School Health Program: challenges and possibilities for health promotion from the perspective of healthy eating

Programa Saúde na Escola: desafios e possibilidades para promover saúde na perspectiva da alimentação saudável

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ABSTRACT The School Health Program (PSE) elects health promotion as a guideline for developing health actions at school. The aim is to identify and analyze the program’s strengths, opportunities, weaknesses, and threats to implement health-promoting actions that promote healthy eating habits. This review, of qualitative approach, comprises 29 articles of evaluation of the program published between 2015 and 2021. By the SWOT matrix, the analysis grouped the results into Strengths, Opportunities, Weaknesses, and Threats. Among the strengths, the proximity of the health and education sectors and the integration between the school, health unit, and family stood out; as opportunities, the possibility of intersectoral planning for health promotion was observed. The weaknesses refer to the intersectoral disarticulation, the lack of training, and the predominance of biomedical actions. The threats found demonstrate the centralization of power in health and the schoolchildren’s approach to the health service without a broader understanding of health promotion, providing opportunities for medicalization. It is concluded that it is possible to develop intersectoral educational actions to promote healthy eating in basic services involving schoolchildren and their families. This practice should be prioritized in public agendas in order to enable its daily practice in services.


RESUMO O Programa Saúde na Escola elege a promoção da saúde como diretriz para o desenvolvimento de ações de saúde na escola. O objetivo foi identificar e analisar fortalezas, oportunidades, fragilidades e ameaças ao programa para implementar ações de promoção da saúde que promovem hábitos alimentares saudáveis. Esta revisão, de abordagem qualitativa, selecionou 29 artigos de avaliação do programa, publicados entre 2015 e 2021. Pela Matriz Fofa, a análise agrupou os resultados em: Fortalezas, Oportunidades, Fraquezas e Ameaças. Entre as fortalezas, destacaram-se a proximidade dos setores de saúde e educação e a integração entre escola, unidade de saúde e família. Como oportunidades, observou-se a possibilidade de planejamento intersetorial para promoção da saúde. As fraquezas referem-se à desarticulação intersetorial, à falta de formação e à predominância de ações biomédicas. As ameaças encontradas demonstram a centralização do poder na saúde e a aproximação dos escolares ao serviço de saúde sem uma compreensão ampliada da promoção da saúde, oportunizando a medicalização. Conclui-se que é possível desenvolver ações educativas intersetoriais para promoção da alimentação saudável nos serviços básicos envolvendo os escolares e suas famílias. Essas ações devem ser priorizadas nas agendas públicas a fim de viabilizar sua prática cotidiana nos serviços.

Introduction

Excess weight, characterized by the Body Mass Index above the normal range\(^1\), presents itself as an important public health problem in much of the western world, including Brazil\(^2\), which, in 2020, recorded a prevalence of 57.5\% and 21.5\% of overweight and obesity respectively, for adults\(^3\). For adolescents and children, data from the 2020 Food and Nutrition Surveillance System revealed that 31.9\% of adolescents and 31.7\% of children between 5 and 10 years old were overweight and that, of these, 11.96\% and 25.8\%, were obese\(^4\). Data from the 2019 National Health Survey (PNS) showed that, for adolescents between 15 and 17 years old, overweight prevailed in 19.4\%; and, of these, 6.7\% were obese\(^5\).

In recent decades, Brazil has been the scene of social transformations that have led to changes in its health and food consumption pattern. Data from the Family Budget Survey (POF) 2017-2018, when analyzing the last 15 years, showed that the availability of in natura or minimally processed foods and processed culinary ingredients in Brazilian households has lost ground to processed and, mainly, ultra-processed food. During this period, ultra-processed foods rose from 12.6\% to 18.4\% of the total calories available at home\(^6\). In this aspect – and in view of the increase in health care demands, mainly related to the diseases that accompany Chronic Noncommunicable Diseases (NCDs) –, public policies were instituted in different countries with the intention of prioritizing Health Promotion (HP) to fight obesity, through healthy eating practices and lifestyles for the population\(^2\).

National and international studies have confirmed the association between consumption of ultra-processed foods and obesity, hypertension, dyslipidemia, metabolic syndrome, among other chronic diseases\(^7,8\). Considering that the consumption of these foods has been increasing in Brazil and in the world, it is necessary governmental measures that prioritize the health of the population\(^2\), with actions that promote healthy lifestyles, respecting food as a social right guaranteed in the Brazilian Federal Constitution, in the aspect that the adoption of healthy eating habits should be encouraged by public policies. Health and food are interconnected, with food being essential for health; and an adequate state of health is necessary for the best use of the food consumed\(^9\).

In this context, in 2007, the Ministry of Health (MS) and the Ministry of Education (MEC) created the School Health Program (PSE), as an intersectoral and interdisciplinary strategy to articulate education and health policies aimed at children and adolescents, in order to promote comprehensive health care for students in the public school system, based on the involvement of Primary Health Care teams, basic education and the school community\(^10\).

The legislation that guides the organization of the PSE provides for actions aimed at HP, which program is structured in three components: assessment of health conditions; HP and disease prevention and; training\(^11,12\). In 2017, the program’s guiding document reinforced the need for health-promoting actions, continuous and permanent training, to strengthen the relationship between the areas\(^13\).

