Health program in a Brazilian school


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Abstract
Objective. To analyze the School Health Program (SHP) through the perceptions of managers and health professionals. Materials and methods. This was a descriptive, cross-sectional, and qualitative study that conducted interviews with 21 individuals using the lexical analysis of Bardin’s speech and processed the data through the Alceste software. Results. In the interviewees’ perception, verification of blood pressure, visual acuity, weight, height, body mass index, oral health, preventive actions and educational lectures are recommended in the program’s guidelines. The schools do not have available and adequate space for the staff to perform the work. The predominant exchange occurs between the health and education secretaries. The actions that provided opportunities to students were primarily promotion, prevention, and health education; funding is the responsibility of the Ministry of Health and Municipal Secretary of Health. Conclusions. The structures, exchanges, and available resources were insufficient for the development of the program.

Keywords: school health; health promotion; intersectoral action; integrality in health

Resumen
Objetivo. Analizar el programa Salud en la Escuela a través de las percepciones de gestores y profesionales de la salud. Material y métodos. Estudio descriptivo, transversal, cualitativo, en el que se entrevistó a 21 sujetos utilizando el análisis léxico del discurso de Bardin, siendo el material procesado por el software Alceste. Resultados. En la percepción de los sujetos, las evaluaciones de presión arterial, agudeza visual, peso, altura, índice de masa corporal, salud bucal, acciones de prevención y palestras educativas, son preconizados en las directrices del programa. Las escuelas no tienen espacio físico adecuado ni personal disponible para trabajar. El intercambio predominante es entre la secretaría de salud y la secretaría de educación. Las acciones dadas a los escolares fueron básicamente las de promoción, prevención y educación en salud y el financiamiento es de responsabilidad del Ministerio de la Salud y de la Secretaría Municipal de Salud. Conclusiones. Las estructuras, los intercambios y los recursos disponibles fueron insuficientes para el desarrollo del programa.

Palabras clave: salud escolar; promoción de la salud; acción intersectorial; integralidad en salud

Silva UOA, Nascimento GL, Santos IK, Azevedo KPM, Santos CF, Knackfuss MI, Medeiros HJ.
The School Health Program (SHP) was established by the Federal Government through Decree No. 6286 of December 5th, 2007, in order to involve the health and education sectors in aiming at expanding health actions to public school students including clinical and psychosocial evaluation, health promotion, disease prevention, continuing education, and professional training.1

The program emerged in response to the criticism toward the little effectiveness of health education in schools and to strengthen the promotion of health policies as a health care model for students, which would not be supported only by the biomedical model in the control and prevention of diseases.2

Thus, the Ministries of Health and Education agreed that Family Health teams would be responsible for the health of students who are enrolled in the schools that belong to their territories3 while schools would be responsible for developing pedagogical practices adopted for the diffusion of health in school spaces, according to what was proposed by the National Curriculum Parameters.3

Managers would be responsible for monitoring and evaluating actions and services offered by the SHP, assuring it as an important tool for the qualification of health actions and assistance for individuals, families, and communities.4

Thus, this study analyzed the SHP through the perception of managers and health professionals, and based on actions, structures, exchanges, opportunities, and resources provided by the municipality of Mossoró, Rio Grande do Norte in Brazil in 2013.

Materials and methods

The study was developed in the city of Mossoró, Brazil, which covers a territory of 2 110 km² and is the second most populous municipality in Rio Grande do Norte State with a population of 259 815 inhabitants according to data from Brazilian Institute of Geography and Statistics (IBGE).5 It is located in the semi-arid northeastern region of the country, holds the 3rd best Human Development Index in the state in 2012 (Human Development Index (HDI)= 0.720),6 and places 140th in the Unified Health System (SUS) Performance Index in 2012 (Performance Index in the Unified Health System (IDSUS)= 5.09).7

This was a descriptive and transversal study with a qualitative approach, with a sample of 21 individuals, including 12 managers (secretary of health and education, coordinators, schools principals, and directors of health units) and nine health professionals (one doctor, four nurses, and four dentists) who were chosen because of their activities in the SHP. All interviewees signed the Voluntary Informed Consent Form (VICF) prior to study start.

