

LOCAL ACTION AND PREVENTION: A STUDY ABOUT ADOLESCENTS LIVING IN AREAS OF SOCIO-ENVIRONMENTAL RISK¹

ROBERTH M. TAVANTI¹

MARY JANE SPINK²

Introduction

According to information available in the Brazilian *Atlas of Natural Disasters* [Atlas Brasileiro de Desastres Naturais] - volume Brasil (CEPED; UFSC, 2012), there was an increase in the incidence of disasters between the 1990s and 2000s. Of a total of 31,909 incidences recorded in this period, 8,671 (27%) occurred during the 1990s and 23,238 (73%) in the 2000s. It is worth pointing out that recurring types of disasters included 16,944 incidences of dry periods and droughts; 6,771 occurrences of flash floods and floods leading to surface overflow; 3,673 events related to gradual flooding; 2,249 incidences of gales and cyclones; 1,369 events of hail, as well as 903 other types of disasters.

Since the 1990s, disasters have affected 96,220,879 people. Analysing damages in the different regions of the country, it can be observed that, in descending order, 12,851 events occurred in the Northeast affecting 43,031,112 people; in the South, 10,716 incidences affected 22,586,526 people; in the Southeast 6,418 occurrences affected 21,798,462 people; and finally, the North and the Centre West regions, where 807 occurrences affected 5,731,157 people in the Centre West and 1,117 occurrences affected 3,318,856 people in the North.

Another comparison relates the number of deaths per type of disaster. Flash floods were responsible for the most damage and the largest loss of human life, accounting for 43.19% of deaths associated to all disasters. In second place are disasters related to gravitational mass movements (landslides, flows, creeps and rock falls) that account for 20.40% of deaths. In third place are disasters caused by gradual floods, accounting for 18.63% of recorded deaths (CEPED; UFSC, 2013).

In the state of São Paulo, between 1991 and 2010, 831 disasters were recorded. Floods and gravitational mass movements were the types of events which most affected the region and were largely responsible for state of emergency announcements. The

1. Doctoral Candidate in the Program of Postgraduate Studies in Social Psychology of the Pontifical Catholic University of São Paulo. E-mail: robertopsico@hotmail.com

2. Full Professor at the Faculdade de Ciências Humanas e da Saúde and Program of Postgraduate Studies in Social Psychology of the Pontifical Catholic University of São Paulo. E-mail: mjspink@pucsp.br

following were the most affected municipalities: 1) Cajati (11 occurrences); 2) Araçatuba and Iguape (10 occurrences each); 3) Caieiras, Francisco Morato, Jacupiranga, São Paulo and Sete Barras (9 occurrences each); and 4) Mauá and Paraguaçu Paulista (8 occurrences each).

With regard to the negative impacts on the population, it was observed that during the twenty-year period analysed, more than 5 million people were affected by disasters; of a total of 5,394,693 affected individuals, 133,888 had to move temporarily out of their homes, 78,997 were made homeless, 70,900 were relocated, 61 missing, 802 were slightly hurt, 57 were seriously hurt, 2,579 became ill and 245 were killed (CEPED; UFSC, 2012).

On the definition of disasters

Disasters are generally characterized by the amount of damage caused to a population (such as individuals affected, people missing or who became ill, loss of life) and short-term damage to economic goods. These events are wrongly described as “*natural*”. According to Allan Lavell (1993), disasters are essentially social, both in terms of their characteristics and in terms of their definition. That is,

[...] a disaster is the result of social and historical processes produced in and restricted to a specific area. An important consequence of this definition is that disasters should not be considered as “abnormal” phenomena either in terms of their content or impact. They should only be considered “abnormal” with regard to their irregularity or frequency rate in a specific locality. They should, therefore, be seen as the expression of a particular state of normality, or of normal and prevalent conditions of a society that is operating under extreme circumstances (Lavell, 1993, p. 79).

From this point of view, it is important to focus our attention on issues such as where and how homes are built; units of production and infrastructure; levels of social, political and institutional organization; levels of poverty; and the relations established between individuals and populations and their physical, socio-spatial and cultural surroundings (LAVELL, 1993). In the words of Norma Valêncio, a well-known Brazilian researcher in this academic field: “Disasters should be understood as the result of serious shortcomings in the political structure of the organizations which produce and implement the projects related to prevention, mitigation, preparedness, response and reconstruction” (VALENCIO, 2012, p. 320).

Considering the above definitions and the importance of the topic of disasters for Brazil and other Latin American countries, as previously highlighted, the aim of this article is to discuss disaster prevention from the point of view of the experiences of adolescents who live in areas at risk of landslides and the subsidence of river banks in the Jaçanã district (SÃO PAULO, 2010), in the northern region of the city of São Paulo, state of São Paulo (SP).

This article is divided into three parts, the first two parts present the current policies, directives and conceptions which guide the actions of Civil Defence in Brazil and in Latin America (BRASIL, 2012; ISDR, 2002), in particular those focusing on disaster prevention (CARE; BRASIL, 2012; CEPED; UFSC, 2013). In the third part, based on results of a study¹ carried out between 2011 and 2013 with a group of adolescents living in this region, we consider the importance of sharing experiences and knowledge for developing local actions focusing on disaster prevention.

Current policies and directives guiding the actions of Civil Defence in Brazil

In order to analyse the specific legislation which regulates the policies, system, services and actions of Civil Defence at different levels (federal, regional, state and municipal), we make use of law 12.608, approved on 10 April 2012 which we consider to be a “key” document to develop arguments related to preventive actions with a view to reducing disaster risks (ISDR, 2002).

