

Agroecological urban agriculture from the perspective of health promotion¹

Agricultura urbana agroecológica na perspectiva da promoção da saúde²

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Abstract

Urban agriculture has been the subject of many research in Brazil and worldwide, mainly concerning the employment and income generation. This article aims to systematize the experience of the project “Colhendo Sustentabilidade: práticas comunitárias de segurança alimentar e agricultura urbana” [Achieving Sustainability: community practices of food security and urban agriculture] (PCS), held in Embu das Artes, São Paulo metropolitan region, between 2008 and 2011, analyzing it from the perspective of Health Promotion (HP). The participants of the research were the public services technicians and technical team members involved in the project. The data were obtained by conducting three workshops of systematization, followed by another in which the results were presented to the participants, and also by interviews with key informants. The same data were analyzed based on the action principles and fields of HP. The findings presented agroecological urban agriculture (AUA) as a tool for health promotion due to its contribution to the strengthening of individual and community leadership, empowerment, creation of conducive environments for health, as well as its potential for “knowledge” multiplication, by those involved in topics related to income generation, health and environment.

Keywords: Health Promotion; Food and Nutritional Security; Urban Agriculture; Agroecology.

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¹ The authors would like to thank the National Council for Scientific and Technological Development (CNPq) and São Paulo Research Foundation (FAPESP) for the financial support received.

² Os autores agradecem ao Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) e à Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) pelos apoios financeiros recebidos.

Resumo

A agricultura urbana tem sido tema de diversas pesquisas no contexto brasileiro e no mundo, principalmente no que diz respeito à geração de trabalho e renda. O presente artigo tem por objetivo sistematizar a experiência do projeto Colhendo Sustentabilidade: práticas comunitárias de segurança alimentar e agricultura urbana (PCS), realizado em Embu das Artes, região metropolitana de São Paulo, durante o período compreendido entre 2008 e 2011, analisando-o sob a ótica da Promoção da Saúde (PS). Foram sujeitos da pesquisa os participantes, os técnicos dos serviços públicos envolvidos e integrantes da equipe técnica do projeto. Os dados foram obtidos através da realização de três oficinas de sistematização, seguidas de outra em que os resultados foram apresentados aos participantes, e também por meio de entrevistas com informantes-chave. Os mesmos foram analisados à luz dos princípios e campos de ação da PS. As conclusões revelaram a agricultura urbana agroecológica (AUA) como ferramenta promotora de saúde por contribuir com o fortalecimento do protagonismo individual e comunitário, empoderamento, criação de ambientes favoráveis à saúde, bem como seu potencial para a multiplicação de “saberes”, pelos envolvidos, sobre temas relacionados à geração de renda, saúde e meio ambiente.

Palavras-chave: Promoção da Saúde; Segurança Alimentar e Nutricional; Agricultura Urbana; Agroecologia.

Introduction

The world's population urbanization and the industrialization process have brought many changes in the demographic profile, quality of life and in food supply in the last decades, with consequences for food and nutrition security (FNS) and the health of populations.

In Brazil, the Urban and Peri-urban Agriculture (UPA) topic must be understood within the scenario of the alterations of contemporary society, in which the globalization phenomenon, information technology advances and the structuring of an agri-food system with a strong impact in eating habits are highlighted, in addition to the predominance of monocultures in the countryside (Rodrigues, 2009).

The development of UPA is directly connected to the economic and demographic growth of cities, contributing to the (re)configuration of urban spaces through the use of soil, populational structures, and social practices, among other factors. For some scholars, it seems consensual that the population density and its development have contributed to the expansion and diversification of this activity (Ferreira; Castilho, 2007).

Given this, Urban and Peri-urban Agriculture (UPA) have been considered one of the possibilities to attenuate several problems of cities, especially those related to food, health, environment and income generation.

Like most products of UPA is intended for personal consumption or for commercialization in local markets, it is possible to notice the close relationship between urban agriculture and food and nutrition security (FNS), benefiting the population directly involved in activities or those who are close to its dynamics due to production and/or acquisition of fresh food.

UPA has the function, regarding food and health, of contributing to urban systems of food production, promoting and strengthening food and nutrition security (FNS).

FNS aims to ensure conditions of access to safe and high-quality staple foods, in sufficient quantity, permanently, without compromising the fulfillment of other essential needs. It is based on healthy and sustainable food practices, contributing to a dignified existence in a context of full development of the

human being, respecting cultural, environmental, economic and social diversity (Valente, 2002; Brasil, 2009).³

Regarding the environment, UPA has contributed to the development of biodiversity, providing a better land use and a proper management of soil and water resources (Dias, 2000; Mougeot, 2000).

