

# Prevalence of longitudinality and associated factors in child' care

## *Prevalência de longitudinalidade e fatores associados no cuidado às crianças*

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### Abstract

**Introduction:** Longitudinality is a principles of Primary Health Care (PHC) established when there is a bond and trust relationship between users and professionals. **Aim:** This study aimed to analyze the prevalence of longitudinality attribute in the experience of parents and/or caregivers of children associated with individual and contextual factors in the municipalities from fourth Regional Health Coordination of the state of Rio Grande do Sul, Brazil. **Methods:** This is a multilevel cross-sectional study that was carried out with a sample of 1,059 parents and/or caregivers of children who accessed the Primary Health Care services. For data collection, a characterization questionnaire and the Primary Health Care Assessment Instrument Brazil, child version were used. The data were analyzed using the statistical software STATA 14.0, where a multilevel Poisson regression model was performed. **Results:** The study shows that smaller municipalities had a lower prevalence of the attribute, and that the greater the vaccination coverage, the greater the prevalence. Also, parents/caregivers who have a health plan recognize PHC services as a regular source of care. The final model did not show a statistically significant association with the evaluated attribute. **Conclusion:** There was no distinction in the prevalence of longitudinality between the different models of care and this shows that we need to improve the work process of the Family Health teams, since this model should be more oriented towards longitudinality than the traditional and mixed models.

**Keywords:** Primary health care. Child health. Health services research.

### Resumo

**Introdução:** A longitudinalidade é um dos princípios da Atenção Primária à Saúde (APS) estabelecida quando há uma relação de vínculo e confiança entre usuários e profissionais.

**Objetivo:** Analisar a prevalência do atributo longitudinalidade na experiência do familiar e/ou cuidador de crianças associado aos fatores individuais e contextuais nos municípios que compõe a quarta Coordenadoria Regional de Saúde do estado do Rio Grande do Sul, Brasil.

**Método:** Foi realizado um estudo transversal multinível com amostra composta por 1.059 familiares e/ou cuidadores de crianças que acessaram os serviços de Atenção Primária à Saúde.

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Para coleta de dados utilizou-se questionário de caracterização e o Instrumento de Avaliação da Atenção Primária à Saúde Brasil versão criança. Os dados foram analisados utilizando o programa estatístico STATA 14.0, onde realizou-se uma análise de regressão de Poisson multinível. **Resultados:** O estudo revelou que municípios de menor porte apresentaram menor prevalência do atributo, e que, quanto maior a cobertura vacinal maior a prevalência. Ainda, familiares/cuidadores que possuem plano de saúde reconhecem os serviços de APS como fonte regular de cuidado. O modelo final não mostrou associação estatisticamente significativa com o atributo avaliado. **Conclusão:** Não houve distinção na prevalência de longitudinalidade entre os diferentes modelos de atenção e isso demonstra que há necessidade de aprimorar o processo de trabalho das equipes de Saúde da Família, visto que este modelo deveria estar mais orientado para a longitudinalidade de que o modelo tradicional e misto.

**Palavras-chave:** Atenção Primária à Saúde. Saúde de Criança. Pesquisa sobre serviços de saúde.

## Introduction

Primary Health Care (PHC) is the first level of user contact with health systems, the main element of a continuous health process, and is configured as a strategy to produce sustainable improvements and greater equity in the health status of the population.<sup>1</sup> In Brazil, PHC is represented by three different models of care: traditional Basic Health Units (BHU), Family Health Strategies (FHS) and Mixed Units (BHU and FHU).

The PHC brings with it structuring attributes considered essential for its effectiveness, which are: first contact access, longitudinality, integrality, and care coordination; and also derived attributes, which qualify the actions in PHC: family orientation, community orientation and cultural competence.<sup>2</sup> Among them, the attribute of longitudinality stands out, which is effective when the user recognizes a health service as his usual source of care and uses it over time. Longitudinality is established when there is a relationship of bond and trust between users and professionals, and promotes continuity of care and health information.<sup>3-4</sup>

Regarding child care in PHC, the Ministry of Health (MOH) has been developing strategies such as the National Policy of Integral Attention to Child Health (PNAISC), which guides and qualifies actions and services for child health. The PNAISC aims to enhance the quality of life and ensure the longitudinality of care from changes in the technical-assistance model,

represented by expanding access to services, defragmentation of assistance and changes in the way the care for pregnant women and newborns has been performed.<sup>5</sup> Thus, child care in PHC should begin in the first week of life and continue continuously, involving conditions of health and life context of the family, with intersectoral articulation in the territory, according to the needs of each child/family.

