

RESEARCH | PESQUISA



# Hospitalizations of adolescents due to sensitive conditions in primary health care in the perspective of integrality<sup>a</sup>

Internações de adolescentes por condições sensíveis à atenção primária à saúde na perspectiva da integralidade

Hospitalizaciones de adolescentes por condiciones sensibles de la atención primaria de salud desde la perspectiva de la integralidad



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#### **A**BSTRACT

**Objective**: to analyze, from the perspective of integrality, the hospitalizations of adolescents due to conditions sensitive to primary care in a Regional Health unit in Paraná State. **Method**: a quantitative retrospective study was carried out from January to July 2018. Public data were collected from hospitalizations of adolescents aged 10 to 19 years available in the database of the hospital information system of the Ministry of Health using the Official Tabulator (Tabwin, version 3.2). Data analysis was performed using descriptive statistics according to the absolute number and frequency per year investigated. **Results**: out of the 82,016 admissions, 9,029 (11.00%) were due to conditions sensitive to primary care. Among the main causes, infection of the kidney and urinary tract (24.96%), epilepsies (19.27%), infectious gastroenteritis, and complications (11.91%) stood out, which are diseases related to prenatal care and childbirth (8.88%) and asthma (7.39%). Female hospitalizations accounted for 57.52%, prevalent in the 15- to 19-year-old subgroup (66.64%). **Conclusion and implications for practice**: it is necessary to advance in the construction of integrality in adolescent health care to respond to the health needs of this population segment and reduce hospitalizations for causes sensitive to primary care.

Keywords: Primary Health Care; Integrality in Health; Hospitalization; Public Health; Adolescent Health.

#### **R**ESUMO

Objetivo: analisar, na perspectiva da Integralidade, as internações de adolescentes por condições sensíveis à Atenção Primária em uma Regional de Saúde do Paraná. Método: estudo de abordagem quantitativa, retrospectivo, realizado no período de janeiro a julho de 2018. Foram coletados dados públicos de internações de adolescentes de 10 a 19 anos disponíveis na base de dados do sistema de informações hospitalares do Ministério da Saúde, com Tabulador Oficial versão *Tabwin* 3.2. A análise dos dados ocorreu por estatística descritiva segundo número absoluto e frequência por ano investigado. Resultados: das 82.016 internações, 9.029 (11,00%) foram por condições sensíveis à atenção primária. Entre as principais causas, destacam-se a infecção do rim e trato urinário (24,96%); epilepsias (19,27%); gastroenterites infecciosas e complicações (11,91%); doenças relacionadas ao pré-natal e parto (8,88%) e asma (7,39%). As internações do sexo feminino representaram 57,52%, prevalentes no subgrupo da faixa etária de 15 a 19 anos (66,64%). Conclusão e implicações para a prática: é necessário avançar na perspectiva da construção da integralidade na atenção à saúde do adolescente, para responder às necessidades em saúde deste segmento populacional e reduzir hospitalizações por causas sensíveis à atenção primária.

Palavras-chave: Atenção Primária à Saúde; Integralidade; Internação; Saúde Coletiva; Saúde do Adolescente.

#### RESUMEN

**Objetivo**: analizar, en la perspectiva de la Integralidad, las hospitalizaciones de adolescentes por condiciones sensibles a la Atención Primaria en una Regional de Salud de Paraná. **Método:** estudio retrospectivo cuantitativo realizado de enero a julio de 2018. Se recolectaron datos públicos de hospitalizaciones de adolescentes de 10 a 19 años disponibles en la base de datos del sistema de información hospitalario del Ministerio de Salud, con Tabulador Oficial Tabwin versión 3.2. El análisis de los datos se realizó mediante estadística descriptiva según número absoluto y frecuencia por año investigado. **Resultados:** de los 82.016 ingresos, 9.029 (11,00%) se debieron a condiciones sensibles a la atención primaria. Entre las principales causas destaca la infección del riñón y vías urinarias (24,96%); epilepsias (19,27%); gastroenteritis infecciosa y complicaciones (11,91%); enfermedades relacionadas con la atención prenatal y el parto (8,88%) y asma (7,39%). Las hospitalizaciones femeninas representaron el 57,52%, con prevalencia en el subgrupo de 15 a 19 años (66,64%). **Conclusión e implicaciones para la práctica:** es necesario avanzar en la perspectiva de la construcción de la integralidad en la atención a la salud del adolescente, a fin de responder a las necesidades de salud de este segmento poblacional y reducir las hospitalizaciones por causas sensibles a la atención primaria.