In general terms, Law 12.608/12 addresses disasters in a broad and organized way which involves risk identification and analysis; structural and non-structural measures to mitigate and/or solve problems; contingency systems; the training and capacity-building of civil protection and defence agents; and the obligation to provide information to the public.

This Law establishes the National Policy for Civil Protection and Defence (PNPDEC), The National System of Civil Protection and Defence (SINPDEC) and the National Council for Civil Protection and Defence (CONPDEC); it stimulates the creation of an information and disaster monitoring system; it amends Laws n. 12.340 (01/12/10), 10.257 (10/07/01), 6.766 (19/12/79), 8.239 (04/10/91) and 9.394 (20/12/96); and it also provides for other measures.

The PNPDEC directives stipulate that there should be:

- I - joint action by the Union, the states, the Federal District and municipalities to reduce disasters and support the communities affected;
- II - a systematic approach to actions relating to prevention, mitigation, preparedness, response and recovery;
- III - priority given to preventive actions in order to minimize disasters;
- IV - adoption of river basins as the units of analysis for actions to prevent disasters related to water;
- V - planning based on research and studies in areas at risk and on the incidence of disasters within the national territory;
- VI - civil society participation (BRASIL, 2012, p. 2).

Other relevant points are that the Union must establish and maintain a national register of municipalities of areas susceptible to the occurrence of high impact landslides, flooding and correlated geological and hydrological processes. States and municipalities are responsible for identifying and mapping risk areas, as well as conducting studies to identify threats, susceptibilities and vulnerabilities. This measure must be associated with

the duty to conduct meteorological, hydrological and geological monitoring of areas. It is also important to produce geotechnical maps showing an area's suitability for urbanization, setting out urban planning directives, which focus on the safety of new plots. Geotechnical maps and the mapping of risk areas should be integrated into municipal Master Plans. With regard to housing, residents removed from risk areas should have priority in housing programmes developed by the Union, states and municipalities.

Other important measures: Law 12.608/12 guarantees the continuous professionalization and training of civil protection and civil defence personnel; it requires municipalities to implement Contingency Plans and draft plans for implementing engineering works and services to reduce risks; it requires that civil defence becomes a compulsory item in the primary and secondary education curriculum; finally, it requires that information is published regarding the occupation of risk areas and, if necessary, that specific procedures are implemented to remove residents.

The inter-sectorial nature of policies is fundamental.

The PNPDEC must be integrated with policies for spatial planning, urban development, health, the environment, climate change, water resources management, geology, infrastructure, education, science and technology, and other policies with a view to promote sustainable development (BRASIL, 2012, p. 1).

From our point of view, Law 12.608/12 is innovative when compared to previous legislation, given that it incorporates the concept of reducing disaster risks, it further develops a number of aspects such as joint action (Union, the Federal District, states and municipalities), it is inter-sectorial, gives priority to preventive actions and to the minimization of disasters, and sets the requirement to publish information on the evolution of the occupation of risk areas.

Preventive actions within the perspective of reducing disaster risks

Based on the sum of the concepts adopted within the International Strategy for Disaster Reduction (ISDR, 2002) and those established by the Brazilian State with the approval of Law 12.608/12 (BRASIL, 2012), Civil Defence can be described as a set of actions involving prevention, mitigation, preparedness, response and recovery, aimed at reducing disaster risks and preserving the morale of the population, civil protection and the re-establishment of social normality (CEPED; UFSC, 2013).

Thus, the activities of Civil Defence in Brazil must be based on principles which gives priority to the reduction of disaster risks (ISDR, 2002) and, according to researchers from the Centre for Disaster Studies of the Federal University of Santa Catarina (CEPED/UFSC, 2013), should be guided by a model of inter-relational (prevention, mitigation, preparedness, response and recovery) and inter-sectorial actions which must encompass policies and tools for the analysis, assessment and management of disaster risks.

According to ISDR (2002, p. 18):

Prevention: activities which seek to avoid the adverse impact of hazards, **reduce vulnerability, strengthen capacity**, as well as provide the means to **minimize related environmental, technological and biological disasters**. Depending on the social and technical feasibility and cost/benefit consideration, investing in preventive measures is justified in areas frequently affected by disasters. Within this context, **public awareness and education** related to disaster risk reduction changes social attitudes and behaviours and contributes to promote a **culture of prevention** (our highlights).

Mitigation: structural and non-structural measures undertaken to reduce the adverse impact of natural and technological hazards, and environmental degradation. **Structural measures** include engineering and construction measures such as protecting or reinforcing structures and infrastructures to reduce or avoid the possible impacts of hazards. **Non-structural measures** refer to **policies, awareness, knowledge production, public commitment and operational methods and practices**, including participative and information mechanisms, which can reduce the risk and consequent impact of disasters (our highlights).

Preparedness: activities and measures taken in advance so as to ensure an **effective response** in face of the impact of hazards, including timely and effective deployment of **early warning systems** and **temporary evacuation** of people and property from threatened areas (our highlights).

