Chapter 201

Teaching-learning process of Situational Strategic Planning, in the training of medical professionals, during the period of Emergency Remote Teaching, in the year 2020: An experience report



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ABSTRACT

Acute Chagas Disease presents an alarming epidemiological situation in the Northern Region of Brazil, mainly due to the perennial neglect of the forms of prevention and prophylaxis by the social agents responsible for public health. The curricular content of the medical school of the Federal University of Pará, includes the Longitudinal Axis of Integral Care for the Health of the Individual, Family, and Community, the teaching of Situational Strategic Planning, in the exercise of the programming of actions of health promotion and prevention of diseases and diseases. This experience report aimed, in a moment of Emergency Remote Teaching, to identify the importance of teaching-learning of this type of planning for medical students. In the course of the experience in applying the simplification of the planning method proposed by Artmann (2000), there was great adherence from the students, as well as an approach to the formatting of an Intervention Project where the operations and actions thought were based on the goals of positive alteration of the indicators that declared the problem. the leading role in the literature review, for knowledge of acute Chagas disease and its epidemiological surveillance. As well as in the elaboration of the program, brought them closer and thought about humanized care and exercise proactivity, and let the sensitivity to the surface circumvent the local problems that can hinder the work focused on the well-being of a Community.

Keywords: Health Planning, Health promotion, Medical education.

1 INTRODUCTION

The struggle for the right to health was made possible, in 1988, with the promulgation of the Magna Carta, the implementation of the Unified Health System (SUS), with the guiding principles of universality, equity, and integrality. Based on these premises, the curricula of health courses have undergone several changes over the years, to make professionals capable, among other skills, of promoting the process of health integrally, through effective actions that develop dialogue and interaction of students with the community and the sectors involved in Primary Health Care (PHC) (Brazil, 2014; Matta, 2007; Moretti-Pires & Bueno, 2009).

In the multidimensional scope of PHC, it is possible to distinguish two orientations: one at the macro level, in which several elements and actors involve organs responsible for the health of the population, and another at the micro level, according to which community participation is indispensable. The dynamics between these elements cause a great impact on the health-disease process, requiring the health professional the knowledge about the planning methodology that strategically integrates this web of relationships, which can contain several causes, related to each other, in addition to the involvement and action of different responsible for the resolution of problems as well as management (Rivera & Artmann, 2009; Pereira *et al*, 2020).

The Pedagogical Project of the medical course of UFPA provides in the Longitudinal Axis of Integral Care the Health of the Individual, Family, and Community (AIS) module III the teaching-learning of Strategic Situational Planning (PES) integrating the formatting of an intervention project (IP), which starts from the collective or situational diagnosis, to give sustainability to the execution of health promotion actions and prevention of diseases and diseases, maintaining the logic of teamwork, interinstitutional strategies and the need for the Community attached to the FHS, a practice scenario where the student is inserted.

With the global emergency of the CIVID-19 pandemic, considering the absence of specific protective measures such as vaccination, and being necessary to sustain social distancing to minimize the contact of people and therefore the transmission of the etiological agent and regulate the pressure of the demand for care in health units, both in the area of PHC, either in specialized outpatient clinics or in hospitals, UFPA complied with the determinations of the health sector and ensured from the second half of 2020, and throughout the year 2021, the resumption of classes in the modality of Emergency Remote Teaching (ERE), where theoretical classes were performed online and practices through visibility of films and tutorials available in digital media, thus leaving students in contact with the contents of the modules of each Longitudinal Axis, and the experience of using creative ways to expand knowledge strategically minimizing the possible losses of the absence of face-to-face classes.

In this particular study, which occurred during the period of social distancing, the classes through the ERE were developed to ensure the teaching of learning of the SSP method combined with the development of skills, knowledge of scientific training, knowledge of health promotion activities, and prevention of diseases and injuries in the context of PHC with knowledge of management and proactivities for the actions that should guide the routine of the FHS. Thus, the work began with the construction of the situational diagnosis of the health disease process of the community of Riacho Doce, located in the neighborhood of Guamá in the municipality of Belém, and the need to develop an IP focused on health promotion actions on Acute Chagas Disease (ACD), which is classified by the World Health Organization (WHO) as a neglected tropical disease, emerged, which had a high incidence in the Northern Region, with the oral route of transmission as the main route of transmission (Vilhena *et al.*, 2020).

