

# Integration of School Health Program actions among health and education professionals: a case study in Belo Horizonte, Minas Gerais

*Integração das ações do Programa Saúde na Escola entre profissionais da saúde e da Educação: um estudo de caso em Belo Horizonte, Minas Gerais*

Fernanda Piana Santos Lima de Oliveira<sup>1</sup>, Andrea Maria Duarte Vargas<sup>2</sup>, Zulmira Hartz<sup>3</sup>, Sônia Dias<sup>3</sup>, Efigênia Ferreira e Ferreira<sup>2</sup>

DOI: 10.1590/0103-11042022E3051

**ABSTRACT** The School Health Program aims to build healthy schools. This qualitative case study aimed to identify and understand how professionals involved in the School Health Program behave in the integration based on their inclusion in the recommended activities. The consensus was reached with experts to develop a matrix of indicators after building the Program's logical model, resulting in a semi-structured roadmap. Twenty-five interviews were held in the Basic Health Units, Elementary Schools, and the Regional Health and Education Administrations. The practices were multisectoral, with no combined efforts and effective co-participation, planned by a single sector or professional, the existing gaps are recognized as much as the importance of the program, and the practices are implemented with a low bond between teams. The fragmented perception of students' problems hinders this integration.

**KEYWORDS** Intersectoral collaboration. School health services. Health promotion. Comprehensive health care.

**RESUMO** O Programa Saúde na Escola tem como meta a construção de escolas saudáveis. Estudo de caso, de abordagem qualitativa com intenção de identificar e compreender como se comportam, no esforço de integração, profissionais envolvidos no Programa Saúde na Escola, a partir de sua inserção nas atividades preconizadas. Após construção do modelo lógico do programa, foi realizado consenso com experts para elaboração de matriz de indicadores, originando roteiro semiestruturado. Foram realizadas 25 entrevistas, nas Unidades Básicas de Saúde e Escolas de Ensino Fundamental, além das Gerências Regionais da Saúde e da Educação. As práticas foram consideradas multissetoriais, sem soma de esforços e coparticipação efetiva, sendo planejadas por um único setor ou profissional; os gaps existentes são reconhecidos tanto quanto a importância do programa; as práticas acontecem com baixo vínculo entre equipes. A forma fragmentada de perceber os problemas dos escolares dificulta essa integração.

**PALAVRAS-CHAVE** Colaboração intersetorial. Serviços de saúde escolar. Promoção da saúde. Assistência integral à saúde.

<sup>1</sup>Centro Universitário FIPMoc (UNIFIPMoc) - Montes Claros (MG), Brasil. [fernandapiana@gmail.com](mailto:fernandapiana@gmail.com)

<sup>2</sup>Universidade Federal de Minas Gerais (UFMG) - Belo Horizonte (MG), Brasil. (Ferreira EF in memoriam)

<sup>3</sup>Universidade Nova de Lisboa (UNL), Instituto de Higiene e Medicina Tropical (IHMT), Global Health and Tropical Medicine (GHTM) - Lisboa, Portugal.



## Introduction

New strategies have been and continue to be considered to address health inequalities with the advancement of knowledge about the social determinants of health. The need for intersectoral work that allows the shared responsibility of different sectors in reducing the mean level of risk of a population and increasing the impact of interventions<sup>1,2</sup> is evident, given the complex interrelationship of these determinants.

Thus, those involved with public health face the challenge of establishing cooperation between different societal sectors to promote effective and systematic actions to improve the population's health<sup>3</sup>.

The School Health Program (PSE) is an intersectoral health and education policy that aims to offer comprehensive training to students in primary education with the contribution of prevention, promotion, and healthcare actions in schools. The PSE advocates the integration between primary education and the Family Health teams, articulating education and health policies and actions with community participation<sup>4</sup>. This paper considered integration as the provision of services in the same territory, including sustainable actions by establishing shared responsibility networks, questioning how the services are related, the pattern of communication between the different teams and services, and what care and management models are being produced<sup>5</sup>. In light of the above, we intended to identify and understand how the professionals involved behave in the integration effort from their inclusion in the activities recommended by the PSE.

## Material and methods

Akerman et al.<sup>6</sup> argue that no grounded theory about intersectorality supports an evaluation. Each context will demand different situations of articulation, which allow planning

and cooperation to discuss interests, avoid duplicated actions, and articulate resources and knowledge. This study understood intersectorality as the integration, the relationships established between health and education for the planning, implementation, and evaluation of PSE-related actions, considering each sector's specificities, school community engagement, the realization of systematized practices, and the established cooperation networks to achieve sustainability, articulating knowledge and experiences<sup>1</sup>.

We adopted a case study<sup>7</sup> with a qualitative analysis of empirically based studies<sup>8</sup>, and the case was School Health Program in Belo Horizonte (PSEBH).

The PSEBH is oriented towards shared management between the Municipal Intersectoral Working Group (GTI-M), the regional coordination offices (Family School Program Management (GERBES) and Health Assistance Management (GERASA)), the administration offices of the PHC Units (UBS) and the directorates of the Municipal Elementary Schools (EMEF)<sup>9</sup>. Furthermore, a steering team working at the PSEBH, linked to the UBS, is mainly responsible for surveying the health needs in each school, and the PSE assistant, the primary implementor of the activities developed at the school, is recruited by the school. Thus, the study included respondents from management, health, and education involved in PSE actions. The principal researcher responsible for the interviews first met the respondents as from this research. Therefore, she had no prior involvement with any of them.