For the specific purposes of this article, we will only focus on prevention, mitigation and preparedness actions. However, this will also allow us to visualize the institutional structure and modus operandi of Civil Defence in Brazil. This is because, given the guidance set out by ISDR (2002), all signatory countries must comply with a conceptual “regulatory” framework:

The conceptual framework relating to **disaster risk reduction** consists of the following areas of action [...]: 1) risk assessment including **vulnerability analysis**, and **hazard analysis and monitoring**; 2) **awareness**, in order to change behaviour; 3) knowledge development, including **information, education, capacity-building and research**; 4) political commitment and institutional structures, including **political organization, legislation and community action**; 5) implementation of risk reduction measures, including **environmental management, practices for social and economic development, physical and technological measures, spatial and urban planning, the protection of vital services and the development of networks and alliances**; and 6) detection and early warning systems including **prognostics, forecasting, dissemination of warnings**, preparedness measures and reaction capacities (our highlights, p. 18).

Also included in the “regulatory” framework are the organization and implementation of Community Units for Civil Protection and Defence (NUPDECs) in vulnerable areas and/or areas affected by disasters, in particular, when this population – the residents of risk areas - are considered to be fundamental actors in the different processes for decision-making, knowledge development (education, capacity-building and research) and the management of disaster risks.

In line with the legislation, policies and directives which underpin preventive actions by the Brazilian Civil Defence,

NUPDECs act as forums for civil protection and defence discussions. The purpose of these meetings is to plan activities related to disaster reduction, in particular: 1) assess disaster risks and prepare thematic maps relating to hazards and vulnerabilities of the scenario and risk areas; 2) promote structural and non-structural preventive measures developed in order to reduce disaster risks; 3) draft contingency plans to respond in the event of disasters and simulated exercises to improve these plans; 4) train volunteers and technical operation teams to act in disaster situations; 5) organize contingency plans in order to optimize the state of readiness, in the event of a disaster (CEPED/UFSC, 2013, p.89).

Therefore, the NUPDECs should be understood as one of the most important resources for the development of prevention, mitigation and preparedness actions in vulnerable areas and/or in those affected by disasters.

Theoretical and methodological considerations from discursive psychology

According to Spink and Medrado (2013), the focus on everyday discursive practices concerns the instances of re-signification, ruptures and production of meanings, that is, periods when language is used actively, involving both order and diversity.

In other words:

Studies that adopt this concept do not only focus on regularity, invariability and consensus, but also include the variability and polysemy found within discourses themselves. [...] To accept that discourse practices may be polysemic does not mean to say that a tendency towards hegemony does not exist or that meanings developed are equally able to produce changes. In fact, the polysemic nature of language allows people to move between a myriad of contexts and experience a variety of situations (SPINK; MEDRADO, 2013, p. 29).

Spink and Medrado argue that the production of meaning should not be understood as an intra-individual cognitive activity or simply as the reproduction of pre-determined

models. It is a dialogical social practice involving the use of language. Therefore, we should look at the production of meanings as a socio-linguistic phenomenon - given that the use of language sustains the social practices that generate meaning - which includes discursive practices affecting everyday life (such as narratives, argumentation and conversations), as well as the repertoiresⁱⁱ used within these discursive productions.

According to Spink (2009, p. 16):

This research approach, which is closely associated to discursive psychology, considers the following aspects to be fundamental: a) the issue of the basic units of language, dialogical statements and inter-animations, mainly based on the theories of Mikhail Bakhtin (1994, 1995); b) a positioning in accordance with the theories of Rom Harré (DAVIES & HARRÉ, 1990); c) linguistic repertoires, a concept derived from Jonathan Potter (POTTER & WETHERELL, 1987); and d) discursive practices which are the focus of this research and integrate all the other elements.

Through this approach we developed a way of researching social phenomena focused on the tensions between universality and particularity and between consensus and diversity, in order to generate a useful tool to promote social transformations. In short, we seek to contribute by producing reflexive research, which is committed to the population it works with by studying local phenomena, and seeking joint solutions to their problems (CARDONA, 2004).

Research procedures

The common thread of this study is the research on the language of risk (SPINK, *et al.*, 2007) carried out at the Centre for Research on Discursive Practices (NPDPS) at the Pontifical Catholic University of São Paulo (PUC/SP). Our study is also underpinned by a focus on daily life (SPINK, 2002 and 2007; SPINK, P. 2008). In the second half of 2011 we contacted the Municipal Unit for Civil Defence of the city of São Paulo (COMDEC/SP), more specifically, the technicians responsible for Prevention/Recovery Actions and Humanitarian Aid within COMDEC.

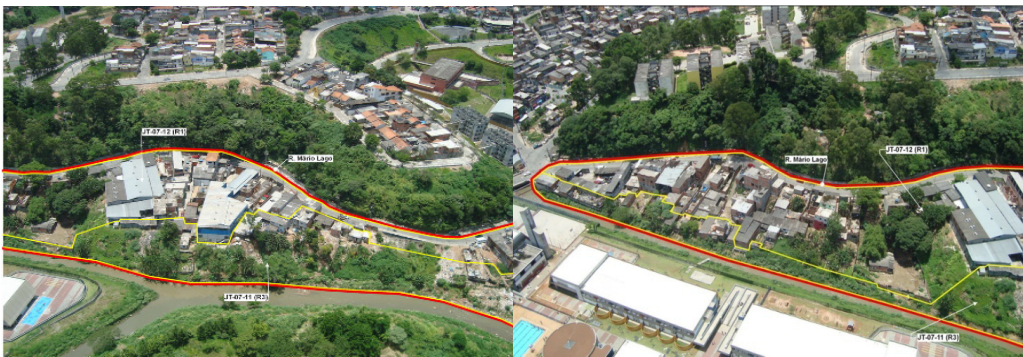
The decision to work with adolescents living in risk areas and the choice of the district of Jaçanã emerged from conversations and agreements made with COMDEC/SP professionals who had already established working partnerships with the region's public agents, in particular, with the managers of CEU - Jaçanã (Jaçanã Educational Centre). During that year, they had hoped to carry out educational activities focusing on disaster prevention, but for a number of reasons these had not taken place. In the last two months of 2011 we were introduced to the CEU - Jaçanã's management team and, subsequently, to the Head of Education at the CEU's Primary Education Teaching Unit (EMEF), where the research activities would take place.

