

Constructing a logical model in school health: experience on the Lower Amazon region

Construção de modelo lógico na saúde do escolar: experiência do Baixo Amazonas
Construcción de modelo lógico en la salud del escolar: experiencia en el Bajo Amazonas

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ABSTRACT

Objective: This experience report presents the construction of the theoretical and logic model for intervention to promote physical activity and healthy eating habits of the public schools students in the city of Parintins, Amazonas, Brazil. **Method:** We carried out a theoretical research and also a documentary research on the School Health Program (PSE – *Programa Saúde na Escola*) on the national and local level, in addition to meetings with the PSE management committee for strategic planning of the actions. **Result:** The municipality had no systematic structure of health practices at school. A theoretical and logical model that involved prerogatives of practice from the management of the municipality in PSE was developed. Actions to promote physical activity and healthy nutrition of primary and secondary school students were planned and promoted in schools of the PSE. **Final considerations:** Thus, the collective construction of this proposal contributed to the research of multi-sectoral practices related to the PSE principles and strategies, considering the particularities of the Lower Amazon context.

Descriptors: Motor Activity; Feeding Behavior; Adolescent Health; Child Health; Health Promotion.

RESUMO

Objetivo: Este relato de experiência apresenta a construção do modelo teórico-lógico para intervenção na promoção da atividade física e alimentação saudável dos escolares da rede pública de ensino no município de Parintins, Amazonas. **Método:** Realizou-se uma investigação teórica e também uma pesquisa documental sobre o Programa Saúde na Escola (PSE) no âmbito nacional e local, além de reuniões com o comitê gestor do PSE para planejamento estratégico das ações. **Resultado:** O município não apresentava uma estrutura de sistematização das práticas de saúde na escola. Foi elaborado um modelo teórico-lógico que envolveu prerrogativas de atuação da gestão setorial municipal no PSE. Ações de promoção da atividade física e alimentação saudável dos escolares do ensino básico foram planejadas e fomentadas nas escolas do PSE. **Considerações finais:** Sendo assim, a construção coletiva desta proposta contribuiu na prospecção de ações intersetoriais práticas relacionadas com os princípios e estratégias do PSE, considerando às peculiaridades iminentes ao contexto do Baixo Amazonas.

Descritores: Atividade Motora; Comportamento Alimentar; Saúde do Adolescente; Saúde da Criança; Promoção da Saúde.

RESUMEN

Objetivo: Este relato de experiencia presenta la construcción del modelo teórico-lógico para intervención en la promoción de la actividad física y alimentación saludable de los escolares de la red pública de enseñanza en el municipio de Parintins, en el estado de Amazonas (Brasil). **Método:** Se realizó una investigación teórica y también una investigación documental sobre el Programa Salud en la Escuela (PSE) en el ámbito nacional y local, además de reuniones con el comité gestor del PSE para planificación estratégica de las acciones. **Resultado:** El municipio no presentaba una estructura de sistematización de las prácticas de salud en la escuela. Se elaboró un modelo teórico-lógico que implicó prerrogativas de actuación de la gestión sectorial municipal en el PSE. Se planearon y fomentaron, en las escuelas del PSE, acciones de promoción de la actividad física y de la alimentación saludable de los escolares de la enseñanza básica. **Consideraciones**

finales: La construcción colectiva de esta propuesta contribuyó a la prospección de acciones intersectoriales prácticas relacionadas con los principios y estrategias del PSE, teniendo en cuenta las peculiaridades inminentes al contexto del Bajo Amazonas.

Descriptores: Actividad Motora; Conducta Alimentaria; Salud del Adolescente; Salud del Niño; Promoción de la Salud.

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INTRODUCTION

The school environment takes numerous purposes of human education nowadays, and has an important role in guaranteeing social rights for children and adolescents. The School Health Program (PSE) is an inter-ministerial strategy with specific and own resources, which aims to promote health through continuous health education and longitudinal evaluation of the students⁽¹⁾. Additionally, the program is presented as an opportunity to strengthen the bond of the school-age adolescent with healthcare professionals, since this group hardly attends health centers⁽²⁾.

Living habits acquired during the school phase tend to remain until adulthood⁽³⁾. Researches show that health interventions within the school environment are effective for promoting a less caloric diet and increasing the level of physical activity⁽⁴⁾. Therefore, PSE has the potential to promote the health of students, since it involves educational practices of physical activity, nutritional guidance and the evaluation of health.

