

# Social Mobilization in Health and Sanitation in an Action Research Process in an Indigenous Community in Northwestern Amazon

## Mobilização Social em Saúde e Saneamento em Processo de Pesquisa-ação em uma Comunidade Indígena no Noroeste Amazônico

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## Resumo

As condições de vida dos habitantes de Iauaretê, área indígena no município de São Gabriel da Cachoeira, AM, têm sido afetadas negativamente devido à concentração populacional, ao precário saneamento e à manutenção de práticas sanitárias incompatíveis com essa realidade, sendo desejável, para melhoria da qualidade de vida da população, a implantação de sistemas de saneamento adequados às características socioculturais locais e a utilização de processos educativos com ênfase na mobilização social e no fortalecimento comunitário (empoderamento). O objetivo deste texto é relatar e discutir um curso de formação em saúde e saneamento, utilizando como estratégia a pesquisa-ação, voltada para a mobilização dos indígenas de Iauaretê, visando subsidiar outros estudos dessa natureza. Nos encontros foram abordados temas relacionados à saúde ambiental, construiu-se um Jornal Comunitário, os participantes do curso aplicaram entrevistas e elaboraram documentos reivindicatórios. Essa experiência propiciou aos participantes maior compreensão da problemática local e da importância da mobilização social para a interlocução com instituições governamentais responsáveis pela oferta de serviços de saneamento e para a busca de melhores condições de vida; aos pesquisadores e docentes do curso, a construção de um saber coletivo resultante da interação com os sujeitos da situação investigada, bem como pelo reconhecimento e ressignificação das representações destes, atendendo premissa fundamental da pesquisa-ação.

**Palavras-chave:** Mobilização social; Participação popular; Pesquisa-ação; Saneamento; Comunidade indígena.

## Abstract

The living conditions of the inhabitants of Iauaretê, an indigenous area in the municipality of São Gabriel da Cachoeira, State of Amazonas (Northern Brazil), have been negatively affected by population density, poor sanitation and maintenance of sanitation practices that are incompatible with that reality. To improve the population's quality of life, sanitation systems that are adequate to the local socio-cultural characteristics should be implemented, as well as educational processes with emphasis on social mobilization and community empowerment. The aim of this paper is to report and discuss a training course on health and sanitation using action research, directed to the mobilization of the Iauaretê indigenous people, with the objective of assisting other studies of this nature. In the meetings, issues related to environmental health were discussed, a Community Newspaper was constructed, the course participants made interviews and drew up claims documents. This experience has enhanced the participants' understanding of local problems and of the importance of social mobilization for the dialogue with governmental institutions that are responsible for providing sanitation services and for seeking better living conditions. The researchers and teachers of the training course benefitted from the construction of collective knowledge resulting from interaction with subjects of the investigated situation and from the recognition and redefinition of their representations, fulfilling the fundamental premise of action research.

**Keywords:** Social Mobilization. Popular Participation. Action Research. Sanitation. Indigenous community.

## Introduction

The present paper aims to report and discuss a training course on health and sanitation using action research, directed to the social mobilization of the indigenous people who inhabit the main village of the district of Iauaretê, in the municipality of São Gabriel da Cachoeira, State of Amazonas (Northern Brazil), with the objective of subsidizing and assisting other studies of this nature.

Action research is understood here as a participatory methodological strategy that articulates investigation and action with the direct involvement of the subjects of the investigated situation. By means of a cyclic process of reflection on research and action, new knowledge is produced and answers and solutions are collectively sought to the problems that are being faced (Barbier, 2002; Morin, 2004; Thiollent, 2011).

Located in *Terra Indígena do Alto Rio Negro*, on the Brazil-Colombia border, near the mouth of the Papuri river, in the mid-Waupés river, Iauaretê aggregates today, in its central area, ten indigenous communities, seven on the left margin of the Waupés river and three on the right margin, totaling 15 ethnicities, the majority of them of Tariano and Tukano origin (Andrello, 2004).

With a population of approximately 2,700 Indians in 2008, distributed over about 440 households, the main village of the district of Iauaretê presents characteristics of an urban nucleus, with the presence of one school that offers education up to Secondary School, a Border Platoon of the Brazilian Army and a Salesian Mission of the Catholic Church. Besides having some stores, it offers other services, such as telecommunications, generator-based electric power and a healthcare unit. Searching for these services, these Indians have migrated from small communities spread along the rivers mentioned above to the district's main village. Despite the small infrastructure that exists there and the contact with the surrounding society, the Indians who inhabit the place have established new forms of organization that, although often based on urban logics, maintain some specificities of rural areas, like manioc cultivation in itinerant farms, hunting and fishing. The latter is the basis of the Indians'

food, as the majority of the population obtains their means of subsistence by fishing (Andrello, 2004; Toledo et al., 2009).