Palabras clave: Atención Primaria de Salud; Integralidad en Salud; Hospitalización; Salud Pública; Salud del Adolescente.

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#### INTRODUCTION

Despite historical advances aimed at guaranteeing the rights of adolescents in Brazil, such as the Adolescent Health Program (PROSAD) in 1989, the enactment of the Child and Adolescent Statute (ECA) in 1990, and the publication of the National Guidelines for Comprehensive Health Care of Adolescents and Youth in Health Promotion, Protection, and Recovery of Health in 2010,¹ this group is still distant from the actions of health promotion, particularly in Latin American countries² and prevention of diseases in Primary Health Care (PHC) services, even in local services that have the Family Health Strategy (FHS) implemented.¹¹³

This condition can contribute to potentially preventable hospitalizations of adolescents, which can be verified by the indicator hospitalizations for conditions sensitive to primary care (HCSPC), defined in a list with 19 groups of diagnoses according to the Tenth Revision of the International Classification of Diseases (ICD-10), published in Ordinance No. 221 of 2008.<sup>4</sup>

The so-called sensitive conditions are health problems identified in the morbidity and mortality profile of the population, which could be reduced or modified by actions developed by a multiprofessional health team in primary care in a precise, resolute, and efficient manner. This includes continuous interventions for disease prevention, early diagnosis with timely treatment of acute pathologies, and control and monitoring of conditions arising from chronic diseases. <sup>5,6</sup>

Research analyzing HCSPC has occurred in national and international settings in order to shed more light on the profile of these hospitalizations in different populations. <sup>7-9</sup> Of these investigations, the most significant emphasis has been given to the elderly and children populations, representing vulnerable individuals at the extremes of the life cycle. <sup>10,11</sup> Nevertheless, there is a gap in the literature in the analysis of adolescent HCSPCs from the perspective of the integrality of care, as pointed out by a study undertaken in Paraná State in 2018. <sup>12</sup>

In the organization of the sector to face health issues, the PHC network is presented as a privileged setting to achieve comprehensive care, which must occur through an articulated and continuous set of individual and collective actions that consider determining the problem and health needs of individuals and groups in that reality of life. 13 Concerning the identification of the health needs of adolescents, one study identified the invisibility of this population segment for actions that meet their needs in the context of PHC, 14 such as demands related to family planning, sexually transmitted infections, and family conflicts. 15 In this context, it is noteworthy that actions in PHC are essential for improving the quality of life and health of the population; hence, knowing the trends of hospitalization can guide the investment of public policies in PHC. 11

This study is justified because it is understood that, in the implementation of the Brazilian Public Health Policy, there is a shortage of health promotion and disease prevention actions aimed at adolescents in PHC, which can ultimately culminate in developing signs and symptoms that evolve into a HCSPC.

Thus, the relevance of this study is to reflect on the HCSPC of adolescents from the perspective of integrality and present it as a category for analyzing the effectiveness of primary actions against the health needs of adolescents. Given the above, this study aimed to analyze, from the perspective of integrality, the hospitalizations of adolescents for conditions sensitive to primary care in a Regional Health unit of Paraná State.

#### **METHOD**

This is a retrospective descriptive study with a quantitative approach that investigated the HCSPCs of adolescents in the Second Regional Health unit of Paraná from the perspective of integrality. The theoretical and methodological framework was anchored in the Theory of Practical Intervention in Collective Health Nursing (TIPESC), which proposes an investigation in five steps: 1) capturing the objective reality; 2) interpreting the objective reality; 3) constructing the intervention project in objective reality; 4) intervention in the objective reality; and 5) reinterpreting the objective reality. This study met the first two stages of the TIPESC.