This approach stimulates the active participation of the students and group interventions provided by the program and it is based on the principles of active learning methodologies, which allow the student to be the protagonist of his own learning, encouraging the learning process and developing autonomy in educational practices that allow the construction of a critical and reflexive knowledge, with responsibilities linked to real-world situations, and contributing to changes in the social reality⁽⁵⁾.

Public initiatives have expanded the range of health promotion programs through physical activity⁽⁵⁾. However, only two studies that refer to actions concerning physical activity promotion in the Northern region of Brazil were found on the literature consulted⁽⁶⁻⁷⁾.

Therefore, this study helps in the development of new intervention methodologies to promote healthy living habits, based on a structured model of social intervention on public health, in addition to fill the gaps in the literature of loco-regional research. Considering this context, our objective is to describe the experience of the process of implementing of actions to promote physical activity and healthy eating in schools of basic education of Parintins, linked to the School Health Program.

History of the construction of the study

The investigation started with a documentation research, using qualitative techniques of approach to the problem. To contextualize the research public schools of Parintins, Amazonas, linked to School Health Program were chosen.

Parintins is a medium-sized city in the state of Amazonas and it is located on the border with the state of Pará. The population is estimated in 111.575 inhabitants, making it the second most populous municipality in the state of Amazonas⁽⁸⁾.

Like the other urban areas of the state, these locations were previously indigenous villages in the case of Parintins; it was populated by various ethnic groups like the Parintintim, Tupinambás, Sapupés and Maués⁽⁹⁾.

The population of the city was also formed by the descendants of Africans, Portuguese, Jews and people from the Brazilian Northeast. They strongly added their culture traits to the folkloric tradition of the city, attracting tourists and contributing to the improvement of services offered to the local population⁽⁹⁾. These advances made Parintins a city with the same difficulties and problems of large urban centers, thus requiring the need to develop local actions to improve the living conditions of the population – the School Health Program is one of the public policies implemented.

To participate in the PSE the schools had to be a part of the *Programa Mais Educação* (More Education Program) and be in the area covered by Brazil's Family Health Strategy. This collective involved representatives of ten health units of the municipality; eight schools and 441 registered students registered on the Brazilian Unified Health System (UHS) that were able to participate in the PSE. The target audience of the actions are the regular students of the schools, their parents, teachers, teams of the Family Health Strategy and local public administrators of health and education.

During the research we used records regarding the PSE, the project submitted to the Ministries of Education and Health, the teaching plans developed by the Municipal Multi-Sectoral Working Group (GTIM – *Grupo de Trabalho Intersetorial Municipal*) of the School Health Program of the Municipal Secretariat of Health and other textual or audiovisual elements documented regarding the activities done by the school and the Family Health Strategy team.

The access to documents was done with the permission of the Municipal Secretariat of Health and Education during 2013, concomitantly with the three fundamental steps of data collection to construct the theoretical model:

1. Literature review: Systematic searches were done in the major Brazilian databases (SciELO, LILACS, BVS, Portal CAPES) and on international databases (PubMed; Scopus, SPORTDiscus and Journals@Ovid) of articles, theses and dissertations on the subject and published in the last five years. The search used the following descriptors and their combinations in Portuguese and English: program, theoretical model, health, schools, behavior. However, the documentary research was done on the registers regarding the PSE, the project submitted to the Ministry of Education and to the Ministry of Health, the teaching plans developed by the working group managing the School Health Program and other textual or audiovisual elements that

were documented regarding the activities performed by the school and the Family Health Strategy team.

2. Confrontation between the literature review and the ministerial regulations and guidelines proposed to the PSE: To define the theory that will give basis to the project the correlation between the theoretical basis and the policy regulations for the PSE and the Unified Health System.
3. Analysis of the PSE Projects of the municipality against the ministerial guidelines were subsidized by examining the documents of management in education and health, starting with the implementation project of the PSE, then by the reports and other documents of planning and evaluation of actions developed in the municipality.

