Evaluating comprehensiveness in children’s healthcare

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ABSTRACT
Objective: To evaluate the presence and extent of comprehensiveness in children’s healthcare in the context of the Family Health Strategy.

Method: Evaluative, quantitative, cross-sectional study conducted with 344 family members of children at the Family Health Units of João Pessoa, PB, Brazil. Data were collected using the PCATool Brazil – child version and analysed according to descriptive and exploratory statistics.

Results: The attribute of comprehensiveness did not obtain satisfactory scores in the two evaluated dimensions, namely “available services” and “provided services”. The low scores reveal that the attribute comprehensiveness is not employed as expected in a primary care unit and points to the issues that must be altered.

Conclusion: It was concluded that the services should be restructured to ensure cross-sector performance in the provision of child care. It is also important to improve the relations between professionals and users to promote comprehensive and effective care.

Keywords: Integrity in health. Primary health care. Child health. Health services evaluation.

RESUMO
Objetivo: Avaliar a presença e a extensão do atributo integralidade na atenção à saúde da criança no contexto da Estratégia Saúde da Família.

Método: Estudo avaliativo, transversal, quantitativo, com 344 familiares de crianças, realizado em Unidades de Saúde da Família de João Pessoa-PB. Os dados foram coletados por meio do PCATool Brasil – versão criança e analisados à luz da estatística descritiva e exploratória.

Resultados: Observou-se que o atributo integralidade não obteve escores satisfatórios nas duas dimensões avaliadas, a saber, serviços disponíveis e serviços prestados. Os baixos escores obtidos revelam que o atributo não possui a extensão esperada para um serviço de Atenção Primária à Saúde e apontam para aspectos que requerem mudanças.

Conclusão: Registra-se a necessidade de reestruturação dos serviços, buscando articulações intersetoriais na oferta da atenção à saúde da criança e a valorização das relações entre profissionais e usuários a fim de promover uma dimensão cuidadora efetiva e integral.


RESUMEN
Objetivo: evaluar la presencia y extensión del atributo integralidad en la atención a la salud del niño en la Estrategia Salud de la Familia.

Método: Estudio evaluativo, transversal, cuantitativo, con 344 familiares de niños, realizado en Unidades de Salud de la Familia de João Pessoa-PB. Los datos fueron recogidos por medio del PCATool Brasil – versión niño y analizados a la luz de la estadística descriptiva e exploratoria.

Resultados: Observamos que el atributo integralidad no obtuvo escores satisfactorios en las dos dimensiones evaluadas, servicios disponibles y servicios prestados. Los escores obtenidos revelan que el atributo no tiene la extensión esperada para un servicio de Atención Primaria a la Salud y muestran aspectos que requieren cambios.

Conclusión: Registramos la necesidad de reestructuración de los servicios, buscando articulaciones intersectoriales en la oferta de la atención a la salud del niño y la valoración de las relaciones entre profesionales y usuarios promoviendo una dimensión cuidadora efectiva e integral.

INTRODUCTION

An attribute is considered as being "that which pertains to or is particular of something or someone; a condition, property, quality, distinctive feature or symbol"\(^{1}\). Comprehensiveness is a proper characteristic, that is, a characteristic that defines a Primary Care Service (PCS) and is therefore an essential attribute of a PCS\(^{2}\).

Numerous efforts have been made to understand the meanings of comprehensiveness in healthcare. Three sets of meanings have been systematised for the term, namely "comprehensiveness as a trait of good medicine", "comprehensiveness as a principle/way of organising health practices", and "comprehensiveness as a governmental response to specific health problems"\(^{3}\).

In the first meaning, the use of this term is considered a value in the practices and attitudes of healthcare workers, expressed in the manner in which they respond to the needs of patients according to their singularities\(^{4}\). It values the relationship between health workers and users by recognising the need to go beyond the exclusive application of field knowledge. In the second assimilation, comprehensiveness is associated with the need to mainstream and increase the coverage of healthcare programmes and policies. It also acknowledges the incorporation of preventive and assistance practices by the same service and the collaboration of all care levels to prevent the fragmentation of activities inside the health units. In the third meaning, comprehensiveness is viewed from the perspective of constructing healthcare policies that can extensively respond to the health problems that affect a given population group, as in the case of policies that target children’s health.