The study used secondary data to describe HCSPCs of adolescents aged 10 to 19 years in the Second Health Regional Office of Paraná from 2013 to 2017. Hospital admission data obtained from the Hospital Information System of the Unified Health System (SIH-SUS) were collected, originating from the Autorizações de Internação Hospitalar, which provides information from the public domain, referring to all admissions in public and private hospitals affiliated with SUS in Brazil, and available on the website that makes up the bank of the SUS IT Department (Datasus). The SIH-SUS enables the evaluation and audit of public and private health institutions affiliated with SUS and supports the construction of hospital morbidity and mortality profiles to assess the quality of care offered to the population.<sup>17</sup>

This study adopted the chronological period of adolescence from 10 to 19 years as referenced by the World Health Organization, <sup>18</sup> which is subdivided into two subgroups of individuals in the SIH-SUS by the classification "10 to 14 years" and "15 to 19 years." Data collection regarding the hospitalizations of adolescents aged 10 to 19 years by HCSPC was conducted from January to July 2018 and based on the availability of consolidated and published information from 2013 to 2017 to avoid bias in data collection.

The Second Regional Health unit, according to data from the 2010 demographic census, had a population of 3,223,836, thus concentrating 30.9% of the Paraná population. Of these inhabitants, 549,136 are adolescents, aged 10 to 14 years, corresponding to over 17% of the total population of the region. 19

The sensitive conditions identified in adolescent hospitalizations that occurred in municipalities of the Health Regional of choice from 2013 to 2017 were selected from the list of HCSPC. Hospitalizations of adolescents resulting from deliveries, normal delivery in high-risk pregnancy, cesarean delivery, cesarean delivery in high-risk pregnancy, cesarean delivery, and tubal ligation were not included because the need for hospitalization in these cases is considered a natural outcome and is not characterized

as an illness. In addition, the HCSPC list includes, in group 19, the diseases related to prenatal and childbirth.

To deepen the analysis of adolescent hospitalizations, the variables collected were age range (10 to 19 years), sex (male and female), cause groups (according to the Brazilian HCSPC list), municipality of hospitalization, and the municipality of residence. The latter two sought to support the identification of the three municipalities with the highest number of HCSPC adolescents in the Second Regional Health unit of Paraná from 2013 to 2017. There were no exclusion criteria in the cases of adolescent hospitalizations by CSPC in the municipalities of the Second Regional Health unit.

The Official Tabulator application of the Ministry of Health (TABWIN/Datasus; version Tabwin 3.2) was used to select, decompress, organize, and treat the SIH/SUS information. The analysis was performed using descriptive statistics, with results shown in tables and figures prepared in a Microsoft Excel spreadsheet. The profile of adolescent HCSPCs was analyzed according to the absolute number and frequency per year (2013-2014-2015-2016-2017).

This project was approved by the Research Ethics Committee of the Federal University of Paraná (opinion no. 3.229.927/2019) and the Research Ethics Committees of the participating institutions (i.e., the Municipal Health Secretariat of Curitiba [opinion no. 3.271.504/2019] and Pontifícia Universidade Católica do Paraná [opinion no. 3.327.431/2019]).

#### **RESULTS**

In order to discuss HCSPCs of adolescents from the perspective of integrality, it was necessary to know how the Health Care Network of the Second Regional Health unit of Paraná was structured. In 2016, it had 51.97% FHS coverage for an estimated population of 3,285,851 in the 29 municipalities that comprise it, covering 1,705,876 people. In 2016, there were 501 FHS teams deployed in the unit, corresponding to 30.47% of the expected team limit, which was 1,644 and should have been implemented by the year in question. It is noteworthy that nine municipalities in the region had 100% of estimated population coverage of FHS teams, namely: Adrianópolis, Agudos do Sul, Balsa Nova, Campo do Tenente, Cerro Azul, Doutor Ulysses, Piên, Quatro Barras, and Tunas do Paraná. They are municipalities with a population below 20,000 people, except for the city of Quatro Barras, which has 20,409 individuals, as shown in Table 1.