Initially, PSE's theoretical and logical model<sup>10</sup> was built on the legislation and regulations in force for this program, covering aspects of management, education/training, and planned activities. This model was grounded on Decree N° 6.286 of December 5, 2007<sup>4</sup>, establishing the PSE; the Primary Care Notebook N° 24 – School Health<sup>11</sup>; the PSE<sup>12</sup> Instructive Manual; the PSEBH<sup>9</sup> Operational Manual; and the PSE<sup>5</sup> Management Notebook.

The theoretical and logical model was a visual and systematic way of configuring the PSE operation design, outlining the primary aspects, from the planning to the expected results<sup>13</sup>, as shown in *figure 1*. A matrix of indicators that considered professional integration was organized from this model. This matrix (*table 1*) was validated by consensus among professionals using the Delphi Technique<sup>14,15</sup>. Professionals were invited to participate, intentionally, voluntarily, and from two groups: eight professors-researchers from educational institutions with experience in the study topic; and nine service managers or professionals involved with the PSE, all experts on the subject.

All the information and guidelines necessary for the participants and the Informed Consent Term were previously sent by e-mail. Then, each professional received the document for consideration and analysis.

The means were calculated to assess the importance attributed, besides the standard deviations, to verify the level of consensus on the indicators at the end of the qualitative (essential, necessary, or expendable) and quantitative assessments (score from 1 to 4 for each statement). The consensus was achieved after three rounds to develop a relevant matrix of indicators (*table 1*). A semi-structured roadmap was prepared from this matrix, previously tested in an interview, and excluded from the primary study sample. It addressed the participation of management, school, and UBS in the planning, development, and evaluation of

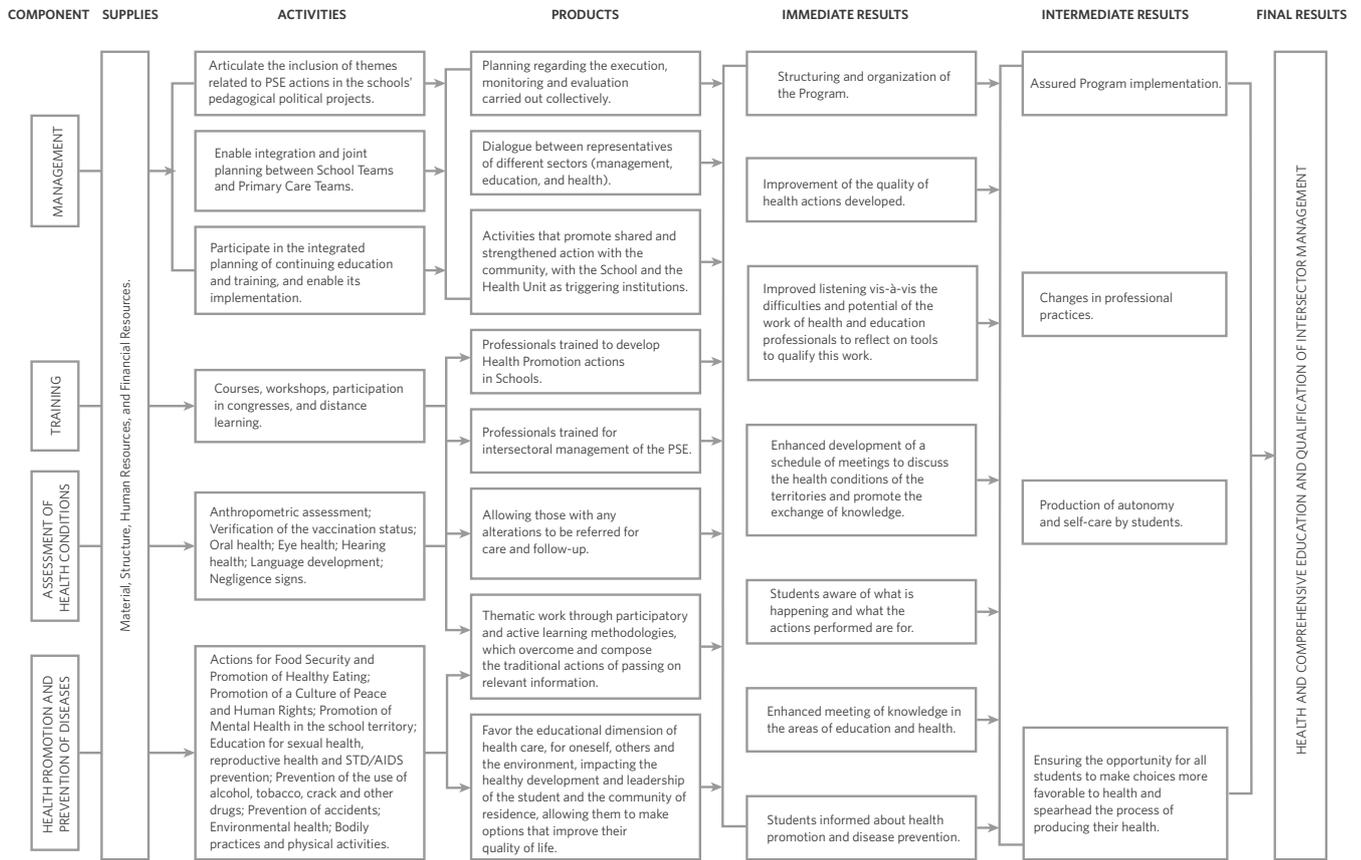
the agreed activities, with the following initial and guiding question: 'Do you know the Health at School Program?'

The sample consisted of two EMEFs, the reference UBS, and the respective Health and Education Regional Administration Offices, purposefully selected with the following inclusion criteria: included in the PSE and with different settings to develop PSE activities. The EMEFs' directorates, the UBS administration offices, GERASA, and GERBES agreed on this selection.