The expansion of PHC through the expansion of the FHS in Brazil has contributed to reducing infant mortality. However, child care still prevails based on the complaint-conduct, with insufficient actions to ensure the presence and extension of longitudinality, since there is an imbalance between the supply of care and the needs of children, with longitudinality remaining a challenge for models of care.<sup>6-8</sup>

The evaluation of PHC services allows knowing its effectiveness and remodeling health practices, aiming at the highest level of orientation for this level of care. To contribute to this evaluation, Starfield<sup>2</sup> and collaborators developed the PrimaryCare Assessment Tool (PCATool), which allows measuring the presence and extension of PHC attributes through interviews with family and/or caregivers of children. This tool captures aspects of structure, process and results in the services, requiring reaffirmation or reformulation in the search for quality in the planning and execution of PHC actions, regardless of the care model. The child version of the PCATool was validated in 2002 in Brazil and its results indicate that the instrument

has adequate validity and reliability<sup>9</sup>

The importance of longitudinal care to children is highlighted, since it is known that it influences the quality of life of children and their caregivers, the development of resilience and self-esteem of the child, the formation of relationships and self-protection, in addition to the comprehensive view and resoluteness of the problems, facilitating the prescription of preventive actions, accuracy in diagnoses, and reduction of costs to the public health system.<sup>8</sup> Thus, this study aims to analyze the prevalence of the attribute longitudinality in the experience of the family member and/or caregiver of children, associated with individual and contextual factors in the municipalities that make up the 4th Regional Health Coordinator of the state of Rio Grande do Sul (4<sup>a</sup>CRS/RS).

## Materials and Methods

### *Study design and sample*

This is a cross-sectional epidemiological observational study, where no intervention is performed, only the observation of a temporary clipping of the situation in a multilevel character, because it takes into account the context in which individuals are allocated.<sup>10</sup> This study is a result of the matrix protejo "PrimaryCare Assessment Tool (PCATool): Evaluation of Primary Care in the 4th Regional Health Coordinator of the State of Rio Grande do Sul (4th CRS/RS)" and was conducted in the municipalities belonging to the 4th CRS/RS.<sup>11</sup>

The research was conducted in 148 PHC units distributed in the 32 municipalities belonging to the 4th CRS/RS, located in the central region of the State of Rio Grande do Sul. This is subdivided into two health regions called Verdes Campos and Entre Rios, with 542,357 inhabitants in the year of data collection.<sup>12</sup>

The region Verdes Campos, with a population of 417.906 inhabitants and 101 PHC units 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. The Entre Rios region has a population of 123,915 inhabitants and 47 PHC units: Santiago, Itacurubi, Unistalda, Capão do Cipó, São Francisco de Assis, Esperança do Sul, Jaguari, Jari, Mata, São Vicente do Sul and Cacequi.<sup>12</sup>

The sample size was defined through sample calculation, considering the estimated average population of children in each municipality belonging to the 4th CRS/RS. The final sample was composed of 1,061 family members and/or caregivers of children who access the PHC services of the 4th CRS/RS. The sample was non-probabilistic, by convenience, which involves the convenient participants available to participate in the study, i.e., those who were available in the Basic Health Units at the time of collection. It was used as inclusion criteria: that the participant should be a caregiver or legal guardian of a child and have accessed more than once the PHC units to obtain health care. The exclusion criterion was defined as: users with difficulties in answering the instrument.

### *Data collection and variables assessed*

A characterization questionnaire and the Primary Health Care Evaluation Instrument PCATool Brazil-child version were used for data collection.<sup>9</sup> Data collection occurred from February to June 2015 and was performed by graduate students of the nursing course of the Federal University of Santa Maria through tablets with Epi Info® 7.0 software. The instrument was applied in person, and the

data were collected in the Health Units, after prior contact with the coordinators, during their operating hours, so as not to cause harm to the care of users and the professionals' work. The evaluations were carried out in a reserved place in order to preserve the anonymity and privacy of the interviewees.