The production of knowledge on the attribute of comprehensiveness in a PCS, specifically in children’s health, reveals that some conditions restrict this attribute in healthcare. These conditions include policy, institutional, physical, and management structures, especially in relation to the scarcity of resources and lack of inputs such as medication at these units. Moreover, the inadequate physical structure of the units, the professional and personal characteristics of health workers, including their profile, and the work process and values that these workers choose for their care practices must also be considered\(^{5}\).

A comparative study\(^{6}\) between PCS units showed that the Family Health Strategy (ESF) in comparison with Primary Care Units (UBS) obtained a better assessment for the attribute of comprehensiveness in children’s healthcare. Therefore, the ESF may become an adequate service according to its originating attributes. For this system to work, however, funding must be increased to remedy the instability of resource input at municipal level. The same study\(^{6}\) points out that the education of health workers limits comprehensiveness since it still targets a purely clinical perspective based on the biomedical paradigm.

This perspective hinders the relationship between health workers and the families of patients by preventing any meaningful dialogue between the persons involved in care and denying the knowledge transmitted by users. This problem was observed in a study regarding nursing consultations and the practice of comprehensiveness\(^{6}\), where the traditional consultation mainly comprised normative, informative and investigative communication that limited the autonomy of the subjects of care and the possibility of establishing a dialogue.

These findings are corroborated by a study\(^{7}\) that analysed whether children’s healthcare education for nurses incorporates the principle of comprehensiveness. The evidence revealed a contradiction between that which is proposed and that which is actually practised since education is fragmented and does not integrate the disciplines. Also, the theory is disassociated from the practice and specific practice education, and therefore compromises the incorporation of comprehensiveness in children’s healthcare education.

This finding reveals the need to evaluate healthcare services regarding the presence of the attribute in question since comprehensiveness as a routine in care practices is still considered a challenge for the PCS.

Studies that assess healthcare services are critical to understand how these services function, their work processes, and the obtained results, thus enabling service quality and effectiveness. In relation to the PCS, the need to assess these services according to their principles and guidelines has been acknowledged\(^{8}\). Children’s healthcare requires more extensive and timely evaluative processes that can shed light on the manner and extent to which actions and principles of the PCS are directed toward the child population\(^{9}\).

Therefore, the guiding question of this study was, “Is the attribute of comprehensiveness present at the Family Health Strategy units and, if so, is it present to the extent that is expected of these units?” The aim of this paper was to evaluate the presence and extent of the attribute comprehensiveness in children’s healthcare in the context of the Family Health Strategy.

METHODOLOGY

This study is part of a multi-centric project titled Avaliação da Efetividade da Atenção Primária em Saúde da Cri-
This study presents data of the study of one of the attributes investigated in Paraíba. This is a quantitative, evaluative, cross-sectional study conducted at all the units of one of the Sanitary Districts (DS) of a large municipality in the state of Paraíba. This DS has 180,000 inhabitants, 53 healthcare teams, and a service population coverage of 90.5%. This DS was selected because it is the largest of the five DSs of the city’s primary care network.

The study population consisted of family caregivers of children from zero to ten years of age assisted at the USF of the studied DS. The Primary Care Information System (SIAB) was used to survey the number of children attended within six months prior to the date scheduled for data collection. The total number obtained during this period was 21,486 children. The sample was estimated using simple stratified probability sampling with a proportional division of the number of children who attended the USF, resulting in a total of 343. The adopted margin of error was 5% with a confidence interval of 95%. A total of 344 family members of children were interviewed.

The inclusion criteria were family members and primary caregivers of the child; residing in the urban region of USF coverage; with the capacity to understand, express and respond to the questions; and familiarity with the unit. However, only family members who had taken the child for an appointment at least twice prior to the interview date and who were waiting for an appointment were included in the sample. The criterion for exclusion was family caregivers who sporadically used the health unit for specific purposes, such as immunisation, but did not use all the services regularly. Children who had only been taken to the assessed service once were excluded.