In the municipal sphere, we have innumerable examples of projects and programs (community vegetable gardens in urban territories, fairs of producers for direct commercialization at cities downtown, small agribusiness and urban cooperatives of food processors), which contribute to the strengthening of this activity (Machado; Machado, 2002).

According to the cited authors (Machado; Machado, 2002), most of the household backyards and vacant lots in peripheral areas are intended for accumulation of garbage and rubbish. The cleaning of these areas, for planting and other forms of production, provides considerable improvement to the local environment, decreasing the proliferation of some diseases, rodents, insects, etc., and positively affecting people's health.

Health is directly related to food and environmental conditions, something evident especially in communities under social vulnerability conditions and food and nutrition insecurity.

According to the Ministry of Health (Brasil, 2006), health is a result of modes of organization of production, work and society itself in a specific historical context. The biomedical model is unable to modify the broader conditionings or determinants in this process and, therefore, the attention and health care are marked, for the most time, by the centrality of symptoms.

In the same document, it is shown that the subjects and communities continue to be appointed as the agents who are changing the health-illness process. However, in a broader perspective of health, defined by the Brazilian Health Reform movement, by the Sistema Único de Saúde (SUS - Brazilian National Health System) and by Health Promotion Charts, it is believed that "the ways subjects and collectivities elect certain living options as desirable, organize their choices and create new possibilities

to satisfy their needs, desires and interests are related to the collective order, since its development process takes place in the context of life itself" (Brasil, 2006, p. 11).

The National Policy of Health Promotion (HP) refers to health as social production of multiple and complex determination, which requires the active participation of all the subjects involved (users and health care workers; representatives from social movements; health sector managers and others) for the analysis and formulation of actions aiming to improve people's quality of life (Brasil, 2006).

The World Conference on Social Determinants of Health, held at the end of 2011, reaffirmed that inequalities in each country and between countries may be avoided through equitable actions for HP, acting on the social determinants in a collective way, which would improve living conditions; combat the uneven distribution of power, money, and resources; measure the magnitude of the problem; understand and assess the impact of interventions (WHO, 2011, p. 1).

Regarding urban environment, urban health theme has become more prominent since the 1970s and the 1980s for its relation with the HP movement. Among the conferences of HP that discussed the issue of urban health, the following are highlighted: the Conference in Ottawa, Canada, 1986; the Conference in Adelaide, Australia, 1988; the Conference in Sundsvall, Sweden, 1990; the Conference of Santa Fé de Bogotá, Colombia, 1992; and the Conference in Jakarta, Indonesia, 1997 (Restrepo, 2001).

The conception of health cannot be separated from any aspects of urbanization and its socio-environmental context, since it must apprehend the relationships among the multiple factors involved, whether they are of individual, relational, environmental or cultural type. All the complexity of the "urban" needs must be understood in a holistic way for the development of this sociological conception of health (Akerman; Duhl; Bógus, 2006).

In addition, the interconnectivity of different sectors of public life to build bridges and cooperations is necessary, since the health sector is the repository of the collective and individual conse-

3 Available from: <http://www.sesc.com.br/mesabrazil/doc/Avan%C3%A7os-e-desafios.pdf>. Access date: mar. 25 2015.

quences of several factors that interfere in the life of the population (violence, pollution, poverty, famine, obesity, etc.), which are determined by the absence or presence of policies of other areas (Akerman; Duhl; Bógus, 2006).

In the Conference in Canada, the HP was defined as “the process of community empowerment to act on the improvement of its life and health quality, including greater participation in the control of this process”, with the emphasis on the idea of a state of complete physical, mental and social well-being, so that individuals are able to identify aspirations, satisfy their needs, modify the environment when necessary and control determinant health agents, in search for equality (Brasil, 2002).

HP is characterized by the World Health Organization (WHO) as initiatives, programs and activities planned and executed in accordance with the following principles: holistic conception, intersectoriality, social participation and sustainability, and other fields of action: strengthening of the community action; personal skills development; creation of healthy spaces; development and implementation of healthy public policies; and reorientation of health services (WHO, 1996; WHO, 1998; Junqueira, 1998; Brasil, 2002; Westphal; Ziglio, 1999; Westphal, 2000).