From this systematization it was possible to describe the theoretical model of the proposed intervention starting from the local information obtained in the Secretariats of Health, Education and Social Assistance, identifying and characterizing priority relations between sectors of multi-sectoral activity. The definition of the logical model was done using information obtained from the municipal sector groups, like the theoretical model. This was done so the proposal constructed progressively would correlate the financial, human and material resources available for the School Health Program to perform the health intervention proposals along the partners of the program, aiming for results in short, medium and long term. Thus, the construction of the logical model stood out as an important tool to build the scheme of the planning, development and evaluation steps of the intervention program (U. S., 2002)⁽¹⁰⁾.

The theoretical and empirical components were organized for the construction of the theoretical and logical model, based on the evaluations of the social practices in health⁽¹¹⁾. However, for the methodological parameters of the logical model we used the Physical activity: evaluation handbook prepared by the Centers for Disease Control and Prevention of Atlanta, United States⁽¹⁰⁾.

At the end of this process a proposal of health intervention to promote physical activity and healthy eating was built, it included four fundamental instances: University, Municipal Management of Health, Municipal Management of Education and Municipal Management of Social Assistance.

Based on the documents consulted, the city of Parintins, Amazonas is in the implementation phase of the School Health Program therefore, it did not have the structure of a theoretical and logical model to support the activities present in its structure. The records evidenced that the relationship between the federal and municipal management was restricted to the sending of records and reports to verify the actions performed by the municipality. A frailty in the structure of each sector involved, due to the absence of a representative or reference technician between the partner institutions, to promote broad strategies of school health. However the need for the construction of a theoretical model that allowed efficiency in health policies within school environments integrated to the PSE which allowed the joining of human relations of the community with an emphasis on the articulation between the different spheres of the government and valuing primary health care. The construction of the logical model is an important tool to build the scheme of the steps of planning, development and evaluation of the intervention program⁽¹⁰⁾.

Theoretical Milestone to Promote Physical Activity and Healthy Diet in the School Health Program

The construction of the theoretical and logical model for the municipal actions of the PSE resulted in the strategic plan of developing joint committees of education, health and social assistance on central, regional and local levels. These representatives must promote a systematization of the actions directed to the integral assistance to the health of children and adolescents at school-age, establishing new relations between Health and Education, and between technicians and users of health services and schools (Figure 1).

Logical Milestone to Promote Physical Activity and Healthy Diet in the School Health Program

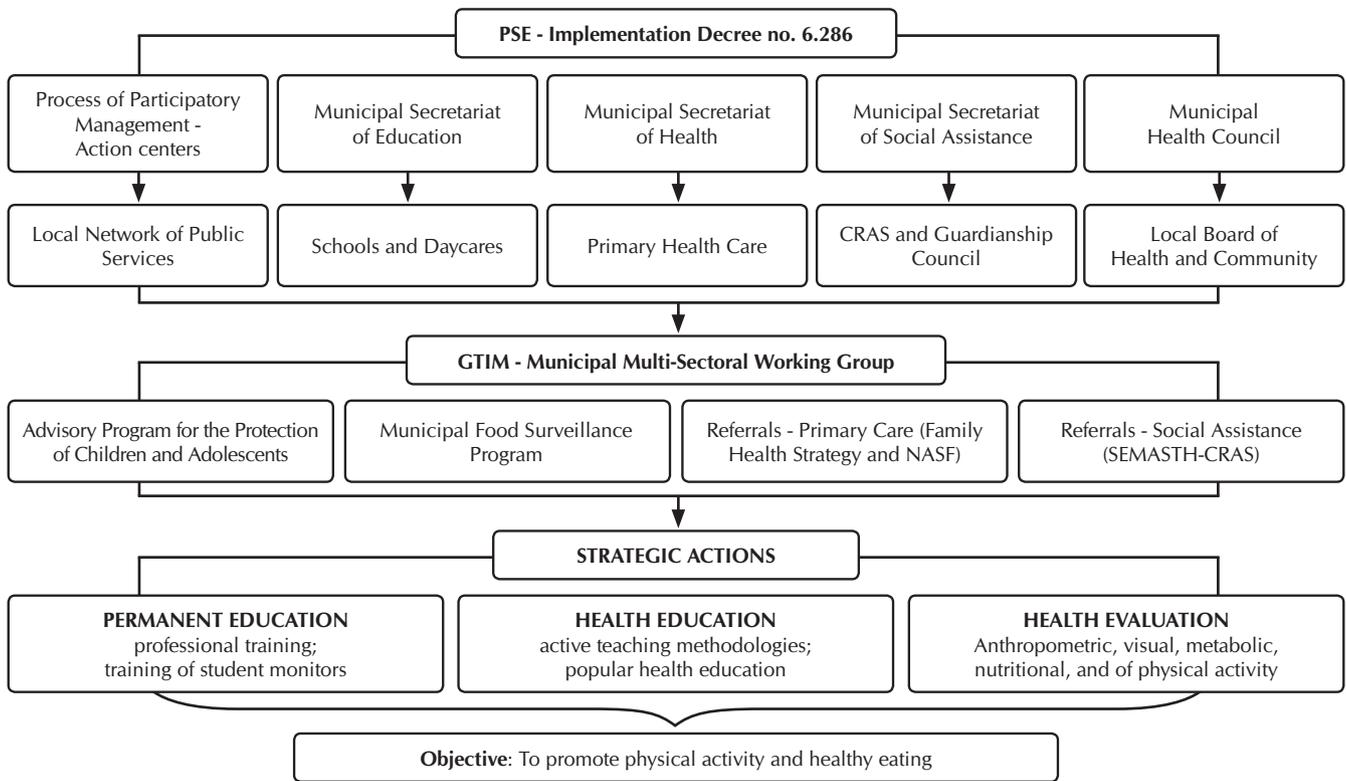
The model of the logical milestone built was divided into seven categories of progression, the result of the set of experiments pointed on the report and annual plan of the PSE and other studies read (Figure 2).

