

## Assessment of comprehensiveness in children's primary health care as seen by caregivers

*Avaliação da integralidade na atenção primária à saúde da criança na perspectiva dos cuidadores*

*Evaluación de la integralidad en la atención primaria de salud infantil según la perspectiva de los cuidadores*

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### ABSTRACT

**Objective:** to assess, from the caregiver's perspective, the comprehensiveness of children's primary health care in Porto Velho, Brazil. **Method:** in this evaluative, cross-sectional study of 420 caregivers at a children's hospital in 2017, the Primary Care Assessment Tool Brazil – children's version was used and data were analyzed using Statistic 13.0 software. The research was approved by a research ethics committee. **Results:** in evaluation of dimensions of comprehensiveness, children's services available scored an average of 4.67 and services provided, 5.26, showing poor orientation towards primary health care, particularly as regards the guidance received by health personnel on children's growth, safety, social benefits, eyesight and behavioral problems. **Conclusion:** comprehensive child health care is present, although fragmented, requiring that services review child care priorities with family members/caregivers.

**Descriptors:** Child Health; Integrity in Health; Primary Health Care; Health assessment.

### RESUMO

**Objetivo:** avaliar, sob a ótica do cuidador, o atributo da integralidade na atenção primária à saúde da criança no município de Porto Velho, Brasil. **Método:** estudo avaliativo, transversal realizado com 420 cuidadores de crianças atendidas em um hospital infantil em 2017. Utilizou-se o *Primary Care Assessment Tool* Brasil - versão criança e os dados foram analisados pelo *software* Statistic 13.0. A pesquisa foi aprovada pelo Comitê de Ética e Pesquisa. **Resultados:** na avaliação das dimensões do atributo integralidade, o escore médio dos serviços disponíveis (4,67) e dos serviços prestados (5,26) à criança mostrou baixa orientação para a atenção primária à saúde, principalmente no que tange às orientações recebidas pelos profissionais, sobre crescimento, segurança, benefícios sociais, problemas visuais e de comportamento da criança. **Conclusão:** o atributo integralidade na saúde da criança está presente, porém de forma fragmentada, necessitando que os serviços revejam as prioridades nos cuidados à criança junto ao familiar/cuidador.

**Descritores:** Saúde da Criança; Integralidade em Saúde; Atenção Primária à Saúde; Avaliação em saúde.

### RESUMEN

**Objetivo:** evaluar, desde la perspectiva del cuidador, la integralidad de la atención primaria de salud infantil en Porto Velho, Brasil. **Método:** en este estudio evaluativo, transversal de 420 cuidadores en un hospital infantil en 2017, se utilizó la Herramienta de Evaluación de Atención Primaria Brasil - versión infantil y los datos se analizaron mediante el *software* Estadística 13.0. La investigación fue aprobada por un comité de ética en investigación. **Resultados:** en la evaluación de las dimensiones de integralidad, los servicios disponibles para la infancia obtuvieron un promedio de 4,67 y los servicios prestados, 5,26, mostrando una mala orientación hacia la atención primaria de salud, particularmente en lo que respecta a la orientación que recibe el personal de salud sobre el crecimiento, la seguridad, los beneficios sociales, la vista del niño y problemas de comportamiento. **Conclusión:** la atención integral de la salud infantil está presente, aunque fragmentada, lo que requiere que los servicios revisen las prioridades del cuidado infantil con los miembros de la familia / cuidadores.

**Descriptores:** Salud del Niño; Integralidad en Salud; Atención Primaria de Salud; Evaluación de la salud.

## INTRODUCTION

Primary Health Care (PHC) is characterized by a set of actions, in the individual and collective sphere, that cover health promotion and protection, disease prevention, diagnosis, treatment, rehabilitation, harm reduction, and health maintenance. It aims to provide comprehensive care that has an impact on the health determinants and conditioning factors, in addition to promoting people's autonomy<sup>1,2</sup>.

Considered the first level of care in the health system, PHC is responsible for integrality of care and has a coordinating role in the Health Care Network (HCN) centered on the family, provision of guidance, and community participation<sup>1,2</sup>. International studies show that PHC quality is directly associated with better health outcomes<sup>3,4</sup>.