Regarding environmental issues and health determinants, it is important to emphasize that these issues are in vogue in the current conjuncture, and a series of debates about the frequent contamination by chemicals used in production processes and the manufacture of food; the predatory and abusive use of nature due to market demands; ecological imbalances and the sustainability of operations that represent the crisis experienced by the current development model - all of these are issues for which contemporary society has been requiring solutions (Navolar; Rigon; Philippi, 2010).

In this context, agroecology, which according to Guzmán (2005) deals with the environmentally responsible management of resources and integrates knowledge of several other sciences, is included in this study for its interdisciplinary character and dialogue with the HP and FNS proposals.

Agroecology, due to its contribution to recover popular knowledge, has not been limited only to

rural areas, but is being applied also in urban spaces, as in the case of the AUA, developed with projects in metropolitan areas of various states of our country (Ribeiro et al., 2012).

Embu das Artes was chosen as the research scenario because there were several activities developed in the urban agriculture area of the city, based on the agroecological and popular education principles, involving diverse sectors of the local administration and civil society. Among these activities, we emphasize those carried out by the “Colhendo Sustentabilidade: práticas comunitárias de segurança alimentar e agricultura urbana” project [Achieving Sustainability: community practices of food security and urban agriculture] (PCS), the object of this study.

Under the influence of the Metropolitan Region of São Paulo, the municipality of Embu das Artes had a significant increase in its population since 1970, reaching, in 2011, an estimated population of 240,237 inhabitants (The Brazilian Institute of Geography and Statistics - IBGE, 2011) in an area of approximately 70.08 km² (Embu das Artes, 2008).

In addition to the biodiversity of the region, the municipality presents two distinct realities: the first, located on the West zone, has a rich flora and fauna, art and culture; the second, crossing the Régis Bittencourt Highway and bisecting the city, presents a profound socio-environmental change, marked by a disordered increase and urban occupations in risky areas.

Embu das Artes has 59% of its area under the Water Sources Protection Law, and integrates the Biosphere Reserves of the Atlantic Forest and the Greenbelt of the city of São Paulo, with 22% of its territory declared as Environmental Protection Area, the “APA Embu-Verde” (15.7 km² of the municipality), and 11.9 km² (17.5%) of Permanent Protection Areas (PPAs). Most of these, however, are already altered and irregularly occupied (Embu das Artes, 2008).

From the personal observations of one of the researchers, focusing on the area of health and the analysis of the collected data, considerations on the experiment studied in those areas and on the FNS has been revealed throughout the analysis, as well as the influence of the PCS in the establishment of AUA as a public policy.

The PCS, conducted between 2008 and 2011, was divided into two stages of implementation. The first, from 2008 to 2010, occurred through the partnership between the Ministry of Social Development (MDS), City Hall of Embu das Artes and the Non-governmental Organization (NGO) Friends of Embu Ecological Society (SEAE); and the second one, from 2010 to 2011, occurred by an agreement signed between the City Hall of Embu das Artes and the mentioned NGO.

The PCS had as general objective to promote the socioeconomic insertion, to combat famine, to promote FNS, to promote socio-environmental education, to retrieve popular knowledge, to stimulate employments and income generation, and the solidary economy, with emphasis on organic/ecological production. Its specific objectives focused on activities aimed to the production/generation of employments and income; education and health; commercialization and organization of urban and peri-urban farmers.

The intention to systematize this experience focused on the idea of a deeper understanding, aiming to improve the practice itself; to share our findings that emerged with other similar projects. We also aimed to bring theoretical reflection over the knowledge arised from this systematization and to contribute to the academic production in the studied areas, since the scientific papers that analyze the ecological urban agriculture from the perspective of health promotion are still scarce.

Methodology

The research, in its qualitative character, was performed through four experiences systematization workshops, with the following social actors involved: public services technician, participants and the technical staff of the project. We also interviewed a key informant and carried out documental analysis. Twenty four individuals participated in the systematization workshops: four representing the PCS technical team (project implementation); four representing the City Hall staff; and 16 participants of the PCS.

The interview with the key informant was conducted with a person who had been part of the PCS

technical staff and, henceforth, became responsible for the Municipal Program for Sustainable Agriculture (PROMAS). The documental analysis was performed through reading and analysis of reports produced by the NGO technicians, responsible for the execution of the project; information collected on the website of the City Hall of Embu das Artes; media news about the project, as well as other documents regarding the theme of urban agriculture, agroecology, food sovereignty and FNS.

