

EVALUATION OF THE ACTIONS OF THE COORDINATORS OF THE SCHISTOSOMIASIS CONTROL PROGRAM IN MUNICIPALITIES OF PERNAMBUCO, BRAZIL

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Abstract: The objective was to carry out a normative evaluation of the actions of the coordinators of the Schistosomiasis Control Program in the control of this disease in the state of Pernambuco between 2010 and 2012. A logical model was constructed and validated from the normative apparatus and a semi-structured questionnaire that was applied to 18 coordinators of a random sample of 23 municipalities in the endemic zone for schistosomiasis in Pernambuco. The actions were judged from the creation of the Level of Implementation indicator, GI, of the “process”, which was 36.54 points, revealing its incipience. There was a failure in the control of the mollusc vector, in the notifications and investigations of serious cases and deaths, and also in the integrated and intersectoral actions, demonstrating the persistence of a curative model where there is the privilege of diagnostic and treatment actions to the detriment of surveillance actions.

Keywords: Public health surveillance, Schistosomiasis, professional performance evaluation.

INTRODUCTION

Despite the progress with regard to the establishment of guidelines for the control of schistosomiasis, there is, paradoxically, the maintenance of disjointed, vertical and concentrated actions in certain health sectors, such as health surveillance. This fact is a historical remnant of the influence of the sanitary-campaignist strand, whose assumptions are ingrained in the way of operating the control of this disease in Brazil (PAIM, 2003; QUININO, 2015; CARACIOLO et. al., 2016).

One of the consequences of this situation is the re-emerging character of schistosomiasis within an epidemiological countertransition process that states that, despite the reduction

in mortality and prevalence, it is still possible to identify new syndromic conditions, including the silent increase in severe forms (QUININO, 2015). ; CARACIOLO et al., 2016).

Pernambuco is one of the Brazilian states that has the highest average percentages of people infected with *Schistosoma mansoni*. Although data from the Ministry of Health (MS) indicate a decrease in this prevalence, the disease still persists as a public health problem in the state, given the great expansion of the endemic area since the 1990s (BRASIL, 2014; MELO, 2015).

An assessment of the disease situation in Pernambuco, in 2010, found that the occurrence of schistosomiasis in the state is considered endemic in 102 (55.2%) of its 185 municipalities, mainly in the Zona da Mata and Metropolitan regions of Recife (BARRETO et al., 2015). Due to these characteristics, since 1916 the control of this disease has been institutionalized, through the creation of the first sanitation and rural prophylaxis posts, on the outskirts of the city of Rio de Janeiro, which gave rise to the rural prophylaxis service with the support of the Rockefeller Foundation (FARIA; COSTA 2006; SILVEIRA; PIMENTA JUNIOR, 2011).

In the context of decentralization, the Schistosomiasis Control Program (PCE) was implemented, regulating activities to be carried out and agreeing on some of them with the municipalities, such as carrying out census coproscopic surveys with the treatment of patients and the annual supply of the Information System of the Schistosomiasis Control Program (SISPCE). These activities are the minimum required to control the endemic and must be incorporated into the work routine of the municipalities (COSTA et al., 2017).

In an attempt to take a more pluralistic view of schistosomiasis, in 2011 Pernambuco

launched the Program to Combat Neglected Diseases (Sanar) seeking to achieve the Millennium Goals, towards global development and reduction of continental inequalities. Pernambuco elected 7 neglected diseases, including schistosomiasis, where actions based on epidemiological surveillance, laboratory support, patient care and communication/mobilization of the population were recommended. The objective is to reduce and/or eliminate it by establishing a risk stratification according to the burden of the disease to choose and intensify interventions with their specificities (PERNAMBUCO, 2012; 2014).

Due to the characteristics that give schistosomiasis the multicausal character and the disease that persists as a public health problem, it must be highlighted the need for its control to be approached in a transdisciplinary way, considering both the health sectors and the other governmental sectors linked to the disease control. This partnership work prevents the solution of continuity and/or overlapping of actions, allowing greater impact at endemic levels (BRASIL, 2008; 2011).

This approach, although appropriate, is operationally complicated if there is no institutional guideline aimed at the intelligent articulation of these actions. In this context, the importance of the coordinator in control actions is highlighted, who must have the skills to coordinate routines, strategically plan and manage resources aiming at transforming reality from a critical analysis of the political text that governs control of schistosomiasis, aiming at its complete implementation (FARIA; BERTOLLOZI, 2010; BRASIL, 2011).

