

Strengths and Weaknesses of Primary Child Health Care Models: an Integrative Review

REVIEW

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Abstract

Introduction: Child health in Brazil is guided by different primary health care models. The aim of this study is to analyse scientific knowledge regarding the strengths and weaknesses of primary child health care models in Brazil.

Methods: This study is an integrative literature review based on the databases LILACS, MEDLINE and SciELO. Thirty-seven studies were selected.

Results: The model of Primary Health Care in the Family Health Unit format revealed gaps in the availability of the materials and equipment required to provide childcare, the distribution of medicines, and examinations. The findings indicated that in family health, many consultations did not focus on acute care but merely monitored the child's health. However, Family Health has the potential in its work process to provide tools to combat violence against children and create bonds with families, causing the service to be acknowledged as a regular source of care. Both the Family Health Units and the traditional Basic Health Units models showed weaknesses in developing actions in health education and mental health. The Family Health Unit model, when compared with the traditional Basic Health Unit model, shows a greater adherence to coordination, an attribute essential for the monitoring of children with special needs. This attribute remains embryonic in most services.

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Conclusions: The structural dimension is weakened in some aspects of primary health care models, which interferes with the care of children. Because there is additional research analysing the Family Health Unit model, it was possible to identify not only numerous gaps but also evidence that the Family Health model shows promise in the development of health care for children.

Keywords

Child Health, Primary Health Care, Family Health Strategy, Basic Health Unit

Introduction

In recent years, Brazil has made efforts to improve child health care. In 2015, the National Comprehensive Health Care Child Policy (NCHCCP - PNAISC) was launched through Ministerial Ordinance No. 1130, with the purpose of guiding health care managers and professionals with regard to strategic axes for the provision of child health care actions and services throughout the country, with primary care acting as the care coordinator [1].

According to decree No. 2488/2011 of the Brazilian Ministry of Health [2], primary care, or, to use the international term, Primary Health Care (PHC - APS), can be provided according to different PHC models. These models represent ways in which health care actions are organised in a society, i.e., how physical, technological and human resources are combined to meet the community's health needs [3]. In Brazil, these models include the traditional Basic Health Unit (BHU); the Community Health Agents Program (CHAP - PACS); the Family Health Unit (FHU), which operates within the Family Health Strategy (FHS - ESF); and mixed models that "combine different models in a single PHC unit" [4]. These include different work processes that are implemented in the same territory.

In childcare, these models seek to guide actions and practices towards health promotion, child mortality reduction and the assurance of children's quality of life, in accordance with the comprehensiveness principle of Brazil's Unified Health System (UHS - SUS). However, for a work process to achieve

its objectives, the model must, above all, adhere to structural axes or essential and derived attributes of PHC to provide effective and quality care to this population [5].

These essential attributes include *first-contact access*, which involves guaranteed access to health services in a timely manner for each new problem or a new episode of a problem, so as not to adversely affect the diagnosis and management of the disease; *longitudinality*, an attribute that emphasises the need for bonding and the accountability of health professionals with/to the population, so that a lasting interpersonal relationship is maintained, regardless of whether the user has a health problem; *comprehensiveness*, understood as viewing the individual, the family and his or her context, considering the integration of clinical and community practice with promotion, prevention and treatment; and *coordination*, which is central to the success of the other attributes and involves the organisation of actions according to the identified needs of the individual, family and community, to ensure continuity of care [6].

Among the derived attributes is *family guidance* in which the professional must place the family at the centre of care planning. Thus, the professional must know how to interact with the social being and his or her relations with the environment. Another derived attribute is *community guidance*, in which there is an integrated analysis of the individual and the family in relation to their environment to identify their health needs [6].

Child health care must be in line with these PHC attributes to be effective and of good quality when dealing with illness and death for reasons sensitive to PHC in this population. Therefore, recognising the uniqueness of each care model in the health work process, this study was conducted to ascertain the effects, according to the scientific community, of implementing health care models in these services' daily routines to obtain an overview of the current situation. Therefore, this study will identify the strengths and weaknesses in the organisation of childcare to further guide research and investment and to generate further discussion.