The methodology of the systematization of experiences was originally used for the area of popular education in Latin America. Due to its effectiveness, it proved to be suitable also for the application of other experiences, especially those of greater complexity, resulting from the multiplicity of instances and actors, the turnover of them and also the long periods of time its development requires (Fernandez; Bógus; Mendes, 2006).

Jara-Holliday (2009) emphasizes that the meaning of experience, within this methodological context, refers to experiences that are dynamic and complex, and individual and collective processes, experienced by specific people, and not simply facts and precise events, or merely data. Therefore, the experiments are essentially vital processes that are in constant motion, and combine a set of objective and subjective dimensions of the socio-historical reality.

An alive, complex, multidimensional and pluridirectional tangled network of objective and subjective factors - that is how we could define "experience". There are not simply deeds and things that succeed or succeeded, but people who think, feel, live, and do things in certain contexts and situations, at the same time they build new contexts, situations, relationships (Jara-Holliday, 2009).

The experiences systematization workshops occurred in four meetings that had the following purposes: the first workshop should retrieve the history of the project; the second should identify the impact of the project on everyday life of everyone involved, from the perspective of Health Promotion; the third should obtain information about the strengths, weaknesses, opportunities and threats (SWOT) of the PCS, and the fourth workshop should perform the feedback of the obtained results and validate them with the participants of the research.

Results and Discussion

The PCS emerged as a pilot project in the city and, until then, had not yet mobilized communities for the theme of urban agriculture nor lands previously intended for the establishment of community vegetable gardens.

For the communities awareness and mobilization, there was a broad process of selection of beneficiaries (people in situation of social vulnerability and food insecurity), involving several municipal departments and representatives of the society, aiming at the identification and mobilization of the target audience for the PCS and the beginning of a joint action in the municipality.

The secretariats more involved were the Environment and the Health and Social Welfare, and the first was the one in charge of the project within the City Hall. Among the public facilities, at the stage of community mobilization and awareness, the following ones were highlighted: Basic Health Units (UBS) and the Reference Centers for Social Assistance (CRAS), in addition to some local councils such as *Conselho Municipal de Segurança Alimentar e Nutricional de Embu das Artes* [Municipal Council of Food and Nutrition Security of Embu das Artes] (COMSEA), the Municipal Council of Social Welfare (CMAS) and the Municipal Council for Child and Adolescent Rights (CMDCA). In this initial stage, we identified some principles stated in the HP, such as intersectorality and social participation.

The establishment of the first community vegetable garden in an UBS located in Itatuba, situated at “APA Embu-Verde”, was the beginning of the awareness and mobilization process of the PCS, strengthening the “Movimento Itatuba” [Itatuba Movement] and contributing with the first actions in the health area.

The implementation of this first vegetable garden attracted people from the neighborhood, contributing to the expression of several talents, since the activities in the vegetable garden occurred concomitantly with others, such as: choir, hiking and actions in favor of improvements for the neighborhood.

The intersectoral articulation, a crucial strategy to achieve greater effectiveness of the actions and

policies of HP, is considered by Moysés and Moysés (2012) a permanent challenge that is the main focus of the international debate. This strategy presupposes not only links between social subjects and institutions with diverse knowledge, cultures and interests, but also a new management model for addressing complex issues, in addition to inspire new designs and practices of formulating and implementing public policy agendas.

The intersectorality recognizes and confirms the multiplicity of perspectives on the complex reality (Mendes, 2002). This principle has been highlighted in several reports collected during the three workshops of the PCS systematization, as well as findings made during the document analysis.

The intersectorality model that most called attention in the experience was the one practiced on the basis of the organizational pyramid of the municipal public authority, according to the report of a member of the technical staff:

[...] this very effective involvement of the technicians of the involved secretariats, [nursing assistant, community agent, UBS manager], various technicians, social workers... when we talk about the lack of involvement, indeed, about the mayor and secretaries, at a more institutional, decision-making level....between the social workers, community health agents, there was a strong involvement, and that is the reason why the project worked. (Technical-educator, 31 years)

Some difficulties regarding the intersectorality practiced at the top of the pyramid were also manifested in another PCS technical report:

[...] we heard the opinion of the Environment Secretary that if the project was under the responsibility of a government policy, maybe the other secretariats would have interfered more, and since this was not the case, it has hampered a more high-level intersectorial work, i.e., among secretariats, a broader dialogue among them.

