PB. Quanto à análise dos dados, utilizou-se a estatística descritiva e testes estatísticos para comparar os grupos. **Resultados:** O perfil das crianças e dos adolescentes hospitalizados teve predominância do sexo masculino, e de lactentes para o período não pandêmico e pandêmico, igualmente. A mãe foi a principal responsável e acompanhante da criança. As variáveis, natureza do benefício social, diagnóstico segundo especialidade médica e tempo de internação apresentaram diferenças estatísticas significativas entre os períodos não pandêmico e pandêmico por COVID-19. **Conclusão:** Os dados encontrados apontam que não ocorreram mudanças expressivas no perfil sociodemográfico de crianças internadas. A pandemia por COVID-19 resultou em maior mudança no perfil clínico das internações. **Implicações para a prática:** Conhecer o perfil das crianças e adolescentes em processo de hospitalização, em um período pandêmico por COVID-19, auxiliará na elaboração de fluxos assistenciais e estratégias que atendam às reais demandas com propriedade.

Palavras-Chave: Hospitalização; Infecções por Coronavirus; Pandemias; Pediatria; Perfil de saúde.

RESUMEN

Objetivo: Analizar el perfil clínico epidemiológico de niños y adolescentes hospitalizados en la clínica médica de un hospital pediátrico en un período no pandémico y pandémico por COVID-19. **Método:** Se trata de un estudio comparativo de naturaleza cuantitativa, con delineamento transversal. La colecta de datos fue realizada a través de 219 historias clínicas del Servicio de Archivo Médico y Estadística de un complejo pediátrico en el municipio de João Pessoa-PB. Para análisis de los datos, se utilizó la estadística descriptiva y *tests* estadísticos para comparar los grupos. **Resultados:** El perfil de los niños y de los adolescentes hospitalizados tuvo predominancia, de igual forma, del sexo masculino y de lactantes para el período no pandémico y pandémico. La madre fue la principal responsable y acompañante del niño. Las variables, naturaleza del beneficio social, diagnóstico según especialidad médica y tiempo de internación, presentaron diferencia estadística significativa entre el período no pandémico y pandémico por COVID-19. **Conclusión:** Los datos encontrados apuntan que no ocurrieron cambios significativos en el perfil sociodemográfico de niños internados. La pandemia por COVID-19 resultó en un mayor cambio en el perfil clínico de las internaciones. **Implicaciones para la práctica:** conocer el perfil de los niños y adolescentes en proceso de hospitalización en un período pandémico por COVID-19 podrá ayudar en la elaboración de flujos asistenciales y estrategias que puedan atender las reales demandas con propiedad.

Palabras clave: Hospitalización; Infecciones por Coronavirus; Pandemias; Pediatria; Perfil de Salud.

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INTRODUCTION

According to the International Health Regulations, the World Health Organization (WHO), considering the outbreak of COVID-19, a disease caused by SARS-CoV-2, declared on January 30, 2020, a state of public health emergency of international importance, a condition classified in March of the same year as a pandemic¹.

Society had to adapt to the requirements presented by national and international health organizations and some populations, such as children and adolescents, have experienced the impacts of the pandemic in a unique way². With the changes, the dynamics of life follow its course and children continue to be hospitalized for several other causes that are not COVID-19².

Worldwide, respiratory diseases represent one of the main reasons for hospitalization of children, highlighting pneumonia as the most frequent³. However, it is worth mentioning that the causes of hospitalization have unequal distribution among the regions of Brazil, since respiratory diseases have a higher rate of hospitalization in the South, Southeast and Midwest regions, explained by climate issues. In turn, infectious and parasitic diseases predominate in the North and Northeast regions because they are related to socioeconomic inequities³.

A study conducted during the pandemic period showed an average reduction of 38 pediatric hospitalizations due to respiratory causes during the period of social isolation, since measures that avoid the agglomeration of people associated with the use of masks and hand hygiene demonstrated a direct relationship with the reduction of respiratory diseases that lead to the need for pediatric hospitalizations⁴.

