Prevalence of integrality and associated factors in child health in municipalities of the 4th health region of Rio Grande do Sul

Prevalência de integralidade e fatores associados na saúde da criança em municípios da 4ª região de saúde do Rio Grande do Sul

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Abstract

Aim: Investigate the prevalence of integrality attribute and associated factors in child health of the municipalities of the 4th Regional Health Coordination, Brazil. **Materials and Methods:** A multilevel cross-sectional study with regional character was carried out. The population consisted of family members/caregivers of children who access Primary Care services. For data collection, a characterization questionnaire and the Brazil Health Assessment Instrument for Primary Health in child version were used. Data analysis was performed using the Stata 14.0 program. **Results:** Of the total 1000 respondents, the prevalence of integrality was 45% (Confidence Interval: 41.9-48.1) in the assessed scenario. Children aged 12 to 18 years showed a 30% lower prevalence of the integrality attribute when compared to those up to 5 years of age. **Conclusion**: The caregivers of older children seek health services in Primary Health Care in a less integral way. The prevention of diseases and illnesses in children requires a set of measures to be taken, which must articulate the care to fewer limitations and more opportunities for children and their families to access health services in an integral manner, especially in the case of older children. It is expected that this study will contribute to the construction of new foundations and practices in health with relation to child' health integrality.

Keywords: primary health care; child health; health services research

Resumo

Objetivo: Investigar a prevalência do atributo integralidade e seus fatores associados à saúde da criança nos municípios da 4º Coordenadoria Regional de Saúde, Brasil. **Materiais e Métodos:** Foi realizado um estudo transversal multinível de caráter regional. A população foi composta por familiares/cuidadores de crianças que acessam os serviços de Atenção Primária.

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302

Para a coleta de dados, utilizou-se um questionário de caracterização e o Instrumento de Avaliação da Atenção Primária à Saúde Brasil versão criança. A análise de dados foi realizada através do programa Stata 14.0. **Resultados:** Do total de 1000 entrevistados, a prevalência da integralidade foi de 45% (Intervalo de Confiança: 41,9-48,1) no cenário avaliado. Crianças com faixa etária entre 12 a 18 anos apresentaram 30% menor prevalência do atributo integralidade quando comparadas com aquelas de até 5 anos de idade. **Conclusão:** Os responsáveis por crianças mais velhas procuram os serviços de saúde na Atenção Primária à Saúde de forma menos integral. A prevenção de agravos e doenças em crianças necessita de um conjunto de medidas a serem tomadas, que devem articular o cuidado para que haja menores limitações e mais oportunidades para crianças e suas famílias acessarem os serviços de saúde de forma integral, principalmente tratando-se de crianças mais velhas. Espera-se que este estudo contribua para a construção de novos alicerces e práticas em saúde relacionadas à integralidade na saúde da criança.

Palavras-chave: atenção primária à saúde. Saúde de criança; integralidade em saúde; pesquisa sobre serviços de saúde

Introduction

Primary Health Care (PHC) involves a set of actions and services, exercising one of the main roles of health systems, as the gateway, acting as an agent for services provided to the entire population, with a view to reducing common problems by offering curative, preventive and rehabilitative actions.[1,2]

Comprehensiveness of care is a doctrinal principle of the Brazilian Unified Health System (SUS), understood as the articulated and continuous set of actions and health services in a preventive manner, in the social, individual and collective context of the population, in order to be offered at all levels of complexity and care of the system.[3] The completeness of care, an essential attribute of PHC, requires that the variety of services provided and available be adequately recognized, in order to achieve a high level of performance in meeting the real needs of the population, so that there is evidence that services are being offered adequately to meet these needs according to the different complexities, capable of offering a comprehensive and humanized care .[1]

Moreover, the attribute of completeness, theme of this study, is considered a key factor in the production of care to offer support and attention to the health needs of the child taking into account the historical and family context.[1,4] Thus, a validated health services assessment tool based on the attributes of PHC becomes necessary to identify the perception of users regarding the services provided, in this case, those focused on child health.