However, the absence of basic sanitation systems, together with the alterations to the way of living, has brought serious health problems to the local indigenous population. Some of the sanitary practices adopted or performed by them, many of which due to lack of option, like consumption of contaminated water, waste accumulation and human waste disposal near the households and sources of water, among other factors, in an area where an increasingly large number of people is concentrated, have exposed the dwellers to environmental impacts and totally preventable diseases.

With this concern, by means of an action research process, a multiprofessional team acted in the area between the years of 2005 and 2006, with the aim of identifying socio-environmental and public health problems, of proposing improvements, and also of developing an educational process in accordance with the socio-cultural reality, in the sense of creating conditions for the Indians' achievement of autonomy and empowerment. In this period, five visits were made to the area of study and distinct research techniques were developed, by means of the administration, in a complementary form, of dialectical and non-dialectical instruments. It is important to notice that the latter emerged from demands of the very research and intervention process and were fundamental to methodological adjustments, enabling the continuity of the process. Thus, participant observation was carried out, questionnaires were administered, interviews were performed, talking maps were built in order to identify the main socio-environmental problems, as well as future expectations, and photo panels were constructed to discuss causal links and possible solutions (Toledo et al., 2006). In addition, studies about the quality of the sources of water and the disposal of solid waste were conducted (Giatti et al., 2007), and also about soil contamination by

eggs or cysts of intestinal parasites, parasitological inquiry and the georeferencing of field information (Rios et al., 2007).

In view of the need of continuity of this action research and of monitoring possible structural improvements in sanitation that might be implemented in Iauaretê as a result of this process, a second stage was developed between June 2007 and April 2008<sup>1</sup>, with new educational interventions in the areas of health, sanitation and environment, carried out through a course called "*Mobilização Social em Saúde e Saneamento*" (Social Mobilization in Health and Sanitation), reported and discussed as the focus of this paper.

## Social mobilization, popular participation and action research

In the search for better living conditions and for the transformation of reality, the effective participation of the population is understood as fundamental and, in this context, social mobilization plays an important role as, according to Toro and Werneck (2007), it is an instrument to "summon wills" and agglutinate citizens to act upon the reality in which they live. It occurs when a group of people, community or society, decides and acts based on common objectives, assuming the development of participatory "mobilizing projects" whose results are decided and shared by all. To Gohn (2008), independently of the sense attributed to social mobilization, due to its origin or articulation, it is above all a political-cultural process that is present in all forms of organization of collective actions: social movements, NGOs or public policies.

However, it is believed that it is necessary to offer subsidies and create conditions so that social mobilization is constituted and maintained, mainly because it is indispensable to the process of popular participation.

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<sup>1</sup> Between 2005 and 2006, the action research was started and developed through an Agreement between the School of Public Health of Universidade de São Paulo - FSP/USP and Fundação Nacional de Saúde - FUNASA (Agreement Funasa-USP 513/04). Between 2007 and 2008, the investigation was supported by Programa de Desenvolvimento Científico Regional, by Fundação de Amparo à Pesquisa do Estado do Amazonas - FAPEAM and by Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq (Publication MCT/CNPq/FAPEAM 004/2006, 2<sup>nd</sup> call). This second stage also involved Núcleo de Pesquisas em Ciências Humanas e Sociais do Instituto Nacional de Pesquisas da Amazônia - NPCHS/INPA and Instituto Leônidas e Maria Deane of Fundação Oswaldo Cruz - ILMD/Fiocruz/Amazonas. Approved by Comitê de Ética Nacional - CONEP (record 10848).

The action research methodology, adopted in this project as a whole, has its origin in this context, that is, in the concern about favoring the active participation of social groups in the decision-making about problems that concern them. Therefore, it is an emancipatory process of participation that aims at social transformation, which evidently does not limit the subjects' involvement to a simple popular consultation. To Thiollent (2011), in this research modality, action should be defined based on the interests and needs that were found, and all the parties or groups which are interested in the situation or in the investigated problems should be consulted. It is not constituted only by action or participation; it is also necessary to produce knowledge, acquire experiences, contribute to the discussion and to advance regarding the surveyed problems, as the relation between knowledge and action is in the center of the methodological issues of social research targeted at collective action.