Eight months went by between our first contact with CEU-Jaçanã and the EMEF and subsequently conducting the workshops, which took place in September

and November 2012. In this way, we used the first six months of 2012 to immerse ourselves in and learn about the daily routine of the institution. In other words, after a number of negotiations and agreements between the researcher and the pedagogical team, and in turn, this team's negotiations and agreements with the teachers in charge of years 7 and 8 (pre-selected yearsⁱⁱⁱ), we started our activities on rain related disasters in urban areas.

Figures 1 and 2 show how close the CEU - Jaçanã's main centre is to one of the 14 risk areas located in the Jaçanã district, in the Northern region of the city of São Paulo (SÃO PAULO, 2010).

Figures 1 and 2. JT-07-11 sector (R3) and CEU - Jaçanã's main centre



Source: Relatório Técnico nº 116.880-205 (SÃO PAULO, 2010, p. 235 and 234).

Risk workshops as a research tool

Spink, Menegon and Medrado (2014), propose that workshops can be used in different contexts, for example, as part of activities of social movements working with different populations; to reflect on a number of topics, using a popular education approach; and in prevention and promotion programmes that are aimed at social participation and mobilization, such as in public health programmes developed by health or social services and/or community centres.

In relation to research in the field of social psychology, some studies (CURADO, 2008; SPINK, 2003a; SPINK, 2003b) using workshops as a research tool had interesting outcomes, for example:

[...] workshops showed a potential for promoting ethical and political participation. This is because whilst generating material for analysis, we created a space for symbolic exchanges, which enabled group discussions in relation to the proposed topics, generating constructive conflicts in order to produce political engagement with a view to transformation. That is, the effects of the workshops are not restricted

to recording information for research, given that they also develop awareness of the topics discussed, enabling participants to experience and accept a (not necessarily harmonious) multiplicity of versions and meanings about that topic (SPINK; MENEGON; MEDRADO, 2014, p. 33).

In this research, the risk workshops^v involved between 12 and 15 adolescents per group, a co-ordinator and an observer. On average, workshops lasted one and a half hours and were divided into 4 stages: 1) presentation; 2) association of words and/or sentences with the word “risk” (Activity A); 3) memories of situations in which participants felt at risk (Activity B); and 4) the meanings of prevention (Activity C).

The first stage consisted of introducing the co-ordinator, the observer and the participants and providing information on the general procedures (duration: 5-10 minutes); the objective of the second stage (Activity A) was to associate words and/or sentences with the word “risk”. During this stage, young people were asked to write down words and/or sentences that came to mind when they thought about the word “risk”. After 10 minutes, we asked them to read aloud their words and/or sentences so that the co-ordinator could write them on a board (duration: 20 minutes); the third stage (Activity B) sought to enable people to talk about their personal and/or collective experiences of risk situations in life in general. Participants were then asked to write these on strips of paper and, subsequently, the recorded stories were read aloud (duration: 30 minutes). During this activity, interaction between the adolescents was essential, that is, we gave priority to the exchange, negotiation and sharing of personal and/or collective experiences.

Stage four (Activity C) was a continuation of the previous activity. Its aim was to promote the discussion on risk prevention based on the experiences of adolescents. During this stage, the co-ordinator encouraged topics associated to socio-environmental risks (duration: 30 minutes). At this point, the recording equipment was switched on. Finally, a brief assessment of the activities was conducted.

The decision to use risk workshops as a methodological tool (SPINK; MENEGON; MEDRADO, 2014) to produce and analyse the risk repertoires of the groups of adolescents living in risk areas was based on the following considerations: 1) aims to develop awareness of socio-environmental risks; 2) enables us to point to the diversity of words used to talk about risk in everyday life; 3) is based on a dialogical and reflexive perspective about the production of meanings; 4) enables a better understanding of arguments and displacements, building and contrasting different versions, and providing an excellent opportunity to analyse discursive practices; 5) workshops are a tool with a high potential for group mobilization; and 6) enables the formulation of political and educational alternatives with regard to urban, social and environmental issues (TAVANTI, 2013).

Results and Discussion

Repertoires on risk: polysemy and the circulation of meaning in everyday life

Based on the associations between the word “risk” (activity A) and personal (individual and/or collective) accounts of risk situations (activity B), the meanings of risks employed during the workshops allowed us to identify different contexts of usage and different forms of talking about risks relating to daily life.

Some examples of words and/or expressions used by the groups of young people during the activities mentioned above are presented in Box 1.

Box 1. The meanings of “risk” in daily life

Contexts of usage	Examples of words and/or expressions
Health	life-threatening, death, spoiled food, get ill, lose someone, get pregnant, etc.
Educational	scribble, notebook, school, pencil, pen, do badly in an exam, etc.
Accidents (traffic and domestic)	being run over, motorbike, car, bicycle, bus, get hurt, burn yourself, etc.
Sports and Games	sports, flying kites, football, swimming, internet, money, etc.
Violence	being attacked, lack of security, fear, danger, knife, shooting, favela (slums), etc.
Environmental	disaster, nature, electricity, lightening, rain, trees, fire, etc.