In this sense, this work aimed to carry out an evaluation of schistosomiasis control actions regarding the performance of the coordinator of the Schistosomiasis Control

Program, in municipalities in the state of Pernambuco from the point of view of the Donabedian triad with emphasis on the “process” of work this professional (AGUILAR; ANDER, 1994; UCHIMURA; BOSI, 2002; QUININO, 2015), before the implementation of the Plan for the Reduction and Elimination of Neglected Diseases in the State of Pernambuco – Programa Sanar, by the Pernambuco Health Department. It was intended to identify obstacles and potentialities in this process, making it possible to formulate contributions for the redirection of activities aimed at improving the quality of routine actions carried out.

METHODS

Evaluative study of the normative appraisal type. Aspects of the work ‘process’ of the PCE coordinators were analyzed according to the existing theoretical framework for the control of schistosomiasis in municipal instances.

To ensure external validity to the study, the 95 municipalities that, at the time of the study, made up the first 5 Regional Health Managements (GERes) (from I to V) that formed the endemic areas of the state, were considered as the reference population. From this population, 23 municipalities were selected by simple random sampling, based on the following parameters: 95% confidence (CI); 8 degrees of sampling error (E) in relation to the population GI; 25 degrees of standard deviation (SD) around the population GI.

A Logical Model (ML) was elaborated following the precepts of Medina (2005), which must encompass the reality apprehended from the idealization, giving rise to the concept of ‘model-object’. This model is only valid if it covers a theory susceptible of being confronted with the facts, which is possible through the construction of the

Logical Model (ML). The theoretical bases for the construction of the logical model of the coordinators' actions, following the need for a transdisciplinary approach, were the current guidelines and technical manuals for the control of schistosomiasis, in addition to the scientific literature that considered transdisciplinary approaches (Figure 1).

Therefore, 5 categories of analysis were selected: Permanent education, coordination of the actions of endemic control agents (ACE), integrated/intersectoral actions, epidemiological surveillance/technical functions and community mobilization and social participation. After its construction, the ML was submitted to 3 experts in the field to judge on its coherence, completeness and form. Based on the ML, a preliminary matrix was prepared to judge whether the actions are taking place as recommended, which was validated by a consensus process in which 3 researchers and 6 municipal technicians participated. The final judgment matrix contained 26 variables.

In line with the judgment matrix, semi-structured questionnaires were constructed and applied via targeted interviews to a total of 18 PCE coordinators who agreed to participate in the research, from the 23 cities selected at random. All professionals signed the Free and Informed Consent Term (ICF) to participate in the study. The answers were compiled in spreadsheets and placed in the judgment matrix containing the criteria, indicators and standards used to evaluate each of the actions. Then, a scoring system allowed the attribution of points and a classification according to the percentage of completion of activities.

The Level of Implementation (GI) indicator was used to judge whether the

coordinators' work process was taking place in accordance with the rules. For that, each MJ variable received a score according to the percentage of adequacy to the norms, obeying the following cut-off points: if equal or more than 75% of the professionals adapt to the established standards, the item received 3.85 points; if between 74.9% and 50% of professionals fit the established standards, the item received 1.92 points; if equal to or less than 49.9% of professionals meet the established standards, the item received 0 points. The GI ranged from 0 (for non-implemented process) to 100 (for implemented process) (Chart 1).

The conclusions obtained from the consensus techniques used in this study concluded that each item in the matrix would receive the same weight, given that each of the items is equally important within the multicausal scenario of schistosomiasis.

From the comparison between what was observed and what was set out in the matrix, consideration was given to the implementation of the "process" according to the cut-off points: implemented process - 75% to 100% of the total points; partially implemented process - 50 to 74.9% of total points; process incipiently implemented - 25 to 49.9% of the total points; process not implemented - equal to or less than 24.9% of total points. The GI "process" of the actions of the PCE coordinators was given by the total score obtained in the MJ.

This work was approved by the research ethics committee of Instituto Aggeu Magalhães, Oswaldo Cruz Foundation, Pernambuco (opinion n° 70/2010; CAAE: 0067.0.095.000-10) and was financed by PAPES (Program for Support to Research in Health).