Data were collected in the waiting rooms of the 53 USF that make up the DS. The participants were selected by being systematically approached in the queue as they waited for the doctor’s or nurse’s appointment. The process started by inviting the first user of the queue. If the user did not accept the invitation, the next user was approached, and so on.

Data were collected from September 2012 to February 2013 using the Primary Care Assessment Tool or PCATool – Brazil child version, which was validated and published by the Brazilian Ministry of Health. It has a total of 55 questions, of which 3 assess the user’s level of affiliation to the service and 52 assess the attributes of the PCS. For the purposes of this study, we used the 14 questions that assess the attribute of comprehensiveness. In the PCATool –
incomes of one to two minimum wages. The primary caregivers of the children were the mothers. These mothers were homemakers and homeowners, and had 10 to 14 years of school education.

Table 2 shows the scores for the attribute Comprehensiveness according to the provided services and the structural dimension of the attribute. Most of the evaluated indicators did not reach the cutoff point established for this research (≥ 6.6). The low scores of the indicators “availability of nutritional supplementation programmes”, “treatment for harmful drug use”, “guidance for mental health problems”, “availability of sutures for cuts”, “guidance and HIV test request”, and “evaluation for identifying visual problems”, show that these services and/or guidance are not being offered or referenced appropriately at the studied PCS.

The average score of the indicators evaluated in the scope of available services also performed below the cutoff point (5.3) revealing that the structural dimension of comprehensiveness is unsatisfactory, that is, the service does not provide the necessary structure to offer comprehensive care in all its dimensions.

Table 3 shows the scores for the attribute comprehensiveness within the context of the services provided, the procedural dimension of the attribute, which is related to the type of healthcare provided and the relationship between professionals and users. Only one of the evaluated indicators, “guidelines for keeping the child healthy”, obtained the satisfactory score of 7.6 (≥ 6.6). The other evaluated indicators were unsatisfactory.

The low score in the context of the provided services reflected on the average score of the attribute that, as in the case of the structural dimension, was unsatisfactory. The average scores of the available and provided services were 5.2 and 5.4, respectively, which reveals the inadequacy of the structure and processes used to provide comprehensive care to children in the evaluated PCS. The average scores reflect the result appropriately since the values of the respective standard errors (SE ± 0.03 and SE ± 0.1) are low in relation to the average.

**DISCUSSION**

A validated instrument was used to evaluate the presence and extent of comprehensiveness in children’s care from the viewpoint of the service users. Analysing each question of the dimension comprehensiveness helped to identify specific aspects that require changes or restructuring at the assessed services.

To provide this attribute, the PCS must correctly recognise a wide range of needs relating to the health of children and their families, and provide the resources to address these needs. However, the manner in which care is provided to children at the PCS is still far from the desired comprehensive care, as found in other studies (12-14).

With regard to the dimension available services (Table 2), which represents the set of actions offered by the...
health service to provide the resources required to fully meet the needs of the attended population, only three of the nine indicators were satisfactory, namely “availability of vaccines”, “social service programmes”, and “planned parenthood”, showing that the extension of these services is adequate to meet the needs of the population.

The National Immunisation Programme has been recognised as one of the most important interventions in Brazilian public health to reduce vaccine-preventable diseases in recent decades. In this study, this programme was the highest rated item in the scope of available services at the PCS.

Furthermore, in the last decade, Brazil has advanced in relation to social welfare, especially after the implementation of some income distribution programmes like Bolsa Escola and Bolsa Família that sought to rupture the cycle of poverty in the long term\(^{15}\). These programmes are closely related to the health conditions of children since they include forms of monitoring their growth and development. These forms should be accessible at the PCS. By answering this question, the family members showed they were aware of the relationship between welfare programmes and the monitoring of children’s health at the evaluated services. Family planning was also provided appropriately at the services since the users were highly aware of its availability. Consequently, this dimension obtained a high score in the evaluation.