This objective led to the following question: What scientific knowledge has been produced in the last ten years regarding the strengths and weaknesses of the existing primary child health care models in Brazil? The aim of this study was to analyse scientific knowledge regarding the strengths and weaknesses of primary child health care models in Brazil.

Method

This was an integrative literature review with a qualitative approach. This study design aims to summarise the results of other studies on a given topic in a systematic, ordered and comprehensive manner, seeking thereby to extend the information on a particular subject or problem. This type of review may be aimed at the definition of concepts, review of theories or a methodological analysis of the included studies on a particular topic [7].

The development of this type of study involves the following steps: definition of the subject and selection of the hypothesis or research question; establishment of inclusion and exclusion criteria for the studies; definition of the information to be extracted from the selected studies for study categorisation; evaluation of the included studies; interpretation of the results; and presentation of the summarised knowledge [8].

The literature search was conducted between November and December 2015 in the following electronic libraries: Latin American and Caribbean Health Sciences Literature (LILACS), the Medical Literature Analysis and Retrieval System Online (MEDLINE) and the Scientific Electronic Library Online (SciELO). The following descriptors based on Medical Subject Headings (MeSH) and Descriptors in Health Sciences (DeCS) were used: child health, primary health care, health services evaluation, health centres, and family health strategy. The terms were separated by the Boolean operator 'AND' and cross-referenced as appropriate.

The following inclusion criteria were adopted: conducted in Brazil; addressed aspects relating to the weaknesses and strengths of primary child health care models; available in English, Spanish and Portuguese; published between January 2006 and December 2015; and full-text available and indexed in the electronic libraries cited above. Studies were excluded that were not in article format, such as books, theses, dissertations, book reviews and letters, as well as studies in which it was not possible to ascertain the implemented model, either because the authors did not explain the model in the text and generalised the results to the PHC or because they did not state the municipality where the survey was performed, which made it impossible to define which PHC model was associated with the reported weaknesses and strengths in child health care.

The electronic libraries search was independently performed by two researchers, and the aim was to achieve the same results. The initial selection included 259 articles. The titles and abstracts of these articles were then read to choose the articles that best met the proposed topic, leaving 55 articles to be read in full; 45 from LILACS, eight from MEDLINE and two from SciELO.

The analysis then continued with a detailed reading of the selected articles to identify the studies that were able to answer the research question. Eighteen manuscripts were excluded because they

did not meet the inclusion criteria, which left 37 studies. These were compiled, summarised and organised. A database was then constructed using *Microsoft Office Excel* version 2013 to facilitate analysis of the results. The following study characteristics were included in the database: title, author, area of expertise and institutional affiliation of the lead researcher, year of publication, electronic library, journal, impact factor (JCR), method, study site and area, research objectives and main results.