Other information related to risk situations which expressed the personal (individual and/or collective) experiences of adolescents and the topic of disaster prevention associated to rain in urban areas (Activities B and C) were also recorded and subsequently analysed. Three accounts⁹ are given as examples of these experiences:

[...] “at my granddad’s, the river rose and **flooded** the houses”. [...] Another adolescent stated that the school where they were had already been **flooded** a few years back, approximately three years ago. [...] “The river near the CEU **flooded**, we were in year 4, there was even a (VW) beetle floating” [...]. Another young person mentioned a case of a **landslide** near her home in the Filhos da Terra neighbourhood, where a house slid down a hill. During this incident a girl **died**. A fourth girl talked about difficulties in housing due to **landslide** incidents, especially in periods of heavy **rain** and/or water **infiltration** from pipes in a precarious state (our highlights).

[...] “I was in the street, in the **rain**, **lightning** struck close to me”
 [...] “my aunt’s house **flooded**, I got to know about it because she

called my mum". Another account: "a **hillside collapsed** near my home. The **municipal offices** warned us about it, and then the house collapsed". [...] "Near our house there are some woods, where there is a house. Then one day it **rained** and the house **collapsed**. The next day there was only mud" [...]. Another speech related to the designation of a **risk area**: "we live in a risk area" [...] what is a risk area? They answer: "**a risk area is an area we cannot move into, when we live next to a river that floods, we live in a risk area**". [...] One of the young people cites the risk of contracting **leptospirosis** due to **flooding** (our highlights).

The repertoires of risk used in everyday language allow us to understand how individuals and/or groups of adolescents position themselves in their day-to-day dealings with family members, neighbours, friends and other people. In this way, the experiences of these adolescents tell us about the variety of ways they tackle situations of risk and disasters associated to rain in urban areas.

A second set of statements was related to the absence or ineffectiveness of the actions/interventions of institutions and public services with regard to Civil Defence in the region.

[...] a young person suggested that **residents should be removed** from their homes. The co-ordinator asked where people would go. Participants replied that many did not have anywhere to go and that people preferred to remain in **danger**. [...] Someone replied: "no-one wants to leave their home to **sleep on cardboard**, as they showed on TV". "And also, because everyone wants to have their own place". [...] One of the participants used the word "**citizen**" which led the co-ordinator to ask: what does it mean to be a citizen? Two people answered "people, you". Another mentioned that the **police** were not good citizens, because they attack citizens [...] (our highlights).

[...] some sentences were very incisive: "We have to change our **politicians!** Move them out of their homes and bring them to where the people live"; "Look after the people who live in **risk areas**"; "Build a very big **wall** so it does not fall"; [...] a very significant speech referred to the situation in which the **responsible authorities** were contacted by the populations, but did not show up. "The hill slopes are falling, **people called them**, the old lady near our house called them, but they did not come" [...] (our highlights).

The third set relates to practical proposals, associated to individual and/or collective strategies to address the situations of risk or disasters. It encompassed alternatives based on prevention and mitigation actions drawn up, discussed and debated by groups of adolescents during the risk workshops.

On the **meaning of prevention**, some suggested that prevention is related to **being careful**. In other words: “To take care, to look after oneself” [...]. Some related to specific suggestions: “**respect danger signs** (as in a beach with sharks)”; “place an **iron sheet** in front of the house”. [...] In this regard, one of the participants also suggested that they should **not throw rubbish** onto the street. [...] “put furniture on top of chairs”. [...] Can we do anything with the waste materials? One of the female participants answered: “we not only should, sir, but must!” (our highlights).

[...] a young person raised the idea of two types of **manifestations** identified by adolescents and which related to **dealing with** disasters. The first happened in **school** and involved year 7 pupils. The second incident regarded a rebellion involving the **population** (residents of neighbourhoods near the CEU - Jaçanã) because of **lack of water**. They got together to demand that the region`s supply be re-activated. In these two cases, the group of adolescents pointed to a **dialogue** between groups who have resources, which are essential for solving the issues at hand. In the first case, the use of a **school radio** was understood as a **strategy** for mobilization. In the second example, they referred to the **mobilization of the population**, which consisted of discussions among the neighbourhood`s residents who demanded the reactivation of the water supply in **street demonstrations** (our highlights).

[...] one of the adolescents stood out from the group. This is because of his arguments and positioning in relation to social and political issues, particularly with regard to forms of **participation** and **mobilization of the population**. This was a position backed and shared by other participants [...]. Amongst arguments used, the most common related to the need to **communicate** and **mobilize** people, groups, associations and institutions. In particular, the churches, groups of adolescents/young people, school and community centres. Examples of statements were: “People need to learn that they need to **come together** [...]”; “people need to organize themselves into **neighbourhood associations**”; “we need to come together for our **rights**”. The co-ordinator then asked: do you have any **experience** of belonging to associations? He replied: “I can influence people, because the leader of my Church has an association and we can set up a **young people`s association** [...]” (our highlights).

Possible connections between the risk repertoires used by the adolescents who participated in the workshops and the documents discussed in the initial sections of this article concerning current policies, directives and concepts which guide the actions of Civil Defence in Brazil (ISDR, 2002 and BRASIL, 2012) will be presented in the next item.