Twenty-five interviews were held, with a mean duration of 30 minutes, with professionals from the UBS (n=11) and EMEFs (n=10) of the sample, besides professionals from the regional health and education administration offices (n=4). Directors, PSE assistants, teachers, pedagogical coordinators, integrated school coordinators, and canteen workers were interviewed in schools.

Managers, family, and community doctors, nurses, dentists, and oral health technicians were interviewed at the UBS. The researchers identified the respondents after the visits to the schools and the UBS and after the analysis of official documents with the identification of those interested in the research. The regional administration offices interviewed the steering health team members and technical references. Each respondent answered the roadmap's questions from their place in the setting. All interviews were conducted, recorded, and transcribed by a single researcher.

Figure 1. Theoretical and logical model of the School Health Program, focusing on integration, Belo Horizonte, Minas Gerais, 2017



Source: Own elaboration.

Table 1. Synthesis of the matrix of indicators referring to the integration between health and education, resulting from the consensus among professionals, Belo Horizonte, 2017

Analysis dimension	Indicators
Management	Participation of those involved in the definition and evaluation of program guidelines and PSE action strategies for the municipality. Participation of those involved in the planning, implementation and evaluation of PSE activities in each location. Participation in the definition of the topic to be worked on. Feeding of available monitoring systems for the data generated by the PSE. Feedback on the results and for which group. Follow-up of referrals. Discussion of the professionals' demands. PSE activities are not a hindrance to pedagogical activities and have been incorporated into the school routine, also considering the inclusion of themes in the schools' pedagogical projects.
PSE activities	Assessment, identification, and referral of students in need of care. Discussion of students' health conditions to define priorities. Health prevention and promotion activities conducted and methodologies appropriated.

Table 1. (cont.)

Analysis dimension	Indicators
Education/Training	Adequate structure.
	Schoolchildren and community participation in decisions.
	Regular training for professionals involved with the PSE, with an established schedule and workload for this activity.

Source: Own elaboration.

The material resulting from the transcripts was analyzed from the initial systematic and exhaustive reading (absorptive reading) by two researchers, which allowed organizing subjects to understand the relevant structures in the participants in three themes pre-established by the matrix of indicators<sup>8</sup>. Due to the large volume of information, the ATLAS TI 7.5.4<sup>®</sup> computer program was adopted to assist in the analysis of the textual content, which allowed organizing the interviews by area, health and education, and the statements through codes, according to the previously identified indicators, which facilitated the researchers' identification and grouping representative excerpts of the statements (quotations) that correspond to the units of meaning. Subsequently, the categorization was performed with the construction of families, regrouping the units of meaning per the dimensions of analysis of the matrix of indicators. After this process, the quotations and codes were exported, which allowed the analysis of the selected expressive excerpts and their relationship.

Acronyms were adopted per the role of each participant to ensure anonymity: A (PSE assistant), E (school professional), S (UBS professional), and G (management professional). The names and locations of UBS and EMEFs were omitted to avoid identification.

The study was approved by the Research Ethics Committee NN (eliminated for peer review purposes) and the Research Ethics Committee of the Municipality of Belo Horizonte (COEP/PBH), CAAE – 39270114.9.0000.5149 on December 23, 2014.

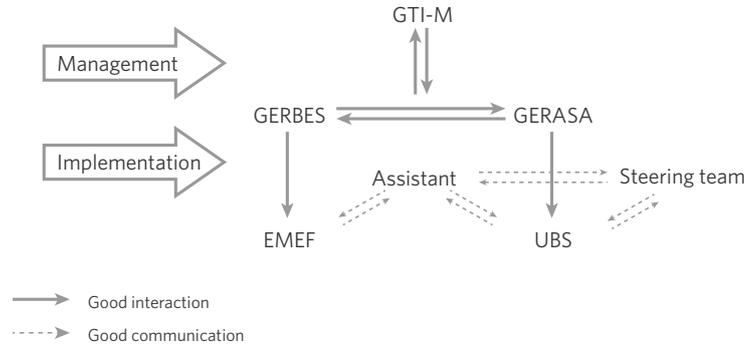
## Results and discussion

The data were organized into three themes pre-established by the agreed matrix of indicators based on the interviews: 1. Management (planning of activities, control of referrals, feedback on results, monitoring, and evaluation systems); 2. PSE activities (implementation of activities, methodologies used, social participation, professional relationships, and structure); 3. Professional training. We decided to organize the analysis considering the three themes as central points, and the related topics were discussed within each.

### Management

*Figure 2* systematizes the research results regarding the relationships between the teams working in the PSE for the management indicator.

Figure 2. Relationships established between teams working in the School Health Program, Belo Horizonte, 2017



Source: Own elaboration.

The participants of the central management, GTI-M, GERBES, and GERASA, had good integration, expressed in the plans and evaluations reported. However, this only extended to the other levels of the team directly responsible for implementing the program: EMEF, UBS, steering team, and PSE assistant. Thus, we have communication without integration.

The lack of integration in planning the actions of the PSEBH's activities between the professionals who planned and those who performed prevented the identification of the activities that could be developed with the participation of all and meeting the needs of schoolchildren by age group<sup>16</sup>, as reported by a UBS professional.

*I believe that there is a lack of planning meetings of the school professionals with the steering team [health team, responsible for the needs assessment] and my professionals, who should bring things such as, 'look, we have this type of demand; students need these actions [...] what do you think?' [...] to build this together. Then everything should be much easier. (S).*

The UBS administration offices indicated the professionals for each requested activity per the demand presented. These demands were addressed by sector, with great concern

to preserve 'the roles' of each area. With this organization, those involved were kept in their professional 'comfort zones', preventing the construction of an effective operational agenda<sup>2</sup>. However, even unintentionally, the guidelines of the program's central management, represented by the GTI-M, could be hindering the integration of the local teams.