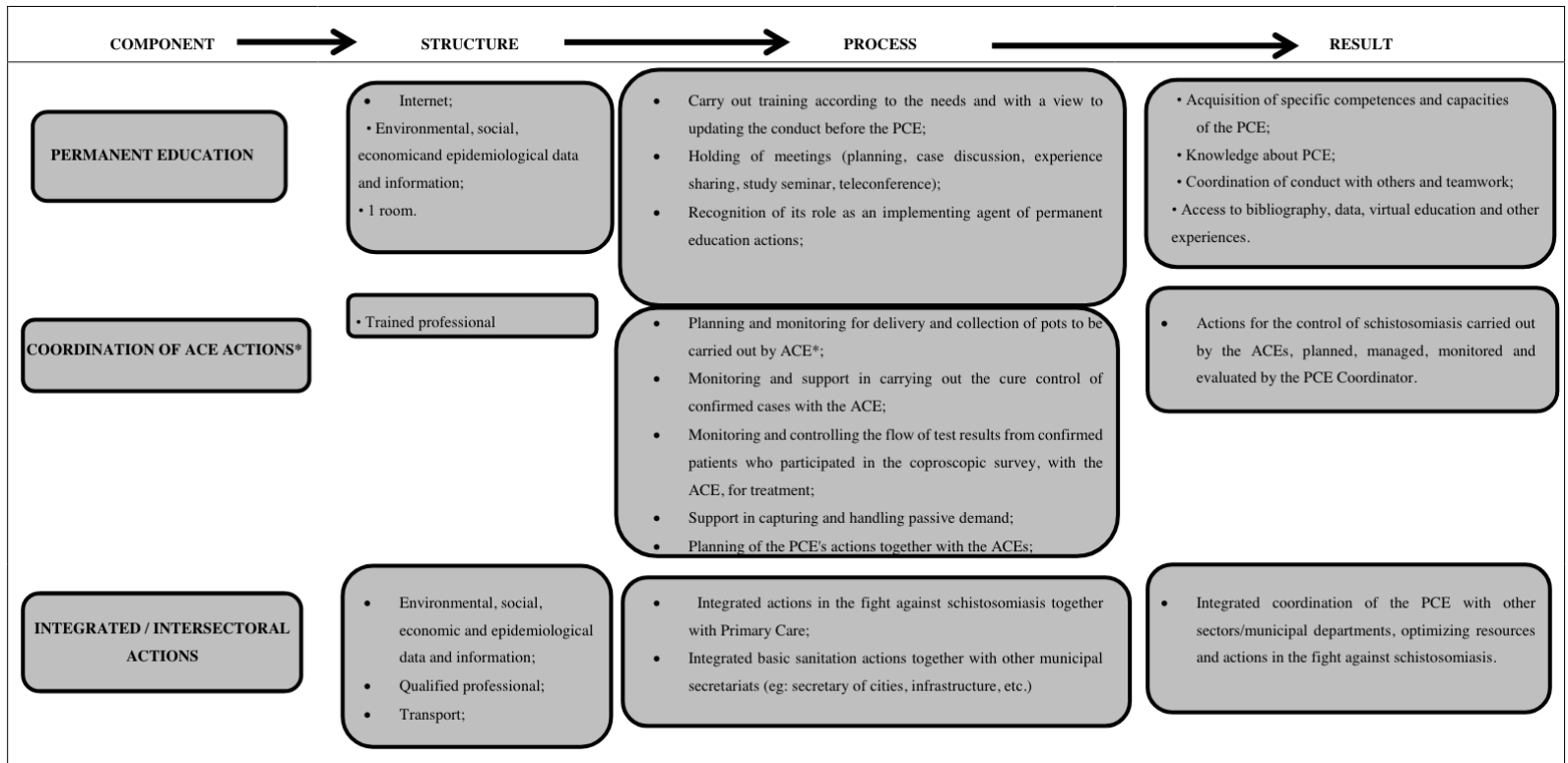


Figure 1 – Logical Model of the Functions of the PCE Coordinator, in Pernambuco, Brazil.

Source: Own elaboration. ACE* Endemics Control Agent.