From a disaster response model of Civil Defence to an emphasis on disaster prevention

Considering the international and national documents related to the management of disaster risks that guide Civil Defence activities in Brazil (ISDR, 2002; CEPED/UFSC, 2013; BRASIL, 2012), and based on the experiences of the adolescents, a number of questions arise. First, it is worth questioning why the actions geared to the management of disaster risks, established by law and supported by government authorities, in particular those linked to Civil Defence in Brazil, are not enough to guarantee the protection and safety of people living in vulnerable regions and/or the people affected by disasters.

If, on the one hand, actions (or proposals) are part of a risk management model based on joint action (the Union, the Federal District, states and municipalities) and are inter-sectorial and give priority to prevention and the minimization of disasters, on the other, we identified (from the experiences of the adolescents) numerous instances of emergency situations and/or disasters situations associated to rainfall (inundations, urban flooding and landslides):

“The river **flooded** the CEU, we were in year 4 [...]”; “My aunt’s house **flooded** [...]”; “**a slope on a hill collapsed** near my house.” [...] “we live in a **risk area**”; [...] “no-one wants to leave their home to **sleep on cardboard**, as they showed on TV”. [...] “put furniture on top of chairs”. “put an **iron sheet** in front of the house”; “A hill slope is collapsing, **someone called them**, an old lady who lives near my house called them, but they never came”. “People need to learn that they need to **come together** [...]”; “people need to organize themselves into **neighbourhood associations**”; “we need to come together for our **rights**” (our highlights).

In these different accounts we observed not only the fact that, in this region, adolescents experience risk situations and disasters, but we also identified that many decisions related to what to do, and how to do it, in face of these incidents end up being taken (either individually or collectively) by the adolescents themselves, their relatives, friends, neighbours and other residents. In other words, we observed the absence or ineffectiveness of preventive actions by local institutions and public services, in particular those associated to Civil Defence in the region.

Within this context, young people’s knowledge and experience of living in areas of socio-environmental risk can contribute to develop local actions for disaster prevention. Amongst possible suggestions, we emphasize: 1) strengthening strategies related to awareness, public education and communication on disaster risks; 2) organizing and implementing Community Units for Civil Protection and Defence (NUPDECs); and 3) furthering the processes for the participation and mobilization of people, groups and associations in the region.

From this point of view, according to Gabriela Di Giulio (2012), it is essential to develop the conditions that enable a more productive dialogue between the different areas of knowledge and professionals who analyse risks on the one hand, and society and the

affected population on the other. The aim is to take into account shared understanding and the integration of technical, scientific and social aspects in the analysis and reduction of disaster risks. Indeed,

Social organizations (associative models and associations) in the form of social mobilizations have an important role to play in the governance of risk. Based on a network of actors with strong organizational capacity and potential for social mobilization, these organizations/associations can actively contribute to the development of knowledge and decision-making, because they become new actors who can play important roles with regard to a subject, which up to this time has been dominated by specialists (DI GIULIO, 2012, p. 39).

Therefore, in order to deal with risks, it is not enough to merely identify and set out techniques and means for controlling, assessing and preventing risks from occurring. It is important to reflect on how to share local knowledge and experience and build collective strategies through networks, which include social movements and people, as well as governmental and non-governmental institutions, in order to support life, health and healthy environments within a system where justice and sustainability play a significant role (PORTO, 2012).

Final Considerations

When discussing disaster prevention with groups of adolescents living in places of socio-environmental risk in the northern region of the city of São Paulo, we observed that it is essential to consider at least three aspects in the public debate on disaster risk management: 1) the polysemic meanings of risk in daily life; 2) the lack of efficiency and the fragility of preventive activities by public institutions and services related to Civil Defence; and 3) the need to share knowledge and experiences, and promote the participation and mobilization of different types of organization, as fundamental resources in order to develop local actions on disaster prevention.

In short, the purpose of our decision to use a methodological research tool (risk workshops), based on a dialogical and reflexive perspective of knowledge production and the awareness of risks in daily life (SPINK; MENEGON; MEDRADO, 2014), was to bring to light the experiences of adolescents who live in areas of socio-environmental risk. Thus, we consider that we can contribute to deconstruct the naturalization of disaster risk experiences. Furthermore, this tool can stimulate inter-disciplinary and inter-sectorial debates between different areas, including academic knowledge, public managers, technicians and Civil Defence agents, and between these agents, society as a whole and the populations who live in vulnerable areas and/or areas affected by disasters associated to rainfall in urban areas.

Notes

- i This research is linked to other studies and research conducted by the Núcleo de Práticas Discursivas e Produção dos Sentidos [Centre for Discursive Practices and the Production of Meaning] (NPDPDS) at the Pontifical Catholic University of São Paulo (PUC/SP) focusing on three lines of investigation: risk management as a strategy for governmental capacity, the construction of social facts and the production of meaning in daily life.
- ii Linguistic repertoires are the building blocks of discursive practices - the set of language terms, descriptions, common-places and figures of speech - which define the range of possibilities of discursive constructions. Their parameters are the context in which practices are produced and specific grammatical styles, that is, speech genres (SPINK; MEDRADO, 2013, p. 28).
- iii Among the criteria used to include/exclude adolescents in activities, the following stand out: 1) the selection of year groups (7B and 8B) by the EMEF coordination; 2) the guarantee that young people would participate voluntarily, which involved both adolescents and their parents signing an Informed Consent Agreement (ICA); 3) ensuring that the number of adolescents per group would be reduced, and that they would remain in class whilst workshops were conducted (9h30min - 11h05min).
- iv For further explanations about the use and implementation of risk workshops with groups of adolescents within educational contexts, see TAVANTI (2013).
- v The accounts used as examples are made up of observation notes from the field diary, systematically recorded by the researcher, and the comments of the young people (in speech marks) transcribed from the audios recorded during the three risk workshops.