By specifying which actions of the PSE on national level would be considered in the model built to achieve success in the municipal sphere, a model of participatory management was adopted to form the GTIM, valuing the human relations from community bases for the actions of the PSE. The model highlights active partnerships of concrete and permanent articulation, using the socio-cultural and educational dimensions to act on the goals of promoting physical activity and healthy eating in the program.

During the implementation period of the PSE, physical activity and nutrition were the central focus of the discussions and strategies presented by the Ministry of Health, presenting it as the central theme in the *Semana Saúde na escola* (School Health Week) of 2013 and 2014 respectively, the themes "Obesity and eye health" and "Bodily practices, physical activity and recreation in a culture of peace and human rights". Considering the relevance of approaching of these themes for the student's health, the working group, with the support of the university, implemented new practices to broaden and enhance the opportunities for the promotion of physical activity and healthy eating in schools of the municipality.

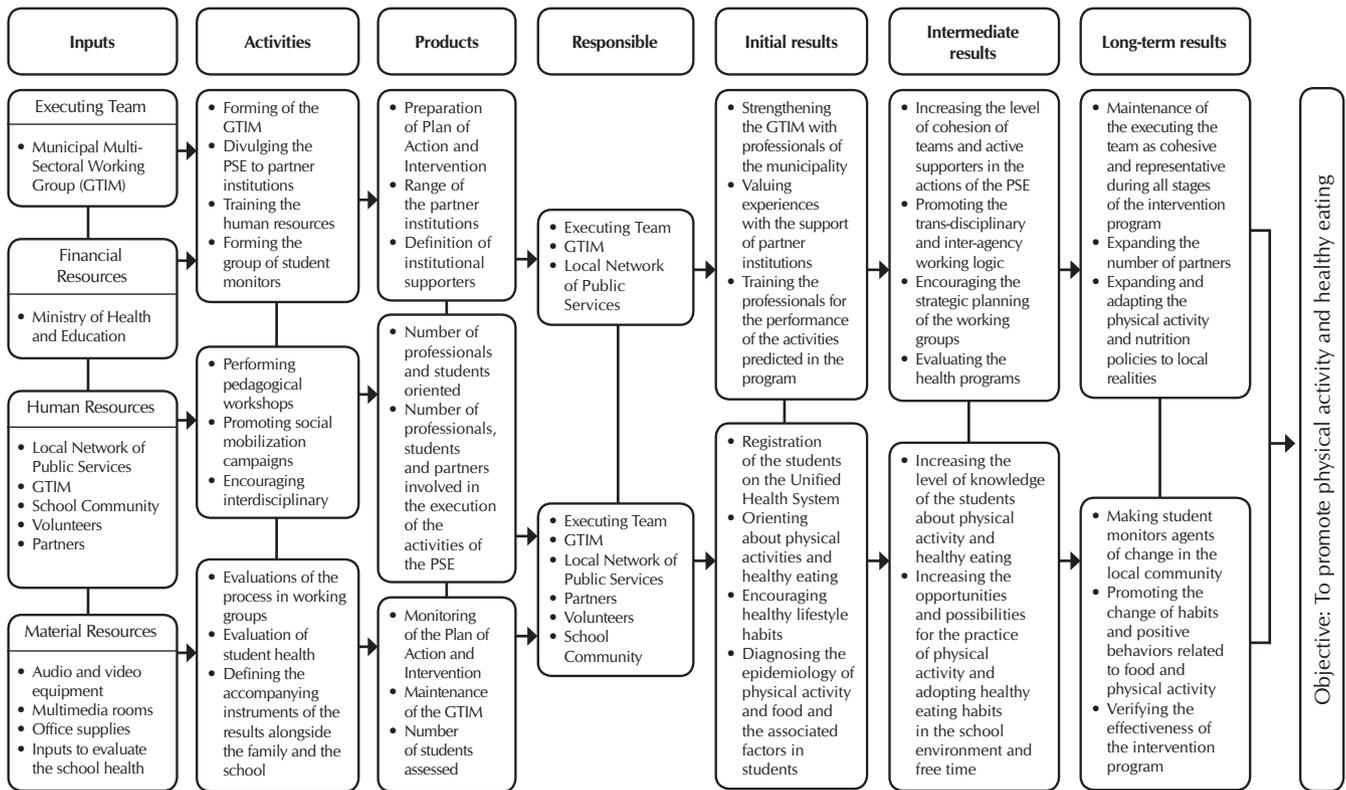
Conceptual and theoretical proposals were researched for this task, they sustained the components of the PSE and the health initiatives already done in schools by the Secretariats of Health and Education. Such knowledge provided support to the definition of the theoretical model of Health Promotion⁽¹²⁾ as a guiding axis for sectoral actions and for the distribution of responsibilities between representatives of the GTIM. The model considers the connection between the environment and the subject in the process of construction of the multi-dimensional nature of the human being⁽¹²⁾, this understanding favors the dynamics of student care between the teaching environment and the health units as centers of promotion of physical activity and healthy eating.

The logical model of interrelation between the factors engendered in the context that develops the problem will be described to identify the potential elements to achieve the expected results⁽¹¹⁾. Thus, the logic in the flowchart of this proposed model follows a top-down movement.



