Chapter 6
Health Promoting Schools: Implementation Challenges, Barriers, and Lessons from a Case Study

Rosana Magalhães, Livia Cardoso Gomes, Carmelinda Afonso, Roberto Eduardo Albino Brandão, Patricia Camacho Dias, and Marlon Mattos

Introduction

The "Saúde na Escola" (SEP) program, established in Brazil on December 5, 2007, incorporates a set of initiatives developed in recent decades that focus on health care, organizational support, and parental involvement. Incorporating the international debate on health promotion and the premise publicized by the Pan American Health Organization through the initiative of Health Promoting Schools (WHO Regional Office for Europe 1996), the Brazilian program highlighted important lessons learned from experiences developed in different municipalities (Figueiredo et al. 2010; Silva and Pantoja 2009). The SEP has as its main objective an organizational change process that involves student engagement, intersectoral action, negotiated planning, and a health promotion approach to support the pedagogical project in each school. Partnerships and networking are recognized as crucial for sustainability. In this perspective, health services would be expected to share commitments

R. Magalhães (✉) • L.C. Gomes
Sergio Arouca National School of Public Health, Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil
e-mail: rosana@ensp.fiocruz.br

C. Afonso
Farmanguinhos, Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil

R.E.A. Brandão
Joaquim Venâncio Polytechnic School of Health (EPSJV), Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil

P.C. Dias
Nutrition School, Fluminense Federal University (UFF), Niteroi, Brazil

M. Mattos
Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil

L. Malagón de Salazar, R.C. Luján Villar (eds.), *Globalization and Health Inequities in Latin America*, https://doi.org/10.1007/978-3-319-67292-2_6

to whole-school development. Thus, the SEP tends to potentiate the consolidation of the Family Health Strategy (FHS) (Villardi and Cyrino 2012), considered as a priority strategy of primary care and crucial component of the universalization of public health coverage in Brazil.

The family health teams, composed of physicians, nurses, oral health professionals, and community health workers, are responsible for monitoring children's health through nutritional evaluation actions, early detection of hypertension and diabetes, hearing health, oral health, and psychological support in each defined geographic area. In addition, the FHS helps to ensure close collaboration between professionals and local communities.

Between 2008 and 2009, SEP created institutional routines, implementation guidelines, and political commitments involving the health and education sectors. School and Child Care Health Centers (SCCHC) in Rio de Janeiro were organized in accordance with their respective municipality programmatic areas, incorporating the social assistance, education, and health sectors. During the program's implementation, federal resources and financial support from the Municipal Secretariat of Education supported recognized needs and actions that could help to maintain the clinical, psychosocial, nutritional, and oral health of the most vulnerable students. However, these resources were also used to hire nongovernmental organizations (NGOs) to manage teams of doctors, psychologists, dentists, and nurses. The reason alleged by the managers was the low coverage of the FHS strategy. In Manguinhos, such a group created parallel and overlapping actions, threatening the integration of health promotion initiatives in schools.

Initially, the SHP in the city of Rio de Janeiro defined as a target the so-called Schools of Tomorrow, a set of 152 schools located in socially vulnerable regions and known for their high levels of drug-related violence, and 8 Spaces of Infant Development (SIDs) involving approximately 136,000 students. In the region of Manguinhos, a context of chronic poverty and social exclusion, in 2011 this strategy prioritized only 2 of the 152 local schools: the Maria de Cerqueira e Silva Municipal School and the Juscelino Kubitschek Integrated Center for Public Education. Although the SHP official design emphasized the role of FHS teams in child care and in the development of more comprehensive practices involving environmental, social, and cultural aspects of health promotion, these professionals' actions were kept in "mobile teams" hired by the NGOs from 2011 to 2014.

Methodological Approach

In accordance with Patton (Patton 2008), *"The evaluation of implementation processes is incremental, descriptive, continuous, flexible and inductive"* (Villardi and Cyrino 2012). From this perspective, it is important to highlight institutional routines, resistance, diversity of views, and conflicts between stakeholders in each local context. Frequently, there are discrepancies between what was laid down in the original program design and the actions undertaken during the implementation

process. Thus, it is necessary to explore the relationship between causal models, activities, contexts, and results (Weiss 1998), reinforcing the perspective that programs are "theories" and, once implemented, are immersed in open social systems that need to be interpreted based on permanent interactions with local networks (Chen 1990; Potvin et al. 2005; Salazar 2011).