*The monitor communicates with me, and the GERASA's PSE reference intervenes in case of need because it is the linking bridge of health. So, we refrain from interfering or standing in front of the other. (G).*

*The actions [...] stem from the guidelines. They come from the SMED [Municipal Department of Education] and have to be applied and done. However, the school can also create its actions, depending on the specific instant need, with the help of teachers, which is essential. (S).*

The accounts indicated central guidance, planning carried out by a single sector, to be applied to others. Thus, a multisectoral network was configured without discussion, construction, and operationalization of actions, possibly fragmented and with little impact<sup>17-19</sup>. The health sector hardly participated in the planning but spearheaded the actions. The previously defined agendas hampered the

implementation of integrated actions, not allowing the local team to establish priorities and sustainability<sup>20</sup>.

The availability of a PSE assistant (recruited by the school) was crucial for implementing health promotion/prevention actions, whether carrying out planned activities, collecting suggestions from teachers, or passing on and collecting demands for the UBS. However, the actions centralized in only one professional showed a lack of teamwork, hindering the integration between Health and Education<sup>21</sup>, as highlighted by a school professional.

*We go straight to the PSE assistant, or the teacher comes to me and says, I'm going to the assistant to address such and such demand. (E).*

*Here, I would like to do this, which was an oral action project. However, we need the physical structure for that [...]. (A).*

Having someone responsible for school actions was established and consolidated, and his/her absence due to any leave invalidated the activities. The PSE assistant has become the central figure and is solely responsible for the school's activities.

Regarding the survey of the school's oral health needs, the organization of the steering team's schedule was performed jointly by GERBES and GERASA. Communication with the PSE assistant was performed only to confirm the necessary care; a list was passed on directly to the Oral Health team (eSB) of the UBS, which did not have control over the referrals. The EMEF was also distant from this movement. The professionals involved stated that the bureaucracy of the sectors resulted in excessive formalization and concern with secrecy<sup>22</sup>.

*We don't give this feedback to the school because we already send it to the district. Indeed, the health and education districts talk to each other there. (S).*

*There is no such post returning to us. We call the family and keep asking. Then we have to see if another school segment can access this information. (E).*

*This issue of referral returns is a challenge for people from the PSE. The feedback we get is what the monitor gives us. The student says to them, 'I was there at the health center and was vaccinated'. (G).*

Uncertainties were dissipated by the idea that the other had or, at least, should have the information. We observed that the results were restricted to the steering team without sharing with the UBS and the school, which prevented integrated actions from addressing the current issues<sup>17</sup>. The results were delivered and discussed only at the regional level, which shared this information in specific cases or when there was interest from any party.

*With the teachers, what I see is only when it's a particular case, a student. Not the school as a whole. (E).*

*I need feedback from the steering team or the monitors [assistant]. There needs to be feedback for us. (S).*

*Here we do it between us, but not this link. We hold this meeting to discuss these data at the regional level with the Education sector. The discussion is at the regional level. Then, the regional coordination of education must be transferred to schools or monitors. (G).*

Monitoring was effective only in the ophthalmological referral, performed by the PSE assistant responsible for screening the students' visual acuity and taking the children to the ophthalmological visit.

Monitoring and evaluation systems and tools could have been more effective in building measurable and robust indicators<sup>23</sup> as they did not facilitate integration between sectors<sup>24</sup>. Monthly meetings were held in the health

and education sectors separately to improve this situation, besides semiannual meetings with both sectors. The latter, fundamental for decision-making, action planning, construction of agendas, and understanding of the difficulties<sup>20</sup>, were held almost exclusively at the central administration office.

*When this semester expires, we sit down again to assess what was done, what was not, the difficulties, and what we plan to do in the new semester. (S).*

*We process it in the municipal spreadsheet and the e-SUS. However, the e-SUS is very simple, and we don't process much in it. (G).*

## PSE activities

No partnership was observed between professors and health professionals to develop joint actions in the PSEBH. Teachers only 'preserved' the order within the classroom, with occasional and sporadic participation. Their contribution to comprehensive health care for students still needs to be achieved despite its relevance in the knowledge of children and their daily lives<sup>21,25</sup>.

*The technicians who will perform the performances have the teacher's contact. Generally, help organizes but does not carry out the proposed activity. [...] there needs to be more approximation of teachers and involvement. (S).*

*We work independently. They don't know about ours, and we don't know about theirs. (S).*

*[...] I go there, give the lecture and return! I don't get involved. [...] It seemed something out of health to health professionals. [...] So, it didn't create a bond. (S).*

*So, we have an excellent relationship. We talk all the time. [...]. (G).*

The health promotion actions tended to be specific, and the disease prevention actions aimed at epidemics were not per the National Curriculum Parameters<sup>26</sup>. Health promotion practices were weak and inconsistent, and UBS struggled to perform them. Moreover, the care service was prioritized<sup>25</sup> and focused on assessing health needs, which interfered with achieving intersectoriality<sup>27</sup>. Decisions on prioritizing activities seemed to be guided by regulatory logic and the transfer of resources<sup>28</sup>.

*[...] And when there are epidemiology needs, like dengue, which became very urgent in our area here, there was much action to promote dengue with us. (A).*

*We have this request: come here to talk to me about hygiene, about teenage pregnancy. I usually go and give a lecture. So, it is specific and not a systematized thing. (S).*

*[...] because the priority is the service [program assistance actions]. (G).*

*[...] It's a program. You have to achieve your goals. (G).*

Health promotion and disease prevention actions were not centered on social values and school practices. They were not relevant and adequate to existing social relationships and the students' previous knowledge and experiences<sup>29</sup>. Health education at PSEBH did not change the attitudes that would lead to healthier choices for life.