In the state of Pará, from 2010 to 2017, 1,515 confirmed cases of DCA were reported. Due to this high occurrence, it is verified the relevance of the teaching-learning process to contemplate such knowledge on the subject, as well as the importance of this knowledge to prepare future health professionals to cope with this disease, considering that the food culture of the population of Pará is of consumption of açaí juice, minimally in one of the daily meals, produced by artisanal beaters of açaí, and whose juice is responsible for almost all forms of infection in Pará, (Dias *et al.*, 2015; Silva *et al.*, 2020; Vilhena *et al.*, 2020).

Under this aegis, the present study deals with a report of experience lived by students and professors of the medical course, of the Federal University of Pará (UFPA), on the teaching-learning process of the PES methodology to be performed at the local level.

2 METHODOLOGY

This is a descriptive study that deals with the experience report of medical students when formulating an IP using the PES methodology. This IP presented the main focus of action in the process of the care network for people with ACD, from the FHS of the Riacho Doce Community located in the Guamá neighborhood, municipality of Belém do Pará (Rivera & Artmann, 2009).

The manuscripts organized in the form of an experience report describe a certain fact of the individual experience or a certain group/professionals about a given situation. This is not original research, but exploratory features are essential. Because it is a descriptive text it is necessary to thoroughly bring the details of the experience, so that other people can also replicate it in their practices, or serve as inspiration for other professionals in the same area (Dos Santos *et al.*, 2018; Cassarin & Porto, 2021). This method brings contributions to teaching, aiming at the resolution or minimization of the problems evidenced in practice (Cortes *et al.*, 2018). The experience took place in the Riacho Doce Community, located in the Guamá neighborhood, in the municipality of Belém, state of Pará. This Community is part of the area assigned to the ESF Riacho Doce, which has 2 teams composed of a Doctor, 2 Nurses, 2 Nursing Technicians, and 16 Community Health Agents (CHA). It is the practice scenario of the Longitudinal Axis of Integral Health Care of the Individual, Family, and Community (AIS) of the medical course of UFPA.

The PES, a methodology developed by economist Carlos Matus, is a well-designed tool capable of facilitating the understanding of the complexity of the challenges faced in health and of developing strategic intervention plans for health issues. It is a problem-based method, described by selected indicators,

composed of four specific moments of execution, to allow the organization of interventions to the obstacles addressed and the production of results on a given reality within a situational strategic plan (Kleba *et al.*, 2011).

The SSP begins with the explanatory moment, in which the problem is selected by the participants, described or declared by the indicators, and explained from the network of causalities of the immediate, intermediate, and background causes. Each cause at any of the three levels is called a critical node. It is necessary to specify the actors involved in the occurrence of this problem and in the process of resolving it. The second moment, called normative, is when the definition of objectives, operations, and actions to be programmed to be carried out occurs, based on the choice of the critical node, which when selected, provides the opportunity to solve the problem and change the descriptor indicators, contributing to the existing situational change in search of a new situation, intended, about the conjuncture of the work plan elaborated (Rivera & Artmann, 2012; Pereira *et al.*, 2020).

In the third moment of the PES, called strategic, there is the visualization of the evaluation proposal and the planning of the viability of the actions, analyzing the political and administrative-economic resources available, identifying if there is a conflict of interest between the responsible actors, creating interventions and organizing a temporal sequence of actions to make them feasible. Finally, the fourth moment, defined as tactical-operational, is when the implementation of actions occurs, along with a constant monitoring plan and possible adjustments to ensure the effectiveness of the expected result (Birchal *et al.*, 2012; Muller *et al.*, 2021).

To use the methodology of the PES it is necessary to have a collective diagnosis of the territory that will undergo improvements through the planning process, which can be through a situational study with knowledge of the epidemiological profile identified by quantitative and qualitative indicators of the demographic and territorial area, contemplating the technological resources and the institutions present (Silvia *et al.*, 2016; Rivera & Artmann, 2012).