In this sense, the program is a possibility for the development of HP actions at school, including the Promotion of Healthy Eating (PAS), anchored in the guidelines of the National School Feeding Program (PNAE)\(^14\), which guides the use of adequate and healthy food, as well as Food and Nutrition Education (EAN) for school children, reinforcing the theme of food and nutrition and the development of healthy living practices. In 2018, the MEC established that the curricula of Early Childhood Education, Elementary School and High School, in addition to having a common
national base as a structuring axis, could include, at the discretion of the education systems, transversal themes, which would have a complementary character to the fulfillment of the curriculum; in this movement, EAN became one of the transversal themes to be worked on in the school curriculum. In addition, since 2006, the Interministerial Ordinance No. 1,010 [known as the School Canteens Law] established guidelines for PAS in Kindergarten, Elementary and Middle Schools in public and private networks.

The understanding that the school is an important space for the development of health-promoting actions is not new; already in 1977, the report of the IV International Conference of HP pointed out this potential. Currently, these actions are guided by the PSE guidelines: decentralization and respect for federative autonomy; integration and articulation of public education and health networks; territoriality; interdisciplinarity and intersectoriality; completeness; care over time; social control; and ongoing monitoring and evaluation.

Among the health actions foreseen in the PSE, to be developed by the public basic education network and primary care health teams, the implementation of the action ‘Promotion of healthy eating and prevention of childhood obesity’ was pointed out as a necessity, considering that excess weight is already a public health problem among schoolchildren.

In this way, understanding both the strengths and weaknesses involved in the process of implementing HP actions in the PSE, from the perspective of PAS for the prevention of childhood obesity, justifies the present research, which can expand the understanding of public policies, in order to articulate strategies to consolidate strengths and minimize or reverse weaknesses, allowing the professionals involved, as well as the school, students and their families, a practice that respects the reality, culture and space that these people occupy in the society.

In this context, this study aimed to identify and analyze strengths, opportunities, weaknesses and threats to the program, to implement HP actions that promote healthy eating habits.

**Material and methods**

This is a bibliographic research with a qualitative approach, divided into two stages. The first, aimed at selecting the publications that would be included in the study, was developed through a narrative review of the literature carried out in the SciELO, Virtual Health Library (VHL) (LILACS, and MEDLINE) databases, with the keywords: PSE, saúde na escola, saúde escolar, Programa Saúde na Escola and promoção de alimentação saudável na escola. We found 63 texts related to the PSE, of which 29 were selected (9 from SciELO, 13 from VHL/LILACS/MEDLINE and 7 located in literature reviews), as they met the inclusion criteria: being original articles; published between 2015 and 2021; relating to PSE (including food and nutrition actions); relevant to the theme and objective of the study (table 1). The remaining 34 texts found, after reading, were not selected because they included the exclusion criteria: theses and dissertations; review articles; and studies that evaluated the specific action of other areas in the PSE (physiotherapy, speech therapy, dentistry).
Table 1. Characterization of the studies regarding the objective, place where it was carried out, methodological approach and main features of interest