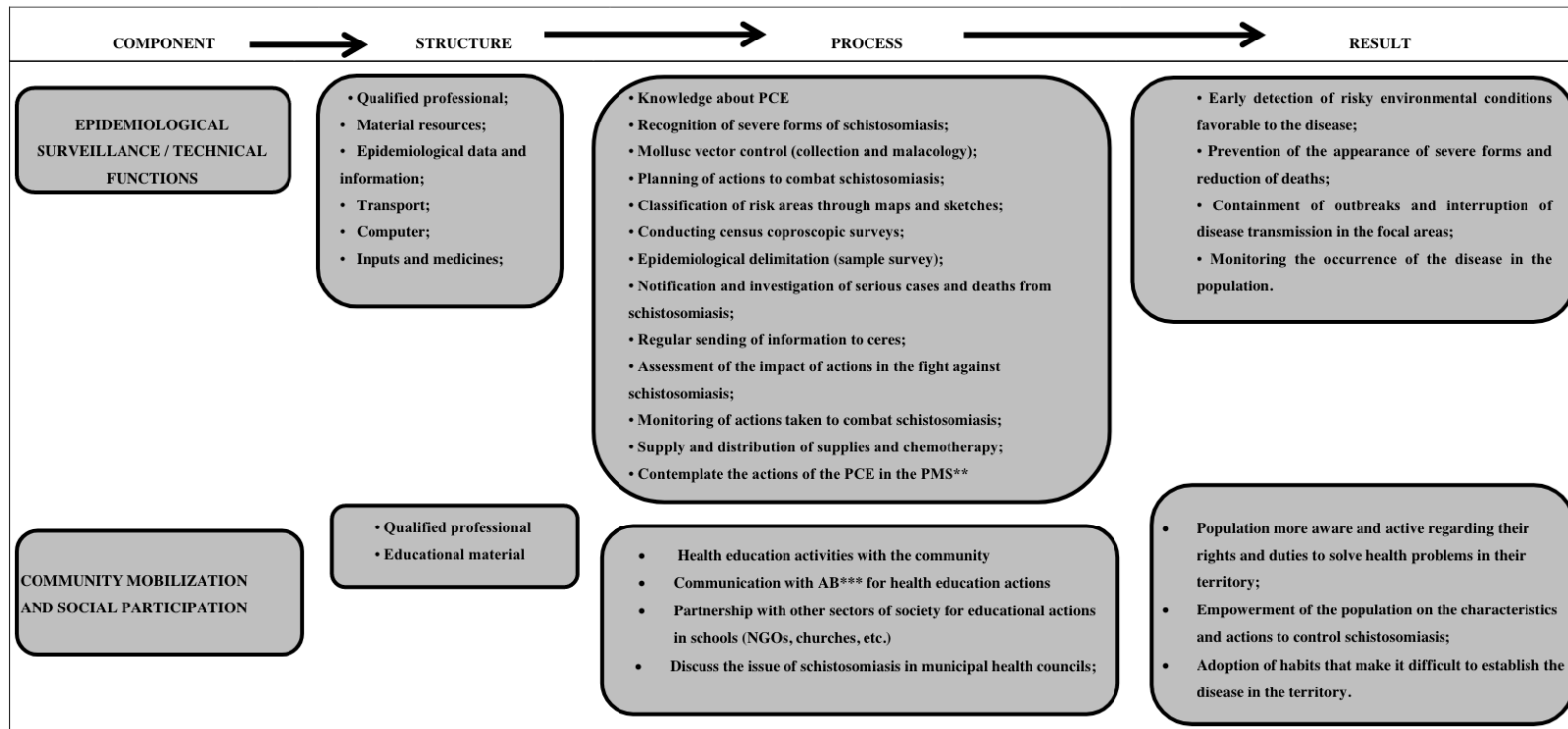


Figure 1 – Logical Model of the Functions of the PCE Coordinator, in Pernambuco, Brazil (Conclusion).

Source: Own elaboration. ACE* Endemics Control Agent; PMS** Municipal Health Plan; AB*** Primary Care.

AUTHORS	CRITERIA	INDICATOR	STANDARD	JUDGEMENT
PCE coordinators	It conducts training according to the needs and with a view to updating the conduct before the PCE	Number of coordinators who carry out training according to the needs and with a view to updating conducts in relation to the PCE/ total coord. X 100	More than 50% of the coordinators must carry out training according to their needs and with a view to updating their conduct before the PCE	
	Conducting periodic meetings (planning, case discussion, experience sharing, study seminar, teleconference)	Number of coordinators who hold periodic meetings/total coord. X 100	More than 50% of coordinators must hold regular meetings	
	Recognition of its role as an implementing agent of continuing education actions	Number of coordinators who recognize their role as an implementing agent of permanent/ total coord education actions. X 100	More than 50% of coordinators must recognize their role as an implementing agent of permanent education actions	- If more than 75% of professionals meet the established standards: 3.85 points
	Planning and monitoring for delivery and collection of pots to be carried out by ACE	Number of coordinators who plan and monitor the delivery and collection of pots to be carried out by the ACE/ total coord. X 100	More than 50% of coordinators must plan and monitor the delivery and collection of pots to be carried out by the ACE	- If between 74.99% and 50% of professionals meet the established standards: 1.92 points
	Monitoring and support in carrying out the cure control of confirmed cases with the ACE	Number of coordinators who monitor and support the realization of cure control of confirmed cases with the ACE / total coord. X 100	More than 50% of coordinators must monitor and support the realization of cure control of confirmed cases with the ACE	- If less than 49.99% of professionals meet the established standards: 0 points
	Monitoring and support in carrying out the cure control of confirmed cases with the ACE	Number of coordinators who monitor and control the flow of test results from confirmed patients who participated in the coproscopic/ total coord survey. X 100	More than 50% of coordinators must monitor and control the flow of test results from confirmed patients who participated in the coproscopic survey	
	Monitoring and controlling the flow of test results from confirmed patients who participated in the coproscopic survey, with the ACE, for treatment	Number of coordinators that support the capture and treatment of passive/total demand for coord. X 100	More than 50% of coordinators must support the capture and treatment of passive demand	
	Support in capturing and handling passive demand			

Table 1 - Distribution of the maximum score attributable per action performed by the coordinator of the Schistosomiasis Control Program for judgment on the Degree of Implementation of the PCE “process” dimension in municipal instances in the state of Pernambuco, 2010-2012.