The study was conducted in four municipal public schools for the elementary/middle level of education and four Basic Health Units, each representing one geographical region in the city of Mossoró, Brazil.

The municipal education public system of Mossoró had 99 schools in 2013, represented in 61 elementary/middle schools, with 8 970 students and 4 108 young and adult students, and 38 kindergartens with 8 181 children, totaling 21 259 enrolled students.8

A semi-structured interview consisting of the following questions was used: Which actions are developed by the Secretary of Health/Education for the implementation of the SHP? What is the origin of resources allocated to the SHP? Are these resources meeting the program’s needs? Is the SHP providing opportunities for the participation of all children? Is the assistance’s infrastructure in accordance with the program’s requirements? What are other environments considered important that present the social exchange standards in the SHP?

The interview was based on the elements defined in the context of the macrosystem of the Bioecological Theory of Human Development proposed by Bronfenbrenner.9 This theory advocates the study of individual development through his relationship with the environment in an ecological perspective in which individual and context are reciprocally related and defined.10

Public policy is a part of the macrosystem determining the specific properties of the micro, meso, and exo systems, which occur at the level of everyday life and govern the course of behavior and development.9

The concept of macrosystem proposed by Bronfenbrenner10 consists in the overall pattern of characteristics in the micro, meso, and exo systems of a particular culture, subculture, or broader social context, in particular in those systems that are instigators of development beliefs, resources, risks, lifestyles, opportunities, structures, options in the course of life, and patterns of social exchange that are immersed in each of these systems.

Thus, in the context of our study, resource represents the financial amount available to cover the expenses related to the SHP; structure refers to the conditions in the Basic Health Units (physical structure, available staff, equipment, medicines, etc.); social exchange standards represent the partnerships established with other sectors for program implementation; opportunities are health actions that were effectively developed with students; and actions represent the guidelines recommended by the SHP.
The interviews were recorded in a Sony recorder and their content analysis was validated by two experts who are doctors in the public health area.

The lexical analysis of the data collected in the interviews was conducted with the theoretical basis of Bardin’s speech and processed using the Alceste textual data analysis software in its educational version from 2012.

Alceste has the general characteristic of performing lexical analysis of a set of textual data gathering semantic roots and defining them by classes. It performs calculations on the co-occurrence of words in segments of text, seeking for different forms of discourse in the investigations’ topic of interest.

The combined use of a software developed for textual analysis and a classical content analysis procedure for statistical processing of data from sources traditionally used in Human and Social Sciences, such as an interview, has been increasingly more frequent in studies with a voluminous corpus to be analyzed. These factors made the use of this method relevant in this study.

This study was approved by the Ethics Committee (CEP) of the Rio Grande do Norte State University (UERN) under protocol number 454 016, 2013.

**Results**

The processing of the discourse material corpus from the 21 interviews conducted was analyzed on 10/04/2014 at 9:07 pm, with a 77% yield for the composition of five lexical classes. The minimum number of words analyzed per Elementary Context Unit (ECU) was 14 and 16 in the first and second classifications, respectively.

The number of Context Units analyzed was 169 and 151 in the first and second classifications, respectively. The number of different forms analyzed was 251 in both first and second classifications.

The content analysis of the interviews demonstrated that they were distributed in the composition of two axes called SHP Guidelines Policy and SHP management, which corresponded to five classes infra named as Class 1 - SHP Actions; Class 2 - SHP Structure; Class 3 - SHP Exchanges; Class 4 - SHP Opportunities; and Class 5 - SHP Resources.