In the year 2020, in a full course of the Covid-19 pandemic, the semester in ERE for medical students, of the Federal University of Pará (UFPA), in the Longitudinal Axis of Integral Health Care of Individuals, Family and Community (AIS), in module III, ensured the teaching-learning of the methodology of Situational Strategic Planning (PES), formatted with health promotion interventions in an Intervention Plan (IP), to be developed in the practice scenario of the Riacho Doce Family Health Strategy (ESF - RD), located in the Administrative District of Guamá (D'AGUA), in the municipality of Belém, state of Pará, where the main campus of UFPA is located. With the occurrence of the international health emergency of the COVID-19 pandemic, in-person classes and practices have been suspended due to the requirement of social distancing.

The students in classes in the ERE modality, followed the teacher's orientations assisted by student monitors, to perform, in each period of the virtual class, a strategic moment of the construction of the PES,

as well as the bibliographic review on the subject selected to work, and the organization of the document produced in an IP project.

Thus, the objective of this experience report was to describe the steps developed by the students to ensure the learning of the elaboration of an IP based on the PES.

3 RESULTS AND DISCUSSION

In Belém, in 2020, the study scenario, there were 52 FHS units, distributed by neighborhoods that make up the city's Administrative Districts. Each FHS, with defined assigned territories, is composed of one or more multidisciplinary teams. The starting point of the IP was the ESF Riacho Doce, which presented two interdisciplinary teams composed of 2 Physicians, 2 Nurses, 2 Nursing Technicians, and 15 Community Health Agents (CHA) to cover 16 micro areas demarcated territorially.

The construction of the IP began with a bibliographic review of DCA and PES, as well as the analysis of qualitative-quantitative indicators for the knowledge of the epidemiological situation of the area to be worked.

For the analysis process, within a situational context of well-structured and non-structured or quasistructured problems, it was necessary to observe the action as an actor of the plan, endowed with governability over the problems, since the IP was elaborated in a period that the semester was executed in the ERE modality. Thus, the main actors, represented by the medical students, with a keen eye, reflexively analyzed the situation from the macro environment to the microenvironment, revealing the causes and consequences of the epidemiological and social reality experienced in the Riacho Doce Community, given the situation of DCA control so that the prioritization of the problem to be solved was within the required governability (Provenzano *et al.*, 2014; de Oliveira *et al.*, 2020).

The basic importance of the epidemiological knowledge of DCA for situational analysis was attested. The obtaining of the data and the understanding of these allowed the students the strategic vision of the problem and the creation of adjuvant tools of this process, such as the Explanatory Network to outline the operations and actions resolutive to the identified problems. For Integral Health Care, clinical-epidemiological reasoning is a strategy that raises the standards of training and practice of medical professionals, as it actively contributed to the identification of health needs, the prioritization of problem selection, and the elaboration and implementation of resolution plans for the situations encountered. It was noticeable and fundamental that the student can use and value secondary data to understand the sociosanitary context, relate data and information with biopsychosocial, economic, and cultural aspects, prioritize the selection of problems, define intervention strategies, and monitor the effects of the actions that are being developed (Souza *et al.*, 2020).

In the explanatory moment, for the selection of the problem, the methodological process was the *brainstorming* technique starting from two questions: "What are the problems that are delimited from the vector epidemiological situation of DCA in Pará?" and "What is the relevant problem in the municipality

of Belém, still little evidenced, by the recent measures of disease control?". Regarding the first question, the group observed that the epidemiological profile of ACD exhibited a situation in which neglected populations in the age groups of 20 to 39 years and 40 to 59 years were the most affected. The crucial role of the form of oral contamination through contaminated food was also attested, coinciding with the increase in reported cases with the seasonality curve of the supply of açaí juice, produced in an artisanal way (Vilhena *et al.*, 2020). Regarding the second question, the group defined the two most relevant problems, namely: there was no evidence of post-discharge medication follow-up for at least five years in patients with ACD, and the maintenance of the high rate of contamination by açaí juice, food that makes up the menu of Pará.