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In Brazil, the performance of PHC services has been assessed through research studies on the extent and presence of essential attributes that qualify these services, such as accessibility, longitudinality, care coordination, and integrity<sup>1,2,5,6</sup>, which represented the focus of this study. The integrity attribute in PHC is understood as a set of preventive and curative actions developed in the individual and collective sphere by a given health unit in articulation with services of other care levels, with the purpose of providing satisfactory responses to the population's care demands and overcoming fragmentation of care. In this perspective, from the services available and provided to children and their family members, biopsychosocial comprehensive care can be evidenced, by means of appropriate actions aimed at health promotion, prevention, cure, and rehabilitation<sup>2,5,6</sup>.

However, although the integrity attribute is considered essential for the functioning of a PHC unit, some studies indicate that, according to the caregivers, there are weaknesses arising from problems in service structure and insufficiency of guidelines from health professionals on children's health care<sup>5-9</sup>. Consequently, there is the need to develop care plans that consider the users' context and respond to their actual health needs<sup>10</sup>.

With the growing expansion of the PHC model in a continental-sized country like Brazil, it is increasingly necessary to conduct studies aimed at assessing the quality of the health services provided<sup>1,10-12</sup>. In these research studies, the view of the people served is essential to support the identification of problems and the reorientation of the care model in order to improve the quality of these services and to deliver integral health care<sup>5-7,9-13</sup>.

Nonetheless, it is verified that most of the studies assessing PHC highlight the barriers faced by the population with regard to accessibility to the services<sup>3-4,7-13</sup> and that research aimed to evaluate the services available and provided by family health teams is still incipient, especially in children's care, from the family caregiver's perspective<sup>5,6,8</sup>.

In view of the foregoing, this study aimed to assess, from the caregiver's perspective, the integrity attribute in childhood PHC in the city of Porto Velho, capital of the state of Rondônia, Brazil.

## METHOD

A cross-sectional and evaluative study conducted in the municipality of Porto Velho, Northern Brazil. The municipality is the largest health region of the state and has 63% coverage of the Family Health Strategy (FHS). In 2017, the municipality had a Human Development Index of 0.736 and a population of 519,436 inhabitants, of which 51,292 were children under five years of age, i.e., 9.8% of the population living in this city<sup>14</sup>.

The study setting was *Hospital e Pronto Socorro Infantil Cosme e Damião* (HICD), considered as the only reference public service in childhood urgency/emergency in Porto Velho. It also receives the so-called spontaneous demand from health units both in the capital city and in other areas of the state. In 2015, of the 56,370 children seen, 73% corresponded to low- and mid-complexity demand<sup>15</sup>.

The population consisted of family members/caregivers responsible for the children under three years old, seen in the aforementioned hospital. Sample calculation had as its base the total of 2,483 children under five years old seen in 2015. The calculation was performed by means of EPI INFO 3.5.4<sup>16</sup>, considering a 5% error and a 95% confidence interval. The predicted initial sample was 333 participants; however, considering an increase of 20% to compensate for possible losses and refusals, a final sample of 420 relatives/caregivers was obtained.

The inclusion criteria were children's caregivers living in the municipality, aged 18 years old or over, who had the Child Health Booklet at the time of the interview, and who reported to be registered in one of the 22 family health units in the municipality of Porto Velho. The study excluded children's caregivers who were in hospitalization or intensive treatment units and those presenting mental health problems or disabilities that precluded their understanding of the instrument.

Data collection took place in the period from April 1<sup>st</sup> to October 30<sup>th</sup>, 2017. A pilot test of the instrument was previously conducted, as well as training of three researchers, who were supervised by the research coordinator. The interviews took place in the morning and in the afternoon, from Monday to Friday, in a reserved place at the reception area of the aforementioned hospital, where the children's guardians waited for care. After being invited to take part in the study and being informed on its objective, the guardians who agreed to participate signed the Free and Informed Consent Form. The mean duration of each interview was nearly 15 minutes.

The instrument used in data collection was the Primary Care Assessment Tool (PCATool), child version, developed by Barbara Starfield to assess PHC attributes based on the health principles proposed by Donabedian<sup>2</sup>. This instrument was validated/adapted to the Brazilian reality, submitted to translation, back-translation, adaptation, debriefing and content/construct and reliability validation<sup>17</sup>. The questionnaire consists of 55 items, subdivided into 10 components.

