

Physical Activity Promotion: Experiences and Evaluation of the Agita São Paulo Program Using the Ecological Mobile Model

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Background, Structure, and Message to Promote Physical Activity

A sedentary lifestyle, which affects 50–80% of the world's population,¹⁻³ is associated with the main risk factors for chronic diseases. For this reason stimulating an active lifestyle is critical to control and prevent these illnesses. In Brazil, as in other developing countries, there are few available data to determine the physical activity (PA) level of the population.⁴ The first national household survey in Brazil to include PA was the Living Standards Measurement Survey conducted from March 1996 to February 1997. In that survey 11,033 people (over 20 years of age) were evaluated concerning their leisure-time physical activities (LTPA). According to the results only 13% of the Brazilians surveyed reported performing 30 min or more of LTPA on 1 or more days of the week, and only 3.3% reported doing the recommended minimum of 30 min on 5 or more days of the week.⁵ In the State of São Paulo, data published in 1990 showed that a sedentary lifestyle was prevalent among 69.3% males and females (aged 18 to 70).⁴ Another important issue is the cost of this lifestyle in the health system, which is estimated by the Centers for Disease Control and Prevention (CDC) to represent about 70% of all health expenses. According to 2002 data (CELAFISCS & CDC, unpublished data), 4% (US\$37.5 million) of the direct cost in public health in the State of São Paulo is related to a sedentary lifestyle. The Agita São Paulo Program (the Program) was developed to address this problem. The Program is a multilevel plan that promotes messages about the health benefits of PA and coordinates activities and interventions for broader PA opportunities among more than 37 million inhabitants of the

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state of São Paulo, Brazil. “Agita” is a proper name that means more than just to move your body; it suggests also activating your mind, your social health, and even asking for active citizenship. The Program was launched in December 1996 by the Physical Fitness Research Center from São Caetano do Sul (Centro de Estudos do Laboratório de Aptidão Física de São Caetano do Sul; CELAFISCS), and the São Paulo State Health Secretariat. The Secretariat oversees the health of almost 37 million inhabitants in 645 municipalities in the state. The Program became a role model for similar programs in other states of Brazil and in other Latin American countries. The World Health Organization (WHO) has praised it as a model for other developing countries. The main goal of the Program is to change the general population’s PA behavior. The Program uses the behavior stages described in the Transtheoretical Model,⁷ which assumes that changes in behavior happen from the pre-contemplation stage through contemplation, preparation, action, and maintenance stages. The Program promotes physical activity and creates messages addressing active lifestyles that are targeted to each population group at the different behavioral stage levels. The Program activities and messages are intended to turn sedentary individuals into somewhat active ones, persons who are not very active into active ones, those who are regularly active into even more active ones, and those already very active into individuals able to remain so at no risk of suffering injury. The main message used by the Program to promote the adoption of an active lifestyle was recommended in 1995 by the ACSM and the CDC.⁸ Those two groups recommended that adults accumulate 30 min of moderate intensity physical activity per day that could be done in one session or in multiple sessions lasting at least 10 min each. The needed energy expenditures can come from routine daily activities such as walking, sweeping the floor, running a vacuum cleaner, mowing the lawn, and washing windows.⁹ These activities can be performed at home (such as while doing household chores), at the workplace (both while carrying out job duties and traveling to and from work), and during leisure time (doing enjoyable activities).

The Program is coordinated by CELAFISCS, with financial support from the São Paulo State Health Secretariat. The direct costs of the Program are largely covered by the State Health Secretariat, with a budget of about US\$152,000 per year. This represents an investment of less than half a cent (in USD) per inhabitant per year. In contrast, the estimated cost of illness related to a sedentary lifestyle in the state of São Paulo through the public health system is US\$37 million per year—about US\$1 per person per year. Forty percent of the budget amount covers educational and marketing materials, 35% human resources, 14% research, and 11% materials. However, it is important to highlight the partner groups who cover the many additional indirect costs of the Program.

The Program has two committees that are part of its structure: the Scientific Board and the Executive Board. The Scientific Board consists of both Brazilians and persons from other countries who have an academic background and experience in the area of physical activity, including its promotion. These professionals helped establish the Program’s scientific foundation and have assisted in assessing the specific activities that have been implemented. The Executive Board includes more than 300 governmental and non-governmental organizations that have joined the Program and that are directly responsible for the organization, execution, planning, and ongoing performance of the Program’s multiple actions to disseminate its message in the community.¹⁰ The Executive Board meets once a month to plan

and report activities, approve new members, and update scientific information in the area of PA promotion. The Executive Board is also responsible for publishing the *Agita News*, a newsletter featuring the monthly activities of all institutional members of the Executive Board. A Medical Committee has been specifically created to meet PA promotion requirements within the medical field, a traditional area in which changes of attitudes are even harder. The Program is also associated with a number of other entities, including various state and federal departments, cities, public and private universities, associations, and organizations of health professionals, corporations and other businesses, and service organizations.

