

Adherence to a Physical Activity Program by Older Adults in Brazil

Doralice Lange de Souza and Rosecler Vendruscolo

Abstract

This paper discusses the results of a qualitative research project in which we investigated adherence factors to a physical activity (PA) program for older adults in Brazil named “Sem Fronteiras: Atividades Corporais Para Adultos Maduros e Idosos”, which translated into English means “Without Borders: Physical Activities for Mature and Older Adults”. The participants of the study were 10 older adults. The data were collected through semi-structured in-depth interviews with open-ended questions. The coding categories emerged from the data. Initially, we analyzed the data for each of the research participants, raising and coding the main themes that emerged from their responses. Next, we did a cross-analysis of the data of all participants looking for similarities and differences between the themes. The connections between emerging themes were examined, which allowed us to identify superordinate themes. Our main finding was that the group adheres to the program not only for their physical and mental health, but also to be in the same age-range group, where they can exchange ideas, experiences, support, and affection, which in turn, tend to add new meanings and reasons to their lives. The data points at the importance of the development of PA programs specifically designed for older adults that include not only exercising and activities according to their specific limitations and needs, but also opportunities for socialization and exchanges.

The world population is aging. In Brazil, for instance, in 1991, the number of people 60 years old or older was of 10.7 million. In 2000, this number increased to 14.5 million. It is expected that in 2025 the population of older Brazilian

citizens is going to be of about 30 million (Instituto Brasileiro de Geografia e Estatística, 2002). Note that, according to the World Health Organization guidelines, in Brazil, like in other developing countries with similar quality of life, people are considered old if they are 60 or older. This classification is different from that of developed countries where living conditions are better. In this case, people are considered old if they are 65 or older. The growth of the aging population segment is leading to a growing demand for public policies, programs and projects that address the needs of older citizens. This paper aims at offering elements for the improvement and/or development of such policies, programs and projects. Starting from the assumption that regular and well oriented physical activity (PA) is an essential element for the promotion of physical, cognitive, emotional and social health, we will present the results of a qualitative study that had the goal of investigating factors of adherence of a group of older adults to a PA project named “Sem Fronteiras: Atividades Corporais Para Adultos Maduros e Idosos”, which translated into English means “Without Borders: Physical Activities for Mature and Older Adults”. Another goal of the study was to investigate the main barriers that this group found in continuously participating in the program. We chose to study the main barriers to keep attending the program and the main PA adherence factors, and not simply factors that lead people to enroll in PA programs, for we know that the attrition rate in physical activity programs is significant. This paper offers some insights that can be helpful for the development of policies and programs that aim at having older adults not only starting their participation in PA programs, but also continuing their participation in the long run.

Literature Review

In this section, we will present, based on literature, some of the main factors of adhesion and adherence of the older person in physical activity.

Many studies point that there is a positive association between regular PA and health (Bauman, 2004; Kesaniemi, Danforth, Jensen, Kopelman, Lefebvre, & Reeder, 2001; Kohl, 2001; Paffenbarger & Hyde, 1984; Paffenbarger, Hyde, Wing, Hsieh, 1986; Pate, Pratt, Blair, 1995). Many studies also reveal the health benefits of physical activity for older adults (e.g.; American College of Sports Medicine, 1998; Galper, Trivedi, Barlow, Dunn & Kampert, 2006; Lee & Paffenbarger, 2000). As the World Health Organization (1997) points out, in terms of physiological effects, it can foster control of glucose levels; stimulation of adrenalin and noradrenalin levels; muscle strengthening; improvement of the cardiovascular system; enhancement of flexibility, coordination, balance, velocity of movement, and sleep quality. As to psychological and cognitive aspects, PA can promote improvement in the levels of relaxation; reduction of stress, anxiety and depressive states; enhancement in humor and sense of wellness; postponement of age-related decline of the processing speed and reaction time of the nervous system; learning of new skills and refinement of existent ones. In terms of social and cultural benefits, when PA is practiced in groups, it can foster new friendships, expand webs of relationships, improve social life and foster cultural development. Another benefit of PA is that while promoting the preservation and/or improvement of physical functions and of independence of older adults, it also leads them to feel more capable to exert active roles in society.