The theories that guide actions and programs are not necessarily correct. On the contrary, they can reveal ambiguities, contradictions, limits, and vague goals. Furthermore, different stakeholders have different views, assumptions, and expectations. But the theories of programs configure the logical model of the program or the set of assumptions that articulate resources, activities, and results. Analyzing the theory that structures interventions we can understand the complex process of translating goals into activities in local context and feed back the information for decision-making and implementation processes. The analysis of program theory and implementation process reveals the goal of change and helps to specify how a program works and whether it is doing what it is supposed to do.

Based on this conceptual framework, a qualitative case study was undertaken to describe and analyze the implementation process. Evaluative questions were prepared to guide the program theory analysis and assess the implementation process in a local context. Such evaluative questions were arranged in a matrix (Appendix A). The evaluative questions guided the documentary analysis, and nine in depth-interviews were conducted with managers and health and educational workers. Moreover, one focus group with teachers and one focus group with students' parents were conducted during the course of the fieldwork between April and September 2014.

Results

Process Evaluation

The analysis of official documents revealed the endorsement of the principles of decentralization, regionalization, and universalization of healthcare present in the Brazilian Unified Health System (UHS). Aiming to contribute to a comprehensive approach to the public education system, program theory provides a rationale for clinical follow-up associated with participatory and intersectoral strategies. Interviews with federal managers showed the core principle of intersectorality:

> The program works by three principles: intersectorality, integrality, and territoriality. (Federal Manager of Health)

> The program's innovation is its application of intersectoral management. (Federal Manager of Health)

However, despite the intersectoral design, the difficulties present in the linkage between the federal entities affected the mechanisms of cooperation and, paradoxi-

cally, many times sectoralization. Furthermore, although a single information system has been established to be used by health and education professionals in a shared form, distinct databases were created for each sector. The monitoring of results was also hampered by the use of instruments closed and inflexible use of methods of data gathering.

> A system of health monitoring that is official does not exist; it is not being implemented in the municipality, and we cannot follow the implementation of component I (clinical and epidemiological surveillance). (Municipal Manager)

> The Information System of the Ministry of Education (ISME) was never enforced. (Local Manager of Health)

> Coordination of Programmatic Areas (CAP) submits reports and data, but there is nowhere for us to register … we do not want more information because we can't analyze it. (Federal Manager of Health)

Several problems related to management capacity and partnerships weakened the linkage between SHP and FHS. The absence of professionals in the education sector and low level of local health services combined to weaken the links between interventions. On the other hand, even if provided under program theory, the recruitment of health professionals through NGOs generated parallelism, a lack of transparency, and a waste of resources. There was little synergy between clinical activities, community engagement, and intersectoral strategies. In this scenario, program effectiveness was unclear.

The Challenge of Information Collection and Interpretation

Stakeholders' interviews and narrative descriptions of objectives, activities, outputs, and desired effects revealed heated controversies. Some respondents agreed that school should be monitored in accordance with clinical demands. However, teachers identified the priority of educational and participative components of health promoting schools beyond healthcare.

As for the municipal management of the program, the main focus of the SHP was supposed to be the connection between comprehensive, clinical, and health promoting actions. In this perspective, the implementation and monitoring of all actions should be reflected in the schools' political-pedagogical aims. Teachers and professionals of the FHS also believed in the necessary integration between a clinical schedule of SHP and intersectoral initiatives. However, there were disagreements over the allocation of responsibilities and the scope of actions. For some of the interviewed professionals, the SEP was intended only for Schools of Tomorrow that were covered by NGOs, so some nurses were specially assigned to child care and support of "mobile teams." These contradictory perspectives were, in part, due to the lack of transparency about the implementation process and the amount of public funds allocated for the program.