However, the remaining dimensions assessed in the scope of the available services obtained low scores (< 6.6)

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**Table 2** – Average scores with respective standard error, and minimum and maximum values for each item of the attribute Comprehensiveness – Available Services, João Pessoa, PB, Brazil, 2013

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Average</th>
<th>SE*</th>
<th>Min.**</th>
<th>Max.***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of vaccines</td>
<td>9.3</td>
<td>0.04</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Availability of social service programmes</td>
<td>7.66</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Availability of family planning</td>
<td>9.0</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Availability of nutritional supplementation programmes</td>
<td>3.3</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidance or treatment for harmful drug use</td>
<td>3.3</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidance for mental health problems</td>
<td>3.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Availability of suturing for cuts that require stitches</td>
<td>3.0</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidance and HIV test request</td>
<td>5.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Access to some type of evaluation to identify visual problems</td>
<td>2.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Average score</td>
<td>5.2</td>
<td>0.03</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Research data, 2013.

* Standard error; ** Minimum value; *** Maximum value.

**Table 3** – Average scores with respective standard error, and minimum and maximum values for each item of the attribute Comprehensiveness – Provided Services, João Pessoa, PB, Brazil, 2013

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Average</th>
<th>SE*</th>
<th>Min.**</th>
<th>Max.***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines for keeping the child healthy, such as good hygiene and healthy eating.</td>
<td>7.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidelines for safety at home</td>
<td>5.3</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Approach to changes regarding the child’s growth and development</td>
<td>5.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidelines on child behaviour problems</td>
<td>3.3</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Guidelines to keep the child safe and prevent accidents at home</td>
<td>4.6</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Average score</td>
<td>5.4</td>
<td>0.1</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Research data, 2013.

* Standard error; ** Minimum value; *** Maximum value.
as shown in Table 2, which is why the average was below the established cutoff point. There was a deficiency in the dimension “nutritional supplementation programmes”, which compromises health promotion and protection because it is part of the key items required for the correct growth and development of children.

The inefficiency or lack of nutritional supplementation undermines the resolution of problems like infections, malnutrition, chronic diseases, and risk factors, such as being overweight, obesity, physical inactivity, stress, and inadequate food supply.

Other items considered unsatisfactory in Table 2 are “guidance and treatment for harmful drug use” and “guidance for mental health problems”, with averages of 3.3 and 3.6, respectively. This result reveals the absence of approaches at the PCS that could help confront conditions that severely affect families, like drug use and mental health problems.

Therefore, there is a need to create healthcare strategies that contemplate these growing problems in Brazil, such as drug use, especially among children and adolescents. Although the psychosocial care centres provide this care, the primary care services that are the port of entry to the healthcare system should not lack the right approach to deal with these conditions. Moreover, primary care services are a part of the psychosocial care system and they are critical for the correct operation of this system.

Incorporating psychosocial aspects into the daily primary care routine would help broaden the scope of the health-disease concept and pave the way for the inclusion of approaches for children’s mental health. These improvements would consequently expand the horizon for the construction of comprehensive care.

Other issues that were evaluated in the context of available services (Table 2) such as “availability of sutures for cuts”, “evaluation to identify visual problems”, and “guidance and HIV test request”, all had unsatisfactory scores. The PCS in the studied municipality do not provide sutures for cuts since this form of care is referred to the ER units (UPA), specialised services or hospitals, or other services that are responsible for responding to this demand.

As for children’s visual problems, the PCS should address them through the school healthcare programme (PSE) that shares activities with the primary care team to assess the visual acuity of children and identify any eyesight problems. In this study, however, the users were unaware of these activities to evaluate the eyesight of children in primary care.

A quality PCS cannot be exempted from coordinating healthcare, that is, from coordinating the different levels of healthcare to ensure the continuity of care and prevent fragmentation, thus achieving comprehensive and integrated care. Without coordination, comprehensiveness is almost impossible.

The need to address education in children’s healthcare in the context of primary care to achieve comprehensiveness is also acknowledged. The PSE is an inter-sectoral policy that articulates the primary care system with schools to achieve comprehensive care and education. However, a study points to the persistence of disease-centred initiatives that focus on screening and prevention in schools and reveals a limited understanding of how to promote children’s health.