Regarding the network of specialized health services, the Second Regional unit of Paraná had, in December 2020, 646 establishments of the specialized clinic/specialized outpatient clinic type. Curitiba is the municipality with the most specialized clinics/specialized clinics (521 establishments), followed by Araucária (18 establishments), Campo Largo (17 specialized units), and Pinhais (16 units). Colombo and São José dos Pinhais have 11 and 5 registered specialized units in their territories, respectively; in Balsa Nova, Cerro Azul, Doutor Ulysses, and Tunas do Paraná, there are no establishments with attendance by specialized professionals. It is justified that the data on the

service network corresponds to the year 2020 because they are the most recent available on the websites consulted, unlike the HCSPC data analyzed, which are from the period between 2013 and 2017.

Regarding hospital services, the Second Regional Health unit of Paraná had, until 2017, a network of 18 public hospitals, 27 philanthropic hospitals, and 36 corporate entities, with a total of 81 general hospitals. The existing SUS and non-SUS hospital beds in each of the Regional unit's municipalities are listed in Table 1. Notably, SUS beds are the active hospital beds available for SUS patient admission. Non-SUS beds result from subtracting the existing and SUS beds, an operation carried out by the National Registry of Health Facilities (CNES). Therefore, this quantity is not informed by the municipal and state manager but by the CNES information system.<sup>21</sup>

From 2013 to 2017, the number of non-SUS beds increased by just over 8% (from 2,891 to 3,124 beds). This number is higher than the drop in SUS beds, which was 4.26% in the same period, which went from 5,776 to 5,530 beds. In this analyzed period, 82,016 hospitalizations of adolescents aged 10 to 19 years in the Second Regional unit of Paraná were recorded, of which 9,029 (11%) occurred for conditions sensitive to Primary Care. In the similarity relations, the three municipalities of the region that had the highest number of adolescent HCSPC were: Curitiba with 34.56% (2,723), Colombo with 8.52% (671), and São José dos Pinhais with 8.08% (637) of the hospitalizations sensitive to primary care. The lowest rates of HCSPC in adolescent residents were found in Doutor Ulysses, with 8 hospitalizations (0.10%), Adrianópolis with 3 hospitalizations (0.04%), and Cerro Azul, which accounted for two hospitalizations (0.03%) in the period.

The five most frequent groups of causes of HCSPC in adolescents in the Second Regional unit, in descending order, were: kidney and urinary tract infection (24.96%), epilepsies (19.27%), infectious gastroenteritis and complications (11.91%), prenatal and childbirth-related diseases — urinary tract infection in pregnancy, congenital syphilis, and congenital rubella syndrome (8.88%), and asthma (7.39%) (Table 2).

Regarding sex, the analysis of HCSPCs showed that girls were hospitalized almost twice as often as boys, representing 5,974 (66.16%) of the hospitalizations, while males had 3,055 (33.84%) of HCSPCs in the period (Table 2).

The age subgroup with the highest HCSPC frequency was 15 to 19 years old, with 5,408 (59.90%) records comprising the sample. Among adolescents aged 10 to 14, 3,621 (40.18%) of HCSPCs were identified (Table 3).

When comparing the predominant groups of HCSPCs in each subgroup of adolescent age, similarities and divergences among the most frequent causes are identified. The epilepsy group is the first cause of hospitalization in the 10- to 14-year-old subgroup and the third cause of hospitalization in the 15- to 19-year-old subgroup. The first cause of hospitalization in the 15- to 19-year-old subgroup is kidney and urinary tract infection, which is the fifth cause of hospitalization in the 10- to 14-year-old subgroup.

**Table 1.** Estimate of the general population and coverage of the Family Health Strategy, existing hospital beds (SUS and non-SUS), and hospitalization of adolescents for conditions sensitive to primary care according to the municipality of residence of the Second Regional Health unit of Paraná from 2013 to 2017. Curitiba, PR, Brazil, 2021.