Factors that are the key elements of the of the program's success include:

- a. Scientifically based information: All the activities and messages are supported by epidemiological and scientific information available in the international literature of the last decades.
- b. Clear and simple message: "At least 30 min of PA per day" is the key message used to promote an active lifestyle; it is very easy to disseminate and understand.
- c. Intellectual partnerships: More than 50 national and international advisors from the scientific PA, sports, and health areas are involved regularly to evaluate the program and suggest actions.
- d. Institution partnership/coalitions: The Program has over 300 partner institutions comprising the Executive Board that carries out program activities. The main mission of these partners is to disseminate the program message throughout their own network systems. These groups include both governmental and non-governmental organizations and sectors, ranging from media, health, education, and sports organizations to industries, workers, and environmental groups. Furthermore, the Program has avoided inflexible, formalistic mechanisms for adding new partner organizations. A "letter of intent" may be signed by any group that is willing to contribute to the Program's objectives without making a rigid commitment.
- e. Political and Technical Support: Support was obtained from the state governors of São Paulo during the last three terms, as well as from National Health Authorities, Pan American Health Organization, WHO, and the Centers for Disease Control and Prevention.
- f. Stakeholders: Besides institutions, the Program seeks to acquire stakeholders who gain by helping to disseminate the message as well as organizing events and permanent activities in their areas.
- g. Inclusion Principle: The Program promotes inclusion in several ways. It uses inclusion in its two boards, the Scientific Board, comprising prominent researchers from Brazil and overseas, and the Executive Board, comprising over 300 governmental, non-governmental, and private sector entities; furthermore, the Program emphasizes moderate and accumulation messages, carefully selected PA settings, and targeting messages to diverse groups, such as students, workers, and the elderly; the message itself is inclusive by offering PA to individuals and groups anytime and everywhere. The inclusion principle also allows cultural and regional diversity.
- h. "Mobile Management": This style of management administers and balances the multiple components of the ecological model, whose three main parts are the Interpersonal, Social Environment, and Physical Environment factors. The Program is successful in large part because of the multi-sectoral

support of strategic coalitions that this management style permits.

Other key elements that contribute to the success of the Program are:

- a. the appropriateness of the settings, where PA interventions have taken place (leisure time, occupational time, and household activities)
- b. the pleasure of participants in choosing the type of PA to be involved in and receiving support for improvement
- c. the cultural links that allow each community to develop its own activities according to its social and cultural factors and environment
- d. specific messages for target groups that respect the Intrapersonal factors associated with the PA level
- e. accurate qualitative and quantitative evaluation of events, activities, and PA levels in local and state settings
- f. linking PA promotion with existing policies to control risk factors.

Target Population, Events, and Activities to Promote Physical Activity: The Mobile Ecological Model

Although the Program is aimed at the whole community, the activities devised to promote PA for the population are planned and carried out toward three specific target groups: students, workers, and older adults. These targets have been chosen because, according to the scientific information available, those groups can reap all the benefits of an active lifestyle.¹³ To reach these targets, the Program has been performing three main types of activities: (a) mega-events, (b) specific activities with partner institutions, and (c) partnerships with community organizations.

Among the events and activities that promote PA levels, Sallis and Owen¹¹ proposed an “ecological” model that identifies the main influences as the Intrapersonal factors (Demographics, Biological, Cognitive/Affective, and Behavioral), Social Environment factors (Supportive Behaviors, Social Climate, Cultural, Policies Governing Incentives, and Resources for Activity/Inactivity), and Physical Environment factors, including both Natural Environment (Weather and Geography) and Constructed Environment (Information, Urban/Suburban, Architectural, Transport, Entertainment, and Recreation). More recently, Trost et al.¹² classified the factors associated with PA in six groups: (a) Demographic and Biological; (b) Psychological, Cognitive, and Emotional; (c) Behavioral Attributes and Skills; (d) Social and Cultural; (e) Physical Environmental; and (f) PA Characteristics. Each of these factors plays an important role in promoting PA. Many interventions have dealt with one or two of these factors, but it is unusual to address three or more components. Considering these factors as well as the ecological model proposed by Sallis and Owen,¹¹ the Program has organized its actions of PA promotion and intervention in the community such that it can include all Intrapersonal, Social, and Physical Environment factors. During the last 7 years, as the Program has tried to reach a population of over 37 million inhabitants, the Program has developed intervention strategies that targeted almost all components of the ecological model. This innovative management style is called “Mobile” (see Figure 1). In this approach, the multileveled components of the ecological model are distributed three-dimensionally in a dynamic balance as in a mobile.