By means of this research and intervention process, the people involved in a certain problem who participate in the search for solutions benefit not only from the research results, but also during its development, which is typical of the action research methodology.

As for the contribution of action research to policymaking, it should be considered that public policies result, among other aspects, from popular participation, understood by Valla (1998) as actions developed by different social forces and groups, which strongly influence not only the processes of formulation but, likewise, of execution, inspection and evaluation of public policies and/or social work in the areas of health, education, sanitation, among others.

Educational processes with emphasis on popular participation have been, according to Bógus (2007), increasingly valued in the area of public health, and their development has occurred even outside the more traditional institutional spaces, as they have proved to be capable of meeting the diversity and heterogeneity of the social groups that are involved, ensuring knowledge exchange, interlocution and the necessary closeness among the diverse actors. The author also highlights another important characteristic of popular education, which is considering the

group's and the local context, that is, the previous knowledge and experience of each participant, to better understand the determinants of the problem situations and the elaboration of proposals for solutions and actions.

The difficulties to fulfill popular participation are many, mainly when we talk about Indians who have a different and hierarchized form of "belonging" to their group, like the subjects of the research reported here. Olson (1999) considers that, in relation to collective services or goods, as is generally the case of the socio-environmental, health and sanitation questions, the benefits are shared by the entire population; therefore, for those who act only according to their own interests, it is more convenient not to get involved in these discussions and only wait for the benefits that derive of such public policies, which will be collective. The author also states that it is precisely in these popular participation gaps that specific groups, with particular claims and with greater political or economic force, make their interests prevail to the detriment of the majority of the society.

Westphal (2006) reminds us of the strong relation that exists between participation and the strengthening of community action and the expansion of the power of the individual as a social subject, that is, empowerment, a term employed in the Health Promotion Movement. To the author, only with this strengthening will the population be able to participate in the control over the determinants of their conditions of life and health. In addition, Souza (2008) argues that mobilization occurs when people overcome the search for individual solutions to their problems and resort to collective alternatives, thus strengthening themselves as a social group. The first step to this would be to develop, in the social actors, confidence in their own capacity to transform the reality.

## **Course in Social Mobilization in Health and Sanitation in the District of Iauaretê**

Aiming at a more effective participation of the Indians who inhabit the Iauaretê in the decision-making about health and sanitation questions, in-

cluding the policymaking process, and meeting the demand of the action research process that began in 2005, as was already mentioned here, in 2007 a group formed by approximately 30 dwellers was formed. In this group there were teachers, health agents and community leaders, all of them Indians, and the objective was to participate in a training experience by means of a course called “*Mobilização Social em Saúde e Saneamento*” (Social Mobilization in Health and Sanitation). As an intervention strategy and sustainability perspective, this initiative emerged with the identification of a strong indigenous militancy for political questions, which has been marked, during more than 20 years of struggle, by the recognition of the right to and homologation of their land and, more recently, by the strong presence of the Indians in the process of social control of health. This process used to be restricted to welfare

discussion; it still had not headed towards preventive health (Toledo et al., 2009), as was expected as the unfolding of the process proposed in the question of basic sanitation and good sanitary practices.

The theoretical presuppositions that justified this intervention were based on Paulo Freire’s critical, liberating and emancipatory pedagogy, which is directed at the development of a proactive posture, allying education with change and considering the individuals as subjects of action and of the search for solutions to problems and situations that generate dissatisfaction, as the author proposed (Freire, 2001).

Eighteen meetings were held with the group, and each one of them lasted approximately 4 hours. Some social mobilization strategies were developed in these meetings (Table 1), and they are presented and discussed in this text.

**Table 1 - Strategies developed in the course Social Mobilization in Health and Sanitation**

Main Strategies
Survey of expectations.
Analysis and discussion of the results of the socio-environmental diagnosis that was previously performed.
Approaching, reflecting on and discussing socio-environmental, health and sanitation themes, as well as legislation that is relevant to these matters.
Collective construction of a Community Newspaper.
Performance of interviews at the households by the course participants, as well as systematization, analysis and discussion of the results.
Debate on the role of the Indigenous Health Agent.
Elaboration of claims documents.
Stimulus to participation in <i>Encontro para Discussão Regional do Plano Diretor do Município de São Gabriel da Cachoeira, AM.</i> (Meeting for the Regional Discussion of the Master Plan of the Municipality of São Gabriel da Cachoeira, State of Amazonas).