Municipality in the Second Regional Health Office of	Estimate of general population covered by Family Health Strategy		Existing hospital beds (SUS and non-SUS)		HCSPC (2013-2017)		
Paraná 	N	%	N	%	N	%	
Adrianópolis	6,281	100	3	0.03	3	0.04	
Agudos do Sul	8,429	100	0	0	19	0.24	
Almirante Tamandaré	24,150	22.9	0	0	271	3.44	
Araucária	55,200	44.92	91	1.05	272	3.45	
Balsa Nova	11,539	100	0	0	27	0.34	
Bocaíuva do Sul	10,350	91.76	11	0.12	25	0.32	
Campina Grande do Sul	24,150	61.29	356	4.11	149	1.89	
Campo do Tenente	7,245	100	0	0	28	0.36	
Campo Largo	79,350	68.80	923	10.66	483	6.13	
Campo Magro	24,150	94.66	0	0	66	0.84	
Cerro Azul	17,027	100	26	0.30	2	0.03	
Colombo	144,900	66.64	119	1.37	671	8.52	
Contenda	13,800	84.70	16	0.18	60	0.76	
Curitiba	783,150	44.08	5,514	63.71	2,723	34.56	
Doutor Ulysses	5,686	100	0	0	8	0.10	
Fazenda Rio Grande	62,100	73.48	48	0.55	294	3.73	
Itaperuçu	17,250	70.20	49	0.56	336	4.26	
Lapa	24,150	53.27	147	1.69	146	1.85	
Mandirituba	17,250	75.24	50	0.57	141	1.79	
Piên	11,454	100	49	0.56	104	1.32	
Pinhais	72,450	60.69	287	3.31	425	5.39	
Piraquara	48,300	50.30	622	7.18	502	6.37	
Quatro Barras	20,409	100	0	0	70	0.89	
Quitandinha	13,800	79.47	25	0.28	109	1.38	
Rio Branco do Sul	24,150	78.29	30	0.34	149	1.89	
Rio Negro	24,150	76.27	30	0.34	67	0.85	
São José dos Pinhais	134,550	49.24	236	2.72	637	8.08	
Tijucas do Sul	13,800	92.74	16	0.18	65	0.82	
Tunas do Paraná	6,656	100	6	0.06	28	0.36	
Total	1,705,876*	51.91	8.654	100	9029	100	

Source: Prepared by the authors. Database of the Ministry of Health, Department of Primary Care.<sup>20</sup>

It is noteworthy that there is convergence in the five causes that register higher frequencies in the group of adolescents, even though these have differences in the subgroups; they are kidney and urinary tract infection, epilepsies, infectious gastroenteritis and complications, asthma, and diseases related to prenatal care and childbirth. The latter appears as

<sup>\*</sup>The sum of the estimated population covered by FHS in 2016. The census population of the Second Regional Health unit of Paraná is 3,223,836 inhabitants.

**Table 2.** Numbers and proportions of hospitalizations for sensitive conditions according to condition groups and sex. Curitiba, PR, Brazil, 2013 to 2017.

Groups of Conditions Sensitive To Primary Care	Male		Female		Total	
(CSPC)	N	%	N	%	N	%
1. Diseases prevented by immunization and sensitive conditions	34	0.38	32	0.35	66	0.73
2. Infectious gastroenteritis and complications	490	5.43	585	6.48	1.075	11.91
3. Anemia	3	0.03	15	0.17	18	0.20
4. Nutritional deficiencies	47	0.52	40	0.44	87	0.96
5. Ear, nose, and throat infections	101	1.12	85	0.94	186	2.06
6. Bacterial pneumonia	66	0.73	67	0.74	133	1.47
7. Asthma	315	3.49	352	3.90	667	7.39
8. Lung diseases	61	0.68	75	0.83	136	1.51
9. Hypertension	23	0.25	19	0.21	42	0.47
10. Angina	44	0.49	26	0.29	70	0.78
11. Heart Failure	203	2.25	213	2.36	416	4.61
12. Cerebrovascular diseases	62	0.69	68	0.75	130	1.44
13. Diabetes mellitus	256	2.84	367	4.06	623	6.90
14. Epilepsies	875	9.69	865	9.58	1740	19.27
15. Kidney and urinary tract infection	225	2.49	2029	22.47	2254	24.96
16. Infection of the skin and subcutaneous tissue	189	2.09	152	1.68	341	3.78
17. Inflammatory disease in female pelvic organs	0	0.00	119	1.32	119	1.32
18. Gastrointestinal ulcer	61	49.19	63	50.81	124	1.37
19. Diseases related to prenatal care and childbirth	0	0.00	802	100.00	802	8.88
Total CSPC	3055	33.84	5974	66,16	9029	100

Source: Prepared by the authors. Database of the Ministry of Health, SUS Hospital Information System.<sup>22</sup>

a cause of hospitalization starting in the 15- to 19-year-old subgroup (Table 3).