The individual level data were extracted from the application of the instrument PCAtool-Brazil child version and the socioeconomic and demographic questionnaire, while the contextual level data are related to the characteristics of the municipalities in which the interviewed users lived (population size and vaccination coverage), and this information was extracted from the Brazilian Institute of Geography and Statistics IBGE and the Department of Information Technology Management (BI Health).

Contextual variables (municipality level) were based on the health region to which the participant belonged (Verdes Campos and Entre Rios), the population size of the municipality in which he/she lived (50,000 inhabitants or more/25001 up to 50,000/2001 up to 25,000/ 15001 up to 20,000/ 10001 up to 15,000/ 5001 up to 10,000/ 4001 up to 5,000 /3001 up to 4,000/ up to 3,000) and the vaccination coverage in the municipality (up to 80.62%/ from 80.63% to 96.43%/ more than 96.43%).

The individual variables used were collected through an interview with the family member and/or caregiver and

included: gender of the child (male/female), age range (up to 5 years/6 to 11 years/12 to 18 years), whether the child had health insurance (yes/no), what was the health care model accessed (UBS/USF/Mista) and what was the monthly family income (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).

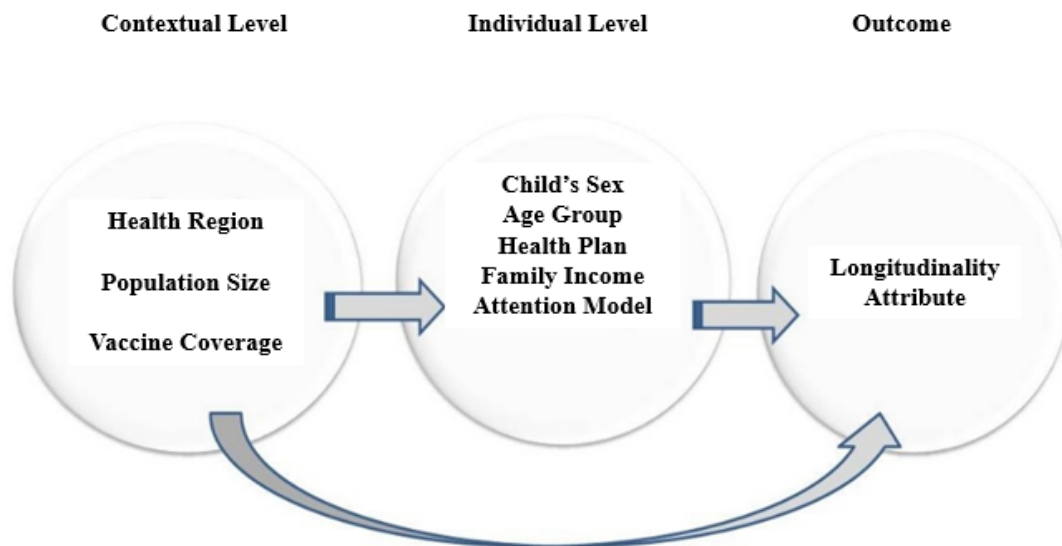
The outcome of this study was the prevalence of longitudinality in child care in PHC. The attribute longitudinality in PHC was collected through the PCAtool-Brazil child version and was categorized dichotomously with cut-off points of <6.6 for low score of the attribute and >6.6 for high score of the 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.<sup>2</sup>

#### *Statistical analysis*

To explain the relations between variables, a theoretical model was prepared, organized according to the individual and contextual dimensions of the longitudinality attribute (Figure 1).

## Figure and Tables

**Figure 1.** Theoretical model of longitudinality in child care in primary health care, in the experience of the family member and/or caregiver, according to individual and contextual characteristics.



Data were analyzed using the statistical program STATA 14.0 (Stata Corporation, CollegeStation, TX, USA). In the descriptive analysis, the absolute and relative frequencies of the variables studied were verified, as well as the prevalence of the attribute evaluated according to each variable. The comparison of the proportions of variables with the attribute longitudinality was also performed using the Chi-square test and multilevel Poisson regression to verify the association between the contextual and individual variables with the attribute, where in the first level the study participants were considered, included in their respective cities (second level), to obtain the crude and adjusted prevalence ratios with their respective confidence intervals of 95% and significance level of 5%. The modeling used occurred in two stages: Model 1 (only the contextual variables in the adjustment within the own block); and Model 2 (the contextual variables plus the individual variables). For the adjustment analysis of the models it was used the deviance (loglikelihood), thus verifying statistically significant changes between them.