The evaluation of health services is based on the measurement of aspects of structure, processes and outcomes of health services, proposed by the Donabedian Triad.[5] The structure refers to the human, physical and financial resources used to provide health care, the process covers the constituent actions of health care, while the results refer to the changes in health conditions of the population that were promoted by the care received. These aspects allow the various factors involved in the quality of health care to be measured.[5]

The Primary Care Assessment Tool (PCATool), child version, allows assessing the degree of orientation to PHC in health services with different health models. In this study, the child version was used to assess the perception of caregivers and/or family members. The attribute of integrality is assessed through this instrument.[6]

In child care, the actions performed within the PHC are essential for the prevention and promotion of health, because they enable the reduction of infant mortality. The existence of a National Policy for Comprehensive Care of Child Health (PNAISC) structured according to principles, guidelines and strategic axes that offer the guarantee of the right to life and

health with universal access to all aims to promote and protect child health through actions aimed at reducing child morbidity and mortality through comprehensive care and integrated care.[7]

Healthcare services must offer adequate systematic monitoring of the child, promoting the continuity of care, strengthening the integrity of care. It is considered that the human being must be treated in its subjective and singular form; For this, the professional's view is essential to promote quality care, strengthening the bond and the professional/patient interaction, thus demystifying the fragmentation of the care process,[1,2] since discontinuous and fragmented actions of care contribute to the process of child illness, because to offer a comprehensive and humanized care, the professional needs to give up the reductionist attention, evaluating the patient as a whole included in a context, in order to offer actions that prevent early illness, that is, health actions guided by integrality.[8]

In the context of child health in PHC, the care process needs to be well articulated, as it involves a subject and his family context, for which it is necessary to take into account his uniqueness in the midst of his family and/or guardians, in relation to the environment where they live.[9] For these reasons and the fact that there are no studies to our knowledge investigating integrality at the regional level, the objective of this study was to investigate the prevalence of the attribute integrality and its individual and contextual factors associated with child health in the municipalities of the 4th Regional Health Coordinator of Rio Grande do Sul (4th CRS/RS).

Materiais e Métodos
Materials and Methods
Study design and sample

The present is a cross-sectional multilevel observational epidemiological study, arising from the matrix protection 'PrimaryCare Assessment Tool (PCATool): Evaluation of Primary Care in the 4th Regional Health Coordinator of the State of Rio Grande do Sul (4thCRS/RS)'.The guidelines of the guide *'StrengtheningtheReportingofObservationalStudies in Epidemiology'* (STROBE) were followed to write manuscript.

The territory of operation of the 4th CRS/RS is composed of 32 municipalities. The research was conducted in 148 PHC units in two health regions: Verdes Campos and Entre Rios. The headquarters of the 4th CRS is located in Santa Maria/RS 286 km from the capital and has 542,357 inhabitants. [10]

Note that the Verdes Campos Region has a population of 417,906 inhabitants and is composed of 21 municipalities: Santa Maria; Quevedos; Júlio de Castilhos; Pinhal Grande; Toropi; São Martinho da Serra; Nova Palma; São Pedro do Sul; Itaara; Ivorá; Faxinal do Soturno; Dona Francisca; Silveira Martins; São João do Polesine; Agudo; Dilermando Aguiar; Restinga Seca; Paraíso do Sul; Formigueiro; São Sepé and Vila Nova do Sul, totaling 101 PHC units (40 UBS/T and 61 UBS/ESF). The Entre Rios Region is made up of 11 municipalities with 123,915 inhabitants and includes: Santiago; Itacurubi; Unistalda; Capão do Cipó; São Francisco de Assis; Esperança do Sul; Jaguari; Jari; Mata; São Vicente do Sul and Cacequi, totaling 47 PHC units (20 UBS/T and 27 UBS/ESF). [11]

The population of this sample was composed of 1,061 family members/caregivers of children who access PHC services. The sample was non-probability, by convenience, considering the estimated population mean through the sample calculation of children belonging to the municipalities of the 4th CRS/RS.The convenience sample involves convenient participants available to participate in the study, i.e., those who were available in the Basic Health Units at the time of collection. This method is usually less time consuming, more accessible and easier to process. [12]

Inclusion criteria were adopted as being a caregiver or legal guardian of children who had PHC as a gateway and had accessed it more than once to obtain assistance, aged ≥ 18 years on the date of the interview. Those who did not have cognitive and physical abilities to answer the instrument and also those who were undergoing their first care in the service were excluded.