The updating of clinical and epidemiological data of hospitalized children and adolescents offer new and important information that contributes to the planning and composition of actions to adapt to the new reality, in addition to supporting teams in hospital institutions.

The wealth of information and the applicability of epidemiological studies make it possible to investigate the prevalence and incidence of diseases, providing a database that indicates the general patterns of causes, behavior of diseases and their risk factors, as well as punctuating the real demands of problems by detailed description, making it possible to create mechanisms to prevent, reduce or even eliminate exposure to these factors more effectively, intervening incisively in the elaboration of public health policies⁵.

Moreover, due to the need to delineate this clinical and epidemiological profile and in view of the concern with this emerging situation, several questions were raised, evidencing the problem, such as: "What epidemiological clinical profile of pediatric patients hospitalized during the pandemic and non-pandemic period?", "What is the length of hospitalization and clinical outcomes of these patients?". It is essential to compare, retrospectively, the data between the two moments mentioned, because they allow extracting important information, serving as a basis for organization in the planning and execution of management measures, as well as establishing appropriate care proposals and directed to the specific demands of the infant-juvenile population, to contribute

to the qualification of the comprehensive care network provided to the health of children and adolescents.

In view of the above, this investigation aims to analyze the epidemiological clinical profile of patients admitted to the medical clinic of a pediatric hospital in a non-pandemic and pandemic period by COVID-19.

METHOD

Comparative study, of quantitative nature, with cross-sectional design. Developed with 219 medical records of the Medical and Statistical Archive Service of a pediatric complex in the municipality of João Pessoa-PB. This hospital is a reference in medium and high complexity care, which offers several outpatient and hospital services to children and adolescents in the State of Paraíba.

Within the health network of the State of Paraíba, the service is not a reference in the care of pediatric patients with COVID-19, but in view of the context experienced by the pandemic, it has undergone a restructuring in its care flow as a measure of covid-19 transmission containment in the hospital space and adaptation to the new emerging demands of the health system.

In view of the pandemic period and considering the peak number of cases, in the state scenario, in The Month of May 2020 and changes in care flows, a cutout of patients seen in May, June and July was performed, and compared them to the same period of 2019. Based on the number of patients assisted in the months, the sample size calculation was performed using the Stratified Random Sampling (SRS) technique with proportional allocation for proportion⁶.

Considering that 30% of the beds of the service correspond to the medical clinic sector, it was estimated that of the total number of hospitalizations available in the DataSUS system, 30% would correspond to hospitalizations in that sector. Based on the data collected by the Unified Health System (SUS) system, a sample of 121 medical records was obtained in 2019 and 98 in 2020, totaling 219 medical records investigated, considering a confidence level of 95% and a margin of error of 6%. This margin of error was used to obtain a sample size capable of being reached by the research time proposed by the present study.

Hospitalizations were stratified per month with proportional distribution and the sample calculation was performed according to the corresponding year, to consider its peculiarities. Thus, 40 medical records were selected in May/2019, 38 in June/2019, 43 in July/2019, 30 in May/2020, 32 in June/2020 and 36 in July/2020.

The study included medical records of patients admitted to the medical clinic, referring to hospitalizations in May, June and July 2019 and 2020. The medical records of patients with unreadable sociodemographic and clinical information that make it difficult to complete the collection instrument were excluded.

The instrument for data collection was developed by the authors and has five categories, namely: identification data of the child/adolescent; identification data of the primary caregiver (responsible), socio-sanitary and economic data; health history data; and data on the hospitalization of the child/adolescent.

Data were collected in October and November 2020. For its realization, the researchers had in hand the list of all patients treated at the medical clinic in these periods. Then, in each month (stratum) a raffle was held to select the medical records that would be part of the study.

After collection, the data were grouped into a database using the Microsoft Office Excel spreadsheet, then analyzed using the program Statistical Package for Social Sciences (SPSS), version 20.0. Descriptive and inferential statistics were used for data analysis. Descriptive statistics were used to establish the simple frequencies and percentages of the epidemiological clinical profile of patients. Pearson's Chi-Square Test, Fisher's Exact Test and Mann Whitney tests were used to compare the groups and verify whether there was a statistically significant difference between 2019 and 2020, considering a significance of 5%.