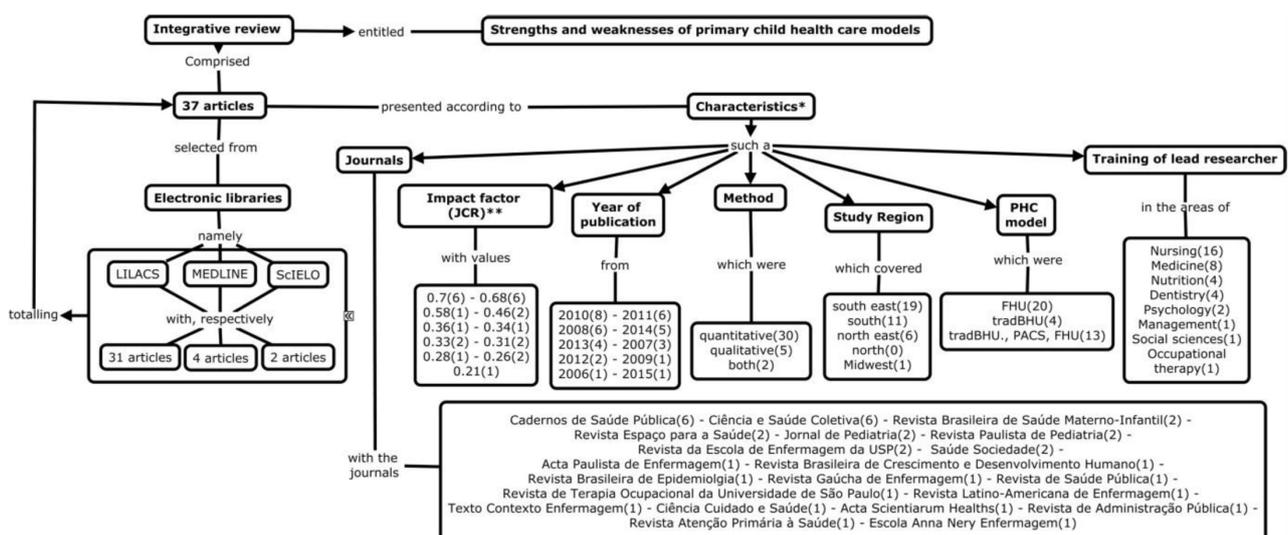
After recording the data, the articles were systematically reviewed for their suitability to the topic and then interpreted and discussed using thematic analysis. The latter included three steps: pre-analysis, in which first contact with the material was established, with the identification of keywords; exploration of the material, using extracts of representative parts of the articles included in the review; and processing the results obtained and interpretation [9]. Finally, this document was prepared, which highlights the main results of the analysed articles and offers new perspectives on the issue.

Results

The strengths and weaknesses of primary child health care models in Brazil were identified by analysing the 37 selected articles. **Figure 1** shows that the greatest number of articles was found in LILACS. The journals *Cadernos de Saúde Pública* and *Ciência e Saúde Coletiva* provided the greatest number of published articles and the highest impact factors (JCR) (0.7 and 0.68). The Southeast and South regions produced the most studies (19 and 11, respectively), and the most articles were produced in 2010 (eight), followed by 2011 and 2008 (six articles each). The most widely used research method was quantitative (30), and there was a predominance of studies focusing exclusively on the FHU as the evaluated care model (20), followed by studies that evaluated different PHC models (13). The main authors were primarily trained in nursing (16) and medicine (eight) (**Figure 1**).

Data compilation and thematic analysis allowed four main categories to be identified, namely: conformance of the child health care models to PHC attributes; child health promotion actions; relationship of the health team with the child and his or

Figure 1: Characterisation of the selected studies (n = 37) - João Pessoa, state of Paraíba (PB), Brazil, 2006-2015.



*The number of articles selected is indicated in parentheses
** some journals do not have a JCR

her family; and a look at the structural dimension of different PHC models.

Discussion

The attention to children's health in PHC has increased with the changes in the guidelines of public health policies, focusing on the consolidation of comprehensive care. Therefore, by organising actions and services, public health seeks to contribute to reducing child mortality and ensuring survival. In addition, the specifics that involve the processes of growth and development of children address quality of life and health [10-11].

Four themes, developed from the thematic analysis, centred on the strengths and weaknesses of various PHC models of childcare in Brazil.

Adherence of the models of care to PHC attributes in relation to children's health

The essential attributes of APS in childcare were evaluated in studies involving various models of care in the states of Minas Gerais and São Paulo. Both traditional UBS models, as the units that operated with the Family Health Strategy (ESF), had satisfactory values for longitudinal attributes [12,13-14] and integrity [15].

This result suggests that the child's follow-up care occurs over a period of time and with the same professionals. These professionals seek to communicate with mothers and recognise the child beyond a health problem, strengthening the continuity of care.

The mutual trust between service personnel and users can reveal differences in people's loyalty to health services [12]. A study conducted on the traditional BHU and the FHU showed that both services were recognised as regular sources of care for children and families, expressing adherence to the degree of affiliation and longitudinality of care in PHC [14].