The course activities started with a survey of the participants’ expectations, which were obtained by means of group discussion. Among them, there were: “to improve the District of Iauaretê and the society”; “to improve health”; “to understand more about basic sanitation”; “to solve problems”; “to exercise citizenship” and “to deepen the knowledge about health, disease prevention and family health”. In the attempt to respond to these interests, the data that constituted the Report that had been produced in the first stage of the action research process (2005 - 2006) began to be analyzed. These data were

related to the socio-environmental diagnosis and to the health/disease representations of the local indigenous population (Giatti et al., 2007; Toledo et al. 2006; 2009). It is important to highlight that this document was one of the main subsidies for the course, because, although there was the collaboration of the Indians who participated in the action research, it was necessary to deepen the discussion of some themes, aiming to qualify and strengthen the group, and to enable that the Report was effectively legitimated as a political instrument.

Among the main themes that were approached

and discussed in the process of construction of knowledge and abilities in order to help them assume a greater political engagement and transformation of the reality, we highlight: water-borne diseases, presenting the characteristics of the main microorganisms involved, forms of transmission and how to prevent them; the main health and sanitation indicators in Brazil and in the world; control of environmental factors that influence human health; components of basic sanitation; water and sewage treatment systems, including some alternative systems that had been proposed by a consultant hired by the project (Funasa/USP Agreement) who visited the District of Iauaretê, such as rainwater collection of residences and large coverages, sources protection, water treatment by means of filtering and solar disinfection, biosand filter, septic tank and anaerobic filter, among others; legislation about health and environment; health and environment determinants; and origin of diseases. Concerning the latter, we started with some representations of the Indians about the matter that we had identified during the action research process, such as “white people diseases” and “Indian diseases”, which classified the illnesses according to their origin in the contact with the surrounding society (Toledo et al., 2006). Therefore, by approaching these themes, the aim was to promote the construction of interdisciplinary knowledge, considering the problems in their integrality, and to establish a constant dialog between traditional knowledge and technical knowledge. Thus, it was possible to offer subsidies for critical reflection, as well as a better comprehension of reality.

In this stage of the action research process, it was possible to have the fundamental help of one Indian - a local dweller - as a grant holder for providing technical support for the project. His action greatly contributed to the mediation and awareness-raising of the local inhabitants regarding the themes discussed in the development of the course’s activities, and also to the continuity of the action research process,

mainly in the absence of the external researchers, and to the interlocution with the public power in the defense of their rights. Besides, during some meetings, he clarified some doubts and, if necessary, the explanations were complemented in the Tukano language - although the great majority of those Indians spoke and understood Portuguese, we recognized the importance of offering explanations also in the local official language<sup>2</sup>.

### **Community newspaper**

Considering that social mobilization and popular participation are closely associated with communication and health education, based on the established social relations and on dialogue, one of the action/mobilization strategies that was used during the course was the collective elaboration of a community newspaper.

According to Peruzzo (2006), the community newspaper can be defined as a nonprofit newsletter that aims to contribute to the social development of a given locality. It must be produced by the community itself, by associations, NGOs, etc. To Marcondes Filho (1986), it is elaborated by people who strive to obtain political force and divulge their claims; therefore, it is the production of a group congregated around collective interests, surpassing the informative function and summoning the community to reflect/act on the approached themes. Due to the fact that it presents such characteristics, the community newspaper becomes an instrument for social transformation, by means of a dynamic and participatory construction process.

In the case of Iauaretê, the production of a community newspaper aimed to socialize and discuss health and environmental questions with everybody’s participation (those who elaborated it and the other readers) in the construction of knowledge and abilities targeted at empowerment. Its production occurred by means of a workshop developed in three moments: in the first one, elaboration techniques were presented and discussed, as well as their role

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<sup>2</sup> As mentioned above, there are, in Iauaretê, approximately 15 ethnicities, belonging to 3 linguistic trunks (Eastern Tukano, Aruak and Maku) and, therefore, multilingualism. However, Tukano was the language that predominated among the local population and, even in one of the villages constituted only by Indians of the Maku-Hupda ethnicity, who maintained their own language, they also used Tukano to communicate with the others. Portuguese was spoken by the majority of the population in all the villages, mainly with non-Indians (Andrello, 2004; Toledo, 2006).