For example, when one intervention is successful in targeting an intrapersonal component, like Demographics, this item “loses weight” in relation to other intrapersonal components (e.g., Cognitive), creating multilevels. Then the other or

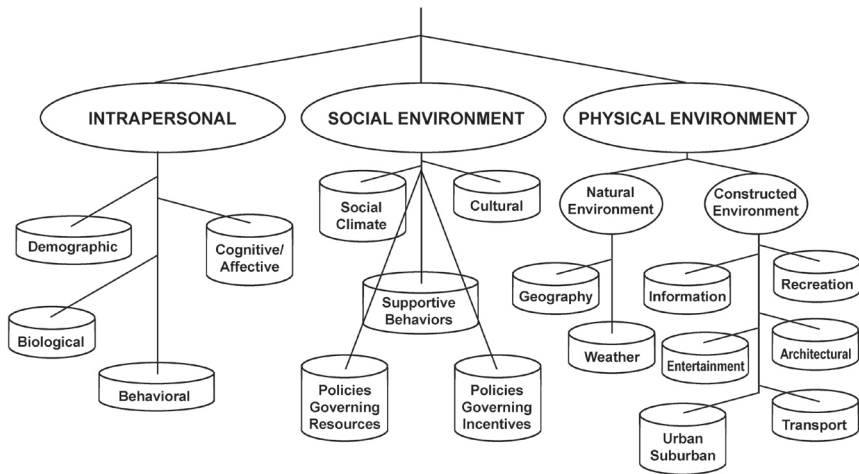


Figure 1 — Mobile Ecological Model to Promote Physical Activity proposed and used by Agita São Paulo Program.

heavier components become more important to be targeted. Along the same lines, if the Intrapersonal factors receive successful interventions, they will lose weight with regard to the Social and Physical Environment factors. Then it will be important to target these factors in order to rebalance the dynamic system that provides the name “Mobile” to this form of management. Ideally, this equilibrium will evolve and revolve progressively, reaching higher and higher levels of complication and complexity, in an upwardly spiral movement.

Although desirable, to address several components at the same time is not easy and, in most of the cases, almost impossible. The experience of the Program in operating with Mobile Management was largely based on the use of a partnership strategy, used since the program has started in 1996 and summarized elsewhere.¹⁴ Thus, different partner institutions, among the 300 members of the coalition, target one or two components of the model; and the Program central office coordinated the “mobile” approach to best manage the equilibrium of the total intervention. In the next paragraphs, we give some examples showing how the central coordination of the Program has tried to match partner institutions to balance the different components of the ecological model.

Intervention for Intrapersonal Factors

Targeting the Cognitive component of the Intrapersonal factors in ecological model (Figure 1), the Program invited the State of São Paulo Educational Authority to organize a series of activities to promote an active lifestyle among the students, trying to enforce the two main purposes of the Program: (a) to increase level of PA in the São Paulo state population, and (b) to increase knowledge about the benefits of active living. The most important intervention was the Agita Galera Day (Agitate the Crowd Day), when 6000 public schools, involving over 6 million students

on the last Friday of August, discussed the two purposes mentioned above and advertised the main message of the Program: to participate in at least 30 min of physical activity per day, 5 days of the week, at moderate intensity, in continuous or accumulative bouts.⁸

The preparation of the event included videoconferences, special meetings with the educational and health authorities, and the printing of over 18,000 manuals/year, 6,000 posters/year, and 6 million flyers. This permitted every child to take the program messages home and indirectly reached another social segment: the parents and relatives who comprise about another 10 million people.¹⁵ The effects of the intervention Program in a group of students from a private school (São Caetano do Sul in São Paulo, Brazil) were analyzed in a study¹⁶ that measured the impact of the Program's message as disseminated by a variety of means to the student population. The activities included:

1. Activities in the community such as
 - a. TV and radio programs that disseminated the recommendation of being physically active with at least 30 min of PA
 - b. newspaper and magazines interviews with the advisors of the Program (physicians, physical educators, nutritionists)
 - c. mega-events such as the community active day, called also "Agita Galera Day," which encourages the peer group of friends to be physically active
2. Activities at the school included:
 - a. short talks during physical education classes emphasizing 30 min of PA
 - b. an interview with the school physician published in the school bulletin
 - c. inclusion of the program message in the school Web site

A self-reported questionnaire was administered before and 1 year after the intervention to two different samples of boys and girls in the school who had similar education and age levels. The time involved in vigorous and moderate physical activity was estimated, and a threshold of 150 min/wk (continuous or accumulated) was used as the criterion for being "regularly active." Over that 1-year period, there was a significant change ($p < .05$) in the proportions of both males (20–40%) and females who met that criterion (4–42%).

Another important activity that has been conducted to address the Cognitive factor has been the use of "Agitol" among physicians to improve their knowledge about PA and about the health benefits of PA. Agitol is a mock box of prescription medication that presents messages about physical activity and health. The purpose is to encourage physicians to think of physical activity as a component of health care that is as important as medications. We can see that success with the Cognitive component will make it lighter in relation, for example, to the Demographic and Biological components among the Intrapersonal factors. This in turn should indicate a need to focus some intervention activity on these latter components. To address Demographic and Biological components, specific actions have been developed to reach risk groups like the elderly and women. The effects of an intervention program on the PA level of elderly women¹⁷ were evaluated in a group of 62 active elderly women (mean of 61.6 years). One day each week, a trained professional led the group in a chat lasting 5 min after the exercise session. The chat encouraged these women to accumulate at least 30 min of moderate intensity PA

for 5 or more days per week, besides the exercise program they were already involved in twice a week for 50 min per session. The advice given by professionals showed different ways to include those 30-min sessions in their daily life routine. After 12 weeks of intervention, the PA level was measured using the International Physical Activity Questionnaire (IPAQ) and verified a significant increase ($p < .05$) in the frequency and duration of moderate PA and walking. The frequency of moderate PAs increased 47%, from 3.5 to 5 d/wk, and the duration increased 123%, from 40 to 120 min/d. Walking patterns also showed a change after the intervention: Frequency of walking increased 98% (from 3 to 6 d/wk), and the duration, 151% (from 40 to 100 min/d). These results suggest that even people involved in some exercise sessions could increase their PA level by accumulating at least 30 min of other PA every day.