*Often the professional needs to learn how to speak the language of Education. [...] Students need help understanding technical speech. Sometimes they do, but with great difficulty. They have to explain it again. It had to be something more straightforward. (A).*

*If I tell you that it has no impact, we will throw away all our work. However, it's minimal. (E).*

The PSEBH struggled to mobilize the community, especially parents or guardians of the students, showing concern by those involved in reaching this population so that the actions could continue in the family and community environment<sup>30</sup>. The community's demand was limited to care services, a doctor-centered view, and focused on the logic of referrals.

*So, we did some work. When it came time to look for the family, for the family to enter the program, the family members did not participate. So, the program was lost. Our obstacle is the parents. (S).*

*I notice this a lot when they need glasses or an emergency dentist. If they go to the clinic, the service is delayed for a long time, and they get it faster through the PSE. Even the family knows it. (E).*

It is hard to create a group of parents or residents capable of bringing the logic and demand of the local community and forming networks for effective and sustainable actions<sup>20</sup>. Furthermore, an organizational structure and a supporting political orientation would be vital to strengthen evaluation and training for conducting activities<sup>31</sup>. The population would be active and assume a participating and decision-oriented role<sup>22</sup>.

The lack of links between the teams in the PSEBH invalidated intersectoriality<sup>17</sup>, which requires 'an organic involvement' of professionals capable of generating shared responsibility and not power-related relationships<sup>18,27</sup> to materialize. The professionals involved cannot be considered only as a workforce<sup>32</sup>.

*[...] If we need materiality, the directorate provides it. However, we need pedagogical support to follow up and make a process. So, it's our initiative. (E).*

Some criticisms were made regarding the structures facilitated for PSE actions, most related to physical structures, accessibility, availability of computers, and an efficient

internet network to feed the monitoring systems<sup>21</sup>. Some respondents highlighted a massive improvement over the initial conditions.

*We need help with room size. Some rooms are tiny, and the technician stays outside. [...] It's the leftover: we keep what's left. We also have many issues with computerization because the system breaks down at school and needs to be fixed. (G).*

*It's a little precarious. There's even a place to do the brushing, but some taps were broken. It's somewhat hard, but it's doable. You can only do some things at a time. It could be more straightforward. (S).*

## Education/training

According to the interviews, the PSE assistants were only professionals with regular training meetings to develop PSEBH actions. Sporadic training was made available to professionals from the steering health team. There needed to be a report on training for health professionals at the UBS and education professionals in schools. Teacher training emerged only to develop specific projects. This permanent shortcoming brought about challenges in developing actions and identifying needs and capacities for action<sup>27</sup>, besides providing less familiarity and proximity to the concept and operationalization of intersectoriality<sup>33</sup>.

*It does not exist. It exists as demand appears, such as a project, for example. The monitor is different. His training sessions are already established. We are always informed. There is a meeting on such a day, always with training. They need it (E).*

*Only some have a profile. We didn't have the training, and I am unable to train. (S).*

*It's something that I've even talked about here, to have more training. We had one on violence this year, but that was it. (G).*

On the other hand, the professionals' concern and recognition of the program's relevance were evident. Professionals valued the program, considering it an excellent strategy to reach and follow up on children from kindergarten to elementary school. However, they were concerned that the current work context needs to allow its sustainability<sup>30</sup>.

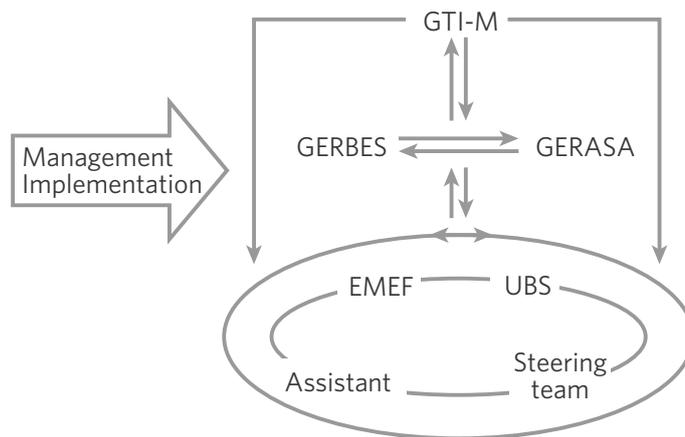
*The program is critical. It should be a priority and guarantee that education works with health correctly and all year round. (S).*

*So, this program has to continue and exist. It can be excellent, but it must have the right people. You can't do it to say you have it. (E).*

As contributions to improving integration between sectors in the PSEBH, the authors of this study initially suggest that a significant effort be made to engage everyone, starting with planning.

The model observed in *figure 2* can be reversed by facing these gaps. *Figure 3* presents the model that can be designed as a goal to be achieved, grounded on everyone's effort and understanding of limits. Some goals must be met, and there is an urgent mission to invest in actions that effectively improve investment in the promotion and health of schoolchildren. However, the gap between goals and mission was observed in this case study. This is the balance to be achieved.

Figure 3. Proposed relationships between teams working in the School Health Program, Belo Horizonte



Source: Own elaboration.

May this achievement, for example, be based on shared participatory planning between those involved, between the central administration and the implementing team, and between the implementing teams. Furthermore, practical activities can initiate this process. For example, starting this integration by developing mechanisms that

allow better monitoring of referrals made in schools or sharing information and feedback on the results of the actions taken to all those involved. In this sense, the exercise of integration in specific actions can be a path.

Two studies were conducted in the participating schools to understand the program's impact on students. In the age group of 6-10

years, the students revealed knowledge of the activities developed and the information provided by the PSE, but it was impossible to ensure behavioral changes<sup>34</sup>. In the age group of 11-14 years, all healthcare activities developed were reported by the students, but the same pattern was not observed regarding health promotion and disease prevention activities. The program did not develop the role necessary for producing own health<sup>35</sup>.