In this context, an extended view of the structure and available services required for comprehensiveness revealed the challenges of these PCS. These challenges include creating areas to promote children’s health and address drug use and mental health problems, and strengthen the coordinating power of these structure to ensure the continuity of care even if the demand cannot be resolved in primary care.

The second dimension of the studied attribute refers to the provided services (Table 3) and the procedural aspect of the attribute, that is, everything that is related to the manner in which care is produced and how care is offered to the users. The indicators measure the attitude of health workers by asking the family members questions about the guidance they received during the consultations with their children.

Of the five indicators evaluated in Table 3, only “guidelines to keep the child healthy” performed satisfactorily. This question assessed whether the workers talked about good hygiene, healthy nutrition and adequate sleep. The high score reveals that these aspects are approached almost constantly by the health professionals.

However, analysing the other indicators of the attribute, “guidelines for safety at home”, “attitudes toward changes in the growth and development of the child”, “guidance on behaviour problems” and “guidelines to prevent accidents at home”, all of which obtained unsatisfactory scores below the cutoff point (< 6.6), revealed a deficiency of these guidelines associated with the exclusive presence of the guidance related to “healthy child”. This directionality in the organisation of the service reinforces the idea that care is oriented toward disease, which has a work logic that is based on the “health-disease” dichotomy and the biology-centred model, and is unable to fully meet the healthcare needs of children and their families.

The manner that care is produced in the evaluated PCS fails to acknowledge that child development can be in-
fluenced by biological, social and family-related factors. The comprehensiveness principle that is advocated in the practices of health professionals necessarily refers to understanding that the factors that affect the health of children are broad and permeate sectors outside health and healthcare.

It should be noted that the findings of this study regarding comprehensiveness in children's healthcare corroborate other studies that were also conducted in primary care services. Therefore, this way of producing a child care that is distant from comprehensive care places this group at risk because there is no room for consistent therapeutic relations and any health promotion actions are not assimilated. Interventions are based on complaint and conduct, and therefore produce a fragmented and uneven care.

From the perspective of comprehensiveness, value must be attributed to care. It can be considered a “care giving attitude that involves observing or treating according to the parameters of assistance and respect, a practice that translates into sensitivity, reliability, belongingness, decent treatment, horizontality, and the continuity of care”, which points to concrete conditions that allow dialogue, ties, and solidarity.

This means there is a contradiction between the everyday practice of health professionals at the units and the attributes/principles of PCS, and the need to change the work processes of the health teams since a non-alienated practice that places children and their families first is part of the challenge of the PCS.

Improving PCS and child care in this scope of care are still a challenge despite advancements in the expansion and coverage of primary care services. Comprehensiveness is hindered by structural difficulties, as revealed in this study, which reveals the inadequacy of the available and provided services for children and their families.

Other studies detected political and managerial issues, such as insufficient resources, lack of inputs, inadequate physical structure of the services, and lack of coordination between the different institutions and professionals, that together produce a fragmented care.

Ideally, comprehensiveness should be the core attribute and the focus of concern of the PCS. Public health policies for primary child care should ensure the appropriate structure and training for health professionals to coordinate a work process that will help them achieve comprehensiveness. It is also necessary to perfect and institutionalise the evaluation mechanisms of the attributes of the PCS, including comprehensiveness, to guarantee effective daily practices.

CONCLUSION

It is concluded that comprehensiveness in children's healthcare in the PCS is fragile in the two measured dimensions – available services and provided services – showing that care is provided in a fragmented and non-comprehensive manner.

The low scores obtained in this study indicate that comprehensiveness was not present to the extent expected for a APS service and points to aspects that require changes. These services must incorporate practices that observe child nutrition and the appropriate manner in which to address harmful drug use, mental health problems, child growth and development in a social context, and home safety.

This study presents the viewpoint of users of the healthcare services although there are other actors involved in healthcare, such as health professionals and managers, who should also be questioned regarding their perceptions, thus opening a new arena for further studies on this subject. Also, this is a cross-sectional evaluative study that is consequently bound to the limitations of this type of design.

The results discussed here reveal important implications for the changes required in the PCS services for child care and for the creation of public health policies.

REFERENCES