as a political instrument of mobilization and socio-environmental transformation, with the support of a dialogued class and a booklet that was especially prepared to this end; in the second, the group was divided into four subgroups in order to choose the newspaper's name and editorial line, to decide on the themes to be approached and the tasks to be performed; in the third, the elaboration of the newspaper occurred. For this, the following material was available: paper, color pens, glue, scissors, magazines, newspapers, pencils and color pencils, in addition to books, laws and texts about the course's theme, such as *Política Nacional de Saúde Indígena* and *Manual de Saneamento da Funasa* (Brasil, 2006).

The main characteristic of the community newspaper, entitled “Voz de Yauaretê” (Yauaretê’s Voice), was its handcrafted format, based mainly on the participants’ creativity. Similar to a fanzine, in terms of independence, free expression and diagramming, it was formed by four A3 paper pages, folded in the middle, totaling 16 pages. Diagramming was developed by means of collages, with the utilization of magazines’ clippings, hand-written texts and drawings made by the participants. The highlights, proposed by the group of students and discussed during the course, were: the importance of water for the population; problems with waste disposed in inadequate places and possible solutions; pollution of the rivers and streams of Iauaretê; sanitary sewage; solar disinfection as an alternative water treatment; and finally, the presentation of a myth about the story of Iauaretê (Figures 1 and 2).

Regarding the newspaper’s content, three aspects were considered very positive: the approach to the importance of natural resources and their conservation; the adequate analysis of the local sanitary problems, with direct and indirect consequences to human health, as well as the possible solutions to them; and the inclusion of a section with indigenous myths, in view of their relevance, as the local inhabitants’ understanding of the health-disease process took into account the sanitary conceptions that came from the contact agencies, but with significant re-signification in light of the local culture (Giatti et al., 2007; Toledo et al., 2009).

With the original newspaper elaborated in Iauaretê in hands, the necessary copies to be distributed

Figure 1 - Cover of the Community Newspaper

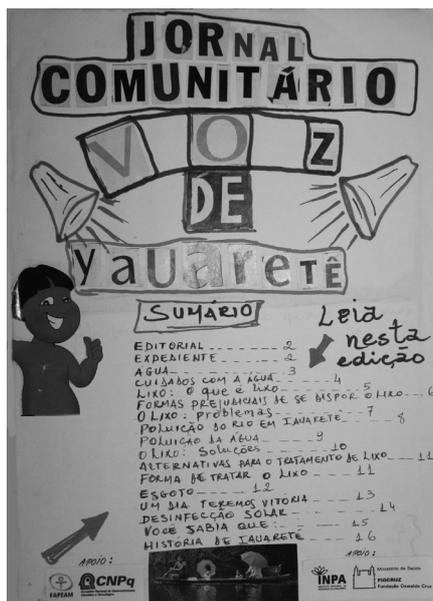
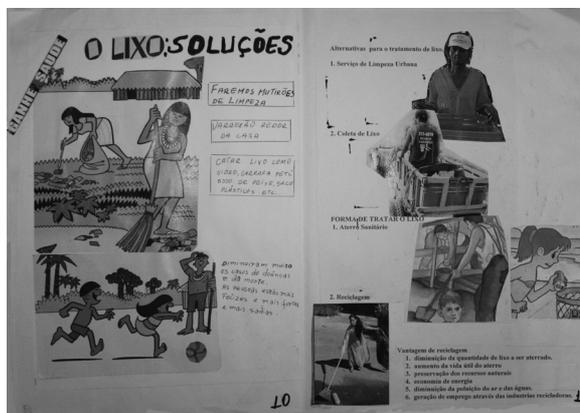