This finding is positive because children must have their health needs identified during the growth and

development process, and regardless of the model of care, children's follow-up care must be effectively implemented by PHC professionals as recommended by the NCHCCP. This policy considers the determinants and social conditions that guarantee the right to life and health, seeking to promote a safe birth and the healthy, full and harmonious development of the child to reduce vulnerabilities and the risks of morbidity and premature mortality [1].

In this sense, studies [13-14] that focused on the FHU, Health Centers and the Community Health Agents Program (CHAP) showed that those services have the potential to integrate services. This finding indicates that monitoring the child may include prevention and health promotion; maintaining a healthy child; educating parents regarding nutrition, hygiene, sleep and rest; accident prevention; and changes in growth and development. All of these services are included in medical and nursing consultations, contributing to comprehensive care.

However, with regard to the integration of available services, scores were less than ideal for this dimension of the PHC models [13]. Weaknesses have occurred involving the lack of availability of such services as immunisation, evaluation of visual problems, counselling, treatment for drug use, mental health counselling, and anti-HIV testing at the FHU [14], indicating the problems to which the child is exposed [12].

Evaluating the constituent elements of integrality clarifies that in both the FHU model and traditional BHU, health education and attention to mental health problems were the least mentioned among the services available, whereas immunisation of children and family planning consultation were always available [15].

That reality causes concern although these models do develop actions in the above areas. It is problematic that health services do not consider health education and limit the mothers' power to engage in preventive actions and promote their children's health. Moreover, staff working in childcare are expected to render PHC more effective by integrating

biopsychosocial dimensions into the practice of professional care.

With regard to accessibility, both USF and the traditional BHU showed weaknesses in users' access to an appointment within 24 hours; however, the USF showed greater time flexibility to meet the needs of the population [15]. Thus, mothers recognised the USF as a regular source of care for their children [14]. The service is also close to the homes of families, which facilitates the manner in which users accessed the health facility [16].

Another potential of the FHU is that most children studied in a northeastern city were attended to by the PHC by programmed demand within 10 days and with waits for service of up to 2 hours [17]. However, despite these positives, the FHU remains challenged with regard to access to tests and drugs [12, 18] and having unscheduled questions answered [16]. This result suggests that childcare should centre on immediate concerns that are addressed by physicians rather than scheduled attention [17].

This reality engenders reflection on follow-up care for children; on inconsistencies with the recommendations of the Ministry of Health [11]; on the necessity for systematic appointments for small children and attention to their health conditions; on care always being provided by medical professionals and nurses; and on seven regularly scheduled visits in the first year of life, two in the second and at least one per year from 3 to 10 years old. These actions should address monitoring growth and development, breastfeeding, attention to prevalent childhood diseases, immunisations and health education to improve childcare practices in family and community contexts.

The actions of disease prevention and health promotion must be expanded by improving the performance of community health workers to increase contact with families by home visits. Such actions will improve family-community relations and may contribute to clarifying the families' commitment to accompanying the child to the PHC service [17].

Undeniably, the use of PHC services is the entree to preferential attention to the child's health needs and to providing conditions for the resolution and continuity of care. Providing such conditions requires the integration of actions in the health care network so that PHC is the coordinator of that network [4].

This perspective reveals that the FHU has shown greater adherence to the attributes of coordination of dimensions, integration of care and system information. Studies indicate [14-15] that in this model referrals are made to specialists, medical records are available and mothers carry the Child Health Handbook (CHH) at the time of appointment.

These aspects are relevant because health information systems are a series of components that function as a data collection mechanism, processing, analysing and transmitting information as well as conducting research and planning disease control. Such systems also provide structure, operationalise, supervise, monitor and evaluate the performance and quality of services, and produce the information required for decision making in the work process [19].

The FHU may provide better resolution to children's requirements in primary care, providing diagnoses, more precise treatment, and redirection to another service only in cases of greater complexity. Furthermore, cooperation among professionals and staff, working within childcare guidelines and using dialogical instruments such as medical records and CHH can contribute to continuity of care for children in Network Health Attention [13] and integrated care in PHC.

Significantly, initiatives have contributed to coordination of care in PHC, such as home visits by FHU professionals within 7 days after discharge of the child to reduce readmissions to PHC for sensitive conditions [20].