### *Ethical precepts*

This study is part of a matrix project submitted to and approved by the Research Ethics Committee of the Federal University of Santa Maria (CAAE 34137314.4.0000.5346).

As for the ethical aspects of the present study, they were ensured in accordance with Resolution No. 466 of 12 December 2012 that concerns research involving human beings. The project was funded with resources from the National Council for Scientific and Technological Development Edital 447000/2017-4.

### **Results**

The study considered 1,059 respondents, who completed 50% or more of the answers regarding longitudinality. The results of the evaluation of the longitudinality of PHC, according to the experiences of the family member and/or caregiver of children, are presented in Table 1.

**Table 1.** Sample description, prevalence of the longitudinality attribute and crude prevalence ratios using multilevel Poisson regression (n=1,059).

VARIABLE	n (%)	Longitudinality Prevalence (95% CI <sup>a</sup> )	Crude PR <sup>b</sup> (95% CI <sup>a</sup> )	p-value
<b>Region</b>		0.365*		
Green Fields	811 (76.58)	71.1 (67.9-74.1)	1	
Among Rivers	248 (23.42)	68.1 (62.06-73.6)	0.95 (0.80-1.13)	0.622
<b>Population Size</b>		0.260*		
50 thousand or more	499 (47.08)	72.1 (68.0-75.9)	1	
25,001 to 50 thousand	92 (8.68)	70.6 (60.5-79.08)	0.97 (0.75-1.27)	0.877
20,001 to 25 thousand	110 (10.38)	75.4 (66.5-82.6)	1.04 (0.82-1.32)	0.713
15,001 to 20 thousand	112 (10.57)	61.6 (52.2-70.1)	0.85 (0.66-1.10)	0.230
10,001 to 15 thousand	54 (5.9)	77.7 (64.6-87.0)	1.07 (0.78-1.48)	0.644
5,001 to 10 thousand	93 (8.77)	60.2 (49.9-69.6)	0.83 (0.62-1.10)	0.208
4,001 to 5 thousand	31 (2.92)	90.3 (73.5-96.9)	1.25 (0.85-1.83)	0.252
3,001 to 4 thousand	39 (3.68)	53.8 (38.1-68.8)	0.74 (0.48-1.15)	0.193
Up to 3 thousand	30 (2.83)	76.6 (58.1-88.6)	1.06 (0.69-1.61)	0.777
<b>Vaccine Coverage</b>		0.520*		
Up to 80.62%	204 (19.25)	68.6 (61.9-74.6)	1	
80.63% to 96.43%	739 (69.72)	70.9 (67.5-74.0)	1.03 (0.85-1.24)	0.732
More than 96.43%	117 (11.04)	70.9 (62.0-78.4)	1.03 (0.78-1.35)	0.811
<b>Sex</b>		0.488*		
Male	514 (48.67)	69.4 (65.3-73.2)	1	
Female	542 (51.33)	71.4 (67.4-75.0)	1.02 (0.89-1.18)	0.707
<b>Age Group</b>		0.560*		
Up to 5 years-old	477 (45.78)	71.9 (67.6-75.7)	1	
6 to 11 years-old	337 (32.34)	70.3 (65.2-74.9)	0.97 (0.82-1.15)	0.792
12 to 18 years-old	228 (21.88)	70.1 (63.8-75.7)	0.97 (0.80-1.17)	0.799
<b>Health Plan</b>		0.631*		
Yes	185 (17.54)	71.8 (64.9-77.9)	1	
No	870 (82.46)	70.1 (66.9-73.07)	0.97 (0.80-1.17)	0.794
<b>Attention Model</b>		0.201*		
BHU	439 (42.17)	74.9 (70.6-78.7)	1	
FHS	456 (43.80)	68.4 (63.9-72.5)	0.91 (0.78-1.06)	0.249
Mixed	146 (14.02)	66.4 (58.3-73.6)	0.88 (0.70-1.11)	0.297
<b>Family Income<sup>‡</sup></b>		0.131*		
Up to R\$788.00	417 (39.64)	68.1 (63.4-72.4)	1	
R\$789,00 to R\$1,576.00	451 (42.87)	75.1 (70.9-78.9)	1.10 (0.94-1.29)	0.220
R\$1,577.00 to R\$2,364.00	110 (10.46)	72.7 (63.6-80.2)	1.06 (0.83-1.36)	0.604
R\$2,365.00 to R\$3,152.00	53 (5.04)	56.6 (42.9-69.3)	0.83 (0.57-1.21)	0.335
More than R\$3,152.00	21 (2.00)	52.3 (31.3-72.5)	0.76 (0.42-1.40)	0.393

Values below 1,060 are part of missing data.