Although numerous studies have shown that there is an association between physical activity and health, a significant portion of the population does not engage in regular physical activity. A study developed in the Federal District of Brazil and in 26 Brazilian capitals with a random

sample of people who lived in residences with a landline telephone found that 27.8% of the women and 30.9 % of the men were physically inactive. The situation is even worse in the case of older citizens. According to the same research, 53.7% of men and 58.3% of women who were 60 years or older were physically inactive. Note that this study considered physically inactive those who had not practiced any physical activity in their leisure time in the past three months, do not do physical efforts in their work, do not go to work by foot or bicycle, and are not responsible for heavy cleaning in their houses (Brasil, 2008).

While some studies indicate that the lack of adhesion and adherence to regular and permanent physical activity practices are lower in the lower income and less educated population (Monteiro et al., 2003; Owen & Bauman, 1992; Pitanga & Lessa, 2005), social, economic and educational factors alone do not explain the phenomenon of sedentary behavior. There is a high level of physical inactivity even in higher social classes and in places where people have more access to information and material conditions for PA practices. In the USA, for instance, only 30.8% of adults aged 18 or over engage in PA activity during leisure time¹. In the case of the older citizens, only 24.7% of adults aged 65 to 74, and only 17.9% of adults over 75 years engage in such activity (Centers of Disease Control and Prevention, 2008). This data leads us to the conclusion that, although social, economic, and cultural factors influence sedentary behavior levels and/or adherence to physical activity, they alone do not explain low PA engagement.

Dishman, Sallis and Orenstein (1985) developed a study on adherence factors that became reference in the area. According to the authors, some of the most important PA deter-

1. "Leisure-time physical activity is defined as engaging in light-moderate leisure-time physical activity for greater than or equal to five times per week or engaging in vigorous leisure-time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to three times per week" (Center for Disease Control and Prevention, 2008).

minants are: self-motivation, perceived health, perceived physical competence, behavioral skills, positive attitude towards exercising, available time, spouse support, and access to facilities. Other studies confirm these findings and indicate other determinants. King et al. (1992), for instance, developed a thorough literature review on the topic and highlighted the following factors: gender (activity levels are higher in men than women; age (activity levels tend to decrease with age); race and ethnicity (activity levels tend to be lower in blacks and non-white immigrants); education (level of education is positively associated with leisure-time PA), health status (persons with medical problems tend to have lower PA levels); knowledge of and belief in the health benefits of PA; self-efficacy (confidence in the ability to perform the activity); perceived access to facilities; lack of time (this is one of the major factors for attrition); perceived exercise enjoyment and satisfaction; self-motivation; self-regulatory skills (e.g., effective goal setting, self-monitoring and self-reinforcement); perceived previous success in PA activities; family participation and support; distance of exercise facilities.

There are two important literature reviews on PA adherence factors specifically for older adults, one by Rhodes et al. (1999) and one by Sheppard (1994). These studies consistently point at the following factors as determinants: (1) Age: even though there is a rise in interest for PA at the time of retirement, this tendency diminishes as people age. (2) Socio-economic level: the higher the socio-economic level, the higher the level of PA engagement. (3) Attitudes in relationship to PA: those who perceive a positive balance of the PA cost-benefit relationship tend to adhere more to this kind of activity than those who emphasize the difficulties involved in this practice. While Rhodes et al. and Sheppard agree on some PA determinants, they differ on others. According to Sheppard, habit also determines PA adherence in the same way it controls other behaviors. Also according to this author, those who have an

internal locus of control and who see themselves more as controllers of their environment than controlled by it, tend to be more persistent in their interests and to transcend barriers that interpolate as obstacles to their PA practices. Still according to Sheppard, subjective norms for exercising are important PA adherence factors. Rhodes et al., on the other hand, disagree that these factors are important PA adherence factors and claim that more research is needed to confirm—or deny—these ideas. Rhodes et al. also state that other important determinants of PA adherence are intention to stay engaged in PA, perceived self-efficacy, engagement in activities of one's own choice; enjoyment of the activity, and social support. As to gender, the authors claim that older women tend to exercise less than older men. Yet according to Sheppard, while reasons for adhering to PA in younger ages tend to be different for men and women, as people age, these reasons tend to become similar and they are: to feel physically better and to improve physical fitness.

The greatest barriers for PA adherence, according to Rhodes et al. (1999), are perceived physical frailty, poor health, financial limitations and the need to care for ailing spouses and friends. For Sheppard (1994), the main barriers are illness, risk of accidents, financial difficulties, reduced access to places for the practice of PA, difficulties in transportation, and lack of company and opportunities. The author also argues that another barrier in different cultures is the lack of behavioral norms for an active life for older adults. Many people still believe that retirement is a time to rest. Besides, many tend to be protective of older adults, preventing them from exercising, afraid that they might hurt themselves and become dependent. It is important to recall, as Sheppard states, that older citizens do not form a homogeneous group. There are the “young old”, the “middle old” and the “very old”. Besides, within a given age range, there are different functional ages (functional age is what the person can accomplish). This reality points at the need for more research that considers these differences.