Class 1 - SHP Actions belongs to the SHP Guidelines and Policy axis presented 15 ECU (Elementary Context Unit) representing 9% of the material analyzed from the interviews with 50 selected words in which the main theme refers to the SHP policy guidelines according to the speeches below:

«They are educational and preventive actions programmed in partnership with schools. Lectures on various topics such as the verification of blood pressure, examination of visual acuity, verification of height, weight, and BMI, evaluation of oral health status, vaccination card update» (*suj_13 *pro_01 *are_02 uce nº116).

«The SHP involves [...] lectures on various subjects, blood pressure verification, examination of visual acuity, verification of height, weight, and BMI, evaluation of oral health status, and vaccination card update» (*suj_13 *pro_01 *are_02 uce nº116).

«[...] verification of blood pressure, visual acuity, and oral health actions and vaccination» (*suj_19 *ges_02 *are_00 uce nº 168).

Class 2 - SHP Structure it is included in the SHP Management axis. It was composed of 80 ECU totaling 47% of all analyzed material with 67 words analyzed, and having the existing structure for the development of the SHP in the city of Mossoro as the main theme, as we see below:

«[...] in the school we do not have the physical space or staff available to work with the program" (*suj_09 *ges_06 *are_02 uce nº 85).

«[...] we lack, for example, a better space for the health team to develop their activities, a more structured room, which will not affect the scheduled service» (*suj_11 *pro_01 *are_04 uce nº 100).

«[...] as for the infrastructure, we try to adapt to the school’s structure» (*suj_14 *pro_03 *are_01 uce nº 133).

Class 3 - SHP Exchanges belong in the SHP management axis containing 35 ECU, representing 21% of the total analyzed data, with 59 selected words in which the main subject was the exchange between the executing agencies and other entities as evidenced in the following speeches:

«[...] we hope that this may happen in the future because the partnership with agencies that can give us more support is very important» (*suj_11 *pro_01 *are_04 uce nº 105).

«[...] there is an increasing approach between the local health department and the municipal board of education. The SHP is creating an interface, promoting the relationship between the two departments that are the most strategic in the development process» (*suj_19 *ges_02 *are_00 uce nº 188).

«[...] there is also integration with social equipment in that territory [...] the SHP team and the school will exchange
Discussion

The SHP recommends that the constant actions of its three components (clinical and psychosocial evaluation, health promotion and disease prevention, and continuing education and professional training) should promote comprehensive care as required by the National Policy for Primary Care, and should be conducted with students at least once a year.\(^1,16\)

The three SHP components are comprised of: the clinical, nutrition, ophthalmological, health and oral hygiene, hearing, and psychosocial evaluations; promotion of healthy eating; and of a culture of prevention of sexual diseases and reproductive health in schools; prevention and reduction of alcohol consumption and drug use; control of smoking and other risk factors for cancer; reduction of morbidity and mortality from accidents and violence; update and control of the immunization schedule; ongoing health education; physical activity and health; and inclusion of themes on health education in the political-pedagogical project of schools.\(^1\)

However, the constant speech in class (one) shows that the interviewees were only aware of a few actions that are included in the core of the Guidelines of the SHP such as the verification of blood pressure, visual acuity, weight, height, and BMI, and evaluation of oral health conditions, educational lectures, and preventive actions.

In Fortaleza and Betim, SHP management groups promoted seminars, meetings, conversation circles, and operation / project to clarify, instruct, and guide students, teachers, and health professionals about the SHP and its proposals.\(^17,18\)

Unlike in Mossoró, the lack of knowledge about the majority of actions contained in the SHP guidelines on the part of managers and health professionals was evident, which led to the assumption that they also lack knowledge of the government ordinances and regulations that created the program.

The Ministry of Health indicates that the following is required regarding the structure needed for the operation and implementation of actions in the SHP: Basic Health Units (BHU) constructed in accordance with sanitary standards, regular maintenance of infrastructure, Basic Health Units equipment, and existence and regular maintenance of a stock of supplies for the BHU’s operation.\(^19\) Donabedian\(^19\) reinforces this idea stating that good structure conditions are favorable preconditions for a good process, which increases the likelihood of positive outcomes. Starfield\(^20\) also appreciates the structure as one of the components in the analysis of health care systems while Guedes\(^21\) emphasizes that planning and offering quality health actions to the population require that BHUs have an appropriate physical structure in addition to good professionals.