#### DISCUSSION

The data demonstrate the heterogeneity of the conformation of the Health Care Network in the 29 municipalities of Paraná that make up the Second Regional Health unit. This fragmented construction can result, ultimately, in the isolation of actions, in the rupture between communications and services, and in the lack of cohesion about interventions aimed at the health needs of the population, <sup>23</sup> among which, we highlight those that can culminate in diseases that affect adolescents and that often lead to HCSPCs. In this context, it is crucial to consider the potential of the analysis of HCSPCs as a measure of an indirect assessment of access and resolvability of actions undertaken by the PHC in a territory, as evidenced by an ecological time-series study on HCSPC in a city in Minas Gerais State.<sup>24</sup>

The analysis of HCSPC in adolescents over a five-year period in the region showed the magnitude of the phenomenon

and the diversity of its causes according to sex and age group. The findings illustrate the need to develop health promotion and disease prevention actions aimed at the adolescent population segment that are designed to meet the health needs of this population from the perspective of integrality.<sup>13</sup>

This perception meets what is discussed by research that identified that of the total HCSPC recorded in Distrito Federal, between 2009 and 2018, the hospitalizations of adolescents increased from 9.8 to 11.1%. In this same period, the HCSPCs registered in the age group of adults between 40 and 59 years decreased by over 3%.<sup>7</sup> In a study that aimed to analyze the association between access to primary health care services for adolescents and young adults and the coverage of the FHS, there were no statistically significant differences between this type of access and the area of coverage of the FHS. However, among individuals living in areas covered by the FHS, there was greater access and participation of these individuals in actions of disease prevention and health promotion.<sup>25</sup>

**Table 3.** Distribution of hospitalizations of adolescents for sensitive conditions in the Second Regional Health unit of Paraná from 2013 to 2017 according to groups of conditions and age range. Curitiba, PR, Brazil, 2021.

Groups of Conditions Sensitive To Primary Care	10-14 years old		15-19 years old		Total	
(CSPC)	N	%	N	%	N	%
1. Diseases prevented by immunization and sensitive conditions	17	0.19	49	0.54	66	0.73
2. Infectious gastroenteritis and complications	603	6.68	472	5.23	1075	11.91
3. Anemia	5	0.06	13	0.14	18	0.20
4. Nutritional deficiencies	49	0.54	38	0.42	87	0.96
5. Ear, nose, and throat infections	90	1.00	96	1.06	186	2.06
6. Bacterial pneumonia	54	0.60	79	0.87	133	1.47
7. Asthma	435	4.82	232	2.57	667	7.39
8. Lung diseases	61	0.68	75	0.83	136	1.51
9. Hypertension	24	0.27	18	0.20	42	0.47
10. Angina	5	0.06	65	0.72	70	0.78
11. Heart Failure	258	2.86	158	1.75	416	4.61
12. Cerebrovascular diseases	32	0.35	98	1.09	130	1.44
13. Diabetes mellitus	384	4.25	239	2.65	623	6.90
14. Epilepsies	975	10.80	765	8.47	1740	19.27
15. Kidney and urinary tract infection	359	3.98	1895	20.99	2254	24.96
16. Infection of the skin and subcutaneous tissue	177	1.96	164	1.82	341	3.78
17. Inflammatory disease in female pelvic organs	12	0.13	107	1.19	119	1.32
18. Gastrointestinal ulcer	35	0.39	89	0.99	124	1.37
19. Diseases related to prenatal care and childbirth	46	0.51	756	8.37	802	8.88
Total CSPC	3,621	40.10	5,408	59.90	9,029	100