One of the studies that evaluated the impact of the intervention on Cognitive and Behavioral factors of PA among workers evaluated 35 employees (both men and women, with an average age of 30.6 years) in a federal justice court in the city of São Paulo.¹⁸ Using the Program questionnaire,⁶ the employees' stage of behavior change regarding PA was determined as: pre-contemplation, contemplation, or action. Once each week over a period of 9 weeks, a physical education professional trained by the Program delivered a 5-min session of advice explaining the Program's message about becoming active, in terms of duration, intensity, frequency, and physiological and psychological benefits. The initial assessment of the PA behavior stages showed that 5% were in the precontemplation stage, 43% in the contemplation stage, and 52% in the action stage. After the intervention, no employees were in the precontemplative stage, 32% were in the contemplative stages, and 68% were in the active stage. Before the intervention, 60.9% of the participants in the sample answered according to the new recommendations proposed by Pate et al. in 1995,⁸ and after 9 weeks, 69.6% gave an answer according to that recommendation. That difference was significant ($p < .05$) when analyzed by chi-square test. It was concluded that short educational sessions such as these might contribute to improved knowledge and adherence to active behavior. Considering factors related to gender, the Program created specific materials and a logo to disseminate the message among women of the importance of being physically active (Figure 2).



Figure 2 — The mascot, the “half-hour woman.”

Intervention on Social Environmental Factors

Along these same lines in the ecological model, Social Environmental factors will become heavier and more important when Intrapersonal factors receive a successful intervention (Figure 1). The program coordination could target, for example, Social Climate to change the equilibrium in the “mobile” and raise the ecological model overall to a higher level than before the interventions. One way the Program found to be highly effective is to work with the municipalities in the state to promote PA in the general population. Because of the cultural, economic, and social diversity of the 645 municipalities in the state, no single, rigid model for implementing health promotion efforts is appropriate. In addition, the diversity of approaches allows for various effective solutions to the same problem. The Program offers municipalities a range of suggested strategies that can serve as the basis for their activities, and the Program has also made available educational materials and a program handbook. Often, a letter of intent is signed during an official ceremony in the municipality, with the Program representatives in attendance. Each municipality may select its own program name, but most have chosen to name it “Agita” and the city’s name. Creating a logo has been a very inventive process, involving the community through contests, especially in schools. As with the Program, many municipalities hold a monthly meeting for their program, as a way to plan, implement, and monitor activities as well as to solidify local support. So far, the Program has established more than 50 municipal committees in small, medium, and large cities throughout the state.

Two main decisions made by the Governor of the São Paulo State illustrate the Policies Governing Incentives component: (a) the government passed a resolution naming April 6th Physical Activity Day throughout the state of São Paulo; and (b) as a result of the success of 6 consecutive years in which the “Agita Galera” mega-event was performed in public schools, the Program and the Education Authority of São Paulo decided to disseminate that experience by preparing a videotape, describing the Program’s most successful activities; the target groups were teachers, health providers, educational, and health authorities, with the main purpose of developing permanent actions in the school, and additional purposes to learn from other experiences and better prepare the next event. In addition, in August 2002, the State of São Paulo Education Authority created a permanent committee to promote PA studies at school settings. The committee’s suggestions include most of the Program’s proposed items, such as an increase in quality physical education classes, horizontal integration with other curriculum disciplines, building the capacity of the PE teachers to conduct lifestyle physical activity interventions, and increased attention to physical activity literature and videos in the school libraries.

Intervention in Physical Environment Factors

To address a Natural Environment component of the ecological model, Weather (Figure 1), the Program organizes different events to promote PA according to the seasons of the year, and special dates, like Carnival. With the help of one partner institution, ACM (YMCA), we developed special festivals at beaches during the summer season (“Agita Verão”), thereby reaching thousands of people on vacation. At the same time, with the help of another partner, the State Road Department,

over 100,000 car/truck drivers and families on the way to the beaches received a special Agita flyer at the tool station.

Among the interventions for the Constructed Environment component, the State Education Authority developed a Recreation program. Because of the lack of facilities and physical spaces, particularly in São Paulo Metropolitan area, in 1998 the Partners of the Future, a program to open schools on the weekends, was launched. At the beginning, approximately 40 schools were opened in regions with higher indices of violence. Progressively, it was expanded to 400 schools because of the high level of principals' approval (83% reported good and very good rates). As a consequence, recently, the program was extended to all 6000 public schools of the state under the new name of Family School, identifying the aim to reach all students' families and school neighborhoods.