<table>
<thead>
<tr>
<th>Referencias</th>
<th>Objective, study site and methodological approach</th>
<th>main features of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carvalho KN, Zanin L, Flório FM, 2020</td>
<td>Identify the nurses’ difficulties in the actions developed in the PSE and evaluate the students’ perception of the program. Paranaíba, Piauí. Qualitative.</td>
<td>Nurses highlight that the excess of attributions in the UBS; the lack of involvement of schools; the lack of articulation between the Health and Education Departments; the lack of engagement of other professionals in the activities developed constitutes limitations to the success of the PSE.</td>
</tr>
<tr>
<td>Suassuna AP, et al., 2020</td>
<td>To identify the health education activities carried out in high schools in the city of Natal in the state of RN, as well as to verify the expectations of students regarding the role of health professionals and government officials. Quantitative</td>
<td>The action of the PSE in the public network of Natal-RN is flawed; health education in schools is incipient, especially actions aimed at health promotion; students do not recognize PSE actions in their respective schools.</td>
</tr>
<tr>
<td>Brambilla DK, Kleba ME, Magro MLP, 2020</td>
<td>To present a cartography of the implementation and execution of the School Health Program and its effects on the demedicalization process in a small municipality in southern Brazil. Qualitative.</td>
<td>The PSE, through intersectoral articulation (Education, Health and Social Assistance), carried out actions aimed at comprehensive health care that generated demedicalization. However, they consider that the simple approximation between the health and education sectors, which does not involve reflected practices and the co-responsibility of different professionals, can strengthen the medicalization of health, by expanding students’ access to health professionals.</td>
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<tr>
<td>Rodrigues RM, et al., 2020</td>
<td>Identify how the actions of components I, II and III of the School Health Program are being developed. West of PR. Documentary.</td>
<td>Component I actions were expressively agreed, highlighting assistance actions. In component II, actions to promote food security and healthy eating were agreed. Component III activities were the least agreed upon and carried out, especially in smaller municipalities. The implementation of the PSE requires institutional organization for the development of the foreseen components.</td>
</tr>
<tr>
<td>Mello MAFC, et al, 2019</td>
<td>Identify the health actions carried out by the PSE and describe the problems identified. West of PR. Quantitative</td>
<td>Need to invest in the training of professionals, given that the data available for systematization and analysis suggest discrepancies in the methods for data collection, disqualifying actions and compromising the quality of analysis, weakening the proposition of policies and actions to face the identified conditions. The expansion of PSE is suggested.</td>
</tr>
<tr>
<td>Medeiros ER, et al, 2019</td>
<td>Reflect on the process of training professionals in the School Health Program through the Complexity Theory. Qualitative.</td>
<td>Need to integrate health and education professionals in training, which require complex processes, however, interdisciplinarity and intersectionality can provide solutions to the complex needs of the educational context, by sharing knowledge among professionals.</td>
</tr>
<tr>
<td>Oliveira FPSL, et al., 2018</td>
<td>To investigate the perception that Brazilian schoolchildren have in relation to the activities developed by the School Health Program. Belo Horizonte, MG. Qualitative.</td>
<td>Students report activities related to health care and difficult access, however, health promotion and disease prevention activities were not mentioned. They recognize the actions as a benefit, for which they show their gratitude, without the necessary protagonism to produce their own health.</td>
</tr>
<tr>
<td>Vieira LS, Belisário SA, 2018</td>
<td>To analyze the School Health Program in the health district one of the Brazilian capitals from the perspective of intersectionality in school health promotion actions. Qualitative.</td>
<td>The integration between health and education takes place with punctual and fragmented actions, but little by little articulated proposals that are committed to intersectionality and health promotion emerge, with the need for monitoring and evaluation of the program in the context of health promotion.</td>
</tr>
<tr>
<td>Moraes AC, et al., 2018</td>
<td>To compare the implementation of the Saúde na Escola Program in municipal and state elementary schools in five municipalities in the state of Paraná, Brazil. Qualitative.</td>
<td>In municipal schools, actions direct nutritional habits for a healthy life, improving the quality of life of students and their families. Intersectionality was a contributing factor in caring for students’ demands and health promotion activities. This issue is not addressed in state schools, with distance and lack of understanding between the health and education sectors, harming the quality of the actions carried out. Both allege lack of teacher training.</td>
</tr>
<tr>
<td>Corrêa HW, Toassi RFC, Firmino LB, 2018</td>
<td>Understand, from a phenomenological perspective, the meaning of the actions of the School Health Program for Primary Health Care teams. Porto Alegre, RS. Qualitative.</td>
<td>The coordinators recognize the potential of the work on prevention and health promotion carried out by the PSE, with a challenge for working in networks, due to the great demand generated by the program. The school does not feel included in the actions, with distance from the families and little resolution of the clinical demands of the students.</td>
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To understand the implementation of the School Health Program in the city of Cascavel, Paraná, based on the nurses’ report. Qualitative.

Evaluate the implementation and execution of the PSE in the Municipality of Belo Horizonte, Minas Gerais, the mechanisms that favor intersectoral action and the managers’ perception of intersectionality. Qualitative.

To identify the facilities and difficulties in the implementation of the PSE in a municipality in the northeast of Brazil. Natal, RN. Quantitative.

To analyze the intersectoral action developed between the health and education sectors in the process of implementing the Health at School Program in a municipality in the metropolitan region of Northeast Brazil. Qualitative.

To analyze the context of health promotion with adolescents in the health and education interface, focusing on PSE actions. Fortaleza, CE. Qualitative.

Build and validate the logical model of the School Health Program. Rio de Janeiro - RJ. Qualitative.

To analyze the social function of the PSE based on a bibliographic and documentary study, based on the historical materialist method. Documentary research.

To know and analyze the process of intersectionality in the PSE in a municipality in the metropolitan region of Pernambuco. Olinda, PE. Qualitative.

To evaluate the actions developed by the Family Health Strategy teams and their impact on improving the quality of life of adolescents in Sobral. Sobral, CE. Quantitative.

To understand the perception of nurses from the Family Health Strategy on the PSE. Jequié, BA. Qualitative.

The program presents weaknesses in the training of professionals, in the structure of schools, human and material resources, and incipient intersectoral interaction. The PSE actions are based on health assessments of students.

Difficulty in building intersectoral work in the fields of management and development of PSE actions. Little sharing of responsibilities between sectors, little scope in the development of health promotion and its determinants. Centrality of power in the higher levels of management, needing to give priority to training and continuing education processes that include the current discussion on intersectionality, with the participation of students and the community to ensure the sustainability of actions.

The most frequent facilities were intersectoral articulation (38.1%) and professional satisfaction (24.8%) in carrying out PSE activities. The difficulties were: scarcity of material and financial resources (50.5%), lack of intersectoral articulation (26.7%) and excess of activities in the work process (17.1%).

In the implementation of the Program, health leadership was noted, with education playing a peripheral role. The activities have a biomedical approach, carried out through lectures. However, the program strengthened the relationship between the two sectors, but the intersectoral articulation in the political-management process and in practices showed weaknesses and limitations.