The Municipal Secretariat of Health stood out in the partnership with the PCS thanks to the involvement of the Basic Health Units (UBS) staff.

Throughout the period of implementation, including the two stages of the project, a total of nine UBS participated and, at the end of the second stage, the urban agriculture had already been incorporated as a Health Promotion activity.

The social participation occurred during the whole PCS execution, and was marked by several activities developed in the communities, aggregating several actors, as farmers, non-governmental organizations, community leaders, residents, representatives of the civil society and local public authority.

The principle of social participation in HP, encouraged the PCS since the beginning of the actions, was present both inside and outside of the project. In the subsequent report, the description of a process of analysis and the shared decision in a land where it would be implemented one of the PCS vegetable gardens highlights the social participation of educational technicians participating in the PCS:

It was in 2010 when the proposal of the vegetable garden of the group of hypertensive and diabetics patients was born... we searched for the Environment Secretariat... then the technician "A" made a visit there [in UBS] to know [viability] more about the vegetable garden because the land was rugged and nobody believed that we could do the vegetable garden there, and then the technician "A" went and approved it and in the same day we made the evaluation of the land... (UBS Manager, 45 years old, female)

Through another report, one can see that the inner participation had also external influences, resulting in a participative synergy in the PCS that positively affected the external environment and *vice versa*:

[...] even people who were not participating in the project of the vegetable gardens, nor in the technical staff, started trying to understand what kind of movement was this one in Embu das Artes. So you begin to see a lot of people... [that] want to start a vegetable garden in their homes and come to visit the dealer to find an organic food, so it was a learning for the whole city. It had an external impact, you know? And that's why we were concerned with the

learning aspect of the volunteers. (Technical educator of the PCS, 40 years)

Having said that, we agree with Demo (1993) when he says that the participation is, in essence, self-promotion, a procedural accomplishment, with participatory and valuable processes that are developed with populations in a slow and effective way.

Mello et al. (2012) claim that it is important to put the focus on citizens when the question is the work with communities, considering also that any person, no matter how needy and marginalized, brings experiences and qualities and is able to contribute to the common good. In this sense, the development of works in a participatory way assumes a relevant role.

Concerning sustainability, an effort of the participants of the PCS has been identified, which comprised the following dimensions: the sustainability of the PCS for the continuity and/or strengthening of the project as a whole; economic sustainability focusing on the autonomy of the groups; and environmental sustainability focusing on reuse and/or make the most of natural resources inside and outside the program.

The principle of sustainability may have a double meaning: to create initiatives that are consistent with the principle of sustainable development, or ensure a long-lasting and strong process, involving in this perspective the economic, social, political, cultural, environmental and intergenerational aspects (Westphal; Ziglio, 1999).

We verified a great effort of the people involved to achieve the sustainability of the PCS, but it does not mean, however, that all attempts were successful, i.e., this type of sustainability would only be achieved if the institutions involved developed this project, and every one concentrated efforts for the same objective. In this case, some statements indicated that the local government did not demonstrate great interest in renewing the partnership with NGOs responsible for political issues, making the continuity of the project not viable and undermining the efforts of those involved for the continuity of the work.

The disinterest of the local government in maintaining the partnership with the NGO has weakened

the efforts of those involved for the continuity of the technical advice. Despite this, the search for sustainability of the project was proved by diverse partnerships and articulations, for which executing team and participants have struggled to avoid the cancellation of the project.

The lack of sustainability of the project was also identified by a community health agent. At the time of the remodelling of one of the UBS, the participants were not invited by the local government to discuss the future of the space occupied by the vegetable gardens:

The vegetable garden of the UBS was finished in 2010 due to the remodelling [of UBS] that we had; we went through a remodelling and then the space was reused [for other purposes than that of the PCS].

In the case of economic sustainability, there have been efforts also in terms of fundraising, by the technical staff, and income generation by the participants, through the commercialization of products. However, once again, the efforts did not mean effectiveness in economic terms, with only isolated results. This was punctually proved in the moments of organization of groups involved in job and income generation, trying to ensure a continuous and participatory economic process. The income originated from bazaars, commercialization boards and solidary enterprises was mainly used by the participants themselves (individually or collectively).

Concerning environmental sustainability, in all productive systems, we found the best use of the available natural resources and the lower degree of waste between the participants involved (reuse of solid waste for building construction sites, use of organic waste to compost production, waste separation, etc).