Data collection and Variables assessed

For data collection, we used the PrimaryCare Assessment Tool (PCATool) Brazil in its child version. This instrument measures the presence and extension of the following attributes: first contact access, longitudinality, integrality, care coordination, in addition to family orientation, community orientation and cultural competence, [6] following the assumptions of Donabedian's assessment triad.[5] Data collection occurred in the period from January to June 2015 through tablets with Epi Info® 7.0 software that contained the socioeconomic and demographic questionnaire, as well as the PCATool Brazil child version.

Therefore, it was possible to export the data collected available on the tablets to a computer/notebook to ensure data reliability and minimize possible failures, both in the device and in typing errors and repeated data. The evaluators (undergraduate and graduate students of UFSM) received a training with a workload of 10 hours to understand the instrument and its content, prior to contact with the interviewees. The research instruments were applied in person at the Health Units, with prior contact with the coordinators to learn about the routine of each unit and to inform about the possibility and availability for the research, in order to coincide data collection with the service routine of the unit, without causing damage to the sector. The assessments, in order to preserve anonymity and prioritize the interviewees' privacy, were carried out in reserved places.

The attribute integrality in PHC was considered as an outcome of this study and was categorized dichotomously with cut-off points of <6.6 for low score of the attribute and >6.6 for high score of the attribute. When the sum of blank answers and those with assigned value "(9)" reached 50% or more of the total items of the component, the respondent was excluded from the analysis. In the case of these values being lower than 50% of the total number of items, the value "(9)" was transformed into the value "(2)". This transformation was considered necessary to score negatively when there were characteristics of this instrument not recognized by the interviewee. [6]

The socioeconomic variables collected were: gender of the child (male/female), age range (up to 5 years/6 to 11 years/12 to 18 years), presence of health insurance (yes/no), which was the health care model accessed (UBS/USF/Mista) and what was the monthly family income, knowing that the minimum wage at the time of collection was R$788.00 (Up to R$788.00/ R$789.00 to R$1. 576.00/ R$1,577.00 to R$2,364.00/ R$2,365.00 to R$3,152.00/ More than R$3,152.00).

The contextual variables, meanwhile, were extracted from an ecological bank prepared by the researchers according to the characteristics of the municipalities in which the interviewed users lived. These were: health region to which the participant belonged (Verdes Campos and Entre Rios), the population size of the municipality where they lived (50 thousand inhabitants or more/25001 up to 50 thousand/2001 up to 25 thousand/ 15001 up to 20 thousand/ 10001 up to 15 thousand/ 5001 up to 10 thousand/ 4001 up to 5 thousand /3001 up to 4 thousand/ up to 3 thousand) and the vaccination coverage categorized into tertiles (up to 80.62%/ from 80.63% to 96.43%/ more than 96.43%).

For the statistical analysis, a theoretical model was prepared to explain the relations of the different levels of the

variables, listing the individual and contextual dimensions and their effect on the outcome of the attribute of completeness (Figure 1).