We found only three studies specifically designed to investigate the participation of older adults in PA programs in Brazil. The first one, by Freitas, Santiago, Viana, Leão and Freyre (2007) used a descriptive quantitative and qualitative methodology that involved 120 participants from two public exercise programs in the city of Recife. The authors came to the conclusion that the most important PA adhesion factors were: to improve health (84.2%), to improve physical performance (70.8%), to adopt a healthy lifestyle (62.5%), to reduce stress (60.8%), and to comply with doctors' orders (56.7%). The five most important factors to continue to attend such programs were: to improve posture (75%), to promote a feeling of well-being (74.2%), to stay fit (70.8%), to experience pleasure (66.7%), to get stronger and be motivated by the instructor (62.5%). The second study, which was developed by Andreotti and Okuma (2003), investigated what leads a group of older adults to sign up and begin participating in a PA program for older citizens. According to this study, the main reasons are: referral by friends, belief in the benefits of PA for health, medical advice and search for social interaction. Both these studies used a questionnaire where the participants evaluated the degree of importance of the different factors presented to them. Whereas this kind of instrument made it possible to include a large number of participants in the study and to investigate the importance of listed adherence factors, its limitation was that the research participants answered only items which were presented to them in a list. They did not have the opportunity to elaborate on determinant factors which perhaps were important to them, but were not previously thought out and developed by the researchers. The third and most thorough of the studies, and the most relevant for our own work, was conducted by Okuma (1998), who investigated from a phenomenological perspective— from the viewpoint of the research participants—the meanings that a group of older adults gave to their participation in a PA program named “Program for the Autonomy for PA

Practices” (PAAF). Even though the author did not directly investigate adherence factors to the program, since she developed her research with a group of older adults that had been in the program for a significant amount of time, and since she emphasized the positive meanings that this group attributed to PA, we can presume that these meanings contribute to the group's adherence to the program. The advantages to PA engagement that appeared as the most important in her research for the participants of her research were: improvement of their physical and psychological health; more efficiency in the development of tasks; healthier use of their time; better quality of life; higher self-esteem; opportunities to meet people and spend time with other people their age and to exchange affection, support, experiences and information. According to the author, the experience in the PA program led the older adults to profound transformations in their way of being with themselves and with the world: they opened themselves to their inner-being, to others and to the world, and started to look at themselves as “beings of possibilities,” who were capable of taking control of their own existence and of the construction of their own lives.

The Research Setting and Participants

The project “Without Borders: Physical activities for mature and older adults” involves 93 mature and older adults. Note that in the context of “Without Borders,” “mature adults” are considered those who are aged 45 years or more and do not see themselves as young adults. The project has as goals to capacitate Physical Education students, theoretically and methodologically, to work with older adults and to offer the latter a space for physical activities, cultural experiences, inter and intra-generational integration, and the development of their self-knowledge, self-esteem, independence and autonomy. It also aims at promoting changes in the negative conceptions concerning old age by leading the students who work there to review their preconceptions, and by leading the project participants to reevaluate their aging experiences and their role in society.

The activities take place in the Physical Education Department of the Federal University of Paraná (UFPR). They are conducted twice a week and each section lasts three hours (from 2 pm to 5 pm). A Physical Education professor coordinates the project, which involves twelve Physical Education students—some volunteers and some with scholarships—who help with planning, implementation and evaluation of the activities.

One of the weekly sections involves either hydro-gymnastics or weight training according to the participants' preferences and needs, and according to availability of openings in the classes. The other section alternates activities such as walking, stretching, relaxation exercises, dancing, gymnastics, recreational games and sports. From time to time this section also involves conferences and workshops, which have as goals to stimulate memory, self-knowledge, self-esteem and general knowledge. On certain occasions, the project promotes parties to celebrate birthdays and other special occasions and take the participants on day and overnight trips.

Among the 93 participants in the project, 11 are male and 82 female, and 82 are retired. The participants' age varies from 45 to 80 years old. Their educational level is diversified: 38 of them did not complete elementary education; 21 completed elementary education, but did not pursue any further studies; 23 finished high school; and only 13 have undergraduate degrees. Their monthly income also varies: 37 receive between 1 to 3 Brazilian minimum wages, 30 between 3 and 5 minimum wages, 20 between 5 to 8 minimum wages and only 6 receive more than 8 minimum wages. At the time this paper was written, the monthly minimum wage in Brazil corresponded to US\$ 220.