The organization of spontaneous demand causes disharmony in scheduled appointments and health actions at school. The professionals’ lack of knowledge about the PSE and the lack of planning of actions confirm the disarticulation of the education and health sectors, although they signal possibilities of this intersectoral practice.

Intersectionality presents itself as a challenge to be overcome by the program, having as strategies and recommendations: local meetings, with periodicity, in their respective areas, and a unique information system for the program, which allows its use in a timely manner by the departments involved.

The PSE, as an educational assistance program, plays a mitigating role in the face of social manifestations, conservative, integrates neoliberal policies, however, it does not disqualify it as important initiatives in the scope of the democratic struggle for rights.

The operation of an intersectoral policy in an environment with actors that have previously assembled sectoral agendas and with no space for their execution, makes it difficult to reconcile the institutional times of the sectors, preventing the sustainability of actions. There is a shortage of training and continuing education, in addition to the lack of protocols that guide the development of intersectoral actions. However, the PSE allowed health professionals to perceive their social role as educators and enabled adolescents to have greater contact with the health team.

In the evaluation of the components, the study identified relevant values of component I, regarding the presence of students with health alterations. Component II, on the other hand, presented satisfactory numbers in health promotion and disease prevention actions, which proved the reach of these actions developed by the municipal teams with the adolescent public. The PSE is little recognized among educators.

The PSE is understood as an intersectoral policy focused on the health of children in the public school system, showing the limited knowledge of professionals about the program. The work overload in the ESF, the problems related to municipal management and the lack of partnership with the parents, are presented as weaknesses. However, they recognize their capacity for integrality in health.
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<tr>
<td>Tusset D, et al. 201538</td>
<td>To assess the presence of the Domains of Core Competencies in Health Promotion in the discourses on the practices carried out by actors who implement the PSE as well as in the regulations that guide this program in the Federal District (DF). Qualitative.</td>
<td>Limitations were identified to develop practices in a broader perspective of health promotion, with the need to broaden the understanding of these domains and the theme, with specific training for managers and health and education workers, with educational methodologies of a participatory and multidisciplinary character, through continuing education.</td>
</tr>
<tr>
<td>Carvalho FFB, 201539</td>
<td>To analyze the entrance of health in the school space through PSE actions, classify them as pedagogical practices and, from there, verify if they align with the perspective of health promotion. Duque de Caxias and Nova Iguaçu, RJ. Qualitative.</td>
<td>In the municipalities, the school community does not participate in the planning of actions, and the participation of FHS professionals took place through feedback of information from the actions carried out. Intersectionality was characterized with social assistance, sport and leisure, among others. Health actions in schools change school dynamics and health professionals may not be prepared to interact with students outside of health services. The PSE supports critical reflection on administrative limitations in the execution and effectiveness of intersectoral policies.</td>
</tr>
<tr>
<td>K ö p t c e L S, Caixeta I A, Rocha FG, 201540</td>
<td>Understand the intersectoral relationships from the perception of managers and professionals in the health and education sectors, in the implementation of the PSE, in two regions of the DF: Gama and Candeangolândia. Qualitative.</td>
<td>The program enhances intersectoral articulation, presents communication challenges and in the distribution of power between sectors in all spheres. Intersectoral Working Groups are important in supporting intersectoral work. It was noticed that the PSE is not a priority for health and education, with a disconnection between formal adherence and activities carried out.</td>
</tr>
<tr>
<td>Magalhães R, 201541</td>
<td>Understand the implementation of intersectoral actions foreseen in the Bolsa Família, Family Health and School Health programs, in Manguinhos, north area of the city of Rio de Janeiro, Brazil. Qualitative.</td>
<td>Importance of the PSE for the transformation of the organizational culture of the State. Managers and professionals at the ‘front’ recognize the importance of intra and intersectionality, pointing to the need to create an exclusive sector for the development of the Program’s actions and consider internal articulation positive, when it occurs. Despite intersectionality and territorialization being dimensions valued in the normative plan of the program, isolated, overlapping and discontinuous actions were frequent.</td>
</tr>
<tr>
<td>Souza NP, et al., 201542</td>
<td>Check the development of activities to promote adequate and healthy food in the school environment, from the perspective of the PSE. Pernambuco. Qualitative.</td>
<td>Nutrition education such as the PSE is little recognized. The professional related to excessive attributions, precarious working conditions (physical, material and human resources) and lack of planning and execution of PSE actions. The program is strategic in health promotion and prevention, it needs continuous actions, reinforced by the importance of the nutritionist in primary care for actions to promote healthy eating.</td>
</tr>
<tr>
<td>Tavares Leite C, et al. 201543</td>
<td>Understand the perception that teachers have of a school health program and its relationship with health education actions developed at school. Barbalha, CE. Qualitative.</td>
<td>Teachers perceived the PSE as assistentialist, without integration between teachers and health professionals, for which adolescents show no interest. The educational actions in the school were perceived as clinical evaluations that were not integrated with the actions already developed in the school.</td>
</tr>
<tr>
<td>Cavalcanti PB, Lucena CMF, Lucena PLC, 201544</td>
<td>Identify the inconsistencies of the PSE from its conception of health promotion, having as a counterpoint the understanding of the WHO on the subject. Documentary research.</td>
<td>Health promotion actions are curative and of assistance nature, being confused with prevention. However, health promotion does not seem to be adopted as the core of the PSE. There is a predominance of the conservative concept, which focuses on behavioral change without taking into account social determinants.</td>
</tr>
<tr>
<td>Machado MFAS, et al. 291546</td>
<td>Identify and describe the actions developed by the Family Health Teams in the PSE, participants of the National Program for Improving Access and Quality of Primary Care. Quantitative</td>
<td>The training of professionals to work with education and health needs to be strengthened. The PSE has mobilized relevant actions, even if this has not happened homogeneously in all Brazilian regions.</td>
</tr>
<tr>
<td>Silva ARS, et al. 201546</td>
<td>To know the public policies that promote adolescent health at school proposed and developed under the responsibility of education and health managers in the city of Recife, PE. Qualitative.</td>
<td>The PSE promotes comprehensive health care and enables reflection on administrative limitations for intersectoral practices. Professional training for the care of adolescents, and the practice of intersectionality in the daily life of professionals in the health care network of the municipality, are necessary, however, responsibility for actions should not be centered on workers.</td>
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</table>