Figure 1. Theoretical model of the integrality attribute in child care in primary health care, according to individual and contextual characteristics.
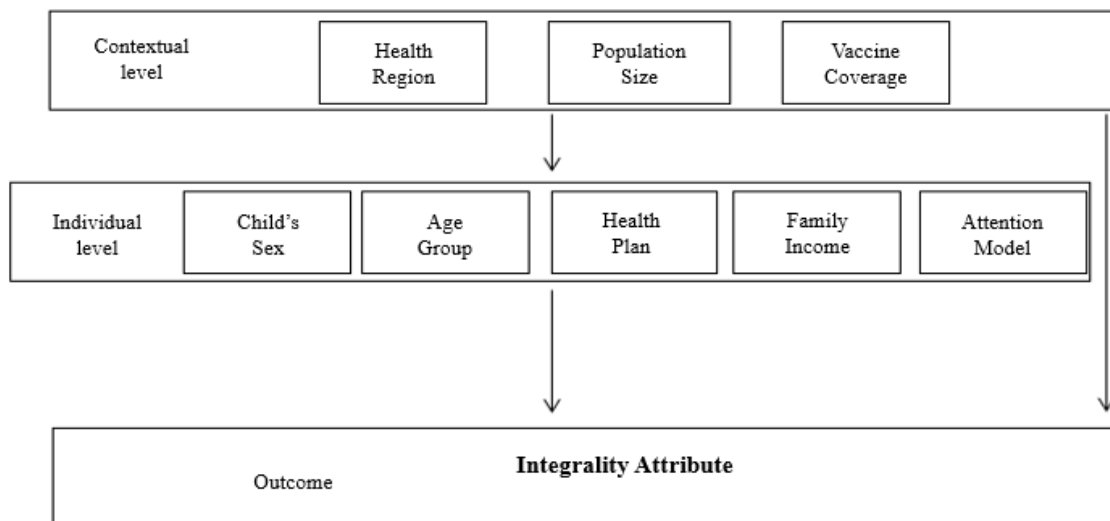
Statistical analysis

Data were analyzed using SoftwareStata 14.0 (Stata Corporation, CollegeStation, TX, USA). We verified the absolute and relative frequencies of the variables studied, the presence of the integrality attribute and the difference between the categories through a multilevel Poisson regression, in which the first level were the study participants, included in the second level their cities of origin.

Prevalence ratios with their respective confidence intervals of 95% and significance level of 5% were obtained through two-stage modeling, in which model 1 considered only the contextual variables and model 2 added the block of individual variables to these. For the analysis of model adjustment, the deviance (Log likelihood) was used, thus verifying significant statistical changes between the models.

Ethical precepts

The present study was appraised and approved by the Research Ethics Committee of the Federal University of Santa Maria, under the number of the Certificate of Submission for Ethical Appreciation (CAAE: 34137314.4.0000.5346) and report 756.292. All participating relatives/caregivers signed the Informed Consent Form (ICF), accepting to participate in the study. The project received financial support from the National Council for Scientific and Technological Development (CNPq), through the MCTI/CNPQ/Universal edict 447000/2017-4.

Results

Of the total sample of 1,061 interviewees, 1,000 completed the questions related to the attribute integrality, and the prevalence of this attribute in the sample studied was 45% (CI: 41.9-48.1). The description of the sample, prevalence of the attribute integrality and raw Prevalence Ratios are presented in Table 1.

Table 1. Sample description, prevalence of the attribute integrality and crude Prevalence Ratios, Brazil, 2015 (n=1,000).