In accordance with the federal managers, the Ministry of Health (MH) was responsible for the basic healthcare grant and the Ministry of Education (ME) was

to guarantee material support. The uncertainty around these grants hampered local planning:

> Here in the city of Rio, it is a mystery, we receive a financial incentive from the MH for primary health care, but the material of the ME never came. (Municipal Manager)

> There is not a specific resource for school programs … this resource could motivate goal achievement. (Local Manager of Health)

The FHS team's routine included lectures, activities around oral health, anthropometric assessment, epidemiological surveillance, and health promotion practices, and although they could not be described as interventions related to SEP, they somehow met the program objectives. The boundaries between these practices and the SEP were, therefore, ambivalent, and the absence of systematized data on the scope of these practices was associated with low consensus about common responsibilities:

> It is confusing for the school and it is confusing for us. (Local Health Manager)

> For me the SEP works only for the application of fluoride … nothing else. (Teacher)

> The SEP that works is a health agent within the school. (Teacher)

> It is necessary to have a nursing technician in the school, for the anthropometry, for small bandages … this is not a teacher's work. (Teacher)

In addition to the controversies about the program's goals and each strategy adopted at the local level, the issue of healthcare was often associated with the precariousness of health services and the local environment surrounding the school:

> There is nowhere for me to refer my students with neurological problems and even with a medical prescription … there are no health services available. (Teacher)

> Healthcare is not a priority. (Teacher)

> I provided a referral form to a mother and she came back without healthcare. (Teacher)

> Sometimes the children have an injury for over a month … we ask the parents to bring them to the health service but they return alleging that there are no openings. (Teacher)

> I've had several emergencies, and when we arrived at the nearest hospital, they did not attend to the children's needs. (Teacher)

In Manguinhos no agreement was reached about the number of FHS teams and schools to be covered by SEP. In this scenario, the expansion of the program was driven basically by contract rules between the NGOs and the municipality. The "mobile team" linked to NGOs and the professionals of the FHS acted in parallel and with overlapping activities, compromising the program's efficiency and effectiveness:

> There were many conflicts. The FHS offered a thousand kits for oral health, as did the mobile team. How do you deliver 2,000 kits for 1,000 students? (Community Health Worker of FHS)

> While FHS professionals were acting in a school, the SEP staff arrives at the same school to do the same work. (Local Manager of Education)

> The program is expanding very fast, and it is necessary to monitor actions related to intersectoral management and training in local contexts. (Federal Manager)

Besides the fragility of decision-making arenas, the poor dynamism of community participation in Manguinhos hampered program monitoring.

Different Expectations

Between 2012 and 2014 little progress was made in the implementation process, and in accordance with the professionals of education only oral healthcare serves were developed continuously and systematically. Even so, the lack of permanent, ongoing dialogue among stakeholders compromised the articulation effort in Manguinhos:

> Sometimes the health team comes to develop an action for tooth decay prevention and application of fluoride in December when the kids are on vacation. (Teacher)

With regard to the mobile teams, the challenge remains the sharing of information and experiences. In general, for teachers the strategy adopted in the "Schools of Tomorrow" was effective and responded to the main demands of everyday life: completion of exams, emergency care performed by nurses when accidents occurred at school, and referral to more complicated health services. Considering the difficulties in accessing public health services, parents also approved the presence of health professionals in schools.

> The nursing technician has worked the whole day in the school … he administered fluoride, examined children's health state, and gave them a referral to health services. (Student's Mother)

However, because only "Schools of Tomorrow" had nursing technicians and supported mobile teams, it was difficult for the local managers, teachers, community health agents, and residents to determine which actions were associated with SEP and which with FHS. Furthermore, despite the principle of universalization of health actions in schools, the existence of professionals working in just a few schools without having a connection with primary healthcare services in Manguinhos was problematic. In addition, debate about the schools' pedagogical projects and the dynamization of local association was postponed.

Interdisciplinarity: Rhetoric or Real Strategy?

During fieldwork, there was a noticeable absence of strategies to encourage debate on health promoting organizational change processes. Health workers showed no interest in the demands of other sectors, thereby creating barriers to exchanging experiences and improving collaboration. Likewise, teachers were reluctant to modify their routines.