The protocol established for the follow-up of patients sick with ACD provides that the individual is followed for five years, after discharge from drug treatment, to monitor the evolution of the disease and avoid its chronification (Souza & Monteiro, 2013). With the increase and systematization of this practice, which can and should be performed through PHC, for residents in the area attached to the FHS, it is possible to avoid an increase in cases of Chronic Chagas Disease (CHD). On the other hand, the understanding of the process of dissemination of the disease, by food or orally, with açaí juice as the main food involved in the contamination process, allowed us to realize that the development of health promotion activities and specific protection will be able to help and benefit the fight against DCA.

To explain the prioritized problems, the *brainstorming* technique was used again with the key questions: "What are the causes of maintenance of these problems?", "What determines the occurrence of this?" and "What are the consequences for these problems?". The answers to these questions allowed the identification of the descriptors related to the two prioritized problems (**Chart 1**) and to create of an explanatory network capable of relating the problems highlighted in the previous table (**Figure 1**). From this initial process, it was possible to relate the actors involved, both concerning the cause of the problem and its resolution, with the critical "nodes" selected and presented in the IP (**Chart 2**).

Table 1. Prioritized problems relating the descriptors and control indicators of DCA, in the area attached to the ESF Riacho

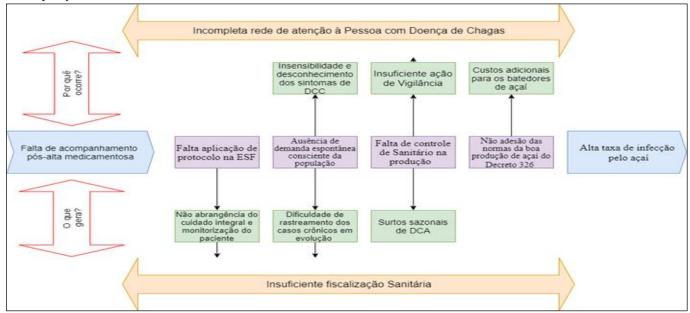
Doce, in the Guamá neighborhood, municipality of Belém, state of Pará, 2020.

Problems/Prioritized	Descriptors	Specifications
The continued non-follow-up of infected individuals after medication discharge.	D1- Zero percentage of compliance with the protocol for monitoring cases of DCA, after medication discharge, by the FHS team. D2- Zero percentage of community knowledge about the forms of DCA transmission. D3- 5% of activities according to the flow of reference and counter-reference in the Health Care Network (RAS) of the municipality of Belém.	*Absence of data and reports on the situation. *Low community awareness about DCA and the need for post-discharge drug follow-up. *Non-compliance with reference and counter-reference between the RAS service.
High frequency of cases of DCA, contaminated orally, through the consumption of acai juice, whipped by hand.	 D4- Lack of sanitary control in the artisanal production of açaí juice. D5- Non-adherence to the norms of good production of food handling (açaí juice), provided for in Decree 326 of the state of Pará. 	*Deficit in the inspection by the Sanitary Surveillance of the Municipal Health Department. *Absence of a social program on financing for artisanal beaters of açaí juice, which aim to ensure the methodology of bleaching the fruits aiming at decontamination.

Source: IP Authors, 2020.

In Table 1, it is possible to observe the specification of the prioritized problems, the indicators that describe the problems and the specifications for this critical framework on the selected indicators.

Figure 1. Explanatory network relating the two problems prioritized on DCA, in the area attached to the ESF Riacho Doce, municipality of Belém, state of Pará. 2020.



Source: IP Authors, 2020.

Figure 1, which expresses the explanatory network between the main descriptor indicator and the various causes of the selected problem, is linked to two important points, namely: An incomplete network

of care for people with DCA and Insufficient sanitary execution (supervision) based on good practices and food handling.

After the elaboration of the explanatory network, the "critical nodes" were selected, and the actors involved in the control of these "critical nodes" were listed.