Other examples of Constructed Environment intervention is the reform made in the sidewalks in São Caetano do Sul. In that city the sidewalks of the downtown main streets and avenues were rebuilt larger and flatter. Also, in Ilhabela, the largest island of the State, a 6-km cycle walkway was constructed with the name of "Agita Way."

The Role of Partnerships Mobile Management

Matching strategic partnership institutions to the different components of the ecological model is important for success because efforts to mobilize community resources for health improvements rely heavily on interpersonal and organizational strategies of technical assistance, professional development, and the exchange of knowledge among expert consultants and local residents. Mobile Management encourages health advocacy groups to foster greater collaboration and the development of coalitions among existing organizations (including public, private, and non-profit entities) within the community.¹⁹ However, dealing with different components of the ecological model at the same time is difficult and complex. In the case of the Agita São Paulo experience, the use of strategic partnerships was of utmost importance and probably the best way to manage, in a synchronized way, the several factors of the ecological model. Central to Mobile Management is the balance of the magnitude, timing, ownership of the different interventions developed by the partner groups to target the Intrapersonal, Social, and Physical Environment components of the ecological model.

Media Evaluation

In the case of Agita São Paulo, special attention was given to the media by taking some media organizations or representatives as unpaid partners. An event such as the Agita Galera, mobilizing the State's school population, may derive a striking benefit through radio, television, and newspaper outlets. News coverage was capable of reaching as many as 21 million people during the month in which it was run. Reports about the event were run by at least 30 different newspapers in different cities of the State, seven or more state newspapers, and four national television shows. Based on an analysis to determine media coverage, the Program was able to get as much as 39,399.80 cm²/year of articles in newspapers and magazines, creating a positive social climate^{20,21} and saving about US\$13 million per year just in TV multiple exposures. As an example of this strategy, the most popular TV

program (*National News*) on Globo TV, with an estimated audience of over 20 million people, presented this last December a series of five programs that closed with an emphasis on the importance of Agitol as the “only prescription that promotes glucose sensitivity, blood pressure, lipid profile, self-esteem among others.” Again, if successful interventions were addressed to the Social Environmental factors, then Physical Environmental factors would become “heavier” in the mobile model. To manage it, the program coordination should develop an intervention targeting Natural or Constructed Environment. The broad media coverage has contributed to growing public awareness of the Program. In 2002, a survey in the city of São Paulo found that 52.9% of the people interviewed were familiar with the name of the Program. The proportion of individuals in the São Paulo Metropolitan area who could identify the Program’s message varied from 31.0% in 1999 to 37.8% in 2000, 35.5% in 2002, and 34% in 2003. In the state overall, 35.5% of the persons interviewed knew the name of the Program in 2000, and 39.1% in 2003, and the percentage of those familiar with the Program’s message changed from 9.5% in 2000 to 24.0% in 2002, and 16.9% in 2003. (Indeed, the numbers go down.) Data collected in different years (baseline 1999) showed a significant change in people recalling the Program: There was an increase of almost 10% from 1999 to 2002 in the Metropolitan Region, and an increase of 78% (from 2000 to 2003) in the whole state.¹³

Scientific Impact

The Program has always maintained a scientific basis for every action and strategy that it applies as well as for the specific PA promotion messages it delivers. The Program has also tried to share its experience with the scientific community in various fields. Between 1996 and 2002, 17 scientific articles on the program were

Table 1 Evolution of Agita São Paulo Program Name and Objective “Recall” (Launched in 1996) in the São Paulo Metropolitan Region and At All-State of São Paulo from 1999 to 2003

Region/year/sample	Program name %	% D	Program objective %	% D
Metropolitan, 1999 (n: 641)	53.4 ←		31.0 ←	
Metropolitan, 2000 (n: 645)	55.7		37.8	
Metropolitan, 2002 (n: 627)	61.1	23.6	35.5	9.4
Metropolitan, 2003 (n: 662)	66.0 ←		33.9 ←	
SP State, 2000 (n: 2000)	35.5 ←		9.5 ←	
SP State, 2002 (n: 2000)	37.3	10.1	24.0	77.9
SP State, 2003 (n: 2001)	39.1 ←		16.9 ←	

Note. Delta were calculated considering the change from the baseline data (1999 in the metropolitan region and 2000 in the State) to 2003.

published, and 76 presentations of scientific papers were made, both in Brazil and other countries. The articles and the presentations have covered various aspects of the program, including its organization, media coverage, and efforts with schools and in the workplace. More than 600 lectures and workshops have been delivered in different kinds of scientific events in Brazil and more than 65 in other countries. These lectures and workshops were given among different national and international scientific meetings related to Sports Medicine, Nutrition, Physical Education, and Medicine Associations (e.g., cardiology, obesity, rehabilitation, orthopedic). The Program has made presentations at the headquarters of organizations that include the CDC, Pan American Health Organization (PAHO), WHO, United Nations, and World Bank.