*Source: Self elaborated.*
The second stage of the research was based on the use of the Strengths, Weakness, Opportunities, and Threats Matrix (SWOT) as a tool for selection, systematization and analysis of data and information about the PSE, contained in the 29 selected articles.

The SWOT Matrix is a tool widely used in the field of administration, having been adapted and used in planning, management and evaluation studies, both in the analysis of policies and the territorial-based health situation and in intersectoral research in health. The SWOT Matrix is a tool widely used in the field of administration, having been adapted and used in planning, management and evaluation studies, both in the analysis of policies and the territorial-based health situation and in intersectoral research in health. The SWOT Matrix is a tool widely used in the field of administration, having been adapted and used in planning, management and evaluation studies, both in the analysis of policies and the territorial-based health situation and in intersectoral research in health. The SWOT Matrix is a tool widely used in the field of administration, having been adapted and used in planning, management and evaluation studies, both in the analysis of policies and the territorial-based health situation and in intersectoral research in health.

The use of the SWOT Matrix allows a quick didactic visualization of the analyzed scenario, providing the analysis of positive and negative elements, both internal (Strengths and Weaknesses of the object studied) and external (Opportunities and Threats that, even if not part, may influence the performance of the object studied). The SWOT Matrix integrates management analysis for policy formulation and decision-making, as it groups strengths and weaknesses, allowing the evaluation of programs and interventions in their internal and external contexts (Table 2).

Table 2. Relationships between the internal and external elements of the SWOT Matrix

<table>
<thead>
<tr>
<th>SWOT evaluation matrix applied to PSE</th>
<th>Internal elements</th>
<th>Weakness</th>
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<tbody>
<tr>
<td></td>
<td>Strengths</td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>When the strengths of the program meet positive conjunctures of achievement, they express the Potential at stake.</td>
<td>Positive conjunctures of achievement can reveal still weak points of the program, which can be read as a Challenge to overcome</td>
</tr>
<tr>
<td>Threats</td>
<td>Adverse situations can compromise the performance, including the strengths of the program, constituting alerts to be considered</td>
<td>When adverse circumstances meet with program weaknesses, they express the conditioning and restrictions on the ability to respond</td>
</tr>
</tbody>
</table>

Source: Self elaborated.

For the elaboration of the SWOT Matrix, the strengths and weaknesses were listed and organized according to the highest frequency in which they were reported in the articles.

In the case of strengths, the strengths highlighted in the articles were considered, which are intrinsic to the program and which were well evaluated; the opportunities refer to the suggestions that the authors presented in their discussions; the group of weaknesses included the internal problems detected by the researchers in the actions identified, which make it difficult or even prevent the realization of the PSE as provided for in the legislation; and as threats, the external factors pointed out that serve as a warning for the failure of the program.

For a better understanding of the identified factors, some concepts were necessary, as follows:

Health Promotion: A set of strategies and ways of producing health, at the individual and collective level, characterized by intrasectoral and intersectoral articulation and cooperation and by the formation of the Health Care Network, seeking to articulate with the other social protection networks, with broad participation and broad social control; [...]

Promotion of Adequate and Healthy Food: A set of strategies that provide individuals and communities with food practices appropriate to their biological and sociocultural aspects, as well as the sustainable use of the environment; [...]

\[\text{Table 2. Relationships between the internal and external elements of the SWOT Matrix}\]

\begin{tabular}{|c|c|c|}
\hline
SWOT evaluation matrix applied to PSE & Internal elements & Weakness \\
\hline
 & Strengths & \\
Opportunities & When the strengths of the program meet positive conjunctures of achievement, they express the Potential at stake. & Positive conjunctures of achievement can reveal still weak points of the program, which can be read as a Challenge to overcome \\
Threats & Adverse situations can compromise the performance, including the strengths of the program, constituting alerts to be considered & When adverse circumstances meet with program weaknesses, they express the conditioning and restrictions on the ability to respond \\
\hline
\end{tabular}

Source: Self elaborated.
Intersectorality: Process of articulating knowledge, potentialities and experiences of subjects, groups and sectors in the construction of shared interventions, establishing bonds, co-responsibilities and co-management for common goals; [...] 