Table 2. Relationship between the Critical Knots and the Control Actors involved in the IP over DCA in the area attached to the

ESF Riacho Doce, municipality of Belém, Pará state, 2020.

We Critics	Actors involved in Control
NC1: Insufficient follow-up of individuals who had DCA after drug discharge.	Marcos Saulo Salviano Santana and Waltair Maria Martins Pereira.
NC2: Deficit of Health Promotion work for the community.	Joyce Pantoja Braga, Letícia Vitória Garcia Miranda and Waltair Maria Martins Pereira.
NC3: Lack of mapping and monitoring of artisanal acai juice beaters.	Marcus Victor Balieiro Cunha, Ianka Aquino da Silva, Leidiana de Jesus Silva Lopes.
NC4: Insufficient knowledge of the population about the form of DCA contamination, the signs, and symptoms of DCA, in addition to the need for follow-up after drug discharge, to avoid CHD.	Marcos Saulo Salviano Santana, Yuri Fadi Geha and Waltair Maria Martins Pereira.

Source: IP Authors, 2020.

It is important to note in Chart 2 that the main critics are linked to the student and teacher actors who can stimulate activities to articulate the other actors present in the territory, or even the intersectionality for the resolution of the problems.

In the normative moment, the cause-consequence effect analysis made it possible to identify the convergent cause and the convergent consequence, which represented the origin of the problem. This information, together with the two general objectives, was the input for the construction of the Explanatory Network of Causes. From this, it was possible to define the respective operations and actions for each objective. In the continuity of the elaboration of the IP, the next step was to define the operations and actions that aim at positive results for the critical node, it was decided to elaborate an Operative Front (FO) for each problem, FO-1 (Chart 3) and FO-2 (Chart 4).

Table 3 (F.O-1). Implement the systematic follow-up of individuals who had diagnosis and treatment for DCA, for five years

after treatment, living in the Riacho Doce Community, Municipality of Belém, state of Pará. 2020.

Share	Scheduled Goal	Expected Product	Predominant Features	Accountable
Identify individuals who had ACD and are registered in the FHS of Riacho Doce.	Analyze the physical and virtual medical records of patients and define the analysis criteria.	Integration with the reference hospital and/or Evandro Chagas Institute (IEC) for bimonthly assistance of the review and follow-up of medical records of DCA cases.	Organizational; Cognitive;	Marcos Saulo Salviano Santana, Joyce Pantoja Braga, Yuri Fadi Geha and Waltair Maria Martins Pereira.
Perform home visits in the micro-areas to identify who has been diagnosed with ACD in the last 4 years.	Cover all the residences of the 16 micro-areas of the area assigned to the ESF Riacho Doce.	Mapping of visits by FHS CHAs and UFPA medical students to identify diagnosed cases and those who underwent treatment for ACD. Health promotion on food handling.	Organizational; Cognitive.	Marcus Victor Balieiro Cunha, Ianka Aquino da Silva, Leidiana de Jesus Silva Lopes.
Create a unified database to be consulted and fed by health institutions.	Create a database with Excel software and enter the data collected from all the actions that are performed with the DCA cases.	Integrate the demographic and epidemiological information collected and facilitate access to the bank by the institutions that make up the RAS of the municipality of Belém.	Organizational; Cognitive;	Marcos Saulo Salviano Santana, Yuri Fadi Geha and Waltair Maria Martins Pereira.
To train, regarding the surveillance of the DCA, the students and the teams of the ESF Riacho Doce.	To enable 11 students, 16 CHA, 2 Nurses and 2 Nursing Technicians.	Prepare 31 people to carry out health surveillance activities for the control of ACD.	Organizational; Cognitive.	Marcos Saulo Salviano Santana, Joyce Pantoja Braga, Yuri Fadi Geha, Ianka Aquino da Silva, Leidiana de Jesus Silva Lopes and Waltair Maria Martins Pereira.
Carry out health promotion actions and follow-up control, so that all cases are treated as DCA.	Carry out health education activities in strategic locations in the CRD, informing about the DCA. Sensitize health professionals to perform five-year control of each individual notified as DCA.	CRD residents are sensitized about the form of contamination and prevention of DCA. FHS professionals, students and professors from UFPA, are sensitized to comply with the protocol for monitoring DCA cases.	Organizational; Cognitive; Financial;	Marcos Saulo Salviano Santana, Joyce Pantoja Braga, Yuri Fadi Geha, Ianka Aquino da Silva, Leidiana de Jesus Silva Lopes and Waltair Maria Martins Pereira.