This study assessed the integrity attribute and its two components, available services (9 items) and services provided (5 items). The answers for each item of the available services component were the following: “definitely yes” (value = 4); “probably yes” (value = 3); “probably not” (value = 2); “definitely not” (value = 1), and “I don’t know/I can’t remember” (value = 9)<sup>10</sup>. The answers for each item of the services provided component were the following: “definitely yes” (value = 4); “probably yes” (value = 3); “probably not” (value = 2); “definitely not” (value = 1), and “I don’t know/I can’t remember” (value = 9). At the end, the sum of the scores attributed to each component results in a classification as strong ( $\geq 6.6$ ) or low ( $< 6.6$ ) PHC orientation<sup>18</sup>.

After each questionnaire was completed, it was immediately digitized by double entry in an Excel spreadsheet simultaneously by two interviewers. Fifteen questionnaires were excluded due to the high percentage of “I don’t know/I can’t remember” answers, which was higher than the sum of the items comprising the available services component.

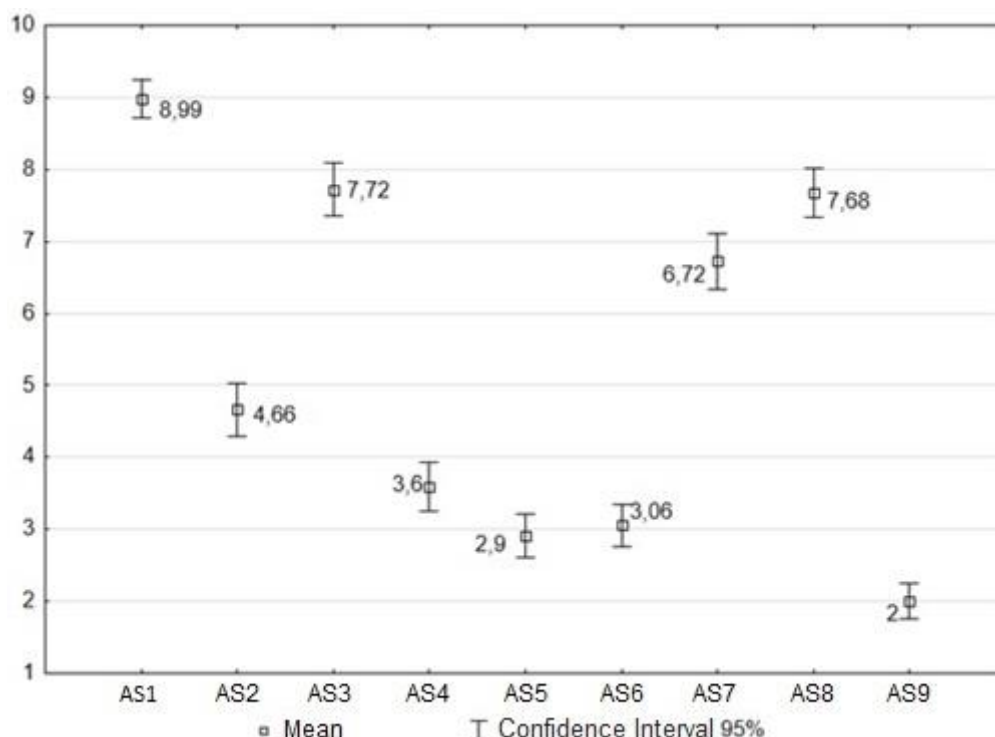
The data were analyzed by means of descriptive statistics in the Statistic software, version 13.0, based on the simple arithmetical mean for definition of the scores. It is worth mentioning that the score for each variable and component was converted into a scale ranging from 0 to 10, according to the following formula: Adjusted score = (Obtained score - 1)  $\times$  10/3. Subsequently, each component was classified as having strong ( $\geq 6.6$ ) or low ( $< 6.6$ ) PHC orientation, according to the established parameters<sup>18</sup>.

The study was part of the matrix project entitled “Assessment of Childhood Health Care in Porto Velho – RO” of the Center for Studies and Research in Collective Health. The research met the requirements of Resolution 466/12<sup>19</sup>, being approved under opinion number 1,849,757 by the Research Ethics Committee of the Federal University of Rondônia.