95% CI: 95% of Confidence Interval; PR: Prevalence Ratio;

BHU: Basic health Unit; FHS: Family Health Strategy.

<sup>‡</sup> In Brazilian Reais (One dollar was equivalent to approximately 4 Brazilian Reais in 2015).

\*Comparison of the variables with the longitudinality attribute by the p-value of the chi-square test.

Regarding contextual variables, the largest proportion of the sample (76.58%) belonged to the Verdes Campos region, 499 (47.08%) were residents of municipalities with 50 thousand inhabitants or more and 739 (69.72%) had vaccination coverage of 80.63% to 96.43%. The gross prevalence of

longitudinality was 71.1% for the Verdes Campos region and 68.1% for the Entre Rios region. The population size that showed the highest prevalence of longitudinality was that with 4001 to 5 thousand inhabitants (90.3%), and vaccine coverage showed similar gross prevalence

of longitudinality in all categories. The overall prevalence of longitudinality was 68.1% (with a minimum of 62.1% and a maximum of 73.6%).

Regarding the individual variables, there was distribution in equal proportion between the sex of the child, however, the age group with greater representation was up to 5 years, with 477 (45.78%), followed by the age group of 6 to 11 years, with 337 (32.34%). Most participants did not have health insurance (82.42%) and 451 (42.87%) indicated having an average monthly family income of two minimum wages. In reference to the models of care, 42.17% of the sample declared to be affiliated to UBS, 456 (43.80%) were affiliated to ESF, and 146 (14.02%) identified as a source of care the mixed units. Regarding the individual variables in the prevalence of the attribute, a higher gross prevalence of longitudinality (71.9%) was identified in children up to 5 years old. The largest proportion of participants (82.46%) does not have a health insurance

plan and among those who have a health insurance plan, the crude prevalence of longitudinality was similar among the characteristics. It was observed that the lower the family income, ranging from 1 to 3 minimum wages, the higher the prevalence of the attribute evaluated (68.1% to 75.1). Regarding the care model, the gross prevalence of longitudinality was higher in the UBS (74.9%), followed by the ESF (68.4%) and mixed units (66.4%).

The comparisons by the Chi-square test and associations by unadjusted regression between the contextual and individual variables and the attribute of longitudinality are not statistically significant. Table 2, then, presents the adjusted results of the multilevel Poisson regression analysis, where the addition of the block of contextual variables (Model 1) is made in the analysis and, after, of the individual variables of each child together with these (Model 2), show a more explanatory model of the situation.

**Table 2.** Prevalence ratios adjusted for health team level and individual variables using multilevel Poisson regression (n=1,060).

VARIABLE	Model 1 Adjusted PR <sup>a</sup> (95% CI <sup>b</sup> )	p-value	Model 2 Adjusted PR <sup>a</sup> (95% CI <sup>b</sup> )	p-value
<b>Region</b>				
Green Fields	1		1	
Among Rivers	0.88 (0.64-1.20)	0.432	0.88 (0.63-1.25)	0.500
<b>Population Size</b>				
50 thousand or more	1		1	
25,001 to 50 thousand	1.11 (0.73-1.68)	0.614	1.21 (0.77-1.88)	0.394
20,001 to 25 thousand	1.19 (0.76-1.85)	0.436	1.34 (0.82-2.16)	0.231
15,001 to 20 thousand	0.92 (0.64-1.31)	0.648	1.00 (0.68-1.47)	0.982
10,001 to 15 thousand	1.26 (0.79-2.01)	0.319	1.36 (0.83-2.24)	0.215
5,001 to 10 thousand	0.83 (0.61-1.14)	0.264	0.89 (0.62-1.27)	0.535
4,001 to 5 thousand	1.24 (0.79-1.93)	0.339	1.40 (0.86-2.26)	0.166
3,001 to 4 thousand	0.80 (0.48-1.33)	0.396	0.95 (0.56-1.62)	0.876
Up to 3 thousand	1.07 (0.64-1.81)	0.778	1.23 (0.71-2.14)	0.446
<b>Vaccine Coverage</b>				
Up to 80.62%	1		1	
80.63% to 96.43%	1.13 (0.78-1.64)	0.491	1.28 (0.86-1.92)	0.220
More than 96.43%	1.24 (0.83-1.84)	0.284	1.30 (0.85-1.99)	0.216
<b>Sex</b>				
Male			1	
Female			1.02 (0.88-1.19)	0.716
<b>Age Group</b>				
Up to 5 years-old			1	
6 to 11 years-old			0.96 (0.81-1.14)	0.682