Legend: CRD= Sweet Creek Community Source: IP Authors, 2020.

In Table 3, it can be observed the first operation and the actions scheduled for the resolution of the "critical nodes" identified and selected, as well as the goals to be achieved, the expected products at the time of programming, the resources that will be predominant and the actors responsible for the success of the execution of the scheduled actions.

Table 4 (F.O-2). Expand sanitary surveillance activities to reach artisanal acai juice beaters. Riacho Doce Community, Belém, Pará State. 2020.

Share	Scheduled Goal	Expected Product	Predominant	Accountable
		-	Features	
Register the artisanal beaters of açaí juice.	Organize the schedule and protocol of visits to be carried out by the ACS and ACE; Register 100% of CRD's artisanal acai juice beaters.	All artisanal acai juice whiskers are registered.	Organizational; Cognitive;	Marcos Saulo Salviano Santana and Leidiana de Jesus Silva Lopes.
Sensitize and enlighten artisanal acai juice whiskers about the effective measures of good food handling practices. Educational campaigns of the FHS for the community, in vehicles of information accessible to the community.	100% of artisanal beaters of açaí juice are sensitized and instructed on the good practices of food handling.	100% of artisanal acai juice beaters are sensitized about the need to comply with Decree 326 of 01/20/2012, which establishes the rules on the artisanal processing of açaí and bacaba, in the State of Pará.	Organizational; Cognitive; Financial.	Marcus Victor Balieiro Cunha, Ianka Aquino da Silva, Leidiana de Jesus Silva Lopes.
Promote the technical training of students, the ACS and ACE, to work in FO – 2.	To enable 11 students, 16 ACS and 05 ACE to act directly in the proposal of registration of artisanal beaters of açaí juice and to carry out Health Promotion actions.	Students, ACS and ACE qualified to work in PO – 2.	Organizational; Financial.	Waltair Maria Martins Pereira and Leidiana de Jesus Silva Lopes.

Legend: CHA = Community Health Agent; ACE= Community Agent of Endemics; CRD= Sweet Creek Community. Source: IP Authors, 2020.

In this Table 4, it can be observed the second operation and the actions scheduled for the resolution of the "critical nodes" identified and selected, as well as the goals to be achieved, the expected products at the time of programming, the resources that will be predominant and the actors responsible for the success of the execution of the scheduled actions.

At the strategic moment of the IP, the feasibility and feasibility of the operations and actions were analyzed, as well as the most logical temporal sequence for the chain of actions determined at the normative moment. Each FO was analyzed, taking into account the actors and resources involved to then define the possible obstacles and alternative actions that can be used to circumvent the problems, when necessary (**Chart 5**). Even at that moment, the sequence of the trajectory of more logical and feasible actions was defined, considering an order that favors the systematic progression of power from the most consensual to the most conflictive actions.

Table 5. Conditions of vulnerability, involving actions, obstacles, and alternative actions, for the realization of the Intervention

Plan, in the Riacho Doce Community. Municipality of Belém, State of Pará, 2020.