VARIABLE	n (%)	Prevalence of Integrality (95% CI)	Crude PR (95% CI)	p-value
Region				
Green Fields	767 (76.78)	46.15 (42.64-49.70)	1	
Among Rivers	232 (23.22)	40.94 (34.78-47.41)	0.89 (0.71-1.11)	0.300
Population Size				
50 thousand or more	473 (47.30)	47.78 (43.30-52.30)	1	
25,001 to 50 thousand	80 (8.00)	45.00 (34.42-56.05)	0.94 (0.66-1.34)	0.738
20,001 to 25 thousand	104 (10.40)	43.27 (34.05-52.98)	0.91 (0.66-1.25)	0.544
15,001 to 20 thousand	103 (10.30)	43.69 (34.40-53.44)	0.91 (0.66-1.26)	0.583
10,001 to 15 thousand	52 (5.20)	32.69 (21.28-46.60)	0.68 (0.42-1.12)	0.131
5,001 to 10 thousand	91 (9.10)	42.86 (33.06-53.25)	0.90 (0.64-1.26)	0.531
4,001 to 5 thousand	29 (2.90)	44.83 (27.82-63.14)	0.94 (0.54-1.64)	0.823
3,001 to 4 thousand	38 (3.80)	31.58 (18.74-48.02)	0.66 (0.37-1.18)	0.162
Up to 3 thousand	30 (3.00)	56.67 (38.53-73.18)	1.18 (0.72-1.94)	0.498
Vaccine Coverage				
Up to 80.62%	195 (19.50)	40.51 (33.82-47.57)	1	
80.63% to 96.43%	691 (69.10)	46.60 (42.90-50.34)	1.15 (0.90-1.47)	0.265
More than 96.43%	114 (11.40)	42.98 (34.18-52.26)	1.06 (0.74-1.52)	0.745
Sex				
Male	482 (48.39)	47.30 (42.87-51.78)	1	
Female	514 (51.61)	43.00 (38.77-47.33)	0.91 (0.76-1.09)	0.312
Age Group				
Up to 5 years-old	442 (45.06)	50.45 (45.79-55.11)	1	
6 to 11 years-old	322 (32.82)	45.34 (39.96-50.83)	0.90 (0.73-1.11)	0.316
12 to 18 years-old	217 (22.12)	35.48 (29.38-42.10)	0.70 (0.54-1.91)	0.008
Health Plan				
Yes	171 (17.20)	51.46 (43.96-58.90)	1	
No	823 (82.80)	43.74 (40.38-47.16)	0.83 (0.65-1.06)	0.135
Attention Model				
BHU	418 (42.61)	45.21 (40.49-50.03)	1	
FHS	426 (43.43)	46.48 (41.78-51.24)	1.03 (0.84-1.25)	0.786
Mixed	137 (13.97)	41.60 (33.62-50.06)	0.92 (0.68-1.24)	0.582
Family Income[£]				
Up to R$788.00	390 (39.35)	42.82 (37.98-47.80)	1	
R$789,00 to R$1,576.00	427 (43.09)	46.60 (41.90-51.36)	1.09 (0.89-1.34)	0.420
R$1,577.00 to R$2,364.00	103 (10.39)	48.54 (39.01-58.19)	1.13 (0.83-1.55)	0.436
R$2,365.00 to R$3,152.00	50 (5.05)	38.00 (25.60-52.20)	0.89 (0.55-1.43)	0.622
More than R$3,152.00	21 (2.12)	47.62 (27.41-68.64)	1.11 (0.59-2.10)	0.744

* Values below 1,000 are part of missing data.
95% CI: 95% of Confidence Interval; PR: Prevalence Ratio;
BHU: Basic health Unit; FHS: Family Health Strategy.
[£] In Brazilian Reais (One dollar was equivalent to approximately 4 Brazilian Reais in 2015).

Concerning the population studied, with regard to the contextual level, the highest proportion of the sample was in the region Verdes Campos, with 767 individuals (76.78%), while in the region Entre Rios was 232 individuals (23.22%). Regarding the population size, the highest frequency was in cities with 50 thousand inhabitants or more (47.30%) and with vaccination coverage of 80.63% to 96.43% (69.10%).

As for the individual level of the population studied, the gender of the child was distributed in greater proportion in the female, with 514 users (51.61%), while the male had 482 users (48.39%); the largest representation of the age group of these was

up to 5 years of age (45.06%). Regarding health insurance, it was shown that most of the studied population did not have health insurance (82.80%) and only 171 (17.20%) did. Of the total, 427 (43.09%) informed having family income of R$789.00 to R$1,576.00, followed by 390 (39.35%), who informed income of up to R$788.00. Regarding the model of care, 137 (13.97%) referred as a source of care the mixed units, while 418 (42.61%) of the population were affiliated to the UBS and, of these, 426 (43.43%) were enrolled in the ESF.

The prevalence of the integrality attribute was present in both regions, being 46.15% in the Verdes Campos region and 40.94% in the Entre Rios region. A higher prevalence was found in cities with population size of up to 3,000 inhabitants (56.67%) and with vaccination coverage of 80.63% to 96.43% (46.60%). As for the individual variables, all presented gross prevalence of the attribute integrality, and its highest value was found in those who had a health plan (51.46%) and its lowest value among those who were in the age group of 12 to 18 years (35.48%).