The home visit is an essential tool for building the shared childcare model from the professional-parent-family integration and was evaluated as a

potential labour process in the FHU model [14-15]; however, the inefficiency of this action represents a weakness in the membership of the FHU in facilitating 'family orientation' [16,21-22].

Concerning the derived attributes of 'family orientation' and 'community-orientation,' care is centred on the individual, disassociated from the family focus on the child. This disassociation is reflected in lower scores by the PHC, the BHU and the FHU care models [12,18-23]. However, the FHU model showed a greater presence of these attributes when compared with the traditional BHU model, [13-15,18]. This presence indicates that FHS professionals know the families and the primary health problems of the children in the coverage area. These professionals also monitor the health of families and the community.

Therefore, the PHC is not providing resolute, participatory and high-quality comprehensive care. However, despite the low scores achieved by the BHU and FHU models, it was possible to identify more satisfactory results with respect to the FHU team. From the perspective of the children's mothers, this health care model is closer to what is recommended for effective and high-quality APS [12].

This result may reflect the involvement of FHU professionals for the provision of childcare with high-quality and guaranteed access, comprehensiveness, longitudinality and continuity of care with a focus on the child-family-community trinomial in the routine primary care work process.

Promotion Actions of Children's Health

The studies related to health care models presented directed themes for the promotion of child health, highlighting initiatives to increase breastfeeding (BF) [23-24] in the BHU and FHU models. Despite an increased prevalence of exclusive breastfeeding and fewer consultations for diarrhoea in infants less than 1 year old in the BHU [23], this model and the FHU presented difficulties related to the high turnover

of professionals, non-compliance with some of the ten steps to successful breastfeeding in primary care and the insufficient monitoring of services by tutors' networks [24].

These findings stimulate reflections on the potential of the traditional BHU model that may be contributing to improving the indicators directly related to reducing child mortality; therefore, these findings deserve the attention of all participants in childcare.

With regard to health promotion, the ESF model was deemed superior to the traditional BHU in vaccination coverage of children aged 24 months. Coverage was higher for children who had joined the unit [25]. By contrast, vaccination coverage of children at USF was lower than that recommended by the Ministry of Health [26], and there were limitations to vaccination rooms' adhering to the standards and guidelines established by the NIP in both the traditional BHU and FHU models [27].

From the perspective of comprehensiveness in health care of the child, despite the obligation of the health teams in PHC to provide strategies and actions for the promotion, protection and accompaniment of children with special health care needs, this group of children remains invisible to health services and their models of care [28-29]. However, the FHS is a potential PHC space for caring for children with alterations and/or deficiencies in growth [30].

This finding indicates the need for dissemination of quality-of-care strategies for this population because the ability to provide access to health care and the coordination of care in other components of the health care network have the FHU potential to include people with special needs.

The results highlight the potential of the FHS to combat violence against children with team meetings for planning support strategies for families. Such strategies would include home visits by community workers; the monitoring, evaluation and treatment in health care; articulation within the network; and compulsory legal and/or medical in-

terventions when necessary [30]. However, professionals' unpreparedness to address the violence is a problem [31].

This reality invites the healthcare teams working in primary care to rethink their roles in addressing violence against children and to create new approaches that consider the lives of users, their families and social networks, their vulnerability and the protective aspects present in each case [31].

Other strategies for comprehensive care include the creation of groups of mothers and infants [32] and the development of an educational booklet to promote childcare, which would strengthen mothers' relationships with health professionals [33]. Such actions would affect the empowerment and autonomy of the family.

The fact that these strategies have been conducted in the context of the FHU model may indicate that this model may be central to the development of educational practices in health care because of their proximity to the territory and its population [33].

Corroborating this statement, studies have concluded that the actions taken by the oral health team in the FHS outperform other models of care in the promotion, prevention and rehabilitation of children under 12 years of age [34], and the FHS control of dental visits of children between 12 and 36 months by CHH reduced the incidence of dental caries in these children [35]. This result indicates that dental follow-up is a viable means of reducing costs and can be widely utilised for early intervention and child health promotion.