Source: Prepared by the authors. Database of the Ministry of Health, SUS Hospital Information System.<sup>22</sup>

From this perspective, the non-reduction of HCSPCs in adolescents may indicate that, despite being a priority population in the PHC, there are still barriers to access services in the investigated region or even that health care at the local level does not consider these individuals with needs to promote actions that meet them from the perspective of integrality. The integrality, translated as a principle that supports SUS and its practices, is part of critical thinking forged in the Brazilian process of struggle and social transformation and, therefore, from a certain perspective, deals with the realization of a fair and equitable health system that ensures the health of individuals and collectives as a right.<sup>26</sup>

One study investigated the perception of PHC professionals regarding the reasons that determine or influence the occurrence of HCSPCs and identified that isolated issues stand out, including the culpability of the patient or their family for the hospitalization in question, in addition to social, economic, environmental, and biological aspects. Despite this study addressing the occurrence of HCSPCs among the adult population, the discussion it engenders can be extrapolated to understand the object of this

study because it denotes, among PHC professionals, a positivist construction supported by risk factors, which characterizes the theory of multicausality regarding HCSPCs.<sup>23</sup> This worldview moves them away from the construct of the integrality of health care in developing their actions.

In another study, researchers investigated the HCSPCs of adolescents for eight years in Minas Gerais and identified the main groups of hospitalization: gastroenteritis, bacterial pneumonia, asthma, urinary tract infection, and epilepsies.<sup>27</sup> These groups are similar to those identified by our study and demonstrate the specificities of the health needs of adolescents to be covered by PHC actions. It is important to emphasize that the present study included data related to the group of prenatal and childbirth diseases.

In the international context, an Australian study analyzing the HCSPCs of children and adolescents between 2003 and 2013 indicated the following as the five main diseases: gastroenteritis, dental conditions, urinary tract infections, asthma, and diabetic ketoacidosis.<sup>28</sup> The findings of this study, despite differing from

those found in the Second Regional Health unit of Paraná, also point to the need to eliminate barriers to access of children and adolescents to PHC to offer comprehensive care. In addition, they highlight the relevance of the recognition of the HCSPC of the territories to promote the population's health, improve the quality of care and, ultimately, ensure that the health system's funding is for resolutive actions.

As for the peculiarity of HCSPC according to sex, the results showed a predominance of hospitalizations of female adolescents. When observing the group identified as the most significant cause of HCSPC, that is, kidney and urinary tract infections, the discrepancy between females and males becomes evident, with this grievance being prevalent among girls.

The inequality between the sexes that historically shapes our society is present in the scope of health determination. The results identified in a study on adolescence and intimate partner violence showed that the participants pointed out as a stigmatizing element of adolescence the irresponsible beginning of sexual experiences, with greater judgment and criticism for girls, for behaviors associated with vanity and sexarche, which naturalizes the subordinate position of the adolescent and downgrades her choices about affective and/or sexual relationships.<sup>29</sup>

Regarding the prevalence of the epilepsies group, it is noteworthy that it appears as the first cause of higher representativeness of HCSPC in males and the second reason for hospitalization in girls. This result was consistent with a study that highlighted the prevalence and increases in the rate of hospitalizations for epilepsy in males and the age group of 10 to 24 years, being the first cause of hospitalization between 2006 and 2009 in a city in southeastern Brazil. This data sheds light on the relevance of care and detection of neurological diseases in PHC since it is a group of prevalent diseases in the adolescent population, especially in countries with high social inequality and incidence of endemic infectious diseases that can affect the central nervous system. 30,31

When looking at the phenomenon of HCSPCs in adolescents, it is important to recognize that they have health needs that must be respected and addressed in developing PHC actions. Such actions, at the local level, represent the realization of public health policies, especially through actions to promote health and prevent diseases for individuals in this stage of development. Understanding health needs and promoting care for adolescents and young adults in PHC presupposes the horizontalization of actions and user/professional relations.<sup>32</sup> The goal of this change process is to promote access, reception, comprehensive care, and bonding so that the actions are based on the integrality of the subjects and, consequently, resolutive to the needs and demands of this population.<sup>32,33</sup>