Physical Activity Level

The São Paulo Metropolitan Area survey was conducted in September of 1999, 2000, 2002, and 2003 on over 600 subjects/year (sample selected at random and stratified by age, gender, and socioeconomic status) who were representative of the area and were interviewed at home in each of those years.²² The PA levels of this population are summarized in Figure 3.

The 1999 survey found that 54.8% of the population reported they received the recommended amount of PA for health (moderate PA at least 30 min/d, 5 or more d/wk, and/or 20 min of vigorous PA at least three times per week). The prevalence of sufficiently active was 54.8% in 1999, 45.8% in 2000, 54.2% in 2002, and 60.4% in 2003. (See Figure 3 Active + Very Active group.)

Surveys throughout the State of São Paulo once a year (always in July) in 2000, 2002, and 2003 have conducted interviews at home with more than 2000 subjects in each survey. Participants were selected by random and stratified according to age, gender, and socioeconomic status. Figure 4 shows the PA levels reported by the São Paulo State population.

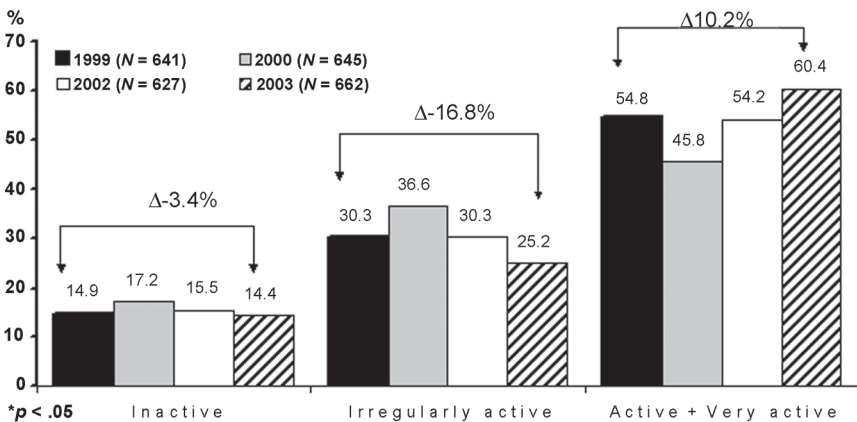


Figure 3 — Physical activity level (prevalence of inactive, irregularly active, active, and very active people) in São Paulo Metropolitan region in 1999, 2000, 2002, and 2003 (Agita São Paulo Program intervention started on December 1996).

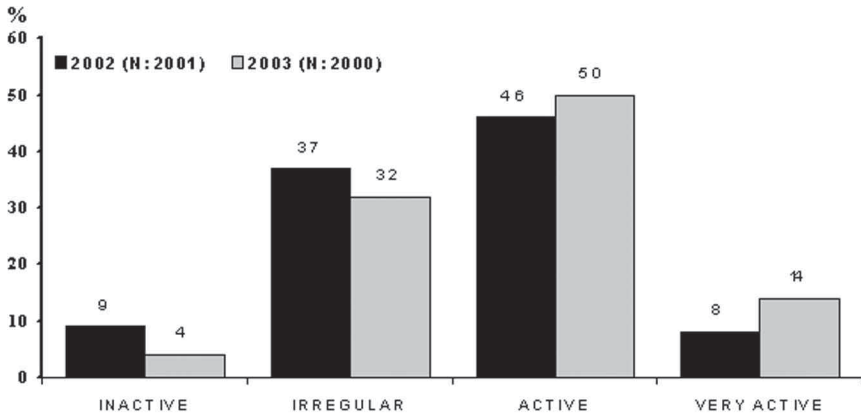


Figure 4 — Physical activity level (prevalence of inactive, irregularly active, active, and very active people) in São Paulo State in 2002 and 2003 (Agita São Paulo Program intervention started on December 1996).

The data of São Paulo State showed that the level of sedentary lifestyle in the State was less than 10% after 4 years of the Program. Even if we take into consideration that the 1990 data (prevalence of 70%) was collected using another questionnaire, more recent data indicated an even lower prevalence of inactivity in the State. According to these later results, more than 52% of the State population could be considered physically active because they had reached the PA recommendation (Figure 4).

Data summarized in this section clearly show the impact of the Program not only through the percentage of people who have become aware of the Program but also through affecting the PA levels of the Program's participants (lower prevalence rates of inactivity than in 1990 and in 1999, as well as an increase in the percentage of people involved in walking according to the CDC/ACSM recommendation). Besides the surveys of the São Paulo Metropolitan Area and the State of São Paulo, a simultaneous survey has been done in two big cities in other states (Belo Horizonte in Minas Gerais State and Curitiba in Paraná State) to determine the PA levels and the knowledge recall of the Program in cities without specific intervention programs. On those surveys less than 1% of the population interviewed reported to know about Agita São Paulo program or its message.