AUTHORS	CRITERIA	INDICATOR	STANDARD	JUDGEMENT
PCE coordinators		Number of coordinators who plan PCE actions together with ACEs/ total coord. X 100	More than 50% of coordinators must plan PCE actions together with ACEs	
	Planning of PCE actions together with ACEs	Number of coordinators who carry out integrated actions in the fight against schistosomiasis with the Primary/Total Coord. X 100	More than 50% of coordinators carry out integrated actions in the fight against schistosomiasis together with Primary Care	
	Integrated actions in the fight against schistosomiasis together with Primary Care	Number of coordinators who carry out integrated basic sanitation actions together with other municipal secretariats/ total coord. X 100	More than 50% of coordinators carry out integrated basic sanitation actions together with other municipal secretariats	- If more than 75% of professionals meet the established standards: 3.85 points
	Integrated basic sanitation actions together with other municipal secretariats (eg: city secretariat, infrastructure, etc.)	Number of coordinators who know the PCE/ total coord. X 100	More than 50% of coordinators must know the PCE	
	Knowledge about PCE	Number of coordinators who recognize severe forms of schistosomiasis/ total coord. X 100	More than 50% of coordinators recognize the severe forms of schistosomiasis	- If between 74.99% and 50% of professionals meet the established standards: 1.92 points
	Recognition of severe forms of schistosomiasis	Number of coordinators carrying out mollusc vector control (collection and malacology) / total coord. X 100	More than 50% of the coordinators carry out vector control (collection and malacology)	
	Mollusc vector control (collection and malacology)	Number of coordinators planning actions to combat schistosomiasis/ total coord. X 100	More than 50% of coordinators plan actions to combat schistosomiasis	- If less than 49.99% of professionals meet the established standards: 0 points
	Planning of actions to combat schistosomiasis	Number of coordinators who classify risk areas through maps and sketches/ total coord. X 100	More than 50% of coordinators classify risk areas through maps and sketches	
	Classification of risk areas through maps and sketches	Number of coordinators carrying out census coproscopic surveys/ total coord. X 100	More than 50% of coordinators carry out census coproscopic surveys	
	Conducting census coproscopic surveys	Number of coordinators carrying out epidemiological delimitation (sample survey) / total coord. X 100	More than 50% of coordinators carry out epidemiological delimitation	
Epidemiological delimitation (sample survey)				

Table 1 - Distribution of the maximum score attributable per action performed by the coordinator of the Schistosomiasis Control Program for judgment on the Degree of Implementation of the PCE “process” dimension in municipal instances in the state of Pernambuco, 2010-2012.

AUTHORS	CRITERIA	INDICATOR	STANDARD	JUDGEMENT
PCE coordinators	Notification and investigation of severe cases and deaths from schistosomiasis	Number of coordinators reporting and investigating severe cases and deaths from schistosomiasis/ total coord. X 100	More than 50% of those who report and investigate serious cases and deaths from schistosomiasis	<p>- If more than 75% of professionals meet the established standards: 3.85 points</p> <p>- If between 74.99% and 50% of professionals meet the established standards: 1.92 points</p> <p>- If less than 49.99% of professionals meet the established standards: 0 points</p>
	Regular sending of information to the geres	Number of coordinators who regularly send information to the geres/ total coord. X 100	More than 50% of coordinators regularly send information to geres	
	Assessment and monitoring of the impact of actions taken to combat schistosomiasis	Number of coordinators who assess and monitor the impact of actions taken to combat schistosomiasis/ total coord. X 100	More than 50% of coordinators who assess and monitor the impact of actions taken to combat schistosomiasis	
	Supply and distribution of chemotherapy drugs and supplies	Number of coordinators who supply and distribute chemotherapy drugs and supplies/ total coord. X 100	More than 50% of coordinators who supply and distribute chemotherapeutic drugs and supplies	
	Contemplate the actions of the PCE in the PMS	Number of coordinators that include PCE actions in the PMS/ total coord. X 100	More than 50% of coordinators contemplate PCE actions in the PMS**	
	Health education activities with the community	Number of coordinators who carry out health education activities with the community/ total coord. X 100	More than 50% of coordinators carry out health education activities with the community	
	Communication with AB for health education actions	Number of coordinators who communicate with AB for health education actions/ total coord. X 100	More than 50% of coordinators communicate with AB for health education actions	
	Partnership with other sectors of society for educational actions in schools (NGOs, churches, etc.)	Number of coordinators who partner with other sectors of society for educational activities in schools (NGOs, churches, etc.)/ total coord. X 100	More than 50% of coordinators partner with other sectors of society for educational activities in schools (NGOs, churches, etc.)	
Discuss the issue of schistosomiasis in municipal health councils;	Number of coordinators who discuss the subject of schistosomiasis in municipal health councils/ total coord. X 100	More than 50% of coordinators discuss the subject of schistosomiasis in municipal health councils		