For Silva and Pelicioni (2012), there are many environmental factors that affect human health, determining not only the complexity of the active interrelationships, but also the strategies to be developed for the solution of the problems resulting from them, something that requires the articulation between the different government sectors (health, environment, education, among others), the pri-

vate sector and the involved communities for the integrity and effectiveness of actions of multiple responsibilities.

Thus, we agree with the point of view of these authors that recognize that, although people do not have knowledge of the concepts of environmental sustainability, they have and/or may have, at any time in their lives, the clear perception of the risk and the need to act to solve environmental problems of everyday life.

Community action has been divided into the following subcategories: relationship with the environment; sociability; the development of citizenship. According to some authors, the strengthening of the community action is fundamental for the initiatives of HP, and involves increasing communities's power in setting priorities, in decision-making and in the definition and implementation of strategies to achieve a better level of health, having as a result the community empowerment (Buss, 2003; Westphal, 2006).

According to Restrepo (2001) the strengthening of the community action occurs when you create conditions under which communities, groups and individuals acquire the ability to make decisions to improve their lives and have control over the situation of social exclusion, which results in better levels of health and life quality.

Regarding the environment, some reports demonstrate that, after the involvement of the participants with the PCS, an "ecological awakening" emerged. This "awakening" has contributed to a new type of thinking and/or acting, and may be related to the reinforcement of community actions, either through more effective actions in the original communities or by insertion in several movements, such as environmental, ecological, social networks etc.

The strengthening of community action also contributed to the sociability of groups, revealed by reports about the interaction of participants in different living spaces, and contributed to the improvement of the family relationship, the development of solidary and cooperative process and improvement of the interpersonal relationship of the participants inside and outside the PCS, as the next report demonstrates:

Moreover, many relationships connected to the community emerged, so... there was an increase in the bonds and integration within the community, and that established more relationships with the family... (Urban farmer, 54 years)

Regarding the development of citizenship, a concern of the social actors with issues related to the city, self-worth and the exercise of new social roles was noticed. The interest in local politics, for example, was observed in some testimonies. One verifies that the involvement with the PCS contributed to the participants experience public life in the city, with citizens becoming more critical in relation to the municipal government. In this sense, the story of one of the involved participants revealed some frustration:

[...] at the same time, it also brought some perceptions, more awareness, so, for example, a sense of impotence before the public power. Sometimes people want to do things but stumbles in some limitations that the Government imposes. We could understand better how this Government's policy works, right? What are the interests behind it? That could bring us more knowledge about it, but at the same time it also brought frustration after we knew how it really works; we realized that is not the way we would like it to be, that we went with that will "let's do" that thing, everyone together, right? [...] to think that everyone was working with passion and then was mentioned in our group that we often felt even used, sometimes by the government, by political interests, and that frustrated us a little.

The previous testimony has demonstrated that as the involvement of the subjects with the local politics increased, it also improved the perception and recognition of the many "games" that concern to party politics and how it can influence the municipal management, nullifying or weakening the exercise of citizenship.

The stimulus to citizen participation occurs up to certain limits, since a more participative population is a population more aware and more attentive to the facts. Thus, participatory processes are strict to the superficiality of public-political instances,

not being allowed to the population to participate in deeply decisions when these are not in line with the party political interests (Demo, 2001).

Other data collected demonstrate the potential of the AUA in the multiplication of knowledge and the appraising of the potential of the local communities, as revealed by the speech of one of the technician educators:

I think that it was important to stimulate environmental conservation and to produce healthy food, to retrieve popular knowledge and the story of people's lives and to show how valuable is this knowledge, to exchange the most diverse experiences with the participants...

In general, the participants of the PCS have demonstrated engagement and involvement with the themes worked, resulting in the proliferation of agroecological practices in other places, such as vacant lots, day care centers, schools and, on several occasions, independently, without the presence of the technical staff.

According to Buss (2003) the development of skills related to health occurs through health education strategies, training programs and upgrading towards the empowerment or conquest of autonomy. At the individual level, a process of knowledge acquisition and an expansion of political consciousness also occur

Among the identified subcategories regarding the development of skills, these must be emphasized: new agricultural practices; environment; food and nutrition security; health and sociability.

A new look at the environment can arise from the involvement of the subjects with the AUA, signaling an expansion of groups' consciousness in this area, as well as a collective desire to contribute to the nature preservation, incorporating sustainable practices also in homes and communities (Ribeiro et al., 2012).