The present study complied with the Guidelines and Standards of Research involving human beings, provided for in Resolution N 466/12 of the National Health Council, under Opinion 4,312,946 and CAAE 38480720.3.0000.5186.

RESULTS

The research sample consisted of a total of 219 medical records. As can be seen in Table 1, in 2019, the profile of the children and adolescents in the study consisted of most males (54.5%) and in the age group from 29 days to 2 years old (48.8%). In 2020, there was also a predominance of males (54.1%), and the age group from 29 days to 2 years old (45.9%).

As shown in Table 2, 98.3% and 96.9% of the companions of hospitalized children and adolescents were the mothers, respectively. These, in both years, were between 20 and 30 years old, did not work, were literate and married or with a stable union. However, in 2019, most of them had completed high school (35.5%). In turn, in 2020, there was a predominance of mothers with incomplete elementary school as a higher level of education (39.1%). However, this difference was not statistically significant (p -value=0.813).

Regarding the socio-sanitary profile, as observed in Table 3, both in 2019 and in 2020, there was a predominance of children/adolescents living in their own homes, masonry and with 2 to 4 residents. The homes had piped water, a clean sewage network, electrical installation and garbage was collected. Most of the family income was a minimum wage and families claimed to receive social benefit.

Although the main benefit, in both years, is linked to the Family Grant Program, it was observed that there was an increase in families who claimed to use the benefit of continued provision, and this increase from 4.9% in 2019 to 17.6% in 2020, a statistically significant difference (p -value= 0.013).

Among the main medical specialties that assist the children and adolescents of this study, Table 4 shows that, in 2019, there was a predominance of pulmonology (41.3%), Infectology (12.4%) nephrology (12.4%). Among these specialties stand out the following diagnoses: Pneumonia, Classic Dengue and Urinary Tract Infection.

Table 1. Characterization of children and adolescents hospitalized in the medical clinic in May, June and July 2019/2020. João Pessoa/PB, 2020

Demographic variables	Year				p-Value	
	2019 (n=121)		2020 (n=98)			
	n	%	n	%		
Gender	Male	66	54.5	53	54.1	0.945*
	Female	55	45.5	45	45.9	
Age	Up to 28 days old	4	3.3	2	2.0	0.589**
	29 days -- 2 years old	59	48.8	45	45.9	
	2 years -- 6 years old	24	19.8	21	21.4	
	6 years -- 12 years old	21	17.4	21	21.4	
Attends School?	Yes	41	33.9	35	35.7	0.777*
	No	80	66.1	63	64.3	
Schooling	Preschool/ literacy	14	34.1	12	34.3	0.973**
	Elementary School I	19	46.3	17	48.6	
	Elementary School II	7	17.1	3	8.6	
	Middle School	1	2.4	3	8.6	

* Chi-square test; ** Mann Whitney test. Significance level of 0.05. Source: Search Data.

Table 2. Characterization of the companions of children and adolescents hospitalized in the medical clinic in May, June and July 2019/2020. João Pessoa/PB, 2020

Demographic variables	Year				p-Value	
	2019 (n=121)		2020 (n=98)			
	n	%	n	%		
Escort Hospital	Mother	119	98.3	95	96.9	0.401***
	Other	2	1.7	3	3.1	
Age	Up to 20 years old	18	14.9	15	15.3	0.508**
	20 years -- 30 years old	58	47.9	50	51.0	
	30 years -- 40 years old	34	28.1	29	29.6	
	Over 40 years old	11	9.1	4	4.1	
Marital Status ****	Married/Stable Union	71	60.7	52	54.2	0.338*
	Other	46	39.3	44	45.8	
Employment situation	Works	44	36.4	29	29.6	0.290*
	Doesn't work	77	63.6	69	70.4	
Literate? ****	Yes	112	95.7	93	97.9	0.317***
	No	5	4.3	2	2.1	
Schooling ****	Elementary School Incomplete	38	34.5	34	39.1	0.813**
	Elementary School Complete	17	15.5	3	3.4	
	Middle School Incomplete	12	10.9	15	17.2	
	Middle School Full	39	35.5	28	32.2	
	Higher Education Incomplete	0	0	2	2.3	
	Higher Education Full	4	3.6	5	5.7	

* Chi-square test; ** Mann Whitney test; *** Fisher's Exact Test. Significance level of 0.05. The analyses and tests for the variables "civil situation", "literate" and "educational level" were made considering a sample of 117, 117, 110, respectively, for 2019; and 96, 95, 87, respectively, for 2020, due to the absence of. Source: Search Data.