Impact on Target Groups

Effects of an Intervention Program on a Group of Patients With Hypertension and Diabetes. A private medical care company that has been a partner of the Program since 1998 evaluated available data about the population they reached with the recommendation of the program from 1998 to 2001. It was estimated that 32,500 people were reached in the first year, 90,700 in the second, 110,000 in the third, and 125,100 in 2001. The Program trained in 1998 a group of more than 100 health providers (nurses, social assistants, psychologists) to disseminate the

recommendation of physical activity for health among the users of the health-insurance company. Then, the company organized 5-min sessions in all waiting rooms (where patients wait for medical appointments) among different doctor's offices of the company in São Paulo. In face-to-face sessions with patients, the professionals used a flip chart explaining how to be physically active and the benefits for health through an active lifestyle. Another strategy used by that company was telephone calls to people who hold a health insurance policy. On those calls, the professionals from the insurance company give short messages of advice about the recommendation of PA for health improvement. In addition, the insurance-health company also held a lecture once a month that could be attended by all people who hold the plan. These lectures have been part of an annual calendar of lectures in different kinds of health topics, and were given by a physician about the benefits and the new recommendation of PA. To measure the impact of the intervention, the health insurance company analyzed the 12-month change in the PA level (measured by a phone interview) of 6411 diagnosed patients with hypertension and diabetes. The company found an increase of 96% (from 23% at the baseline to 53% after 1 year) among patients who achieved a better active lifestyle, established by the company as the involvement in moderate physical activities, for at least three times per week and 30 min per session.

Effects of the Program on People From Hospitals and Basic Health Units.

Ever since its launch, the Program has been highly successful in implementing physical activity programs in health centers and hospitals. Some of these health centers or hospitals offer a place (garage, parking place, or other free places) to organize groups of patients, employees, or even persons for walking together at a specific time of the day. In some of these health centers, even the medical doctors try to be part of the group and to walk with their patients. One example of this is the Hospital São Mateus, which is located in a part of the city of São Paulo that is among the lowest in socioeconomic level and highest in violence. In 1997, the hospital started with a program of Liangong, a light physical activity that originated in China. The program started with 30 people coming to the hospital twice a week for 12-min sessions. In 2002 the program was operating in 15 health centers in the area, with more than 3,000 people taking part in various forms of exercise. Data collected in three of those health centers with 255 employees, patients, and people of the region showed that 71% reported improved mood, 88% improved depression, 76% improved quality of sleeping, and 89% diminished body pains. A similar program was implemented in 15 health units in Assis, a city in São Paulo country guide, using low-impact physical activities such as walking, cycling, water exercise, dancing, and tai chi chuan (another form of exercise from China). Beginning with 74 patients, the program grew to 694 participants in just 3 months.

Effects of the Program Intervention in Workers. The National Bank of Social and Economic Development (BNDES) launched a specific program of gymnastics in the workplace as well as the promotion of an active lifestyle message using the recommendation of the Program. They evaluated 442 workers (40.9 years old) at the baseline and after 18 months of intervention using the IPAQ (short version, self-reported). In the case of moderate PA, there was an increase of 133% in the number of active people and a decrease of almost 50% in the inactive people. In the case of walking patterns, the increase in active people was 66%, and the decrease in physically inactive people was 84%.

Physical Activity and Environment Evaluation

A randomized and stratified sample consisting of 2400 people, 14 to 88 years old, 2000 from São Paulo State and 400 from Curitiba (considered a model in urban planning in Brazil), was taken to compare the PA level and Environment factors related to PA in two different regions in a developing country. Subjects were interviewed at home using eight environmental questions, which have been developed by the IPAQ group. They also answered the short, last-week IPAQ version. Among environment factors, we noted that people from Curitiba reported they have more places to go walking in relation to São Paulo ($78.8 \times 67.8\%$), more facilities to bicycle ($17.0 \times 10.0\%$), and more recreational facilities ($12.0 \times 9.2\%$), yet they also considered walking at night unsafe ($70.3 \times 53.1\%$). PA level results showed 64.0% sufficiently active people (according to the PA recommendation proposed by Pate et al.; 8) in São Paulo and 71.3% in Curitiba.

International Physical Activity Networks: Rafa and Agita Mundo

Physical Activity Network of the Americas: RAFA/PANA

After establishing the Agita São Paulo Program, other PA promotion programs have been launched in Latin America, including: Argentina (*A Moveuse Argentina, Argentina en Movimiento, Salí a Moverse, Sacudete*), Bolivia (*Muévete Bolivia*), Colombia (launched in 2002 the Colombian PA Network, which includes the largest group of PA programs—12—in Latin América: *Muévase Pues, Muévete Bogotá, Risaralda Activa, Buga en Movimiento, Guajira Activa, Madrúgale a la Salud, Palpita/Vibra Quindío, Cauca Activa, Cundinamarca Activa y Positiva, Boyacá Activa, Colombia Activa y Saludable, Cali en Movimiento*), Costa Rica (*Movámonos Costa Rica*), Ecuador (*A Moveuse Ecuador*), Guatemala, México (*Programa Nacional de Activación Física*), Panamá (*Muévete Panamá*), Paraguay, Perú (*Muévete Perú*), Uruguay, and Venezuela (*Venezuela en Movimiento, Red Venezolana de Vida Activa*). In addition, in Europe, Portugal set up the *Mexa-se Mais in Oeiras* and *Mexa-se pela sua saúde* from Ilha da Madeira programs.