The association between individual and contextual variables with the attribute integrality showed association only for the age group 12 to 18 years (PR: 0.70; CI: 0.54-1.91) in the analysis of crude prevalence ratio. The modeling of prevalence ratios adjusted for contextual and individual level variables are presented in Table 2.

Table 2. Adjusted Prevalence Ratio for Healthcare Team Level Variables and Individual Variables, Brazil, 2015 (n=1,000).

VARIABLE	Model 1 Adjusted PR (95% CI)	p-value*	Model 2 Adjusted PR (95% CI)	p-value*
Region				
Green Fields	1		1	
Among Rivers	0.96 (0.64-1.43)	0.838	0.96 (0.62-1.47)	0.837
Population Size				
50 thousand or more	1		1	
25,001 to 50 thousand	0.98 (0.58-1.67)	0.947	0.99 (0.56-1.73)	0.964
20,001 to 25 thousand	1.21 (0.67-2.18)	0.526	1.18 (0.62-2.25)	0.610
15,001 to 20 thousand	1.10 (0.70-1.74)	0.677	1.05 (0.64-1.72)	0.842
10,001 to 15 thousand	0.78 (0.40-1.50)	0.449	0.77 (0.39-1.52)	0.453
5,001 to 10 thousand	0.96 (0.66-1.40)	0.820	0.86 (0.55-1.34)	0.507
4,001 to 5 thousand	1.04 (0.56-1.95)	0.888	1.05 (0.54-2.06)	0.877
3,001 to 4 thousand	0.78 (0.40-1.53)	0.472	0.84 (0.42-1.68)	0.615
Up to 3 thousand	1.43 (0.76-2.70)	0.272	1.52 (0.78-2.98)	0.223
Vaccine Coverage				
Up to 80.62%	1		1	
80.63% to 96.43%	1.34 (0.81-2.20)	0.252	1.38 (0.80-2.37)	0.241
More than 96.43%	1.15 (0.69-1.93)	0.585	1.19 (0.68-2.05)	0.541
Sex				
Male			1	
Female			0.93 (0.77-1.13)	0.461
Age Group				
Up to 5 years-old			1	
6 to 11 years-old			0.90 (0.72-1.11)	0.326
12 to 18 years-old			0.70 (0.53-0.91)	**0.008**
Family Income£				
Up to R$788.00			1	
R$789,00 to R$1,576.00			1.04 (0.83-1.29)	0.752
R$1,577.00 to R$2,364.00			0.98 (0.70-1.38)	0.919
R$2,365.00 to R$3,152.00			0.81 (0.49-1.34)	0.417

More than R$3,152.00	1.13 (0.56-2.28)	0.736
Health Plan		
Yes	1	
No	0.77 (0.59-1.01)	0.056
Attention Model		
BHU	1	
FHS	1.06 (0.84-1.35)	0.599
Mixed	0.96 (0.67-1.37)	0.817

* referring to adjusted Prevalence Ratio.
Model 1: only contextual variables.
Model 2: contextual variables with p<10% of model 1, plus health team level variables.
95% CI: 95% of Confidence Interval; PR: Prevalence Ratio;
BHU: Basic health Unit; FHS: Family Health Strategy.
£ In Brazilian Reais (One dollar was equivalent to approximately 4 Brazilian Reais in 2015).

After adjusting the analysis only for contextual variables, no statistically significant association was found with the assessed attribute. When the final adjustment was made (model 2), children aged 12 to 18 years presented 30% lower prevalence of the attribute integrality when compared to those up to 5 years old, regardless of the other variables (CI: 0.53-0.91).