In 2020, the main medical specialties were: Nephrology (32.7%), Dermatology (20.4%) and Gastroenterology (16.3%), among which stand out the following diagnoses, respectively: Urinary Tract Infection, Cellulitis and Diarrhea. This difference in diagnoses according to medical specialty between years was statistically significant (p-value= 0.000), a fact that evidences the difference in the care provided in the non-pandemic and pandemic period.

As shown in Table 5, in both years, it was found that, in most years, the children had a hospital stay between 4 and 7 days, but it is worth noting that there was a 19% increase in hospitalizations of up to 3 days and a reduction of 10.2% in hospitalizations from 8 to 15 days, and this difference was observed statistically significant (p=Value 0.006). Thus, it can be inferred that the hospitalization time of 2020 in relation to 2019 had a significant reduction and

this fact may be associated with a reduction in the number of hospitalizations due to conditions related to pulmonology.

DISCUSSION

The present study pointed to the higher number of male children in hospital admissions in 2019 and 2020. The fact evidenced is in line with that of the study conducted in a municipal children's hospital located in Juazeiro do Norte, Ceará. In which 55.1% of the registered visits were male⁷. And it does not differ from international studies that show the predominance of males in the profile of pediatric hospitalizations^{8,9}.

It is not clear in the literature how the sex of the child influences child hospitalization, but authors point out that this fact may be associated with social representations, since girls are seen by society as fragile and trigger more family care, and

Table 3. Socio-sanitary characteristics of children and adolescents hospitalized in the medical clinic in May, June and July 2019/2020. João Pessoa/PB, 2020. – Brazil – 2020

Socio-sanitary variables	Year				p-Value	
	2019 (n=121)		2020 (n=98)			
	n	%	n	%		
Housing Situation	Own	77	63.6	61	62.2	0.557*
	Rented	33	27.3	30	30.6	
	Given	11	9.1	6	6.1	
	Shared	0	0	1	1	
External coating	Masonry/brick	120	99.2	98	100	0.553***
	Pug	1	0.8	0	0	
Number of residents in the house ****	2 -- 4 Residents	65	56	48	49.0	0.743**
	5 -- 8 Residents	48	41.4	34	34.7	
	Over 9 residents	3	2.6	1	1.0	
Water supply	Piped network	113	93.4	93	94.9	0.638*
	Other	8	6.6	5	5.1	
Destination of Garbage	Collected	111	91.7	88	89.8	0.620*
	Burned/ Played in the open	10	8.3	10	9.2	
Sanitary Installation	Sewage Collection Network – Sewage	66	54.5	55	56.1	0.815*
	pit/ Played in the open	55	45.5	43	43.9	
Wiring	Yes	121	100.0	97	99.0	0.447***
	No	0	0	1	1	
Household income ****	Less than a minimum wage	28	23.5	23	24.5	0.817**
	One minimum wage	48	40.3	34	36.2	
	Between 1 and 2 minimum wages	36	30.3	31	33.0	
	Between 2 and 3 minimum wages	5	4.2	6	6.4	
	More than 3 minimum wages	2	1,7	0	0	
Do you get social benefit?	Yes	81	66.9	68	69.4	0.700*
	No	40	33.1	30	30.6	
If so, what is the social benefit?	Family Grant	77	95.1	56	82.4	0.013*
	Continuous Cash Benefit / INSS	4	4.9	12	17.6	

* Chi-square test; ** Mann Whitney test; *** Fisher's Exact Test. Significance level of 0.05. The analyses and tests for the variables "number of residents in the residence" and "family income" were made considering a sample of 116 and 119, respectively, for 2019; and 94, respectively, for 2020, due to the absence of information.