The agroecological urban agriculture developed in the PCS contributed to the promotion and strengthening of the FNS among the subjects involved, through the commercialization of healthier products in public spaces and, in particular, for the participants, by promoting changes in eating

habits; access to diversified food; exchange of healthy recipes; discovery of new edible species such as: capiçoba [*Erechtites valerianifolius*], cariru [*Talinum esculentum*, Jacq.], serralha [*Sonchus oleraceus*], tannia, among others. Data obtained during the survey demonstrate such effectiveness, according to the testimony report of an 68-year-old urban farmer:

[...] working with the land and growing food makes you want to eat healthy thing; we feel like eating what we grow because we see the plant grow, we know that it is organic and this changes what you want to eat, it makes you want to take better care of your health, to eat healthier.

The involvement with the PCS was deemed by some participants as a therapeutic activity, with benefits for mental health, resulting, for example, in an improvement of the clinical pattern of depression of some participants, as demonstrates by one of them:

I felt less depressed because we had fun working, laughed, sang...

Another dimension of health benefited from the AUA is physical, as affirms a nursing assistant, who accompanied the work on the PCS:

Even the demand for doctors was too great by these patients, and there has been a reduction. They forgot doctors and hospitals for a while and became more active with the activities in the vegetable garden, thus changing a lot their physical and mental health.

The development of personal skills in the diverse dimensions mentioned before may be related to the fact that the pedagogical proposal used in the PCS, which is based on the principles of agroecology and popular education, contributed to an interdisciplinary learning, always focusing on the origins, on reality and on the preexisting knowledge of each participant, allowing the development of new

knowledge and/or appreciation of the existing ones (Ribeiro et al., 2012).⁴

Regarding the creation of supportive environments, throughout the investigation, numerous evidence demonstrated the proximity of the AUA with this field of action of HP.

The clearing of the lands by the residents, City Hall employees and technical staff of the PCS, for the implementation of community vegetable gardens, granted the creation of environments conducive to health, since many of the reactivated areas were underused before the actions of the project.

For Restrepo (2001), the creation of supportive environments to health implies, above all, on a close interrelation among environments, lifestyles and healthy behaviors, in a way that threatened environments determine the levels of health of the populations. According to the author, interventions to create healthier environments must be attractive and creative, able to promote the individual and collective participation by interacting directly with the needs of their own communities.

Some evidences revealed the potential and the enthusiasm of the people involved in the viability of healthy spaces, although this concept has not been explicitly worked out by the technical staff of the PCS as a formative content.

Other skills were raised from the involvement with the PCS. Inactive spaces were designed not only for those who liked gardening, and this granted the reception of people with other interests, revealing other skills such as, for example, cultural and artistic ones. Thus, each individual come closer to what he/she identified with the most.

According to Hurtado and Crespo (2001, p. 264), “healthy spaces are local scenarios where comparatively the living and health conditions are more favorable for individual and collective development of the several groups that integrate the society“. This process of creating environments conducive to health, according to these authors, involves groups in specific spaces in of chievement of equity in health.

In terms of healthy public policies building, the

4 Information also contained in: CAVALCANTE, B. C. Agroecologia e agricultura urbana: contribuições e desafios a partir do estudo do projeto Colhendo Sustentabilidade em Embu das Artes. 2011. (Trabalho de Graduação Individual) - Faculdade de Filosofia, Letras e Ciências Humanas da Universidade de São Paulo, São Paulo, 2011.

PCS has performed an important role in the expansion of the agricultural area of the municipality, since during the elaboration of the “public policy of agro-forestry” of the new master plan, the members of the technical staff contributed to the themes of urban agriculture and agroecology insertion into the Supplementary Law No. 186, April 20, 2012.

Moreover, the creation of PROMAS, in 2012, and the insertion of agroecological urban agriculture activities in some Basic Health Units demonstrate the effective contributions of the PCS in developing healthy public policy in the city.

Despite this, some threats to the continuity of this project were mentioned by the participants, such as: the confrontational relationship with the City Hall generated by the sale of the land of the Itatuba vegetable garden, preventing the continuity of local production; the lack of priority and resources from the City Hall for the full development of the PCS; the completion of the project without assessing the impact in the lives of the participants; the end of the partnership with NGOs; the revision of the City Plan; the lack of security related to robberies in the vegetable gardens; and the lack of sites for the implementation of new vegetable gardens.