References

- BAKHTIN, M. The problem of speech genres. In: EMERSON, C & HOLQUIST, M. **Speech genres and other late essays**. Austin/Texas: University of Texas Press, 1994.
- _____. **Marxismo e filosofia da linguagem**. São Paulo: Hucitec, 1995.
- BRASIL. **Lei nº 12.608** de 10 de abril de 2012. Institui a Política Nacional de Proteção e Defesa Civil - PNPDEC; dispõe sobre o Sistema Nacional de Proteção e Defesa Civil - SINPDEC e o Conselho Nacional de Proteção e Defesa Civil - CONPDEC; autoriza a criação de sistema de informações e monitoramento de desastres. Brasília, 10 de abril de 2012.
- BRASIL. **Manual de Formação de Núcleos Comunitários de Defesa Civil (NUDECs)**. 1ªed. CARE/BRASIL, 2012.
- CARDONA, M. **Linguagem dos riscos e sujeitos posicionados: o uso de agrotóxicos no Vale de Quíbor, Venezuela**. Tese de Doutorado em Psicologia Social. São Paulo: Pontifícia Universidade Católica de São Paulo, 2004.
- CURADO, J. **Gênero e os sentidos do trabalho social**. Campo Grande, MS: UCDB, 2008.
- DAVIES, B.; HARRÉ, R. **Positioning**: the discursive production of selves. *Journal for the theory of social behavior*, 20 (1), p. 43-63, 1990.
- DI GIULIO, G. **Risco, Ambiente e saúde**: Um debate sobre comunicação e governança do risco em áreas contaminadas. São Paulo: Annablume; Fapesp, 2012.
- ESTRATÉGIA INTERNACIONAL PARA LA REDUCCIÓN DE DESASTRES (EIRD/ONU) – Naciones Unidas. **Vivir con el riesgo**: informe mundial sobre iniciativas para la

reducción de desastres. 2002. Disponível em: <<http://www.crid.or.cr/digitalizacion/pdf/spa/doc16481/doc16481.htm>>. Acesso em: 26 fev. 2013.

POTTER, J.; WETHERELL, M. **Discourse and social psychology: beyond attitudes and behaviour**. London: Sage, 1987.

PORTO, M. F. S. **Uma ecologia política dos riscos: princípios para integrarmos o local e o global na promoção da saúde e da justiça ambiental**. 2. ed. Rio de Janeiro: Editora Fiocruz, 2012.

LAVELL, A. Ciencias sociales y desastres naturales en America Latina: un encuentro inconcluso. Rev. **EURE**. Santiago de Chile, Vol. XIX, n° 58, p. 73-84, 1993.

SÃO PAULO, Prefeitura Municipal - PMSP. Centro de Tecnologias Ambientais e Energéticas - CETAE. **Análise e mapeamento de riscos associados a escorregamentos em áreas de encostas e a solapamentos de margens de córregos em favelas do município de São Paulo**: Subprefeitura de Jaçanã-Tremembé. (Relatório Técnico n° 116.880-205, v. 1. abr. 2010).

SPINK, M. J. Contornos do risco na modernidade reflexiva: contribuições da psicologia social. **Psicologia & Sociedade**; 12 (112): 156-173; jan./dez, 2000.

_____. Trópicos do discurso sobre risco: risco-aventura como metáfora na modernidade tardia. **Cad. Saúde Pública**, Rio de Janeiro, 17 (6): 1277-1311; nov./dez, 2001.

_____. Os métodos de pesquisa como linguagem social. **Estudos e Pesquisas em Psicologia**: revista do Instituto de Psicologia da UERJ, 2(2), 2002.

_____. **Risco e incerteza na sociedade contemporânea: vivendo na sociedade de risco**. Relatório de pesquisa. São Paulo: Conselho Nacional de Desenvolvimento Científico e Tecnológico. 2003a.

_____.; Pesquisando no cotidiano: recuperando memórias de pesquisa em Psicologia Social. **Psicologia & Sociedade**; 19 (1): xx-xx; jan/abr, 2007.

_____.; Introdução: reflexões sobre a processualidade do conhecimento. In: **Psicologia Social e Saúde: práticas, saberes e sentidos**. 5ª Ed. Petrópolis, RJ: Vozes, 2009.

_____. Ao sabor dos riscos: reflexões sobre a dialogia e a co-construção de sentidos. In: **Psicologia Social e Saúde: práticas, saberes e sentidos**. 5ª Ed. Petrópolis, RJ: Vozes, 2009.

SPINK, M. J. et al. Usos do glossário do risco em revistas: contrastando “tempo” e “públicos”. **Psicologia: Reflexão e Crítica**, 21(1), 1-10, 2007.

SPINK, M. J.; MENEGON, V. & M.; MEDRADO, B. Oficinas como estratégia de pesquisa: articulações teórico-metodológicas e aplicações ético-políticas. **Psicologia & Sociedade**, 26 (1), p. 32-43, 2014.