Discussion

The study revealed that those responsible for older children seek health services in PHC in a less comprehensive way, in other words, there was a higher prevalence of the attribute integrality among children up to five years of age. Those responsible for children up to five years of age seek more health services in PHC to perform actions that include childcare and vaccination. Moreover, younger children are sometimes sick more often, since at this stage of life there is a higher prevalence and exposure to risks and dangers related to new diseases.[13] The Child and Adolescent Statute (ECA), regulated by Law No. 8,069/1990 and updated in 2020, considers a child to be a person up to 12 years of age and an adolescent to be a person between 12 and 18 years of age.[14] The prevention of diseases and illnesses in children presents a set of measures to be taken, which require the articulation of care from PHC to services of greater complexity, thus consolidating the Health Care Networks (RAS).[7]

Regarding comprehensiveness, 45% of respondents attributed the prevalence of the attribute in the evaluated scenario. Such findings corroborate research that used the child version of the PCATool and evaluated the attribute integrality, showing that the services still have gaps related to the availability of services provided, for which the family and/or caregivers need to have resources to obtain them in order to guarantee integrality. [8-13] For Starfield, integrality is characterized by the recognition of the real needs of the population, so that users should be directed to a broad context of health, focused on comprehensive care and the variety of available services that meet their needs adequately.[1]

Concerning the contextual level, the gross prevalence of integrality and its associated factors was analyzed considering the existence of two regions and an eventual higher gross prevalence of the attribute in the Verdes Campos region may have been due to its higher sample size, besides the fact that the city of Santa Maria, main reference of the 4th CRS/RS, belongs to Verdes Campos. The highest proportion of integrality was in cities with up to 3 thousand inhabitants, demonstrating a better performance of smaller cities in meeting the real needs of the population.[13]

A reduced frequency of completeness was demonstrated in municipalities with vaccination coverage of

up to 80.62%, proving that the greater the vaccination coverage, the greater the prevalence of the attribute completeness, which means that the "availability of vaccines" meets the needs of the enrolled population. Corroborating this result, Diniz and colleagues evidenced in their study the vaccination coverage with satisfactory scores.[13] A possible evaluation to be performed regarding the finding considers that the municipalities have in their health teams the presence of nursing professionals, which has the assignment of coordinating the immunization program in the territories, which makes monitoring more effective. Similarly, it is noteworthy that the National Immunization Program has been referred to as effective in the PHC space, responding positively in ensuring comprehensive care. Vaccination is considered the most effective way to prevent various diseases. Vaccination actions are coordinated by the National Immunization Program (PNI), which aims to eradicate, eliminate and control immunopreventable diseases in the Brazilian territory.[7]

Regarding the other variables of individual level, most of the study population did not have health insurance and used the PHC services; however, the gross prevalence of the attribute integrality had its highest value found among those who had health insurance. In this context, it is noteworthy that the integrality stands out for the interaction of health services, which should promote integration between spontaneous and programmed demand in PHC services, especially in the face of the adverse socio-political context that the country and the world are currently facing with the Covid-19 pandemic, a viral strain of the Coronaviridae family (SARS-CoV-2) that has been spreading rapidly across all continents and causing countless deaths, in addition to extensive economic and social losses. [15-17] Investing in the core of primary care is a fundamental strategy both to contain the pandemic and to prevent the aggravation of people with Covid-19.[17] Because of this situation, it is possible that

there is an impact on the picture observed in this study. However, access to health services has presented itself as a barrier to care, which can contribute to the search for private health plans, because people may encounter difficulties in accessing PHC that are related to their political and cultural dimensions, thus hindering access.[18,19]

Despite having a private health plan and attending these services, the child sometimes continues to be linked to PHC, seeking services such as immunizations, counseling, guidance on keeping the child healthy and monitoring of growth and development, thus strengthening the integrality of care. This reality demonstrates the need for PHC to expand the network of services offered so that the basic needs of children and their families are met.[20] Furthermore, socioeconomic determinants, such as income and education of the guardian, may be influencing the greater presence of the attribute of completeness in children with health insurance, because usually those who have health insurance also have better living conditions and thus have greater insight into the need for comprehensive care to the child and more easily perform it.[21]

According to the model of care, the study predominated the population enrolled in FHS services, followed by UBS and then the mixed units. It is pertinent to consider the difference in PHC models, such as ESF and UBS, which determine different forms of the work process for the production of care and child health care.[22] In the study, the attribute integrality was assessed in the three models of care (ESF, UBS and mixed unit) and showed no statistical difference between them, although the users of ESF showed a higher prevalence of comprehensive care.