12 to 18 years-old	0.98 (0.81-1.19)	0.861
<b>Family Income<sup>‡</sup></b>		
Up to R\$788.00	1	
R\$789,00 to R\$1,576.00	1.05 (0.89-1.25)	0.524
R\$1,577.00 to R\$2,364.00	1.02 (0.78-1.34)	0.851
R\$2,365.00 to R\$3,152.00	0.77 (0.52-1.15)	0.218
More than R\$3,152.00	0.91 (0.47-1.76)	0.795
<b>Health Plan</b>		
Yes	1	
No	0.94 (0.76-1.17)	0.615
<b>Attention Model</b>		
BHU	1	
FHS	0.86 (0.71-1.04)	0.139
Mixed	0.84 (0.64-1.11)	0.240

Model 1: only contextual variables.

Model 2: contextual variables with  $p < 0,05$  of model 2, plus individual level of each child variables.

95% CI: 95% of Confidence Interval; PR: Prevalence Ratio;

BHU: Basic health Unit; FHS: Family Health Strategy.

<sup>‡</sup> In Brazilian Reais (One dollar was equivalent to approximately 4 Brazilian Reais in 2015).

The adjusted prevalence ratios for the variables of the contextual level and individual variables presented  $p$  values higher than 0.05. This result shows that both the contextual model and the final model did not show statistically significant associations with the assessed attribute.

## Discussion

The study revealed that there were no differences in the prevalence of longitudinality according to the variables studied. These findings corroborate the studies that used the PCATool child version and showed that once the user accesses the health service, he considers the service and the professionals as a source of care for routine consultations and new health demands, and relationships of belonging, bonding and trust are established.<sup>13-16</sup>

Regarding the contextual variables (municipality level) that make up the model, the largest proportion of the sample resided in municipalities with 50 thousand inhabitants or more. The data revealed that the prevalence of the longitudinality attribute varies according to the population size of the municipality. This represents a challenge for management, where smaller municipalities require greater technical support from the State Health Secretariat and its regional structures, as well as the

valorization of the Regional Management Collegia, responsible for pacting the flow of users in the network of inter-municipal services.<sup>17</sup> As for monitoring the child's vaccination status, one of the priority programmatic actions of PHC teams, this study revealed that the higher the vaccination coverage, the higher the prevalence of the attribute longitudinality. It is understood that there is a relationship between the family and/or caregiver bond with the PHC services and vaccination coverage. However, there is a gap in the scientific production regarding the relationship between the vaccination status and the prevalence of longitudinality.

We observed a higher prevalence of the attribute longitudinality among children up to 5 years old, understanding that they attend health services more often in the first years of life, receiving guidance on prevention and promotion according to their age group. This corroborates other studies that identified that most of the care to children occurs through spontaneous demand, caused by acute conditions of diseases and illnesses and, most often, those responsible seek the first care in urgency and emergency units, mischaracterizing the PHC as a coordinator of care.<sup>16, 18, 19</sup>

Most participants do not have health insurance and use only PHC services. However, family members and/or



caregivers who have health insurance recognize PHC services as a regular source of care and identify the prevalence of the attribute longitudinality in these services. Similar data were identified in a study conducted in Argentina, in which caregivers of children who used public and private services identified the greatest extent of longitudinality in public services.<sup>20</sup> In a study conducted in the same scenario with adult users, the attribute reached positive scores only among those who used public services.<sup>21</sup> It appears that, even using a private health plan, the child still maintains ties with public services for routine care such as immunizations, and monitoring of growth and development.