This exploratory study was conducted with the participation of professionals involved in the PSE from two schools and two UBS, with the participation of the Municipal Health and Education Administration Offices. Despite the purposeful selection, this is a small excerpt of a setting with 127 schools with PSE already implemented. However, in this case, the qualitative study was adequate and necessary since authors intended to understand how the professionals involved behaved in the integration effort from their inclusion in the activities recommended by the PSE. Another limitation of the study may be related to the interview material obtained. As this roadmap was based on the theoretical model of the PSE's functioning, the issues addressed had predominantly operational/functional content. However, some questions allowed the respondents to express their perceptions and opinions about the integration between those involved in the program.

## Final considerations

Concerning the development of PSE actions, the integration between the teams and professionals involved should essentially occur, and the respondents should realize the existing gaps vis-à-vis the participation of those involved in the health and education areas. However, they are also aware of the importance of this program, considering the extent to which PSEs can recognize

social determinants in health and disease processes.

Interdisciplinarity is directly linked to multidisciplinary practice, which, in most cases, is guided by the hegemonic biomedical model. Thus, while aware of the program's relevance, work is conditioned by managerial, organizational, and resource issues for developing activities. Work becomes even more complex when operating in a sanitariat health model, requiring challenges in terms of professional skills and abilities<sup>36</sup>.

The practices were perceived without joint efforts and effective, shared participation. Most actions and services provided were planned by a single sector (Central Administration Office) or a single professional (PSE assistant) and applied alone or by others, with little or no bond between teams.

PSE assistants can plan and implement activities, depending exclusively on their efforts, but they conduct them without the involvement of other teams or professionals. Thus, they became the main ones responsible for implementing PSE's planned actions.

Although there is an effort to establish routines that allow integration between sectors, the fragmented way of perceiving students' problems hampers this integration. Experiences regarding initiatives to build cross-sector partnerships are often specific, without systematic planning, and not part of the daily lives of those involved.

Studies to improve and define lines of action to increase students' adherence to the PSE, compliance with service goals, and development of disease prevention and health promotion actions in schools, besides exchanging positive and negative experiences to plan solutions to problems, allowing greater integration between professionals, are necessary.

When reflecting on the program's sustainability, importance should be given to training teachers, school directors, managers, and health professionals, besides

encouraging the involvement of those responsible for schoolchildren and the community in decision-making. It is also necessary to seek the program's articulation through concrete structural and organizational mechanisms.

## Acknowledgments

We are grateful to Prof. Efigênia Ferreira and Ferreira for her contribution to academia, research, and dentistry in Minas Gerais. We are also grateful to the Coordination for the Improvement of Higher Education Personnel (CAPES) for granting the scholarship for the Institutional Doctorate Sandwich Abroad (PDSE) program – Brasília-DF, 70.040-020,

Brazil (BEX:10349/14-6), and to the participating schools and school volunteers.

## Collaborators

Oliveira FPSL (0000-0002-8826-6852)\* and Ferreira EF (0000-0002-0665-211X)\* contributed equally to the conception, design, and writing of the manuscript. Oliveira FPSL, Ferreira EF, and Hartz Z (0000-0001-9780-9428)\* contributed equally to the analysis and interpretation of manuscript data. Oliveira FPSL, Vargas AMD (0000-0002-4371-9862)\*, Hartz Z, Dias S (0000-0001-5085-0685)\*, and Ferreira EF contributed equally to the critical review of the literature on the topic and final approval of the manuscript. ■

## References

1. Dubois A, St-Pierre L, Veras M. A scoping review of definitions and frameworks of intersectoral action. *Ciênc. Saúde Colet.* 2015 [acesso em 2022 fev 3]; 20(10):2933-2942. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/26465838/>.
2. Kranzler Y, Davidovich N, Fleischman Y, et al. A health in all policies approach to promote active, healthy lifestyle in Israel. *Isr J Health Policy Res.* 2013 [acesso em 2022 fev 3]; 2(1):16. Disponível em: <https://ijhpr.biomedcentral.com/articles/10.1186/2045-4015-2-16>.
3. Lawless AP, Williams C, Hurley C, et al. Health in All Policies: evaluating the South Australian approach to intersectoral action for health. *Can J Public Health.* 2012 [acesso em 2022 fev 3]; 103(supl1):S15-19. Disponível em: <https://www.semanticscholar.org/paper/Health-in-All-Policies%3A-evaluating-the-South-to-for-Lawless-Williams/7857001b0c1f4c0483ae7b70dc85dab24c647160>.
4. Brasil. Presidência da República. Decreto nº 6.286, de 5 de dezembro de 2007. Institui o Programa Saúde na Escola - PSE, e dá outras providências. *Diário Oficial da União.* 5 Dez 2007. [acesso em 2022 fev 3]. Disponível em: [http://www.planalto.gov.br/ccivil\\_03/\\_ato2007-2010/2007/decreto/d6286.htm](http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2007/decreto/d6286.htm).

\*Orcid (Open Researcher and Contributor ID).