SPINK, M. J.; MEDRADO, B. Produção de sentidos no cotidiano: uma abordagem teórico-metodológica para análise das práticas discursivas. In: SPINK. (Org.). **Práticas discursivas e produção de sentidos no cotidiano: aproximações teóricas e metodológicas**. Rio de Janeiro: Centro Edelstein de Pesquisas Sociais (Edição virtual), 2013.

SPINK, P. O Pesquisador Conversador no Cotidiano. **Psicologia & Sociedade**; 20: Edição Especial 70-77, 2008.

TAVANTI, R. M. **Risco, desastre e prevenção**: um estudo sobre estratégias coletivas na ótica de adolescentes moradores do bairro do Jaçanã – São Paulo/SP. Dissertação de mestrado em Psicologia Social. São Paulo: Pontifícia Universidade Católica de São Paulo, 2013.

UNIVERSIDADE FEDERAL DE SANTA CATARINA (UFSC). CENTRO UNIVERSITÁRIO DE ESTUDOS E PESQUISAS SOBRE DESASTRES (CEPED). **Curso de Capacitação básica em Defesa Civil**. 4. ed. Centro Universitário de Estudos e Pesquisas sobre Desastres. Florianópolis: CAD UFSC, 2013.

UNIVERSIDADE FEDERAL DE SANTA CATARINA (UFSC). CENTRO UNIVERSITÁRIO DE ESTUDOS E PESQUISAS SOBRE DESASTRES (CEPED). **Atlas Brasileiro de Desastres Naturais**: 1991-2010. Vol. Brasil. Centro Universitário de Estudos e Pesquisas sobre Desastres. Florianópolis: CAD UFSC, 2012. Disponível: <http://www.ceped.ufsc.br/biblioteca>. Acesso: 09/07/2013.

UNIVERSIDADE FEDERAL DE SANTA CATARINA (UFSC). CENTRO UNIVERSITÁRIO DE ESTUDOS E PESQUISAS SOBRE DESASTRES (CEPED). **Atlas Brasileiro de Desastres Naturais**: 1991-2010. Vol. Estado de São Paulo. Centro Universitário de Estudos e Pesquisas sobre Desastres. Florianópolis: CAD UFSC, 2012. Disponível: <http://www.ceped.ufsc.br/biblioteca>. Acesso: 09/07/2013.

VALENCIO, N. Desastres como reflexo da crueldade institucionalizada: o caso brasileiro. In: MALAQUIAS, M. (Org.). **Temas em Direito Urbanístico**. vol. 6. São Paulo: Imprensa Oficial do Estado de São Paulo. Ministério Público do Estado de São Paulo, 2012.

Submitted on: 30/05/2014

Accepted on: 07/10/2014

<http://dx.doi.org/10.1590/1809-4422ASOC1120V1742014>

LOCAL ACTION AND PREVENTION: A STUDY ABOUT ADOLESCENTS LIVING IN AREAS OF SOCIO-ENVIRONMENTAL RISK

ROBERTH M. TAVANTI
MARY JANE SPINK

Resumo: Este artigo tem como objetivo discutir a prevenção de desastres a partir das experiências de adolescentes que vivem em áreas de risco socioambiental na região Norte da capital paulista. Para tanto, iremos, primeiramente, abordar as atuais políticas, diretrizes e conceitos que orientam as ações da Defesa Civil no Brasil, em especial, àquelas orientadas para a prevenção de desastres; e, em segundo lugar, traremos como exemplo uma pesquisa realizada, entre os anos de 2011 e 2013, com grupos de adolescentes moradores dessa região. Esta pesquisa teve como referencial teórico-metodológico a psicologia discursiva e fez uso de múltiplas ferramentas de produção e análise de informações, com destaque para as oficinas de risco. Os resultados sugerem que o compartilhamento de conhecimentos e experiências são recursos fundamentais para a participação dos adolescentes moradores de áreas de risco em ações locais com ênfase na prevenção de desastres.

Palavras-Chave: risco; desastres; prevenção e mitigação; adolescente.

Abstract: The aim of this article is to discuss disaster prevention in the perspective of adolescents that live in areas with environmental risk in the city of São Paulo. To achieve our goals, we will first approach the current policies, guidelines and concepts that guide the actions of the Civil Defense in Brazil, especially those focusing on the prevention of disasters. We then present data from the risk workshops conducted between 2011 and 2013 with groups of adolescents living in this region. This research was based on a discursive psychology framework and used multiple tools for production and analysis of the information derived from the risk workshops. The results suggest that sharing knowledge and experiences is a valuable resource for encouraging the participation of young dwellers of risk areas in the development of local strategies for the prevention of disasters.

Keywords: risk; disasters; prevention and mitigation; adolescent.

Resumen: Este artículo tiene como objetivo discutir la prevención de desastres desde la experiencia de adolescentes que viven en zonas de alto riesgo en la región norte de la

capital del estado paulista. Se abordan primeramente las actuales políticas, directrices y conceptos que guían las acciones de la Defensa Civil en Brasil, especialmente las que se centran en la prevención de desastres; y en segundo lugar, presentamos una encuesta llevada a cabo entre 2011 y 2013 con grupos de adolescentes que viven en dicha región. Esta investigación tuvo como marco teórico y metodológico la psicología discursiva e hizo uso de múltiples herramientas de producción y análisis de datos, destacando los talleres de riesgo. Los resultados sugieren que compartir saberes y experiencias son recursos claves para la participación de los adolescentes residentes en zonas de riesgo para el desarrollo de acciones locales para la prevención de desastres.

Palabras-Clave: riesgo; desastres; prevención y mitigación; adolescente.