Intrasectorality: Permanent exercise of defragmenting the actions and services offered by a sector, aiming at the construction and articulation of cooperative and problem-solving networks; [...] 

Integrality: Interventions based on the recognition of the complexity, potential and uniqueness of individuals, groups and collectives, building articulated and integral work and care processes. 

Results and discussion 

The articles that make up this review come from research carried out in several Brazilian states, parts of the Northeast, South, Southeast and Center-West regions, in addition to studies related to the PSE legislation and secondary data from the MS, including all Brazilian states (table 3).

The SWOT Matrix exposes the application of categories organized based on the frequency in which the information was presented in the articles under study, grouped into internal factors by the Strengths and Weakness Groups; and external factors by the Opportunities and Threats Groups.

Analysis of factors internal to the PSE

STRENGTHS GROUP

Strengths refer to factors intrinsic to the PSE, representing the strengths to be maintained, providing an overview of how these actions are implemented in the program. In the review presented here, strengths were less expressive (n = 5) compared to weaknesses (n = 13), showing that there are challenges for the implementation of the program.

Despite the insufficient intersectorality, presented as the main factor in the fragilities quadrant, studies show that the PSE brought the school and the health unit together with the family, favoring dialogue between the actors. When implemented, the intersectoral approach signaled a contributing factor, allowing planned actions between the different sectors and, within each sector (intrasectoral), enabling comprehensive care and expanding the perception of the problems of the schoolchildren.

A research carried out with managers evaluated the PSE as the only policy for comprehensive care for students, through the establishment of intersectoral actions for the care of adolescents in the school environment, with the potential capacity to positively interfere in the lives of these students, redirecting them towards integrality in health, with actions directed to their realities. Furthermore, according to Barbieri and Noma, it was presented as an important initiative within the scope of the democratic struggle for rights.

The approximation of primary care with the school made it possible to identify problems that were not previously perceived by the health sector, in addition to expanding the student’s contact with professionals and health services, and these, with their social role of educator. Students recognize the importance of health professionals, especially to identify their health problem and refer them for clinical consultation.

On the other hand, professionals working in the PSE recognize its potential for health-promoting actions. Studies indicated that actions related to ‘health promotion and disease prevention’ were the most agreed upon, with emphasis on actions about ‘promotion of food security and healthy eating’.
There is a vast literature that brings intersectoriality as essential for the actions of the PSE, which is not just an approximation of the areas, but the inclusion of professionals in the planning of actions, as well as the entire school community, so that they recognize the need and the importance of these actions.

According to analysis in the Integrated Monitoring, Execution and Control System (SIMEC), the anthropometric assessment record and food safety and healthy eating actions presented the highest frequencies among the actions recommended by the PSE. Furthermore, the monitoring report of the last completed PSE cycle (2019/2020 cycle) showed that the collective activity on the topic of healthy eating and obesity prevention was the second most performed action (18.19% of the total) among the actions of the PSE.

**WEAKNESS GROUP**

The identification of weaknesses contained in the program is an essential task for it to be adjusted towards greater efficiency. Studies have shown an expressive presence of these factors – in which the disarticulation between the health and education sectors is the most relevant – which actions compromise intersectoriality and integrity, still insufficient. The lack of protocols for the development of intersectoral actions was identified, which sectoral agendas are prepared in advance, with disconnection and distance between services. In addition, there was a lack of planning of actions, with little involvement of schools and families in the program, and students in decisions. Intersectoriality must support the planning of managers, so that it can be implemented in practice, as well as all subjects of the school community must be involved in the scheduling so that they recognize, value and engage with school health.

The lack of professional training to work in the PSE was one of the main problems reported, being pointed out as the least agreed actions by the municipalities. The studies identified that the professionals involved in the development of the program do not have a proper understanding of the PSE and of the HP, suggesting that they did not have training in pedagogical practices and, still, there are different perceptions among managers in the three spheres of government. However, Cavalcanti, Lucena and Lucena, when verifying the inconsistencies of the PSE, from their conception of HP, did not concretely identify that it is adopted as the guiding concept of the program itself. The training of the professionals involved on the subject is essential for the realization of these actions, considering that, to a large extent, with the exception of the nutritionist, the other professionals did not have the content of Food And Nutrition Security (FNS) in their training, which makes it difficult to carry out these actions.

The few actions named as HP are presented as assistance, curative, of a technical nature. In addition, they follow a preventivist model, centered on fragmented and individualized actions, offered in the form of lectures with a biomedical approach, focusing on behavioral change without taking into account social determinations.

Furthermore, students seek and recognize the presence of health in the school in care actions, in addition to understanding them as a benefit, and not as a right. Through these actions, there is a considerable number of schoolchildren with some change in their health, however, with little resolution of the diagnosed clinical demands. The disease-centered educational approach is not in line with the HP, which should guide the actions of the PSE.