TOTAL POINTS FOR PROCESS DIMENSION (26 items) = 100 POINTS

Table 1 - Distribution of the maximum score attributable per action performed by the coordinator of the Schistosomiasis Control Program for judgment on the Degree of Implementation of the PCE “process” dimension in municipal instances in the state of Pernambuco, 2010-2012 (Conclusion).

Source: Own elaboration.

RESULTS

The GI of schistosomiasis control actions carried out by the coordinator in municipalities of Pernambuco was 36.54% (Table 2), which was shown to be incipient according to the parameters established in the study.

The criteria that most contributed to a better implementation of the process are part of the axis of coordination of the actions of the ACEs and the Epidemiological Surveillance/Technical Functions, in which 94.4% support the capture and treatment of passive demand; report having knowledge about PCE (94.4%); plan actions to combat schistosomiasis (94.4%) and carry out census coproscopic surveys (94.4%); still 77.7% monitor and control the flow of test results from confirmed patients who participated in coproscopic surveys, with the ACE, for treatment. The greatest loss in the epidemiological surveillance/technical functions axis was due to the control of the mollusc vector (0%) and the notification and investigation of severe cases and deaths from schistosomiasis (27.7%). Still on this axis, a deficiency in the recognition of severe forms of schistosomiasis, in the classification of risk areas through maps and sketches, in the epidemiological delimitation (sample survey), in the regular sending of information to the geres, as well as the failure to contemplation of PCE actions in the PMS.

As well as some criteria contributed to the final result of the evaluation of the process, such as: holding of periodic meetings (50%); recognition of its role as an implementing agent of permanent education actions (72.2%), both in the permanent education axis; planning and monitoring for the delivery and collection of pots to be carried out by the ACE (72.2%), monitoring and support in the control of cure of confirmed cases with the ACE (72.2%), planning of the actions of the PCE together with the ACEs (55.5%), evaluation and monitoring of the impact

of actions taken to combat schistosomiasis (72.2%), supply and distribution of supplies and medicines (50%) and health education activities with the community (61.1%).

The greatest loss in the score was largely due to the activities that competed with the axes of integrated/intersectoral actions and that of community mobilization and social participation, both with incipient and non-implemented results. Among these, only the "carrying out health education activities" was partially implemented (61.1%) as already mentioned. On the other hand, in the area of continuing education, training according to needs and with a view to updating behaviors before the PCE was only mentioned by 38.8% of them.

DISCUSSION

The random selection of the 23 cities in the study and the use of the model object concept allowed visualizing the different situations of implementation of control actions carried out by the coordinators of the PCE. Random sample composition methods effectively contribute to the external validity of a study, allowing us to say that the conclusions drawn from it are also true for other contexts. However, for evaluative studies, the guarantee of external validity does not end with obedience to this principle, since, according to Hartz (1997), it alone does not answer how much and how the actions targeted by analysis are implemented within the context for which they are being analyzed. were drawn.

In these cases, theory driven evaluation is used, which aims to treat programs both in their multiplicity and uniqueness, considering the way in which the logical hierarchical relationships existing between structure, process and result occur (HARTZ; 1997; DENIS, CHAMPAGNE, 1997). In this study, therefore, the presence of the first factor conferring statistical validity and