The integrality of care is described as an articulated action between health services, team and community, in which the interaction and bond between professional/user become essential. However, the lack of an appropriate environment with adequate working

conditions is identified, including availability of equipment, materials and instruments considered essential for health care, in addition to adequate physical structure, factors that contribute to the referral of children to secondary and tertiary health care services, which directly interferes in the completeness of care.[23-25]

The literature points out several failures in the referral and counter-referral system of health services: there are gaps in the articulation of health services and the teams that operate in them, the PHC itself has limitations in solving the health problems of the child, for which the family and/or caregivers end up reporting to other levels of care, sometimes not considering this level of care as the gateway, a situation that makes us realize the absence of care in the various levels of care, interfering with the care of essential attributes and derived from the PHC, especially completeness.[25] The PHC develops essential actions in health promotion, disease prevention and health recovery, with a key role in facing the existing challenges before the degree of organization and presence of the attributes. Despite this, there is still much to advance in these issues to achieve a continuous and problem-solving assistance.[26]

The achievement of comprehensiveness is directly linked to the reconstruction of the way of producing care, as well as the working models in force in health services, in which the performance of the PHC team directly impacts the consolidation of assistance and effectiveness directed to child care, promoting a comprehensive look, focused on the child and his family, performing interventions such as vaccine administration and guidance.[8] PHC services must perform health actions based on the characteristics of the territory, so much so that territoriality is one of the actions to be performed by these services when they are inserted in it. Thus, health services should know the population living in their area of coverage to perform actions aimed at their needs.

In what concerns the non-significant findings, these can be attributed to the non-probabilistic sampling process in which the data collection took place, which, in a way, generated a selection bias, leading to the absence of the statistical difference between individuals. As it is a regional sample, for the selection of the attribute difference, a larger number of individuals should be interviewed, because the largest proportion of the sample evaluated corresponded to the municipality with the largest population compared to the others, which may have influenced the results.

The selection of interviewees is also a limitation of this study, which took place among users who sought care in the PHC, a situation that may have led to a bias due to the fact that these people are more accessible and have common characteristics. Moreover, the study participants may have given a positive opinion in the evaluation of the service for being interviewed within the premises of the same, thus avoiding tensions and possible damage in the assistance received, even though the participants were guaranteed confidentiality. Regarding the methodological design of the study, as it is a cross-sectional methodology, it is not possible to establish a causal relationship between the variables studied, but an association between them.

As contributions, the study demonstrated the presence of the integrality attribute throughout a health region, a fact that until then had been limited to the municipalities. The organization of care should be taken in relation to the various levels of complexity and skills that directly integrate the services provided or made available, considering the health care needs in favor of care, and it is up to managers to provide, organize and coordinate the services available, articulating those that constitute the RAS.[1]

Finally, it is noteworthy that a multilevel statistical analysis was used to verify these data, a correct approach for this type of study, which considers the various

strata in which the participants are inserted and then makes the results useful as subsidies for the attribute of integrality to be considered in the planning of health promotion and disease prevention actions by public authorities.[27]

Conclusion

This study concluded that those responsible for older children seek health services in Primary Health Care in a less comprehensive way. The prevention of diseases and illnesses in children requires a set of measures to be taken, which should articulate the care so that there are fewer limitations and more opportunities for children and their families to access health services in a comprehensive way, especially in the case of older children. This study reaffirms the importance of PHC in child and adolescent care, demonstrating that investments in PHC respond positively in health indicators. The results found in the study show the role of PHC in coordinating the network of care, ensuring completeness to the extent that it is more effective, demonstrating the role of SUS to ensure the health of the population. It is expected that this study contributes to nursing for the construction of new foundations and health practices, related to the completeness in child health in PHC, as well as contribute to the consolidation of PHC in the 4th CRS/RS with the (re)-structuring of care processes that strengthen the importance of PHC as a gateway to the RAS in a resolute and comprehensive way, making subjectivity and uniqueness visible.

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