Figure 2 - Central Page of the Community Newspaper



to all the households of the District’s main village were made in Manaus, the capital city of the state of Amazonas, and the copies were sent by mail. Thus, the newspapers’ distribution was performed by the students and each one was responsible for delivering them to a certain number of households. They also proposed a periodic monitoring in order to discuss the themes with the respective families and take to the group suggestions of actions. In the perspective of dissemination of the newspaper’s content, it was discussed in community meetings that are held

on a weekly basis in the ten villages of Iauaretê, during which matters of collective interest are frequently approached and the appropriate decisions and initiatives of collective work are made. These events delineated a process of strengthening of the cooperative dimension of learning, enabling the dialogue among the readers by presenting themes of common interest. By offering subsidies for the population to understand and promote their own communication, the community newspaper played an alternative mobilizing and mediating role in the group's discussions and in the search for solutions to problems that affect everyone. The students made clear that producing the newspaper would serve not only as a warning instrument about the socio-environmental and health problems experienced at Iauaretê, but also to disseminate the community's desires for changes, as well as the work that was being developed by the students of the course Social Mobilization in Health and Sanitation. In addition, it would be an opportunity for it to "translate" information that had been previously published in a technical report of the above-mentioned research, which had begun in 2005, in a format and with a content that were more accessible to the entire local population.

The perspectives of production of new issues of this community newspaper are affected by some difficulties, like the need of funding, although, with the course and the strategies that were used, we aimed to stimulate mobilization, so that the Indians can face challenges like this one. Besides, the main focus of the development of this research and intervention instrument was the institution of a new ability that could be used by them in different moments, which was successfully accomplished, enabling the continuity of the newspaper, if the local Indians are interested in it.

### **Interviews about the sanitation situation**

Another strategy that was used in this training experience was the involvement of the course participants in the performance of interviews at the households of the main village of the District of Iauaretê, with the objective of identifying possible changes in the local socio-environmental, health and sanitation conditions after the action research

process began in 2005 (Giatti et al., 2007; Rios et al., 2007). The interview form was constituted of eight questions of qualitative and quantitative nature, three about water sources and domestic uses, three about human waste disposal and two about the final waste disposal. To facilitate the systematization and analysis of the results by the students, a table was designed to be filled in by each interviewer, and the results were discussed with the whole group in a subsequent moment.

Pimenta (2005) considers that in action research the subjects involved in a certain problem and in a given context constitute a group with common objectives, in which they play diverse roles, including that of researchers. In the case of Iauaretê, this role was played not only in the development of these interviews, but also in the subjects' participation in all the stages of the action research process, that is, in the diagnosis of the local problems, in the reflection on their causes, and in the proposition of solutions and educational interventions, as described by Toledo et al. (2006).

The interviews were administered in 305 households of the main village of the District of Iauaretê. One dweller of each household was interviewed, preferably the one that was considered the "head" of the family or, in his absence, another dweller older than 18 years.

According to the answers, the interviewees collected water for human consumption preferably from shallow wells (perforated in the backyard of some houses) and rainwater. They also mentioned deep wells, streams and directly from the Waupés river, as Table 2 shows. We highlight the mention to the use of piped water, mainly in one of the communities on the right margin of the river (Vila Santa Maria), where Funasa made some works after the beginning of the project. Rainwater, used by a large part of the population, was considered by the interviewees as having better quality because it prevents diseases and because it is an alternative in the absence of systems to supply treated water. They also mentioned instructions received by the Indian health agents (IHA) and in the meetings of the course Social Mobilization in Health and Sanitation.

Concerning the treatment of water before it was consumed, it was performed by only 11% of the

interviewees. Boiling was the most used procedure, followed by the use of hypochlorite and filtering. These practices were justified as deriving from instructions given by the IHA in order to preserve health and prevent diseases.

Human waste disposal was performed by the interviewees in the backyard, in the fields, in the river or stream and in the toilet/hut (Table 2). The latter was present only in some households, and they were constructed by the dwellers' initiative to avoid contamination or due to privacy. The construction of septic tanks was also mentioned in some answers to avoid the contamination of the environment and to prevent diseases.

As for the final destination of solid waste, burning was the most used procedure; they also mentioned burying and disposal in the household's surroundings, in dumps, in the stream and in the river (Table 2). Some interviewees who stated that they disposed their garbage in the surroundings of their houses, in the stream or river without burning or burying, said that they changed this practice also due to the IHA's instructions, who taught that "garbage causes diseases, as it accumulates insects, rats, dogs, chicken and increases the contamination of the environment". Others changed it due to the demand of the municipal government.