## RESULTS

According to the caregivers, the available services (4.67) and services provided (5.26) components of the integrity attribute had low PHC orientation, considering the expected score ( $\geq 6.66$ ).

Figure 1 shows results for the available services (AS) component of the integrity attribute as assessed by the children's relatives/caregivers.

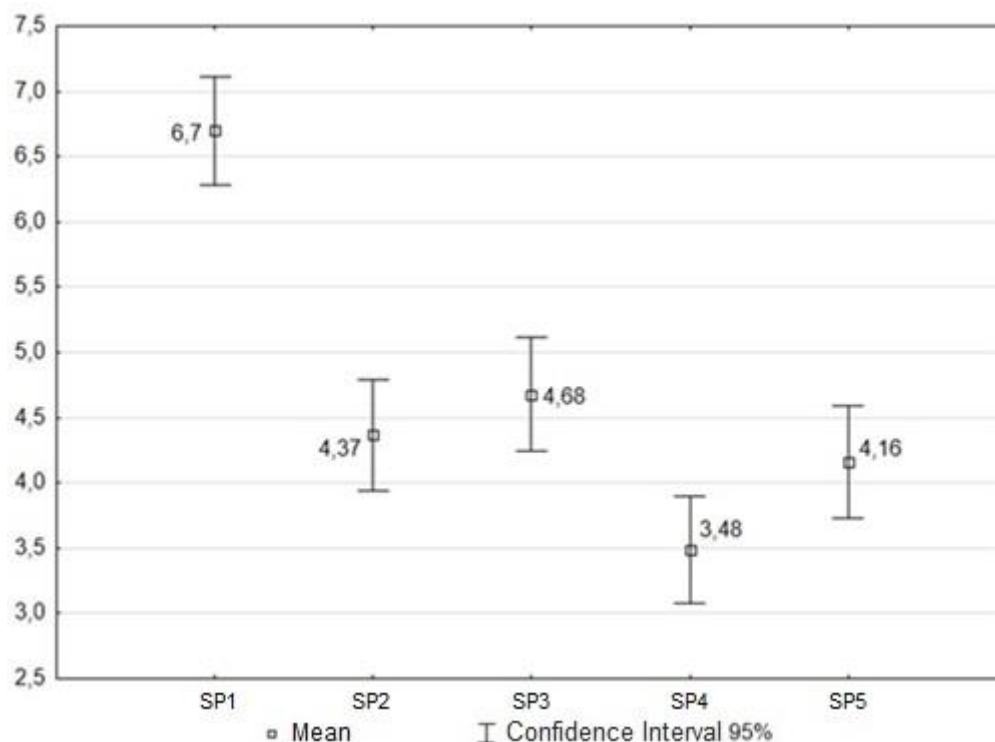


Caption: AS – Available Services; AS1 – Vaccines (immunizations); AS2 – Availability to verify whether the family can participate in some social assistance program or social benefits; AS3 – Family planning or contraceptive methods; AS4 – Supplementary nutrition program (e.g.: milk and food); AS5 – Counseling or treatment for the harmful use of drugs; AS6 – Counseling for mental health problems; AS7 – Suture of a wound that needs stitches; AS8 – Counseling on and request of HIV test; AS9 – Identification of visual problems.

**FIGURE 1:** Mean and confidence intervals for the available services component of the integrity attribute as assessed by the children's relatives/caregivers, Porto Velho, state of Rondônia, Brazil, 2017.

Of the nine items assessed in the available services component, five were classified as having low PHC orientation, namely: availability to verify whether the family can participate in some social assistance programs or benefits (4.66), supplementary nutrition program (3.60), counseling or treatment for the harmful use of drugs (2.90), counseling for mental health problems (3.06), and identification of visual problems (2.0). Additionally, the best assessed item of this component was that related to the provision of vaccines.

Figure 2 shows results for the services provided component of the integrity attribute as assessed by the children's relatives/caregivers.



Caption: SP – Services Provided; SP1 – Counseling on how to keep the child healthy; SP2 – Home safety; SP3 – Changes in child growth and development; SP4 – Ways to deal with the child's behavioral problems; SP5 – Ways to keep the child safe.