Source: Search Data.

boys as strong, allowing them to perform activities that expose them more to pathogens since childhood¹⁰.

Stratification of the sample by age group, there was a predominance of infants in hospitalizations, with no statistically significant difference between the pandemic and non-pandemic period (p-value = 0.589). This finding is in line with the study conducted with 92 guardians who followed children hospitalized in a public hospital in the state of Rio de Janeiro, which revealed a higher frequency between the age group of 29 days and 2 years old¹¹.

Due to the immaturity of the immune system, children younger than one year are more susceptible to illness and may be related to the high occurrence of hospitalizations in this age group. However, when there is an improvement in the supply and quality of services made available to this population by the Family Health Strategy (FHS) teams, for example, childcare, there is a tendency to reduce these hospitalizations¹².

In this study, the mother was the main responsible and companion of the child, since it corroborates the study that analyzed 432 medical records regarding the profile of children

Table 4. Distribution of diagnoses according to medical specialty of children and adolescents hospitalized in the medical clinic in May, June and July 2019/2020. João Pessoa/PB, 2020

Clinical variables	Year				p-Value	
	2019 (n=121)		2020 (n=98)			
	n	%	n	%		
Specialty	Pulmonology	50	41.3	1	1.0	0.000*
	Dermatology	7	5.8	20	20.4	
	Nephrology	15	12.4	32	32.7	
	Hematology	10	8.3	5	5.1	
	Neurology	6	5.0	11	11.2	
	Gastroenterology	10	8.3	16	16.3	
	Infectious Diseases	15	12.4	5	5.1	
	Other**	8	6.6	8	8.2	

* Chi-square test. Significance level of 0.05. **Some specialties were grouped, as they presented a low number in both years.

Source: Search Data.

Table 5. Clinical profile of children and adolescents hospitalized in the medical clinic in May, June and July 2019/2020. João Pessoa/PB, 2020

Clinical variables	Year				p-Value	
	2019 (n=121)		2020 (n=98)			
	n	%	n	%		
Special need carrier?	Yes	6	5	8	8.2	0.335*
	No	115	95	90	91.8	
Hospital Stay Time	Up to 3 days	14	11.6	30	30.6	0.006**
	Between 4 and 7 days	61	50.4	41	41.8	
	Between 8 and 15 days	37	30.6	20	20.4	
	Over 16 days	9	7.4	7	7.1	
Hospital outcome	Better/ Healed	113	93.4	92	93.9	0.883*
	Transfer	8	6.6	6	6.1	

* Chi-square test; ** Mann Whitney test. Significance level of 0.05. Source: Search Data.

hospitalized in pediatrics of a University Hospital in Minas Gerais, making it evident that for most Brazilian families, mothers are the main people involved in the care process of the sick child¹³.

There are frequent variations in relation to the education of those responsible, as observed in another study¹³. Evidence points to maternal education as an important risk factor for child hospitalization. Maternal education is shown as a given predictor of child health, which reinforces the aspect that this

factor is the most important sociodemographic determinant of general health conditions, as well as the acquisition of diseases among children^{3,14}.

The social and health data, in turn, showed that most children have access to basic services and have adequate housing. Access to basic services is one of the determining factors in the quality of life and health of families. A study with 98 children aged 2 to 6 years old, in Viçosa, Minas Gerais, also evaluated the socio-

sanitary conditions and found that 95.9% of the children had adequate access to public sanitation and infrastructure services, these favorable conditions contribute to the reduction of frequent parasitic diseases among other pathologies¹⁵.

The predominant family income, in both years, was one minimum wage, in addition, most families are contemplated by income transfer programs such as Family Grant, differently, in a study that evaluated the clinical-epidemiological profile of children hospitalized in a public hospital in Ceará, 50% of the families had a family income lower than one wage-minimum, however, in agreement with this study, the authors pointed out that 70.5% of the researched received social benefit, with the Family Grant being the most prevalent, present in 52.6%¹⁰.