**Table 2 - Water sources, places of human waste disposal and final destination of solid waste in the district of Iauaretê, according to interviewees, in Nov-Dec 2007**

Water sources		Places of human waste disposal		Final destination	
Shallow well	31%	Backyard	48%	Burning	48%
Rain	30%	Fields	24%	Around the houses	31%
Deep well	19%	River/Stream	19%	Dumps	11%
Piped water	9%	Toilet/Hut	9%	Burying	4%
River	7%			Stream	4%
Stream	4%			River	2%

Analyzing comparatively and qualitatively data from these interviews with results obtained from a situational diagnosis that was carried out in 2005 (Giatti et al., 2007; Rios et al., 2007), at the beginning of the project, even though through distinct methodologies, the importance given to the use of rainwater for human consumption stood out in this new stage. The inhabitants consider that the quality of rainwater is better than that of the other sources. A new form of obtaining this resource was identified in the right margin of the Waupés river, by means of a plumbing in which the water coming from a well that was recently reactivated by Funasa was taken to the taps. The disposal of human waste and of solid waste continued to occur, for example, in the surroundings of the houses or directly in the watercourses. On the other hand, the construction of septic tanks by the initiative of some dwellers and the final destination of waste in dumps, an information that was absent from the previous

diagnosis, denoted important aspects resulting from the intervention that was performed, in which the mobilization and participation of the population became evident. We also highlight that the work of the Indian health agents was more valued.

Toledo et al. (2009) have identified in Iauaretê an indigenous logic that was imposed in the process of organization of the local space. Even though it is characterized by urban features, values and beliefs related to mythology have been relevant both in the use and handling of natural resources (for example, in fishing and hunting), and in the actions of prevention and cure, associated in many cases with food restrictions. These aspects strengthen the importance of stimulating participatory processes in the search for solutions to problems that affect all the dwellers and, likewise, of producing a collective knowledge constructed by the research subjects themselves that will guarantee the strengthening, autonomy and empowerment of the local population.

It is believed that the development of this strategy, in which students of the course acted directly as researchers, has fulfilled the objectives, enabling them to build a new view of the local reality, based on the identification of their own problems and, mainly, on the critical reflection on them. It has also facilitated the search for causal links and possible solutions, according to their real needs, that is, a process of reflection on the research was established which, in turn, influenced the decision-making about proposals for interventions and/or new studies, as recommended by action research.

### **Debate with Indian Health Agents**

The work of the Indian Health Agents (IHA) was another matter approached in one of the meetings. The discussion was stimulated by means of a debate between them and the other students of the course. The results of this debate showed, as was mentioned above, that the IHA's work was considered very important, mainly because it was performed by members of the community. This meant, among other aspects, "easier communication", as they "informed us about the diseases", "provided medicines" and "promoted preventive actions". Regarding their qualification to the work, the debate participants believed that they needed to receive training to "give injections and do sutures". The main difficulties mentioned by the IHA were "lack of transport to more distant communities", as well as absence of "greater participation and commitment of the families concerning the activities that are of interest to the whole community", as, according to them, "many of the lectures promoted by the IHA were attended by few people". Home visits were conducted once a week aiming to verify if anyone was ill; there were also conversations about eating habits, for example. Generally speaking, the population agreed with the form of action of these professionals. Concerning the debate participants' conception about health education, the development of focused activities, like lectures, was considered, focusing on the groups' hygiene habits. This hygienistic view that still prevailed among them derived from the influence exercised by the surrounding society, which values this question to the detriment of prevention, protection and promotion of integral health. The

community newspaper was also recalled in the debate as an important health education tool.

We would like to highlight that, as regards the emphasis given to the theme hygiene habits in the health education actions, it originated in a sanitarian model of technical-normative character, based on strategies of advertising campaigns whose concern is almost exclusively that one, revealing difficulties to win the conflict between curative medicine and preventive medicine, which started at the end of the 1970s. In the curative line, health was seen as absence of disease, and the educational process happened through the transmission/dissemination of knowledge about health/disease. However, it is perceived that this model remains in force up to the present day in some education and healthcare programs, including those which are directed at Indian people. Thus, some rather peculiar sociocultural aspects are not taken into account, as, according to Meyer et. al (2006), it is believed that the practices of hygiene and behavior regulation would be enough to prevent risks and promote wellbeing, as if the risk factors would be circumscribed only to the behavior of each individual.

There is no doubt that the work of the Indian health agents is really very relevant. As they are representatives of the community, for them it is easier not only to communicate, as it was mentioned above, but also to understand the health-disease processes within the indigenous mythological and cultural universe. As they are closer to the families' daily routine, they can develop, provided they are well-prepared, actions of prevention and health promotion in the home environment and its surroundings, receiving great credibility from the local population, as was demonstrated in the debate.