**FIGURE 2** - Mean and confidence intervals for the services provided component of the integrity attribute as assessed by the children's relatives/caregivers, Porto Velho, state of Rondônia, Brazil, 2017.

Of the five items assessed in the services provided component, four had low PHC orientation, namely: counseling on home safety (4.37), changes in child growth and development (4.68), ways to deal with the child's behavioral problems (3.48), and ways to keep the child safe (4.16).

According to the caregivers, the only satisfactory item in this component was that related to counseling on how to keep the child healthy (6.7).

## DISCUSSION

The use of the PCATool instrument, child version, adapted and validated to the Brazilian reality allowed for the assessment of the presence and extent of the integrity attribute in children's health care, from the perspective of their own relatives/caregivers. It also allowed for the identification of aspects in the structure and process of the evaluated services that required changes and restructuring to improve PHC quality in the municipality of Porto Velho.

In the assessment of the integrity components, the mean score for both available services (4.67) and services provided (5.26) to children revealed low PHC orientation, as shown by the guardians' dissatisfaction, similarly to results found in others studies that also obtained scores below 6.6 in the assessment of this attribute<sup>5-8,10,11</sup>.

With regard to the available services, availability of immunizations had a satisfactory result, evidenced by the higher score obtained in this said component, which reveals the commitment of the Family Health Strategy (FHS) units of the municipality in ensuring immunization to all children according to the national vaccination schedule. Furthermore, the National Immunization Program (*Programa Nacional de Imunização*, PNI) is a national reference in public health policy and has a major impact on reducing immune-preventable diseases<sup>20</sup>.

However, also regarding the available services, some items were assessed as unsatisfactory, with the following standing out: availability to verify if the family can participate in some social assistance programs or social benefits, supplementary nutrition program, counseling or treatment for the harmful use of drugs, counseling for mental health problems, and identification of visual problems.

These results corroborate findings from other studies showing that these same items were negatively assessed by the guardians of the assisted children, which suggests the need to enhance the care practices through an improvement in professional qualification and implementation of resolute actions to meet the patients' demand<sup>5,6,9,11,13</sup>.

From these studies, it is observed that the difficulty for developing high-quality children's health care is not only in the city of Porto Velho but also in other Brazilian regions.

This reveals the presence of weaknesses in PHC, especially with regard to the incorporation of children's care practices, based on essential PHC attributes, since actions considered as basic, such as guidelines and counseling, are not being effectively conducted, from the perspective of all the relatives/caregivers.

It is crucial that the professionals working at the assessed health services expand their role, especially in terms of the available services component, considering the context in which children and families live, as well as their most common problems<sup>11,12</sup>.

In the setting of the communities located around PHC units, problems related to drug use and mental health may be recurrent. The results of the present study highlighted the dissatisfaction of PHC users with regard to lack of advice and counseling on drug use and mental health problems, which reflects the difficulties of the services in approaching these issues together with the population, finding ways to face these conditions that are often present and have an influence on family life<sup>5,6,8,21</sup>.

Other relevant fact was poor assessment by the population in terms of nonexistence or unavailability of supplementary nutrition programs. This also reflects a major problem of children's health care in Porto Velho, since it compromises promotion and protection of their health, because these programs are key services for the proper growth and development of children in the region<sup>22</sup>. That said, it can be stated that inefficiency or absence of supplementary nutrition services in the city can be a determining factor for the emergence of problems such as infections, malnutrition, and inadequate diet, among others<sup>23</sup>.

As for the component involving the services provided to children, it was observed that, although the caregivers reported satisfaction with counseling on how to keep their children healthy, they contradicted themselves by negatively assessing the items related to counseling on home safety, changes in child growth and development, ways to deal with the child's behavioral problems, and ways to keep the child safe. The deficit in these guidelines indicates the predominance of the biologist logic in care practice of the professionals, to the detriment of comprehensive child and family care<sup>5,7,12,13</sup>.

Conversely, the dimension related to counseling on how to keep the child safe was also the only item having a satisfactory mean score (7.6) in basic health units of a municipality in Northeastern Brazil, revealing the concern of the professionals to address issues related to sleep, hygiene, and healthy diet when providing care to children and their families<sup>5</sup>.