After highlighting the repertoire of actions related to the promotion of child health in the Brazilian PHC models, it is appropriate to reflect on the quality of care offered to children. Although increased evidence supports the model that operates with the FHS, weaknesses render the logical operation of the work processes of health teams in childcare difficult to implement.

Healthcare team bonding with the child and his family

Another important aspect discussed in this review is the bonding of health staff with the child and his family and a reflection of how various models of PHC have advocated their adherence to childcare longitudinality. Studies indicate that the constant contact and professional commitment between the professional and the family is what establishes the bond. Simultaneously, such a bond helps to address the population's needs to improve the child/family's quality of life [36].

People responsible for children under five years old reported the potential benefits to the health of the family from the bonding of family and staff members [16]. In addition, the USF, when compared to the traditional model, showed stronger bonds with users [18]. This result may indicate that the binomial child/family is considered the object of care, resulting in an established trust with users, expressed by the users' satisfaction with the attention received [37].

Primary care evaluation using respiratory disease as an indicator showed that most mothers considered that the doctor gave good service. The doctor examined the children, communicated politely, and reported that the children displayed improved health. Statistically, there were more mothers who considered the care good than those who considered the care poor [38].

Perhaps in developing the childcare process, the most important factor in establishing a bond is a successful dialogic relationship among the professional-child-family, which requires efficient communication. This type of communication occurs during the meeting that centres on the care of children, during which mothers feel free to ask questions and feel included in the answers provided by the professionals [39]. This attitude humanises care, which requires amassing technical capabilities and engaging in personal integration [40].

Expectations of mothers with regard to childcare in the traditional UBS model involve a 'good or satisfactory' consultation imbued with good 'interpersonal relationships' with the professionals, attention, security, affection, equality of service, dialogue, interest in childcare with 'answers to family questions' and being 'resolute' to meet the child's health needs with a reliable guarantee of diagnosis and treatment [41]. However, despite these strengths, the mothers reported feeling insecure regarding their child's health status around the professionals, which is 'bad' childcare because the 'professional shows disregard' and the mother believes that the 'diagnosis is wrong' because the professional does not provide evidence. This insecurity creates a lack of trust in the quality of care and a lack of faith that care can be improved. These attitudes separate mothers from the basic health unit, with a consequent increase in the search for emergency services when the child is sick [41].

Regardless of the care model, mothers are satisfied with childcare when the child is addressed by name, when the professional shows interest in knowing the reason for the consultation, when the professional examines the child and provides relevant information and when mothers understand the professionals' guidance [17].

Based on the foregoing, it is urgent that professionals reflect on the work processes implemented by both models. As the traditional model, the FHS can effectively contribute to strengthening the relationships of trust, respect and empathy between the professional and the child-family, directing their practices to quality of care, as is expected of a PHC service.

A look for structural dimension of PHC models

Identifying the strengths and weaknesses of care offered to children permeates the need to address the structural dimensions of PHC models because

the structural dimensions include physical facilities, equipment, supplies, drugs, standards, and human and financial resources. These aspects are inherent in the professional work process in the context of health services [42].

With regard to physical structure, the FHU model as the traditional UBS in the physical vaccine rooms are consistent with the expectations for a PHC unit [26]. However, the physical facilities of the units have deteriorated and are unsanitary, with an insufficient number of rooms [43]. The adapted structures [44] of the family health units in the PHC reorganisation proposal affect the quality of professionals' work.

With regard to the materials and equipment necessary to perform a consultation on a child, the availability of these materials and equipment in the Family Health Units is limited [43,45-47], which might compromise the professional's ability to make an early diagnosis and order timely therapeutic interventions. When the appropriate materials and equipment are available, continuity of care and comprehensive care are believed to improve [48].

Access to other essential resources for effective childcare are limited in PHC, including specific medications such as antibiotics, allergy and cold medicine, inhalations and supplies for oral rehydration in the FHU [43] and the distribution of ferrous sulfate as a component of the National Program of Iron Supplementation (NPIS) [49].