> The teachers' work, the pedagogical mission is completely different from healthcare. (Teacher)
>
> A teacher is not enabled as a health worker to prevent dengue or administer a vaccination … The government has handed over its duties to schools, which are outside their areas of competence. (Teacher)
>
> The math teacher is able to teach mathematical expressions … the Portuguese teacher is able to teach grammar classes … A teacher is not able to talk to students about their father's alcoholism, the domestic violence that affects their mother …. (Teacher)
>
> Schools do not have to deal with social exclusion … A teacher is not a social worker. (Teacher)

Despite treating interdisciplinarity as a strategic component of the program, it is not reasonable to expect a shared view or consensus between stakeholders in the implementation process. The construction of bonds of trust and strategies for reducing conflicts between sectors that traditionally compete for resources and recognition requires specialized skills and permanent, ongoing dialogue about the limits and possibilities of intervention in a local context. With no incentives to promote this integration and cooperation between social workers, teachers, and health professionals, SEP will not lead to effective changes.

Discussion

In Brazil, SEP requires heavy investment in primary healthcare and intersectoral coordination. Traditionally, the health and education sectors have had a hard time developing cooperative actions and reconciling their different interests in decision-making processes. In this scenario, SEP needs to engage in continual efforts to ensure interdisciplinary dialogue and motivate stakeholders. Without shared values among staff and a collaborative culture, health promotion programs and the whole school context involving the environment and community participation face enormous challenges. At the same time, targeting strategies must be constantly evaluated and reviewed. In Manguinhos, the focus on a reduced number of schools and the recruitment of health professionals without the necessary integration with the Family Health Strategy led to overlapping actions and weak engagement with the program's goals and objectives.

Disarticulated, outdated databases led to a limited scope of intervention. The information systems organized by sector nurtured a duality between educational and health actions. Despite the intersectoral nature of health practices, many programs and initiatives faced obstacles in producing multidisciplinary results. In this sense, concerning the experiences of health promoting schools, the health sector must value what the education sector considers as relevant evidence, and vice versa. Thus, resistance to collaboration, hierarchical conflicts, and parallelism can be reduced.

Conclusions

One of the greatest methodological challenges for the evaluation of complex interventions in the health promotion field is how to extend the lessons learned in one specific context to other realities, in other words, how to translate and use evidence based on contextualized practices to other settings without compromising their meaning. To deal with this challenge, evaluative tools and strategies must seek to reconstruct the process of implementing change theories and discover the extent of adaptation and conformity to the original design in each context. It is also important to recognize which program components tend to reveal greater dependence on the local implementation context. This is not a trivial task. Apart from the communities themselves and interest groups, institutions and decision-making arenas that are apparently "stable" can be remade or can react to specific circumstances in an unpredictable way.

Thus, the evaluation of possible discrepancies between an intervention's original design and their effects on each context can guide decisions about the expansion or continuity of programs, especially in health promotion. But to progress along this path, it is necessary to confront the mechanisms that link causal models to the impacts expected on the theoretical plane with the standards of interaction between institutions, resources, and actors in the daily life of programs and interventions. Health promoting schools involve vertical and horizontal collaboration. Close relationships between state and private institutions can favor a virtuous circle capable of mobilizing and coordinating—in a polycentric perspective, where power is distributed among multiple forms of organization—a network of resources, practices, and knowledge, in which participation and spaces for agreement are essential. Frequently, before the intervention advances with defined routines, responsibilities, and roles, conflicts emerge around resource allocation or information flows, and this may complicate the strengthening of the bonds of trust necessary for executing a common agenda. In intersectoral programs, it is reasonable to suppose that disagreements and controversies will tend to grow in the same proportion as the complexity of the required partnerships and alliances (Potvin et al. 2005).

Negotiation the possible alternatives to adopt in the implementation process must be permanently valued. It is important to explore how potential hierarchical superpositions remain or not, how the relations between actors are shaped, and in what way previous learning and experience influence perceptions about intersectoral actions. For example, the question of healthy eating in schools can strategically involve joint actions between local commerce, teachers, families, and health agents and thus expand their long-term effects. However, this will require ensuring an affinity between managers, professionals, and community. In Manguinhos, networking, collaborative partnerships, and exchange of knowledge are crucial for the program's success.