The assessment of the services provided to children has a directed relationship with the way this care is being conducted<sup>2,4,11</sup>. Therefore, it is urgent to understand the functioning of the care process conducted by the professional responsible for the children and improving the care provided, based on the identified service weaknesses<sup>4,11,21</sup>. The first barrier found is the production of care based on the provision of information, where the professional is the only holder of knowledge, leading to a non-dialogic process and thus distancing family caregivers from the responsibility<sup>21</sup>. In addition, the population has a culture of non-prevention, since users most of the times seek the health services only when they have some health problem<sup>21-24</sup>.

Integrity is recognized by the users as an essential tool in the process of children's cure and rehabilitation; however, there is clear dissatisfaction when the care provided is based on fragmented actions that lack engagement with the individualities of children and their families<sup>5-9</sup>.

The lack of or non-fragility in the implementation of comprehensive care in PHC results in the development of preventable diseases, prolonged treatments, and higher costs for health rehabilitation<sup>12,20,24</sup>. These events reflect the absence of measures to help in children's health prevention and also the fact that, as already mentioned, the relative/caregiver only seeks care when the child's health status presents some abnormality<sup>24</sup>. Hence, there can be an impairment in the role of primary care and a search and overvaluation of the services with greater technological density<sup>8</sup>.

Considering that the study was conducted in a children's hospital of medium and high complexity, but that 75% of the patients it treated came by spontaneous demand<sup>15</sup>, i.e., they are likely to be resolved in PHC, it is believed that most of the relatives/caregivers are not appropriately receiving the components related to the available and provided services that characterize PHC integrity, being necessary to seek resoluteness for their problems with a curative and emergency character in other care levels<sup>4,10,21</sup>.

In this sense, there must be a replanning of the preventive measures to provide comprehensive care to children seen at the primary care network, as well as training for the professionals working at PHC services, in order for their actions to be jointly conducted with children's relatives, considering the entire context into which the child is inserted, so as to ensure autonomy and continuity of care at home with safety and quality<sup>24</sup>.

### Study limitations

Among the limitations of the present study, it is worth considering the fact that its results express the specific reality of relatives/caregivers approached at a hospital facility in Porto Velho, state of Rondônia, Brazil, which may not represent the view of the entire group of guardians of children registered and seen at PHC services in the aforementioned municipality. The cross-sectional design of this research can also be considered a limitation, because it did not allow making causal inferences in the analysis of the scores attributed by the relatives/caregivers to the care integrity attribute and analyzing other factors, such as the impact on the quality of the services provided in the family health units. Thus, it is worth emphasizing the need to conduct future research studies of a more comprehensive nature that allow for the generalization of the results and for the expansion of knowledge on children's health care in the PHC setting in Brazil.

### CONCLUSION

It is concluded that the integrity attribute was present in children's health care at the facilities assessed in this study, but in a fragmented manner. Therefore, these services need to review their priorities in the care provided to children and their relatives/caregivers.

The low scores obtained in the assessment of the relatives/caregivers with regard to the services available and provided to children in basic health units reveal that these services did not comply with the integrity principle advocated by PHC. There are many challenges for a high-quality and resolute practice, and there is an urgent need to review the flaws observed in the care provided at the first care level. The "biologist way of doing" still persists, constructed by the traditional disease-centered model, in which the professional practices cannot contemplate all the needs presented by the demand, which results in fragmented care.

Based on the perspective of the relatives/caregivers, it was possible to identify the need of replanning guidance actions conducted by the professional team, in order for them to understand the context in which the child is inserted and then, based on this identification, to develop more effective preventive actions that prioritize the individualities of each child and each family.

The results showed that children's health care in the PHC setting in the city Porto Velho, state of Rondônia, has weaknesses, highlighting that care is not provided in a comprehensive manner and that there is lack of guidelines and assistance in the confrontation of conditions that have an impact on children's health and their family context.

In this sense, there is a clear need to incorporate practices aimed at promoting child health, such as improving communication between professionals and users, as well as approaching child nutrition, child growth and development, harmful use of drugs, counseling on mental health problems, and identification of visual problems, since these were some of the components that received the most negative assessments. These practices will be able to improve the reality of the health care services in the municipality assessed in this study, because most of the relatives/caregivers reported to be unaware of the array of services that should be available and be provided in the family health units.



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