In a research that evaluated the Family Health Program, Escorel et. al (2007) identified the community health agents as important interlocutors of regional realities for the health system. As they are part of the community, they have a greater interdisciplinary and intersectoral view to solve local problems. As the IHA are the version of the community agents in the indigenous healthcare model, we understand that their action has been compatible with the needs, as presented by the authors mentioned above. In a study about the training and the

work developed by Indian Health Agents, however, Souza et. al (2002) identified difficulties of the IHA in the development of health education, mainly due to the difference between the traditional indigenous educational process and the utilized strategies, which is justified, among other aspects, by the little emphasis given, in many of these professionals' preparatory courses, to their mythological universe, as well as to the forms of knowledge "transmission" between generations. In fact, it was possible to notice the almost exclusive use of lectures in the interventions performed at Iauaretê by this group, motivated by the oral tradition that is peculiar to them, even though it does not contribute to meet the objectives of Health Promotion, that is, the strengthening and mobilization of the population to assume control over the determinants/conditioning factors of their health. Thus, it is expected that discussions held during the action research process may have contributed to enhance the work developed by them and that the employment of other strategies, like the Community Newspaper, are, in fact, opportunities to be incorporated and added to the others which have already become traditional in their way of communicating.

### **Claims documents and participation in the Master Plan**

The development of a proactive posture in view of the local problems, aiming at a greater insertion of the Indians in the process of implementation of sanitary improvements, could also be identified by means of the elaboration, by the course students, of two documents in which they claim their rights, which were sent to Funasa by the external researchers, and also by their participation in the Meeting for Regional Discussion of the Master Plan of the Municipality of São Gabriel da Cachoeira, State of Amazonas. In the group discussions that were proposed in this event, the students of the course were responsible for the theme of basic sanitation, and the priorities to the District of Iauaretê were emphasized. As for the claims documents, one of them requested that an engineer was hired to work specifically in the region, and approximately 1000 individuals signed this document. The other one presented some considerations and requests about the ongoing works

for water supply in the main village of the District of Iauaretê, and was signed by representatives of local institutions, like the municipal government, the *Coordenadoria das Organizações Indígenas do Distrito de Iauaretê* (COIDI - Coordination of the Indigenous Organizations of the District of Iauaretê), the *Associação das Mulheres Indígenas de Iauaretê* (AMIDI - Association of the Indigenous Women of Iauaretê), and by community leaders.

### **Final remarks**

In view of the seriousness of the socio-environmental and health problems of Iauaretê, there still is much to be done, in the scope of the implementation of basic sanitation services, in the incorporation of healthy practices, and also in the exercise of participation by the Indians who are local inhabitants, because the results expected from a successful educational process, directed at autonomy, at the strengthening of the subjects and at social mobilization are usually achieved in the medium and long terms. In the case of Iauaretê, the way in which the mythological and cultural components contributed to the formation of the cognitions that exist today among those Indians was relevant. Thus, in the process of construction of new knowledge, the fact that they recognize some risks to which they were exposed due to lack of sanitation, associated with sanitary practices that were incompatible with the current reality, does not guarantee any change. In Anthropology, this reinterpretation and social reorganization is called "bricolage" (Arruda, 1992), and in Social Psychology, this difference between discourse and practice is called cognitive dissonance (Festinger, 1957).

However, it is considered that this training experience was developed according to what is expected from an action research process. The course enabled, by means of critical reflection on the local reality and of the development of dialogical strategies, the construction of knowledge and abilities so as to offer subsidies to the incentive to social mobilization, so that there was an advance in the discussion and search for collective solutions to the socio-environmental and health problems of the main village of the District of Iauaretê. Besides, it stimulated and

avored the interlocution with the governmental institutions that are responsible for the supply of basic sanitation services. To the course's researchers and teachers, the instruments also enabled the construction of new knowledge, resulting from the interaction with subjects from the investigated situation, directed by the recognition and re-signification of their representations, which meets the fundamental premise of action research.

It is important to mention that the experience and discussion reported here should not be considered only as a possibility of reproduction and reflection for studies in indigenous communities, but as a suggestion to any kind of situation in which social mobilization is important. The differences, understood as determinants in the process, due to the fact that they are very specific to the studied context, favor the possibility of understanding that socio-cultural elements are fundamental in interventions of this nature, or are characterized by strong subjects-researchers-problems interactions, validating, therefore, the relevance of this approach as an instrument in participatory processes.

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