COMPONENT	CRITERIA	%	POINTS
Actions of PCE coordinators	• Conducts training according to the needs and with a view to updating the conduct before the PCE;	38,8%	0
	• Holding of periodic meetings (planning, case discussion, sharing of experiences, study seminar, teleconference);	50%	1,92
	• Recognition of its role as an implementing agent of continuing education actions;	72,2%	1,92
	• Planning and monitoring for delivery and collection of pots to be carried out by ACE	72,2%	1,92
	• Monitoring and support in carrying out the cure control of confirmed cases with the ACE	72,2%	1,92
	• Monitoring and control of the flow of test results from confirmed patients who participated in the coproscopic survey, with the • ACE, for treatment	77,7%	3,85
	• Support in capturing and handling passive demand	94,4%	3,85
	• Planning of PCE actions together with ACEs	55,5%	1,92
	• Integrated actions in the fight against schistosomiasis together with Primary Care;	33,3%	0
	• Integrated basic sanitation actions together with other municipal secretariats (eg: secretary of cities, infrastructure, etc...)	33,3%	0
	• Knowledge about PCE	94,4%	3,85
	• Recognition of severe forms of schistosomiasis	38,8%	0
	• Mollusc vector control (collection and malacology)	0%	0
	• Planning of actions to combat schistosomiasis	94,4%	3,85
	• Classification of risk areas through maps and sketches	38,8%	0
	• Conducting census coproscopic surveys	94,4%	3,85
	• Epidemiological delimitation (sample survey)	33,3%	0
	• Notification and investigation of serious cases and deaths from schistosomiasis	27,7%	0
	• Regular sending of information to geres	33,3%	0
	• Assessment and monitoring of the impact of actions taken to combat schistosomiasis	72,2%	3,85
• Supply and distribution of chemotherapy drugs and supplies	50%	1,92	
• Contemplate the PCE's actions in the PMS **	38,8%	0	
• Health education activities with the community	61,1%	1,92	
• Communication with AB for health education actions	16,6%	0	
• Partnership with other sectors of society for educational actions in schools (NGOs, churches, etc.)	16,6%	0	
• Discuss the issue of schistosomiasis in municipal health councils;	27,7%	0	
Total GI "process" (100 POINTS)			T = 36,54
INCIPIENT IMPLEMENTATION		36,54%	points

Table 2 - Distribution of the score received according to the evaluation criteria established for the IG of the 'process' dimension of schistosomiasis control actions carried out by the PCE Coordinator in Pernambuco, 2010 - 2012.

Source: Own elaboration.

the second, analytical validity is verified, which implies that the conclusions about the implementation of control actions carried out by the coordinators of the PCE observed can be valid for both Pernambuco and to other states where schistosomiasis is endemic.

The focus given to the study of the work process of the PCE coordinators has its justifications based, on the one hand, on the strategic importance of this actor as an implementing agent of the multidisciplinary approach to schistosomiasis within the municipality and, on the other hand, on the postulate that the results achieved by any interventions in the health area are, to a large extent, consequences of the processes (OLIVEIRA; CASANOVA, 2009). This approach was, therefore, adequate and timely when considering the multicausality of schistosomiasis and the consequent need for a multidisciplinary and cross-sectoral approach to its control.

The low level of implementation of schistosomiasis control actions carried out by PCE coordinators in Pernambuco can be explained by the fact that most of the activities contained in the main documents that govern schistosomiasis control field actions were elaborated within a conception that has its roots in the work methodology proposed by the extinct Superintendence of Public Health Campaigns (Sucam) (BRASIL, 1998). It is known that, to the detriment of this method of action having its place guaranteed within the history of schistosomiasis control in Brazil, such actions occur in a centralized and vertical way, which causes conflicts at the end of the system due to the difficulties of integration with other activities of the health services (PAIM, 2003) being, therefore, in disagreement with the guidelines of the Unified Health System (SUS) (QUININO et al., 2010).

In this study, they were recognized as the

implementing agents of permanent education actions, including periodic meetings with a view to planning, discussion of cases, sharing of experiences, study seminars, teleconference, as well as team training with a view to updates, but not realized as the ideal, which was reflected in the low percentages achieved. One of the main management functions of coordination is continuing education, because in addition to being an instrument for planning and evaluation in health, it provides opportunities for dialogue, critical reflection, problematization, construction and integration of new knowledge of the realities experienced at work, and can be viewed as tool for change and improvement of care (MEDEIROS et al., 2010).

A study by Carotta et. al. (2009) refer to the discussion of the historical problems of implementing permanent education actions, which have their origin in the rupture of the general didactics that subverts the existing norms of traditional pedagogy and that, therefore, require greater availability and commitment from the actors to plan the actions, when leaving the comfort zone and bringing to reflection the difficulties that make the execution of actions unfeasible.

Related to this, there is the knowledge that the fragility of the information and the absence of the practice of what is presented in the theoretical field, makes it impossible to guide the control measures effectively, for each location, as well as allowing an incorrect interpretation of the attributions that each professional performs in the process of the transmission cycle and sequelae of the parasitosis (BRASIL, 2008).

Corroborating the results of this research, Grando and Dall'Agnol (2010) emphasize that these group meeting processes, when carried out, are basically intended for the exchange or transmission of information of a technical nature, with little mention of situations in

which critical discussion is exercised in around problems and needs of the team and the population in the search for collective consensus.

Regarding the practice of coordinating the actions of other professionals (ACE's), there is a wide spectrum of activities that need to be guided, monitored and evaluated and that, according to the findings of this study, are not being carried out in their entirety. It is necessary to guide, supervise and coordinate activities within the territory. With regard to the control of schistosomiasis in a specific way, this function is expressed in the 'Primary Care Notebook', n° 21 (BRASIL, 2008, 2011; OLIVEIRA et al., 2012). There was a prioritization of administrative activities, such as the demands of attracting patients and follow-up with a view to treatment; the planning of actions between coordination and ACE's proved to be insufficient.