5. Brasil. Ministério da Saúde; Ministério da Educação. Caderno do Gestor do PSE. Brasília, DF: Ministério da Saúde; 2015. [acesso em 2022 fev 3]. Disponível em: [http://bvsms.saude.gov.br/bvs/publicacoes/caderno\\_gestor\\_pse.pdf](http://bvsms.saude.gov.br/bvs/publicacoes/caderno_gestor_pse.pdf).
6. Akerman M, Franco de Sá R, Moyses S, et al. Intersetorialidade? IntersetorialidadeS! Ciênc. Saúde Colet. 2014 [acesso em 2022 fev 3]; 19(11):4291-4300. Disponível em: <https://www.scielo.br/j/csc/a/LnRqYzQZ63Hr5G4Hb7WPQLD/?lang=pt>.
7. Yin RK. Estudo de caso: planejamento e métodos. 4. ed. Porto Alegre: Bookman; 2010.
8. Minayo MCS. Análise qualitativa: teoria, passos e fidedignidade. Ciênc. Saúde Colet. 2012 [acesso em 2022 fev 3]; 17(3):621-626. Disponível em: <https://doi.org/10.1590/S1413-81232012000300007>.
9. Belo Horizonte. Prefeitura, Secretaria Municipal de Educação; Secretaria Municipal de Saúde. Manual Operacional do Programa Saúde na Escola (PSE). Belo Horizonte: s.n.; 2014.
10. Champagne F, Brousselle A, Hartz Z, et al. Modelizar as Intervenções. In: Brousselle A, Champagne F, Contandriopoulos AP, et al., editores. Avaliação: conceitos e métodos. Rio de Janeiro: Fiocruz; 2011. p. 61-74.
11. Brasil. Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Saúde na escola. Brasília, DF: Ministério da Saúde; 2009. (Cadernos de Atenção Básica; n. 24). [acesso em 2022 fev 3]. Disponível em: [https://bvsms.saude.gov.br/bvs/publicacoes/cadernos\\_atencao\\_basica\\_24.pdf](https://bvsms.saude.gov.br/bvs/publicacoes/cadernos_atencao_basica_24.pdf).
12. Brasil. Ministério da Saúde; Ministério da Educação. Manual Institutivo do Programa Saúde na Escola. Brasília, DF: MS; 2013. [acesso em 2022 fev 3]. Disponível em: [http://www.pmf.sc.gov.br/arquivos/arquivos/pdf/19\\_06\\_2013\\_16.21.18.880166244cb983df2c85e0bcc746a73b.pdf](http://www.pmf.sc.gov.br/arquivos/arquivos/pdf/19_06_2013_16.21.18.880166244cb983df2c85e0bcc746a73b.pdf).
13. Hartz ZMA. Avaliação dos programas de saúde: perspectivas teórico metodológicas e políticas institucionais. Ciênc. Saúde Colet. 1999 [acesso em 2022 fev 3]; 4(2):341-353. Disponível em: <https://www.scielo.br/j/csc/a/gwZSxVfbmgQ8zp5p5CyLRwz/?lang=pt>.
14. Becker D, Edmundo K, Nunes NR, et al. Empowerment e avaliação participativa em um programa de desenvolvimento local e promoção da saúde. Ciênc. Saúde Colet. 2004 [acesso em 2022 fev 3]; 9(3):655-667. Disponível em: <https://www.scielo.br/j/csc/a/yycxGNqTLfTgcwSg9pcdYvD/?lang=pt>.
15. Deslandes SF, Mendes CHF, Pires TO, et al. Use of the Nominal Group Technique and the Delphi Method to draw up evaluation indicators for strategies to deal with violence against children and adolescents in Brazil. Rev. Bras. Saúde Mater. Infant. 2010 [acesso em 2022 fev 3]; 10(supl1):s29-s37. Disponível em: <https://www.scielo.br/j/rbsmi/a/dyct3VC3RWxr6LH9Nz9dvnB/abstract/?lang=pt>.
16. Silva DS, Ávila MA, Borges CNF. Ações intersetoriais no planejamento político em esporte, lazer, cultura e turismo na gestão municipal de Ilhéus-Ba. Licere. 2012; 15(1):1-40.
17. Silva KL, Rodrigues AT. Ações intersetoriais para promoção da saúde na Estratégia Saúde da Família: experiências, desafios e possibilidades. Rev. Bras. Enferm. 2010 [acesso em 2022 fev 3]; 63(5):762-769. Disponível em: <https://www.scielo.br/j/reben/a/FqzM-4D9v75DcPdNrRZJ7NxP/abstract/?lang=pt>.
18. Moretti AC, Teixeira FF, Suss FMB, et al. Intersetorialidade nas ações de promoção de saúde realizadas pelas equipes de saúde bucal de Curitiba (PR). Ciênc. Saúde Colet. 2010 [acesso em 2022 fev 3]; 15(supl1):1827-1834. Disponível em: <https://www.scielo.br/j/csc/a/JGYgjZypv9L8dZrPFWzvbvm/?lang=pt>.
19. Pinto BK, Soares DC, Cecagno D, et al. Promoção da saúde e intersetorialidade: um processo em construção. REME Rev. Min. Enferm. 2012 [acesso em 2022 fev 3]; 16(4):487-493. Disponível em: <http://www.reme.org.br/artigo/detalhes/552>.
20. Magalhães R, Bodstein R. Avaliação de iniciativas e programas intersetoriais em saúde: desafios e apre-