Actions	Obstacles (OB)	Alternative Action (AA)
Seek integration with the outpatient clinic, with the referral hospital and/or IEC, to ensure annual assistance of review and follow-up of cases treated for DCA.	OB.1- Difficulties in the institutional support of these sectors.	AA.1- Discuss the importance of IP with the Institutions and the benefit of it to serve as a pilot plan for implementation in all FHS of the municipality of Belém.
Mobilize the FHS teams of the territory to map the patients who did not undergo the APAM.	OB.2- Non-execution of the follow-up protocols that will be formulated.	AA.2- Meeting with the managers of the Institutions involved to convince the implementation of the work process provided for in the IP.
	OB.3-Insufficient teams for the execution of activities that cover all the micro areas of the CRD.	AA.3- Cooperative negotiation with the available teams to map the territories not covered.
Conduct training for the team to review the physical and electronic medical records.	OB.4- Non-adherence of the team to the moments of training and work of reviewing the medical records.	AA.4- Mobilize FHS managers to use convincing with the CHAs and ACE.
Integrate the epidemiological information collected into a single database that can be shared for better monitoring of the situation.	OB.5- Lack of sufficient means to integrate the activities between the various institutions that attend clinical cases of DCA.	AA.5- To sensitize the Health Department of the Municipality of Belém and UFPA, as a training device for health professionals, to effect the integration of the Institutions and to favor the use of an integrated database.
Perform the single registration of artisanal scouts of açaí juice from all territories attached to the FHS teams in the D'Água District of the municipality of Belém.	OB.6- Low adherence of the Municipal Health Department, to support the execution of the IP. OB.7-Lack of members to constitute the health teams, to carry out the registrations of the artisanal beaters of açaí juice in the areas attached to the ESF of the Water District of the municipality of Belém.	AA.6- Meeting with the Secretary of Health to develop cooperative negotiation, and assist in convincing the teams for the development of IP AA.7- Cooperative negotiation and persuasion to get help from the available teams, or adhesion of more students for the development of the activities.
Sensitize artisanal beaters of açaí juice about the need to comply with Decree 326 of 01/20/2012 that establishes the rules on the artisanal processing of açaí and bacaba in the State of Pará.	OB.8- Non-cooperation of local popular leaders and organizations for the engagement and participation of artisanal scouts of açaí juice in the scheduled educational events.	AA.8- Mobilize the ACS and ACE for direct contact with the artisanal scouts of açaí juice in the territory attached to the ESF in the D'água District; AA.8.1 – Encourage the maintenance of the protocol contained in Decree 326 of 01/20/2012, which establishes the rules on the artisanal processing of açaí and bacaba, in the State of Pará, with performance awards among artisanal beaters of açaí juice.

Legend: APAM= Post-Drug Discharge Follow-up; CRD= Sweet Creek Community; ACE= Community Agent of Endemics. Source: IP Authors, 2020.

Table 5 explains all the obstacles to the implementation of the programmed actions as well as the alternative actions that can be used to circumvent the obstacles and strategically execute the actions that aim to solve the "critical nodes".

At the operational tactical moment, the implementation of the IP was articulated to produce the expected results and achieve the objectives set. For monitoring and evaluation, which must be constant, it was proposed to create the Accountability Petition System with the defined deadlines and attendance regularly monitored to monitor the results and to reevaluate new actions within the situational perspective. It was also necessary to elaborate a Leader's Agenda, in which the student group and the teacher and the group constituted by the FHS team (as leaders at the local level) will give the initial start to the IP.

It is also important to mention that by opting for the Leader's Agenda, it will be possible to have the time correctly to delegate the execution of operations and actions, as well as important issues to all actors involved in the implementation of the IP.

Through the establishment of the IP Monitoring and Evaluation System, a process that should be linked to at least two variables: the operational execution and the change of the problem situations to be measured through the pre-defined descriptors, if no positive change in the problem situations is observed, will indicate that the operations were insipient or were formulated in a wrong way and, then, there will be a need for reformulation, correction and readjustments considering the different moments of the IP (Rivera & Artmann, 2009).

The Pedagogical Project of the Medical Course of UFPA has been in force since 2010 and follows the Law of Guidelines and Bases of National Education (LDB) – Law No. 9,394 of 12/20/96 and its changes and regulations in the Curricular Guidelines of the National Council of Education (CNE) (Brasil, 2010).

As a commitment of the Medical Course of UFPA, it is foreseen that in the training of professionals, there are competent purposes for the resolution of the health problems of both the individual and the collectivity, with a humanistic and ethical vision, so that the conduct of health care, especially local and regional, is of excellence, as provided for in the norms and definitions of the SUS. Thus, the scenario of practices mainly for the Longitudinal Axis of Integral Health Care of Individuals, Families, and Community (AIS), occurs in the Health Care Network (RAS), respecting the complexities necessary for care, health promotion, and prevention of diseases and diseases, specifically in the Family Health Strategies (FHS), a unit considered the gateway to the HCN (Brazil, 2010).