Note: PSE – School Health Program; GTIM – Municipal Multi-Sectoral Working Group; CRAS – Social Assistance Reference Center; NASF - Family Health Support Center; SEMASTH - Secretariat of Social Assistance, Work and Housing.

Figure 1 – Theoretical Model to Promote Physical Activity and Healthy Diet based on the School Health Program in Parintins, Amazonas, Brazil



Note: GTIM - Municipal Multi-Sectoral Working Group

Figure 2 – Logical Milestone to Promote Physical Activity and Healthy Diet in the School Health Program, Parintins, Amazonas, Brazil

Assuming progressive logical model built for this study, we hope that the strategies and activities presented are promoted by management and by future research, to strengthen local action and the sufficient and active participation of the subjects. This involvement and participation of the school community can then generate the adherence to the practice of physical activity and healthy eating (bottom-up movement)

The absence of representation from some sectors to define the GTIM team was noted during the structuring of the logical model. The need for a team to organize and divulge the intervention proposal of the PSE to other partners was noted in the local context, the execution of the goals predicted in the annual schedule could only be done after this.

Based on the proposed logical model, the use of active learning methodologies as a pedagogical approach to the theme of school health was recommended to health professionals. When cultural and artistic activities (such as illustrative narratives, assembling games, traditional songs or theatre) are integrated to emerging themes of school health, they serve as important sources for an active acting by the youth, favoring listening and the involvement of the subjects⁽⁵⁾.

FINAL CONSIDERATIONS

This theoretical and logical model based on the promotion of physical activity and healthy eating in the municipality corroborated the proposals of establishing a close relation with the PSE guidelines, meeting the expectations and planning presented in the documents of the municipal secretariats about the need to support and organize the strategic actions of the PSE in the municipality of Parintins-AM. The results pointed out in this study suggest that the use of this tool by the local management of health can collaborate in the PSE planning, broadening the promotion and opportunities to implement a healthy lifestyle among students.

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