We emphasize, however, that for Demo (2001), in a democracy, it is necessary to negotiate the conflicts and differences, since they cannot be dissembled, treated with “half-measures”, in a palliative and compensatory manner, or, in the other hand, they cannot be exacerbated under the prism of authoritarian, unilateral and partial initiatives. The intermediate solution would be the negotiation.

Nevertheless, with the collected data, it was not possible to know in depth at what level the negotiations between the participants and the local government occurred, during the process of sale of the Itatuba land or of the review of the Master Plan, and other conflicts previously mentioned.

Finally, it is believed that the urban agriculture may be considered a tool for HP, although to make its consolidation possible and effective, it is fundamental that politicians recognize its value at the three levels of the government, considering the aspirations and demands of the population. Therefore, evaluating the urban agriculture beyond the specific interests and, in particular, the interests of political-party character.

Conclusions

The methodology used in this study allowed the re-definition of the experienced process from the point of view of the involved ones; the understanding of the dynamics, the scope and the results of the project; the identification of principles, and aspects of the experience in line with the FNS.

In addition to the recognition of the roles performed by several social actors, it was also possible to verify how the process of empowerment, retrieval, acquisition and multiplication of knowledge occurred.

Regarding the HP, intersectoriality, social participation and sustainability were the principles identified in the experience. Among the fields of action, the strengthening of community action, the development of personal skills, the creation of supportive environments to health and the contributions of the PCS in developing healthy public policies are highlighted.

The intersectoriality seemed to be more present in the speeches of public managers than in practice, presenting itself as a challenge to be faced and overcome. On the PCS, the more successful intersectoriality occurred at the base of the organizational pyramid, which relied on efforts and personal commitment of the employees of municipal public facilities.

The attempt to achieve sustainability within the PCS, as previously mentioned, has been identified under three approaches: the sustainability of the project through its continuity; the economic sustainability through the autonomy of the involved groups; and environmental sustainability, with the proper use of natural resources.

Despite all efforts, the end of the agreement between the City Hall of Embu das Artes and the NGO revealed the PCS fragility and dependence regarding the local government. With the detachment from the partnership, the work led by the technical staff of the NGO was extinguished. Ever since, this work was performed exclusively by the local government, until the moment of the interview conceded for this research by a technician responsible for PROMAS.

The results achieved in the PCS revealed a potential to its continuity and expansion. However, the institutional conflicts mentioned before contributed

to a change in the direction of the project, i.e., the non-renewal of the referred agreement, as well as the lack of its sustainability.

The incorporation of activities involving the vegetable gardens in health services occurred by the individual interest of some civil servants and patients. There is the potential of other people collaborating in the discussion for the reorientation of health services, incorporating actions outside doctor's offices and health services. For this, it would be necessary the "adhesion" of the Municipal Secretariat of Health - in addition to the purchase of inputs and transfer of working hours of the employees for this specific activity, something that would promote a discussion about intersectoral activities. Thus, urban agriculture in UBS should be considered an activity of health promotion, as educational groups are.

The popular knowledge appreciation and the retrieve of ancestral practices and knowledge contributed to the revelation of other skills, personal and collective, beyond activities related to agricultural practices. This appreciation and retrieval of the participants' knowledge contributed to the improvement of individual and collective capacities in the groups.

The organized rapprochement between public authorities and the organized civil society contributed to more effective results regarding the improvement in people's quality of life, promoting, in a broader way, good health for everybody. We emphasized the individual perception of the participants regarding the improvement of their own physical, mental and social health, from the involvement with the activities of the PCS.

The situation experienced in the PCS showed a new path towards civic participation, since its theoretical references of agroecology and participatory methodologies - based on the principles of the popular education - collaborated to the individual and community empowerment and to social protagonism, promoting health, and food and nutrition security of the populations involved.

Finally, it was concluded that the agroecological urban agriculture could be considered a health promotion tool, since it contributes for the identi-

cation of the individual as part of the environment, increasing his/her self-esteem, retrieving his/her sense of belonging and integrating the individual in the society; it stimulates the social protagonism, the citizen participation, the acquisition of personal and collective skills; it makes environments conducive to health possible, far beyond the individual perception of the participants, once physical transformations occur in the occupied territories.

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Authors contribution

Ribeiro and Watanabe worked on the design of the study, in the analysis and in the data interpretation. Ribeiro, Watanabe and Bógus participated in the data collection, writing and review of the final version of the article.

Received: 12/27/2013

Presented again: 05/09/2014

Approved: 06/16/2014