The Physical Activity Network of the Americas (PANA/RAFA) was inspired by a combination of local and international factors. The Agita São Paulo Program and other community-based programs in the Americas demonstrated that PA promotion was timely and feasible. On the International front, WHO expanded its health promotion efforts into PA starting with a planning meeting in Geneva in 1997. During two consecutive scientific meetings in São Paulo in 1998 and 1999 (CELAFISCS International Symposium of Sports Sciences), representatives from several countries of the Americas discussed and developed the first official document to promote PA in the Americas entitled “Manifesto of São Paulo,” and it has served as the basis for PA promotion through the Americas. These various efforts led in October 2000 to the establishment of the Physical Activity Network of the Americas (Red de Actividad Física para las Americas), with strong support from the CDC, ACSM, CELAFISCS, and PAHO. The *Vision* of PANA is to promote PA for better health among all people in the Americas; and the *Mission* is to strengthen efforts to promote a healthy lifestyle through participation in regular PA by

facilitating the integration and dissemination of policies, programs, strategies, and experiences of local and national networks and institutions.

The Guiding Principles of PANA/RAFA are: (a) to be an inclusive network integrating members of public/private organizations both nationally and internationally; (b) to focus on population-based public health research and programs; (c) to encourage the exchange of experience and knowledge; and (d) to provide an environment that enhances professional development.

Agita Mundo Network

WHO chose PA as the theme for World Health Day 2002 when nearly 2,000 events were held in 148 countries to celebrate the occasion in 63 languages. In October 2002, a Network organization named for the “Agita Mundo—Move for Health” had its preliminary meeting in São Paulo. In April 2003, the organization was officially launched, with the support of over 180 international and national institutions. Its main purpose is to promote PA around the world as an instrument to promote people’s biological, psychological, and social health. To help achieve that objective, a mega-event, Agita Mundo—Move for Health Day, is held every April 6. In 2003, over 2100 events on five continents commemorated that event.

The purpose of the Agita Mundo—Move for Health Network is to promote PA as a healthy behavior for people of all ages, nations, and characteristics. The Agita Mundo—Move for Health Network will stimulate research, encourage the dissemination of information on the health benefits of PA and effective strategies to increase PA, advocate for PA and health, and support the development of national and local programs and networks for PA promotion.

The specific objectives of the Agita Mundo—Move for Health Network are to:

1. Advocate for PA and health through an annual Move for Health Day and other community-based and community-wide events, and inform policy makers of the importance of PA in public policy.
2. Widely disseminate a clear, simple, and consistently delivered message about the health and social benefits of at least 30 min of moderate physical activity every day.
3. Stimulate the creation of regional and international networks for physical activity promotion and provide linkages between these networks.
4. Promote and disseminate innovative approaches to develop alliances around the world to promote PA and good health.
5. Share good practices and effective strategies and programs through Web sites, meetings, workshops, and publications.

Besides the celebration on Agita Mundo—Move for Health 2004 on April 6 (other more convenient dates according to different countries), RAFA and Agita Mundo Network agree to give first priority in supporting the WHO Global Strategy and Diet, Physical Activity, and Health, to be officially announced in the World Healthy Assembly in May 2004.

Conclusions

After 7 years of implementation of the Agita São Paulo Program, a significant increase in PA and in knowledge of the Program and its message has been seen in

the general population and in target groups in the State of São Paulo. The Agita approach using Mobile Management of the ecological model seems to be effective in promoting physical activity in large populations, even in a developing country. The Program may have contributed to the increases that have been seen in the levels of PA and in the knowledge of the health benefits of active living. The special characteristics of the Program include:

- a. the scientific basis for all the Program activities
- b. the clear, simple, feasible message of promoting PA through the at least 30 min/d
- c. the broad use of partnerships and stakeholders
- d. the “two-hats” approach, using either governmental or non-governmental methodologies to promote physical activity
- e. the extensive free media coverage through partnerships
- f. the inclusion principle—that physical activity can be practiced by anyone anywhere
- g. cultural adaptation, accounting for regional beliefs and values
- h. a synchronized multisectorial approach (Mobile Management)
- i. pleasure, fundamental for a long-term behavioral change
- j. evaluation of the impact of the various Program efforts.

Among other developments, the Agita model has inspired: (a) a National Program (Agita Brazil) comprising all states of the country; (b) a Pan American Network (RAFA); (c) the Agita Mundo Network, comprising over 200 national and international institutions; and (d) the celebration of the worldwide World Active Day (Agita Mundo—Move for Health) on April 6.

More information about the International Networks may be obtained at www.rafapana.org and Agita Mundo: www.agitasp.com.br or by e-mail at rafa@rafapana.org (Spanish and Portuguese) and pana@rafapana.org (English).

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