On the benefits of Family Grant is described in the literature is the increase in frequency and permanence in schools, improvements in health conditions by continuous access in health units, especially improvements in nutritional conditions, as well as monitoring the growth and development of these children contributing to the decrease in infant morbidity and mortality¹⁶.

Regarding hospitalizations, about the number of visits performed, a reduction was observed in the pandemic period, when compared to the non-pandemic period. Corroborating the data evidenced in a study conducted in a Pediatric Unit in Tuscany, Italy, highlighting the significant decrease in the demand for medical care¹⁷. This change may be related to several factors, a study conducted in a hospital in Finland highlighted that isolation and social distancing influenced the reduction of the demand for medical care in pediatric emergency points, as well as decreased the demand for respiratory causes. Another factor highlighted by the study is the fear of getting viral infections from the child's guardians¹⁸.

Regarding the diagnoses that motivated hospitalizations, in 2019 a relevant index of hospitalizations for respiratory diseases was evidenced, followed by infectious and urinary tract diseases, respectively. However, in 2020, diseases of the urinary tract, dermatological (skin and subcutaneous tissue infections) and gastroenterological diseases had highlights.

The result in 2019 is like that found in the research that proposed to analyze the characteristics of hospitalization of children in the first six years of life. The authors found that respiratory diseases were among the main causes of hospitalization in all years, with a percentage of 9.6% in the first year of life, followed by 5.0% between one and four years and declining in subsequent years¹⁹.

In this study pneumonia was the most frequent diagnosis in 2019. It is worth mentioning that pneumonia is multifactorial in nature. The association of some risk factors for hospitalization in childhood is related in the literature, namely: male gender, under 5 years, early weaning, delayed immunization or absence, low family income, low maternal education, closed spaces with agglomeration of people, difficult access to health services¹⁴. In this sense, the scientific evidence agrees with the results of this study.

Secondly, they occupy infectious diseases, highlighting classical dengue as the main cause, which evidences the persistence

of the problem. In a research that aimed to describe the main metrics on dengue generated by the Global Burden of Disease (GBD) Study 2015, for Brazil and its 27 federal units, in the years 2000 and 2015, it was found that the notifications of dengue cases had a higher rate in children under 1 year, demonstrating the susceptibility of this group to the disease, this situation shows how much dengue is still an important public health problem²⁰.

It is notepoint that the ITUs presented relevant percentages in both years studied, but in 2020 there was a doubling of the number of cases admitted to the hospitalization sector in relation to 2019, therefore the ITUs went from third to first cause of hospitalization. It is noted that in 2020 there was a sudden change in the epidemiological profile not only for cases of ITUs but can also be observed by the too decline in admissions to the medical clinic due to respiratory causes highlighting the increase in cases of skin and subcutaneous tissue infection and gastroenteritis. This fact can be explained by the measures of coping with the pandemic of the new coronavirus.

Corroborating the above-mentioned data, a study that sought to study the epidemiology of admissions for viral respiratory tract infections in Pediatric Intensive Care Units (PICU) in South America during the COVID-19 pandemic and to compare with the same period in 2018 and 2019, identified that there was an 83% reduction in admissions to PICU related to respiratory tract viral infections in 2020 compared to the average of 2018/2019. The authors point out that the protective measures adopted to contain the spread of COVID may have generated an additional effect in the prevention of these infections²¹.

Given the emerging picture, health facilities had to adapt to the new reality to avoid the collapse of the health network. Considering this, the managers elaborated flows and established through agreement a State Contingency Plan in response to human infection by the coronavirus (2020), this document reorganized the Health Care Network emphasizing the definition of hospital references to treat suspected and/or confirmed cases for SARS-CoV-2 to ensure comprehensive and quality care.

According to the Contingency Plan of the State of Paraíba (2020), the pediatric hospital of the study was not determined as a hospital reference for the care of respiratory symptomatic cases, this justifies the sudden decrease in cases of respiratory diseases in 2020 compared to the previous year.