These medications are necessary for the prevention and treatment of childhood illnesses such as diarrhoea, acute respiratory infections and iron deficiency. Treatment in PHC can reduce cases of child hospitalisation for conditions sensitive to primary care [50].

In various contexts of PHC, the investigated models showed inadequate monitoring of child growth and development [45] and that professional actions were deficient with regard to guidance for families. Professionals did not perform a complete physical examination on the child, which may have been

the result of a lack of materials such as a paediatric scale and CHH.

FHS weaknesses were also observed in childcare with regard to a lack of differentiated monitoring of children with low birth weight. These children are considered a nutritional risk, exacerbated by the absence of weight records and stature in the CHH and a lack of specific training for professional nurses regarding treatment for such children [46].

Limitations were also identified in children's medical records regarding breastfeeding and monitoring weight, height and vaccinations [51-52]. This finding may indicate that important factors in healthy development are not being recorded and therefore must be shared among the professionals who offer childcare in PHC. Such a system creates fragile longitudinal care, which is essential.

Although there are weaknesses in the registering of medical records, satisfactory progress has been made in the area of the primary complaint of the child, indicated by the quality of the physical examination, complete information regarding the child's growth and development in the medical and nursing record, and the context of the doctors' bonding with their patients [38, 53].

Therefore, professional actions that were inconsistent with recommended public policies regarding attention to children's health were observed [46], indicating an urgent need for health professionals to rethink their practices to work more consistently with the HUS principles and guidelines [40].

The training and qualifications of health professionals who are working in these services are important considerations. Often, the performance of newly trained professionals can spread false ideas regarding primary care facilities as places that house clinicians with poor skills and professionals without specific training [54].

However, the debate regarding the development of human resources for the NHS is essential. Participants are seeking the best alternatives to ensure that professional practices fulfil the challenges ne-

cessary for the implementation of quality PHC [55]. The professional training of doctors and nurses in family medicine and community medicine has the potential to transform family and community health care [54].

It appears that a gap remains between the proposals to improve PHC quality and the work actually performed by professionals [31, 46, 53]. Given this weakness, it is necessary to rethink the work processes of health teams and strengthen and establish adequate professional training to address childcare in PHC [22].

Comprehensive quality care is affected by the strengths and weaknesses of each element of the structural dimension, which are all affected by the organisation and work process of primary care models and reflected in the work of professionals. However, in this context, the particulars of each region must be considered; each region's political, social and economic organisation can contribute to highlighting a particular model implemented in a certain region. Together, these models can enhance the effectiveness of childcare in PHC.

Conclusions

To achieve effective and quality childcare, teams working within care models and in services with a structure adequate for care provision must operate in accordance with PHC attributes. Based on the knowledge produced in the last ten years on this topic, this review is able to recognise the FHU model as superior to other existing models in terms of its strengths and weaknesses.

Although most studies did not have an explicitly comparative nature, a focus on the care models evaluated was identified in all of the studies. However, given the expansion of the ESF in Brazil, most of the studies addressed this model, which demonstrates the interest shown in advancing and strengthening PHC in the Brazilian SUS to improve child health care.

This study revealed that the work process implemented by services that operate within the ESF may effectively contribute to strengthening relationships of trust, respect and empathy between professionals and the child-family, thus directing practice towards quality of care and a PHC service with greater support, including international support, in the pursuit of effective care.

However, the ESF, despite being the closest to what is expected of a PHC model, still faces the challenges of access to services, examinations and medicine; scheduling of appointments; conducting of home visits; coverage of appointments recommended for the child; professional qualifications; and service infrastructure. These are essential elements that must be reviewed to overhaul the FHU as the care coordinator in PHC.

Moreover, depending on the region where the study was conducted, the implemented model showed strengths for certain childcare actions and not others. This finding suggests that a model's organisation and work process can reflect the particularities of each region and therefore its ability to provide effective care to the population in conformance to PHC attributes.

Further studies are necessary to reveal the relationship between Brazilian PHC care models and regional peculiarities in childcare so that strengths can be recognised and weaknesses overcome.

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