In relation to family income, the study showed that family members and/or caregivers who reported income of up to three minimum wages made use of the public service and identified the presence of the longitudinality attribute, which differs from the results of a study conducted in Spain, in which family members and/or caregivers of children with low socioeconomic conditions did not identify the presence of continuity of care, since socio-demographic differences resulted in inequality in the quality and provision of the service.<sup>20</sup>

These findings reaffirm the importance of the role of PHC for the most vulnerable populations, a key space to ensure care for children. However, it must overcome the concept of selective primary care, directed to poor populations, expanding it to the entire population, ensuring universality of care so that everyone can have access to the provision of services of excellence so that the population is not subject to spending on private health insurance.<sup>17</sup>

The highest prevalence of longitudinality was identified in traditional UBSs, followed by ESFs and Mixed Units, demonstrating that users did not identify differences in relation to the work process of the teams existing between the care models studied, diverging from the findings

found in a similar study conducted in the same region with adult users, in which longitudinality was identified with a higher score (6.9) in ESFs.<sup>21</sup>

Other studies that used the child version of PCATool also identified no difference between the models of care and in the work process of the teams.<sup>22-24</sup> These findings may be related to the greater access of the child in spontaneous demand with ongoing acute cases, the difficulty in forming a bond with the family and/or caregiver, the lack of adherence to childcare, and the lack of technical competence for child follow-up.<sup>21,22</sup> It can also be inferred that users have difficulty in recognizing the different models of care, functionalities and understanding the logic of the teams' work process, possibly arising from the low communication skills between teams and users. Thus, maintaining two models of care (UBS and ESF) concurrently can contribute to the fragmentation of care, and to the failure to overcome the biomedical model.<sup>24</sup> There is a need for profound changes in the work process of health units with ESF in order to improve the quality of care and promote effective implementation of the guidelines proposed by the ESF model.<sup>21</sup>

EAs for the non-significant findings, there may be a relationship between the non-probabilistic way in which the sample was collected, which may have generated a selection bias leading to no statistical difference between individuals. Since this is a regional sample, for the selection of the difference of the longitudinality attribute in children, a larger number of individuals should be interviewed, but the study demonstrated the presence of the attribute in a health region, a fact that had been limited until then to one or two municipalities, and result in a possibility to theoretically subsidize managers to include longitudinality as a relevant point in the planning of their actions, providing health professionals with a reflection on the services available and provided to this population.

This study has some limitations, among them the selection of the sample that occurred non-randomly, being composed of family members and/or caregivers more accessible, and these were interviewed in the health unit, which may have led the participants to issue a positive opinion, to avoid tension and possible damage in the assistance to be received. Also in relation to the respondents, they have difficulty in understanding the different models of care and their care flows.

The PCATool allows capturing self-perception and, in general, the user's perception is subjective and varies according to the understanding and experiences of care. Since it is a cross-sectional design, this study does not allow causal statements, only association. Moreover, the study was conducted in a health region of the state of Rio Grande do Sul, and the largest proportion of the stratified sample belonged to the municipality with the largest population compared to the others, which may have influenced the results, since the municipality of Santa Maria stands out in the region. However, Multilevel analysis is appropriate for dealing with these data, as it takes into account the variance associated with each level, individual and context.<sup>10</sup>

## Conclusion

This study analyzed the prevalence of the attribute longitudinality in the experience of the family member and/or

caregiver of children belonging to the cities that make up the 4th CRS. The results identified that there was no distinction in the prevalence of longitudinality among the variables evaluated, including the different models of care. This demonstrates that there is a need to improve the work process of the Family Health teams, since this model should be more oriented towards longitudinality than the traditional and mixed models.

It is possible to infer from this survey that the PHC actions in the municipalities of the 4th CRS/RS are offered in order to contemplate longitudinality. However, there is a need to carry out different types of studies, advancing to the 4th generation assessment, to capture the work processes, the organization and management of the teams, as well as the relationship of bond and communication with the user, so as to reflect on quality parameters and extension of services enforcing the principles that guide the PHC.

This study brings contributions to nursing, considering that this professional category plays a leading role in PHC teams, in the management and coordination of teams, ensuring or not the essential attributes, among them, the longitudinality of care. In relation to child care, the study points out the importance of PHC being the organizer of child care, improving the link and communication between health professionals and users, and PHC professionals with specialized services.

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