It was observed that, in 2020, there was an exacerbation of dermatological diseases as a reason for pediatric hospitalizations, especially cellulite. Dermatological conditions are usually easily treated at the primary care level and do not require hospital care. The reason for hospitalization is due to complications or worsening of the condition that did not obtain timely treatment²².

In view of this, the increase in dermatological cases in this study may be justified by the changes in the flow and functioning of the Basic Health Units (BHUs) that occurred due to the pandemic by COVID-19 that restricted for a moment the care to the patient associated with the fear of users to be exposed to the virus during the search for this care.

In relation to the time of hospitalization, in general, in both years, there was a frequency of around 4 to 7 days. However, it is worth mentioning that, in 2020, there was a 19% increase in hospitalizations of up to 3 days and a reduction of 10.2% in hospitalizations from 8 to 15 days, and this difference was statistically significant ($p=$ Value 0.006).

The length of hospital stay is the period between admission and discharge of the patient in the hospital environment. This period is associated with the efficiency and quality of the care offered and behaves as an indirect measure of the use of resources and financial and care performance^{23,24}. The mean hospital stay is an indicator of productivity and, therefore, the hospital with the shortest length of hospital stay is more productive. The authors also state that for quality care and adequate financial management this average stay should be around 3 to 7 days. Thus, in the service in which the present study was developed, both in 2019 and 2020, an adequate hospitalization time was observed²⁵.

However, it is worth noting that there was a decrease in relation to the length of stay of the patient in the clinical hospitalization during the pandemic year. Several factors may be associated with this fact, since, according to the literature, this variable suffers multifactorial impact, namely: diversity of diagnoses, severity of the disease, physiological characteristics of the patient, among others²⁴.

Chronic conditions in childhood increase the risk of hospital stay in relation to other pathologies²³. Health-related infections are associated with increased hospitalization time.²⁶ However, not only this, but also institutional practices, such as clinical protocols, events or clinical complications, have contributed to variability in the time of hospitalization of each patient^{23,24}.

Considering it, it is understood that other analyses should be made to identify the factors that are related to the reduction in hospitalization time observed in the present study. It is known, however, that the main change occurred in the service during the pandemic year consisted in the implementation of an institutional protocol that restricted the service care to conditions that were not linked to respiratory conditions. Thus, the change in the diagnostic profile may have led to this higher bed turnover, considering that the diagnoses that emerged in 2020 have a shorter resolution than those observed in 2019.

In addition, the stimuli generated by the pandemic period, such as greater care with hand hygiene, use of masks and the distance between beds, may also have led to fewer health-related infections, as well as cross-infections, thus leading to a reduction in this hospitalization time.

Finally, it was found that most hospitalizations were discharged due to improvement of the condition in both years and studies corroborate this data^{10,27}. This reality demonstrates the existence of a good clinical management of patients who were hospitalized in the pediatric unit studied¹⁰.

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

Based on the information obtained in this study, it was possible to analyze the clinical and epidemiological profile of children/adolescents hospitalized in the medical clinic of a pediatric hospital in a non-pandemic and pandemic period by COVID-19. In it, it was observed that the data found indicate that there were not many changes in the epidemiological clinical profile of hospitalized children. The COVID-19 pandemic resulted in a greater change in clinical diagnoses seen by the pediatric hospital.

Knowing the health profile of children/adolescents in the process of hospitalization can help in the development of protocols, care flows and strategies that can meet the real demands with property, contributing to the qualification of pediatric care. It is suggested that public policies directed to this age group aiming at the current moment of pandemic be intensified; investment in the training of professionals to recognize risk factors and early signs of severity of these diseases; new studies like this are carried out comparing the pre- and post-pandemic periods, in view of the need to evaluate the changes that may have occurred. Finally, it is expected that these actions may reduce indicators associated with pediatric hospitalizations.

Some limitations of this study should be considered in the interpretation of the results. Development in only one service without favoring other hospital units, which may present different health indicators in view of the pandemic context experienced. Another limitation lies in the fact that some medical records are incomplete/illegible, a reality that hindered the analysis of some pertinent variables. Finally, the cross-sectional nature of the study makes it impossible to determine the causal effect of the evaluated behaviors.

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