However, the speeches of those involved in this study show that the schools need better physical spaces where the staff can develop their activities. However, they lack sufficient staff available to conduct the work with the program.

Corroborating our findings, Miranda,\(^22\) Guedes,\(^21\) Moura and colleagues\(^23\) showed that in the cities of
Araguari, Montes Claros, and municipalities in Bahia, respectively, the Basic Health Units presented inadequacies and deficiencies that could hinder the implementation of health actions recommended by the Ministry of Health.

However, unlike our findings, Niquini24 concluded, in a study in Rio de Janeiro, that seven family health units presented the minimal physical structure for the provision of assistance.

Regarding social exchange, the Ministry of Health recommends that the preparation of a good project aiming at coordinating actions of school health requires alliances and partnerships with public or private programs, or even from those in the third sector.25

Bernardi and colleagues26 state that the discussion about the intersectoral theme gained relevance since the implementation of SUS because of an articulation of knowledge with a view to planning. However, the state SHP Intersectoral Working Group concluded, as a result of a seminar, that the premise of intersectionality is not well understood by health and education managers.27

In our study, the speeches in class three evidenced that these exchanges were implemented only through the health-education intersectionality with the hope that it can happen in the future.

Contrary to our findings, a study conducted in Integrated Center of Public Education (CIEP) in the state of Rio de Janeiro observed that there was social exchange through intersectionality between various state secretaries28 while Silva29 concluded that the social exchange identified in the “Integral Assistance to Adolescents Model” was represented by the participation of public institutions and various NGOs in the region.

Hence, there will hardly be progress in the execution of social exchange for the implementation of the SHP if the barriers hindering the construction of health-education intersectionality in the SHP are not overcome.

The opportunities described in class 4 shows that the SHP recommends that multidisciplinary periodic clinical evaluations occur to identify risk factors in a preventive manner, contributing to healthy physical and mental development in every phase of the school life and providing comprehensive care according to detected health needs.1

According to Mendes,30 despite advances such as the expansion of local health services and autonomy of states and municipalities, there is no evidence that decentralization has ensured greater efficiency and accountability to municipalities.

Barbosa31 concluded, based on a study in the cities of Ipatinga, Coronel Fabriciano, and Santana do Paraíso in Minas Gerais, that the services offered are focused, selective, with little organization, and slow.

Conversely, a study conducted in municipal schools that participate in the SHP in the city of Uberlândia, Minas Gerais, observed that almost all actions recommended by the SHP were performed in this municipality.32

Nevertheless, regardless of the performance of a small number of actions, the results of clinical evaluations and how the students were followed-up for the resolution of their health problems was not presented, demonstrating a contradictory position toward the program’s guidelines.

According to what is described in Decree No. 6286 of December 5th, 2007, the financial support for the SHP is the responsibility of the Ministries of Health and Education and participating Municipalities.2 Ordinance No. 1910/GM/MS of August 08th, 2011, established the Municipal Commitment Term as a tool for transferring financial resources in the SHP.

However, according to an SHP management report, there were bureaucratic obstacles hindering the acquisition of necessary equipment and supplies for the program’s operating plan already in 2012, leading to the compromising of actions to be developed.34

Considering the findings in this study, it is concluded that structures, exchanges, and available resources for the implementation of the SHP in the city of Mossoró, Brazil in 2013 were insufficient to fulfill the program’s guidelines. Therefore, the expansion of health-education intersectorality, an expanded and improved well-structured health system for students, and improved management of SHP resources is suggested.

Despite that this study was limited to a medium-sized municipality in northeastern Brazil, the significance of the study acquires magnitude through the observation that society is funding a governmental program where the achieved results do not correspond to the expected.

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

References