With regard to the methodological approach adopted in the survey, we believe that the use of a matrix with evaluative questions has contributed to understanding the program's design and implementation process. This instrument has fostered reflection on how and why multistrategy and intersectoral initiatives work and tend to achieve the desired effects in different local contexts. At the same time, the meth-

odological tool was useful in terms of supporting the analysis of adaptations and changes during the course of action.

Acknowledgments PDTSP-VPPLR/VDPT.

Ethical Considerations The research presented here was guided by a respect for privacy and the right to interaction free of constraints. In addition to direct contact with participants, individual e-mails and phone calls were used. All participants in the study signed an informed consent form. The research was approved by the Ethics Committee of the National School of Public Health and ethics committee of the Municipal Secretariat of Education.

Appendix A

Table 6.1 Evaluation matrix

Evaluative Matrix	Validity of program theory (I)	Implementation Process (II)	Linkages between program theory, implementation process and changes (III)
	Program theory model, mechanisms and desired outcomes and changes	Routines, adaptations, organizational practices, management strategies, partial results, conflicts and controversies	Obstacles, barriers, effects and changes, degrees of fidelity and adaptation of the program in the context validity of the theory and implementation strategies in the context lessons learned
	Evaluative Questions 1-What are the goals, resources and capabilities required in the program? 2-What problem does the program seek to solve? 3-What staff competences, monitoring system and intervention practices are expected? 3- What are the results expected at short, medium and long term? Considering the nature of the problem and the local context, is the theory of the program consistent? 4- What are the main controversies around the program design?	Evaluative Questions 1- How implementation agents interpret goals and program objectives? 2- What alternatives have been adopted? 3- How and in what way does the flow of information contribute to improve program implementation in local context? 4-Have new partnerships been established or have new agents been incorporated? 5- What were the contextual aspects and institutional contingencies that affect the implementation? Hpw does communities and families participated in implementation process?	Evaluative Questions 1-What were the changes related to the original design of the program? What were the effects of those changes? 2-What were the main obstacles? 3-Do program address the social context, local opportunities and challenges? 4- What worked, for whom and in what circumstances? What are the lessons learned? 5- How can the theory and the implementation process be improved?

Quantitative and qualitative data choices: documentary analysis, semistructured interviews, focus groups, direct observation

References

Chen T (1990) Theory-driven evaluations. Sage, London

Decreto N° 6.286, de 5 de Dezembro de 2007—Institui o Programa Saúde na Escola PSE. Disponível em http://www.planalto.gov.br/ccivil_03/_Ato20072010/2007/Decreto/D6286.htm

Figueiredo TAM, Machado VLT, Abreu MMS (2010) A saúde na escola: um breve resgate histórico. Cien Saude Colet 2(15):397–402

Patton MQ (2008) Utilization-focused evaluation, 4th edn. Sage, London

Potvin L, Gendron S, Bilodeau A, Chabot P (2005) Integrating social theory into public health practices. Am J Public Health 95(4):591–595

Rowling L, Jeffreys V (2006) Capturing complexity: integrating health and education research to inform health—promotion schools policy and practice. Health Educ Res Theory Pract 21(5):705–718

Salazar L (2011) Reflexiones y posiciones alrededor de la evaluación de intervenciones Complejas. Universidad del Valle, Santiago de Cali

Silva C d S, Pantoja AF (2009) Contribuições da Avaliação na Identificação de Efetividade da Promoção da Saúde na Escola do Município do Rio de Janeiro. Bol Téc SENAC 35(2):36–49

Villardi ML, Cyrino EG (2012) O cuidado à criança em idade escolar: percepções de equipes da Estratégia Saúde da Família. Bras de Med de Fam e Comunidade 7(24):177–183

Weiss C (1998) Evaluation. Prentice Hall, Upper Saddle River, NJ

WHO Regional Office for Europe (1996) Regional guidelines: development of health-promotiong schools: a framework for action. WHO Regional Office for the Western Pacific, Health Promotion Schools, Manila, Series 5. http://whlibdoc.who.int/wpro/1994-99/a53203.pdf