- ndizados. *Ciênc. Saúde Colet.* 2009 [acesso em 2022 fev 3]; 14(3):861-868. Disponível em: <https://www.scielo.br/j/csc/a/PQrjf759CPwVXzQcbLSq67S/?lang=pt>.
21. Penso MA, Rodrigues Brasil KCT, Arrais AR, et al. A relação entre saúde e escola: percepções dos profissionais que trabalham com adolescentes na atenção primária à saúde no Distrito Federal. *Saúde Soc.* 2013 [acesso em 2022 fev 3]; 22(2):542-553. Disponível em: <https://www.scielo.br/j/sausoc/a/HqsZ9KWgXNRXncJZ5kw6RMh/?lang=pt>.
  22. Dias MSA, Parente JRF, Vasconcelos MIO, et al. Intersetorialidade e Estratégia Saúde da Família: tudo ou quase nada a ver? *Ciênc. Saúde Colet.* 2014 [acesso em 2022 fev 3]; 19(11):4371-4382. Disponível em: <https://www.scielo.br/j/csc/a/crwbjGhzHJ3vvRN3RDY-chRB/abstract/?lang=pt>.
  23. Gallo E, Setti AFF. Território, intersetorialidade e escalas: requisitos para a efetividade dos Objetivos de Desenvolvimento Sustentável. *Ciênc. Saúde Colet.* 2014 [acesso em 2022 fev 3]; 19(11):4383-4396. Disponível em: <https://www.scielo.br/j/csc/a/nBgvD-bFtM6cT8mRXPBGRsnC/abstract/?lang=pt>.
  24. Ferro LF, Silva EC, Zimmermann AB, et al. Interdisciplinaridade e intersetorialidade na Estratégia Saúde da Família e no Núcleo de Apoio à Saúde da Família: potencialidades e desafios. *Mundo saúde.* 2014 [acesso em 2022 fev 3]; 38(2):129-138. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/mis-36869>.
  25. Sousa MC, Esperidião MA, Medina MG. A intersetorialidade no Programa Saúde na Escola: avaliação do processo político-gerencial e das práticas de trabalho. *Ciênc. Saúde Colet.* 2017 [acesso em 2022 fev 3]; 22(6):1781-1790. Disponível em: <https://www.scielo.br/j/csc/a/nGRj8mdvwwZHvy6G76MrjfJ/?lang=pt>.
  26. Figueiredo TAM, Machado VLT, Abreu MMS. A saúde na escola: um breve resgate histórico. *Ciênc. Saúde Colet.* 2010 [acesso em 2022 fev 3]; 15(2):397-402. Disponível em: <https://www.scielo.br/j/csc/a/XK3j9btfm6xTzQsRYCBgWgr/?lang=pt>.
  27. Cavalcanti AD, Cordeiro JC. As ações intersetoriais na Estratégia de Saúde da Família: um estudo da representação do conceito de saúde e de suas práticas na Atenção Básica. *Rev Bras Med Fam Comunidade.* 2015 [acesso em 2022 fev 3]; 10(37):1-9. Disponível em: <https://www.rbmf.org.br/rbmfc/article/view/1059>.
  28. Lotta G, Favareto A. Desafios da integração nos novos arranjos institucionais de políticas públicas no Brasil. *Rev Sociol Polít.* 2016 [acesso em 2022 fev 3]; 24(57):49-65. Disponível em: <https://www.scielo.br/j/rsocp/a/6PNRfxr9CBqBMBHK58b6Hx/?lang=pt>.
  29. Higa EFR, Bertolin FH, Maringolo LF, et al. A intersetorialidade como estratégia para promoção da saúde sexual e reprodutiva dos adolescentes. *Interface (Botucatu).* 2015 [acesso em 2022 fev 3]; 19(supl1):879-891. Disponível em: <https://www.scielo.br/j/icse/a/8RQXLnVkvYjpDH6jbB3CGs/?lang=pt>.
  30. Soares CJ, Santos PHS, Nery AA, et al. Percepção de enfermeiras da Estratégia de Saúde da Família sobre o Programa Saúde na Escola. *Rev. Enferm UFPE online.* 2016 [acesso em 2022 fev 3]; 10(12):4487-4493. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/11514/13397>.
  31. Spiegel J, Alegret M, Clair V, et al. Intersectoral action for health at a municipal level in Cuba. *Int J Public Health.* 2012 [acesso em 2022 fev 3]; 57:15-23. Disponível em: <https://link.springer.com/article/10.1007/s00038-011-0279-z>.
  32. Aciole GG. Falta um pacto na Saúde: elementos para a construção de um Pacto Ético-Político entre gestores e trabalhadores do SUS. *Saúde debate.* 2012 [acesso em 2022 fev 3]; 36(95):684-694. Disponível em: <https://www.scielo.br/j/sdeb/a/Nq5ktkVj4JVdzHFHzT6PvMh/?lang=pt>.
  33. Bellini MIB, Faler CS, Scherer PT, et al. Políticas públicas e intersetorialidade em debate. *Anais PU-CRS.* 2014.
  34. Oliveira FPSL, Rota Junior C, Vargas AMD, et al. The Perception of Schoolchildren About the Health Program at School Assessed by Drawings and Narratives:

- A Case Study in Belo Horizonte. *Temas em Educação e Saúde*. 2021 [acesso em 2022 mar 3]; 17:e021002. Disponível em: <https://periodicos.fclar.unesp.br/tes/article/view/14215>.
35. Oliveira FPSL, Vargas AMD, Hartz ZMA, et al. Percepção de escolares do ensino fundamental sobre o Programa Saúde na Escola: um estudo de caso em Belo Horizonte, Brasil. *Ciênc. Saúde Colet*. 2018 [acesso em 2022 mar 3]; 23:2891-2898. Disponível em: <https://www.scielo.br/j/csc/a/BDk6KBvzRGsrR89t9YJfB7m/?lang=pt>.
36. Scherer MDA, Pires DEP, Jean R. The implementation of interdisciplinarity in the work routine of the family health care team. *Ciênc. Saúde Colet*. 2013 [acesso em 2022 mar 3]; 18(11):3203-3212. Disponível em: <https://www.scielo.br/j/csc/a/NxLM758P8PyYpZZyHdqWNMD/?format=pdf&lang=pt>.

---

Received on 03/03/2022

Approved on 26/09/2022

Conflict of interests: non-existent

Financial support: Coordination for the Improvement of Higher Education Personnel (Capes). Scholarship from the Institutional Doctorate Sandwich Abroad (PDSE) program - Brasília-DF, 70.040-020, Brazil (BEX:10349/14-6)