There is a need to consider the singularities and specificities of adolescents in the advancement of the organization of services and the operationalization of intersectoral public policies aimed at this group since the differentiation of behaviors concerning psychosocial, sexual, and reproductive aspects stands out. This makes it essential to expand their access to preventive actions

and enable their participation in health institutions, in addition to ensuring quality care based on the SUS guidelines.<sup>34</sup>

When reflecting on the comprehensiveness of health actions for a population segment, we speak of adolescents in this case. It is also pointed out that in the work process of PHC professionals, issues related to gender, social class, race/ethnicity, and generation are present, which need to be seen globally as the structuring axes in the reproduction and production of social and subjective identity, relationships and social institutions. In the context of health service organizations, it is considered that the category gender must be considered in the development of health policies for adolescents because illuminating this category in the planning of the sector's actions makes it possible to recognize and confront the inequalities that gender relations, established in society, determine the health process during this period of life. 28,35

Thus, the understanding of a given phenomenon, such as the contradiction established between the need to provide comprehensive health care to adolescents in the SUS and the reality that presents robust rates of HCSPC in this population group, becomes possible through the construction of a critical-reflexive professional consciousness, which considers the determination of the health process of individuals or social groups through the perception of their gender, social class, and ethnic relations, in addition to exploring the processes arising from the economic, legal, and ideological model of a given society in a given historical moment.<sup>15</sup>

## CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

This study allowed us to analyze, from the perspective of integrality, the hospitalizations of adolescents for conditions sensitive to primary care in a Regional Health unit of Paraná. In the analysis, it was possible to identify that in the HCSPC of adolescents, there are differences in the relations of sex, age group, and group of more frequent causes. We also found that the highest frequency of HCSPC among adolescents in the Second Regional Health unit of Paraná from 2013 to 2017 is related to girls, with prevalence in the age group of 15 to 19 years having as the most evident cause the group of infection in the kidney and urinary tract.

Anchoring the theoretical assumptions of the study in the integrality of adolescent health allowed us to reflect on the planning of actions for individuals and groups in this age group should consider the categories of gender, social class, race/ethnicity, generation, and the singularity of the health needs of this population segment. In addition, it points to the need for local health services to understand the way of life of adolescents in their communities so that professionals in the sector can plan resolutive interventions anchored in integrality.

When reflecting on the limitation of the study, two points are considered, the first being the SIH-SUS database, which is a system with limited information. Concerning these, we highlight the delay for the institutions involved in the records to make

### Freitas JS, Chaves MMN, Lourenço RG

current data available in the publicized database; however, as we were able to demonstrate, its information is very relevant for us to understand the health reality compiled there. The second point is that a study with a qualitative approach with adolescents hospitalized for CSPC in the Second Regional Health Office of Paraná would allow further discussions about the health needs of adolescents hospitalized for CSPC from the perspective of integrality, since this methodological perspective would enable one to explore the experience of the individual in the illness in the care received and in hospitalization.

Hence, it is believed that there is a possibility for future research that allows reflections and discussions about health needs from the adolescent's perspective, such as research that illustrates the need to standardize the records of nursing diagnoses and interventions as well as other records of the local health team, which describe the health care of adolescents who use the services. Lastly, considering that nursing professionals, especially nurses, are included in the various health actions of local services, we suggest that their health practices should be instrumented with theoretical and methodological references anchored in integrality, as it is believed that these would allow them to propose and develop resolutive actions for adolescents living in the territories under their responsibility.

#### **AUTHOR'S CONTRIBUTIONS**

Study design. Jéssyca Slompo Freitas. Maria Marta Nolasco Chaves. Rafaela Gessner Lourenço.

Data collection or production. Jéssyca Slompo Freitas.

Data analysis. Jéssyca Slompo Freitas.

Interpretation of results. Jéssyca Slompo Freitas. Maria Marta Nolasco Chaves. Rafaela Gessner Lourenço.

Writing and critical revision of the manuscript. Jéssyca Slompo Freitas. Maria Marta Nolasco Chaves. Rafaela Gessner Lourenço.

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