In module III of the Longitudinal Axis of AIS, the teaching-learning of Situational Strategic Planning (PES) is foreseen as part of assuring the medical professional the approach of multidisciplinary work, the humanization of care, the resolution of problems that impact the health of a community defined in a specific territory and the development of management skills, health teams needed (Brasil, 2010).

The complexity of PHC and the semi-structured or unstructured problems frequent in the health-disease process of a Community, require that the resolution of problems be addressed through the methodology of the ESP, which is the problem-based method, described by selected indicators, which

follows the specificity of four distinct moments of implementation, to allow the organization of interventions to the problems addressed and the production of results on a given reality, within a situational strategic plan (Kleba *et al.*, 2011).

Regarding the construction of the IP based on the ESP, it was clear that the ability to lead was linked to the function of one of the actors involved in the IP and to the act of constructing and planning the actions within each of the four moments of execution of the PES. In PHC, the health-disease process addresses the facts and values simultaneously, which requires the mastery of planning by the teams, including by the physician who is usually the leader in the coordination of actions, a fact that corroborates the need for this professional category to be properly trained, to streamline the activities in an interdisciplinary team (Junges *et al.* 2015).

It was observed by the authors that the act of exercising leadership in the process of construction of the SSP occurred fully at all times of the elaboration of the IP, involving each specific moment of the students in the teaching-learning process of this methodology. From the basis of active communication between the teaching and student actors through virtual means, it was possible to analyze the DCA problem and decide which intervention actions to list for the positive change of this scenario in the Riacho Doce Community, in the municipality of Belém, state of Pará, considering the use of *software* that enabled the application of active methodologies, such as the mind map, the *Padlet* and the *google forms* (Pereira *et al.*, 2021; Guss *et al.*, 2020). It is important to make it clear that leaders must be able to develop a vision and outline the goal well, as well as align the vision with the work team, conducting it in a way that facilitates the cooperation of members in favor of achieving the proposed objectives (Provenzano *et al.*, 2014).

4 FINAL CONSIDERATIONS

This experience of the teaching-learning process made it possible to identify that the PES methodology proved useful to help the authors to organize and prioritize the problem situations of the DCA in Belém, in search of the causes and consequences, aiming to build the IP, which included the operations and actions within the governability of the actors, for the execution. In this process, the development of situational analysis to identify the problems and possible effective interventions on them required the authors to have leadership skills, teamwork, efficient communication and decision-making based on the epidemiological context of the DCA, knowledge of the territory where the FHS was located, the actors of the institutions present in the territory and the methodology of the PES (Silva *et al.*, 2016).

Following the operational methodology proposed by Artmann (2000), which approximates, for the local level, the PES technique idealized by Carlos Matus, facilitated the understanding of the methodology and idealization of operations and actions for the resolution of the situation declared by the indicators on the control of DCA in the Riacho Doce Community because it is a simplification in 4 moments, temporally aligned the execution of the entire planning process.

The contribution of this experience to the training of medical professionals is expressively forceful concerning the development of competencies and skills required for the organization and management of the health services of Primary Health Care (PHC), as well as for the social responsibility required of each medical professional regarding the exercise of their future activities. The impact of the teaching-learning process of this theme was remarkably positive.

Reports of experience of the teaching-learning process of the medical professional centered on active methodologies, as well as the experience of students in the learning of the PES focused on the most capillary locations, covered by the FHS, should be stimulated and valued because it will serve as a vector for other teams to stick to experience this form of teaching-learning that has been markedly more engaging and more significant for the students and for the Community itself, which notes that the programs aim to meet local demands to assist in the process of solving the problems that afflict this Community as well as directs medical professionals to the proactive activities of reorganization of the Care Network (RAS) in the PHC segment, in a more concrete way.

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Development and its applications in scientific knowledge

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