Health professionals, on the other hand, reported the excess of attributions in their units and the great demand generated by the PSE, which, added to the lack of human, material and structural
School Health Program: challenges and possibilities for health promotion from the perspective of healthy eating

resources\textsuperscript{28,30,42}, reinforces the fragility of the program. In addition, studies indicate that there is centrality of power\textsuperscript{29,39}, with a predominance of the health sector\textsuperscript{31,40,41,44}, in which school work occupies a peripheral space\textsuperscript{31}. Furthermore, flaws in the monitoring system of the actions developed and evaluation were also found\textsuperscript{25,45}.

Analysis of factors external to the PSE

OPPORTUNITIES GROUP

The opportunities presented here were reported by the authors, referring to the actions that are possible to be carried out from the program, but which have not yet been fully implemented in the routine of the services. The authors suggest that the PSE provides opportunities for the union of different sectors, the exchange of experiences and knowledge\textsuperscript{23,39}, which social function of the school (forming citizens) can be shared by the family and other services, such as health\textsuperscript{19,24,36,38}, strengthening bonds, building care networks\textsuperscript{27,29}, thus enabling an institutional strategic planning for intersectoriality. Furthermore, the PSE enhances intrasectoral actions, expanding the understanding of intersectoral management, and, with that, the transformation of the organizational culture of the State\textsuperscript{40,41}.

Through inter-ministerial programs such as the PSE, institutions find space to organize actions for the HP, in a planned way, with better communication and dialogue\textsuperscript{21,22,28,39,40}, providing opportunities for working together\textsuperscript{23,39}. Considering that the reorganization of agendas, especially in the areas of health and education, is necessary to achieve intersectoriality\textsuperscript{29,44}, this partnership contributes to the process of permanent education of managers and workers, to transform the hegemonic health care model\textsuperscript{38} (reported in the weaknesses quadrant), in a work directed to the community\textsuperscript{19}, minimizing the vulnerabilities of the students\textsuperscript{43}, aiming at the empowerment of the school community\textsuperscript{22}. In this context, each actor has the possibility to act according to their reality, their social, cultural, economic determinants, enabling the school community to work together, sharing competences and skills\textsuperscript{19}, following the principle that “listening to voices can be a good starting point”\textsuperscript{24}(2897).

THREATS GROUPS

Threats were considered to be factors that, even external, when present, could jeopardize the implementation of program guidelines. The weakness related to the centralization of power in the health area\textsuperscript{29,31,39–41} is highlighted, in which education is perceived as having a peripheral role\textsuperscript{31}, not feeling valued\textsuperscript{27}. It is known that the PSE is an inter-ministerial policy, it is a strategy for the integration and permanent articulation between education and health policies and actions, with the participation of the school community, involving the family and basic education health teams, under the coordination of an Intersectoral Commission on Education and Health at School (CIESE), organized in an Intersectoral Working Group (GTI)\textsuperscript{10,13}. However, the PSE Commitment Term together with the agreed actions, the monitoring and reports made are available in a disintegrated way, in which each area has its responsibilities, with the sharing and dissemination of information at the discretion of each municipality, which, most of the time, it is not shared between sectors, or even accessible to the public – and most importantly: the financial incentives for the cost of the actions are transferred from fund to fund through and at the expense of the MS, according to the number of students enrolled\textsuperscript{13}. In this structuring format, education occupies a passive position starting from the legislation, which may explain this weakness reported by teachers, inducing
a secondary and peripheral participation, compromising intersectionality.

The easy access of students to health professionals and services, if, on the one hand, it can be a strength, for Brambilla, Kleba, Dal Magro, on the other hand, the simple approach without due reflection and co-responsibility of professionals can strengthen the medicalization of health by expanding students’ access to professionals, reinforcing the biomedical and curative model, without a proper understanding of HP, intersectoriality and comprehensive care. Considering that the studies show that the actions in the PSE follow a biomedical model, centered on the disease, it is suggested that the actions carried out will reproduce this model, already outdated, not promoting health, a field in which healthy eating is inserted. Added to this is the fact that students recognize health actions at school as clinical, punctual, fragmented care; as a benefit, and not as a right, showing that the principles of social rights, such as health and food, may not be properly addressed in this program.

The high demand for work generated by the program was reported by health professionals, associated with the lack of resources for the agreed actions, which led one of the studies to suggest the creation of an exclusive sector to develop PSE actions. In this view, it is necessary to reflect on the program guidelines that bring decentralization and respect for federative autonomy; integration and articulation of public education and health networks; territoriality; interdisciplinarity and intersectionality; integrity; care over time; social control; and permanent monitoring and evaluation, which do not support this division of labor, as they do not meet the intersectoral policies that act on social, cultural, political, economic determinants, among others, showing themselves as a setback and a threat to the principles of HP.