Knowing that the epidemiological surveillance of schistosomiasis encompasses population protection practices, in addition to the individual, its aim is to minimize the prevalence of infection, avoid or reduce the occurrence of severe cases and deaths and end the expansion of the endemic, it is expected that adaptation of these technical actions usually occurs in health services (BRASIL, 2008). The initial step for such actions must be the epidemiological diagnosis, which is so necessary to determine areas of action through epidemiological delimitation (sample surveys), which are extremely necessary to determine the initial prevalence. They were only known and performed by 33.3% of the coordinators. Environmental recognition for classifying risk areas marked on maps and sketches was well below expectations (38.8%). Control actions for host molluscs did not exist, and the notification and investigation of severe cases were precarious.

These results are consistent with other studies, in which epidemiological knowledge is not used as a means of working to identify problems and define how to deal with them in the territory. Concrete interventions, which go beyond the medical-sanitary alternative, are implemented punctually and diverge from territorially based health surveillance, especially in the surveillance of environmental diseases, such as schistosomiasis (SILVA; SILVA, 2013; CARACIOLO et al. al., 2016).

It is observed that the lack of comprehensive vision, evidenced by the scarce knowledge about the disease (severe clinical forms) and by their inability to use their knowledge in favor of solving the problem of schistosomiasis, directly reflected in the actions carried out: privilege of diagnostic actions and treatment to the detriment of surveillance (including the planning and evaluation of actions), the result of a biological vision that still permeates its *modus operandi* (QUININO, 2015).

The results emphasize a worrying reality in which the actors do not have the required knowledge, although most (94.4%) reveal the knowledge of PCE, many were unaware of the severe forms of the disease. In other words, if these professionals did not show sufficient knowledge of the clinic and epidemiology of schistosomiasis, how can one expect the power of influence from them? Professionals with strategic functions such as the coordinator need to have basic knowledge to be able to operationalize the control of the disease and to guide others.

By being based on the principle of integrality and doing in health, the services, which must offer actions of promotion, prevention of risk factors, assistance for damages and rehabilitation according to the health-disease process of schistosomiasis, but focus on the treatment of patients with almost randomly (since there is no correct planning), without using the proper means

to understand the environment in which this individual is inserted, which culminates in the total lack of notion about where they must go. The control of schistosomiasis from this perspective is, therefore, practically unattainable (QUININO, 2015).

Finally, the actions of the axes of integrated/intersectoral actions and community mobilization and social participation that presented the worst results of the evaluation stand out; however, there the practices of health education showed comparatively reasonable percentages. It is known that environmental sanitation creates conditions that reduce the proliferation and contamination of intermediate hosts, with a consequent decrease in human contact with the pathogenic agent. These measures must be selected based on epidemiological criteria and their implementation made possible through agreements between different government agencies. Hence the importance of integration between the field of health and other departments (BRASIL, 2014; QUININO, 2015).

As endemic diseases are related to the way of life, practices and attitudes of populations, their control requires community involvement, health education and the strengthening of community mobilization. Therefore, health education must be based on personal contacts and the development of programs coordinated with other entities – government institutions, schools, churches and social organizations (BRASIL, 2014). This fact, findings of this study, is worrying, since the coordinator is one of the most important professionals in collective management to change the panorama of the social determinants of this disease considered as a reference in the municipality and directly responsible for the results achieved.

CONCLUSION

Given the above, it was possible to conclude that there is difficulty on the part of the coordinators about what is recommended for the effective control of schistosomiasis, as well as the integrality of surveillance actions. Despite all the existing normative apparatus and the progress achieved so far, there is still a tendency on the part of actors to maintain the characteristics of centralized, vertical and disintegrated health care models from the context of the population. When considering the relative variety of factors that make the work process difficult, the theorists of evaluation models are far from reaching a consensus on the explanatory variables of the implementation of an intervention (MEDINA, 2005).

However, in view of the results of this study, it is possible to make recommendations to strengthen the control of schistosomiasis by the coordinators, such as technical advice to be carried out by the regional coordinations of the PCE on the integral functioning of the PCE in the municipalities, as well as monitoring and evaluation visits. of actions; conducting joint in-service training (PCE coordinators, environmental health agents and AB) on field work and notions for the control and mapping of the mollusc vector, in addition to exploring the planning of actions based on concrete epidemiological and environmental data, stimulating the surveillance and assistance integration.

Therefore, it will be possible to envision greater repercussion and impact of these actions in the effective control of the disease and inclusion of schistosomiasis as a priority in the work process of these professionals.

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