Table 3. Strengths, opportunities, weaknesses and threats in the School Health Program

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strengthens the relationship between health and education, among other sectors involved, for intersectionality and comprehensive care;</td>
<td>1. Intersectoral disarticulation between the areas of health and education (secretaries, professionals);</td>
</tr>
<tr>
<td>2. Health and education professionals recognize the potential for health promotion, including actions that promote healthy eating;</td>
<td>2. Incompatibility of health and education agendas;</td>
</tr>
<tr>
<td>3. Integration between health, school and family;</td>
<td>3. Lack of professional training for those involved in the ‘Program’, for health promotion in the PSE;</td>
</tr>
<tr>
<td>4. Students recognize the importance of health at school;</td>
<td>4. Health actions are assistance, curative/biomedical model, isolated, overlapping and discontinuous;</td>
</tr>
<tr>
<td>5. Expansion of contact between health professionals and schoolchildren for a better perception of health problems.</td>
<td>5. Lack of involvement of schools and educators;</td>
</tr>
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<td></td>
<td>6. Health professionals recognize the great demand for work generated by the PSE;</td>
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<td></td>
<td>7. Lack of structure, human and material resources;</td>
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<td></td>
<td>8. Centrality of power in the health sector;</td>
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<td></td>
<td>9. Lack of knowledge and appreciation of the program by students;</td>
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<td></td>
<td>10. Lack of family involvement;</td>
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<tr>
<td></td>
<td>11. School Health Program is not a priority of the areas;</td>
</tr>
<tr>
<td></td>
<td>12. Health Promotion is not at the core of the program and professionals do not have a proper understanding of the concept;</td>
</tr>
<tr>
<td></td>
<td>13. Poor monitoring, evaluation and information system.</td>
</tr>
</tbody>
</table>
Final considerations

The use of the SWOT Matrix in the evaluation of the PSE made it possible to visualize the strengths and weaknesses of the program, listing elements that can contribute to the analysis of its development for professionals and managers of health and education, in order to problematize obstacles that limit the full development of the program, aiming at HP and healthy eating, proving to be an important tool for use in the evaluation of public policies.

Studies have shown that, when intersectionality takes place, it invites the sectors to reflect, to dialogue, making a difference in carrying out actions and in the involvement of the entire school community, providing opportunities for educational actions that meet the PAS, as strategies used for healthy eating practices and appropriate to the biological, social and cultural conditions of individuals and communities. In this context, and based on the strengths and opportunities found in the studies, it can be said that it is possible to develop educational actions that promote healthy eating for children and adolescents in the school environment, in order to involve the school, the family, the health service and other areas that may be necessary, but mainly the student at all stages of the process, from planning to the execution of actions.

Childhood obesity presents itself as an important public health problem, and its prevention is among the actions to be developed by the PSE. In addition, educational actions that promote healthy eating are included in the PNAE and the National Common Curricular Base (BNCC), among other initiatives.

The main weakness in the PSE refers to the intersectoral disarticulation, proving to be the main problem faced by health and education professionals, justifying disjointed practices that can make it difficult to promote health and healthy eating actions. However, it is important to consider that the PSE includes training as one of the three structuring components of the program from 2011, which until then was included in the actions of permanent education in health, with less visibility, since it was not among the structuring components. Thus, further studies are needed to better identify the effects of training over time.

In line with the PSE legislation, the GTI, composed of the actors that make up the program, obligatorily health and education, does not seem to occupy a prominent place

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### Table 3. (cont.)

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Institutional strategic planning for intersectionality;</td>
<td>1. Centralization of power in the health area;</td>
</tr>
<tr>
<td>2. Development of intersectoral protocols;</td>
<td>2. Schoolchildren’s access to health services without a proper understanding of health promotion can reinforce the medicalization of health;</td>
</tr>
<tr>
<td>3. Inclusion of health promotion actions in the public agenda;</td>
<td>3. Deficient intersectionality and integrality of care reinforces the biomedical model;</td>
</tr>
<tr>
<td>4. Sharing of knowledge, experiences and actions between health, education and family;</td>
<td>4. Creation of an exclusive sector to develop PSE actions, due to problems in spontaneous demand;</td>
</tr>
<tr>
<td>5. Working in networks, in a dialogic way;</td>
<td>5. Students seek health care and clinical actions to the detriment of health-promoting actions;</td>
</tr>
<tr>
<td>6. Proximity of services to students;</td>
<td>6. Students recognize health actions at school as a benefit and not as a right;</td>
</tr>
<tr>
<td>7. Potential intersectoral articulation.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Self elaborated based on literature review.
for the actors, since only one study reported the difficulties of the GTI in monitoring the actions in the municipalities, which could stand out as an important instrument for intersectoral work, still dormant.

Intersectoral government programs enable debate, as well as access to public services, however, they are incapable of solving social, economic and political problems, which present themselves as a struggle of forces – on the one hand, the health of the population; on the other hand, the commercial interests of the disease industry –, which balance point presents itself as the greatest challenge, for which structural regulatory, fiscal and legislative actions are fundamental, as it is in the case of childhood obesity.

 Collaboration

DallaCosta MC (0000-0003-0769-5290)* contributed to the design, acquisition, analysis and interpretation, as well as the writing and final approval of the version to be published. Rodrigues RM (0000-0002-7047-037X)* contributed to the writing of the work and critical review of the content and final approval of the version to be published. Schütz G (0000-0002-1980-8558)* contributed to the design, writing and final approval of the version to be published. Conterno S (0000-0003-2493-8071)* contributed to the critical review of the content and final approval of the version to be published.

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