Research Methodology

The research was developed from a qualitative perspective, since we wanted to explore, from the participants' own perspectives, what keeps them engaged in the PA program. We are aware that qualitative studies can *not* lead to broad

generalizations since they usually involve only a few participants. Nevertheless, we also know that the strength of this kind of study is that it can offer such detailed information, that the readers themselves can transfer conclusions to similar cases (Yin, 1989). Besides, this kind research can reveal new issues which have not been explored before, such as complexities and details of human ways of thinking, feeling and acting that normally do not come up in quantitative studies. The results of this kind of study can indicate points that need to be investigated in future studies. As there are very few qualitative studies on PA adherence factors, our research provides some exploratory incursions in the field. Our findings can be useful both for further studies on the topic and as a resource for the improvement and/or development of policies, programs, and projects that not only make possible the enrollment, but also the adherence of the older adult in PA programs and projects.

The participants of the study were 10 older adults that, in November of 2006, had been attending the "Without Borders" project for at least 2 years, who agreed to participate in the research and who did not have health limitations—e.g., cognitive, mental or hearing problems—that could limit their ability to understand and answer the interview questions. The data were collected through semi-structured in-depth interviews with open-ended questions and specific probes that allowed participants to elaborate on ideas as they arose, so our research questions could be explored. These questions were: 1) What are the main adherence factors to the "Without Borders" project? 2) What are the main barriers that the participants of this project find to continue attending it and what motivates them to overcome these barriers? The leading questions that we asked in the interview were directly related to the research questions and were the following: What led you to start the program? What motivates you to continue attending the program? What are the main difficulties you find in continuing to attend the program? What

motivates you to overcome these difficulties? We tried to keep these questions as open as possible so that the participants could answer them in their own words focusing on what seemed to be most important to them. As they elaborated their answers, other questions were developed to deepen our understanding of their viewpoints. For instance, if someone said that they started the program because his/her doctor asked them to do so, we would ask if they knew why the doctor had made that recommendation. If someone said that he/she continues to attend the program because of the friendships that they had made there, we would ask them to tell us more about these friendships and the meaning of these friendships to them. Yet another example, if someone said that one of his/her major barriers to attend the program was that they had to take care of grandchildren, we would ask them to tell us more about their commitments to their grandchildren and how exactly these commitments interfered with their PA activities. All the interviews were tape-recorded and transcribed verbatim in order to guarantee the quality of the data analysis. The same author responsible for the interviews also transcribed and translated them into English, word by word, trying to respect both the structure of the sentences and the meaning of the speeches². The interviews were developed individually either at the site of the project or at the participant's home, according to their preference and lasted for about one to two hours. The coding categories emerged from the data. Initially, we analyzed the data for each of the research participants, raising and coding the main themes that emerged from their responses. Next, we did a cross-analysis of the data of all participants looking for similarities and differences between the themes. The connections between emerging themes were examined, which allowed

us to identify superordinate themes. Throughout the whole research process—during the interviews and data analysis—we kept probing our ongoing interpretations. This involved a type of questioning in which we constantly looked for evidence that could prove us wrong until we were certain that our interpretations were consistent and as close to reality as possible (Hammersley & Atkinson, 1995; Maxwell, 1992; Miles & Huberman, 1994).

Research Findings

This section will be divided into two parts. In the first part, we will present the main PA adherence factors. In the second, we will discuss the main barriers that the participants find to attend the program and how they try to overcome these barriers.

Adherence to physical activity

All the research participants stated that they started doing PA for health reasons. However, while their reasons for starting the PA program was health in the biological sense of the term, they all said they adhered to the program not only for physical reasons (pain reduction, more disposition, prevention of illnesses and degeneration processes), but also to feel healthier in a broader sense: emotionally, socially, cognitively and spiritually.

The adherence factor most emphasized in their responses was socialization. They valued the fact that the project enabled them to meet new people, to feel part of a group, and give and receive the support of peers and teachers. In fact, for all the interviewed participants, the opportunity to be in a group and to socialize was a kind of therapy. This can be exemplified in the following statements:

I was starting to do just like my friends who stay in their pajamas and in bed all day.... If I had not started this program I would probably be depressed like my friends....Here you talk about things, about the son, about the nephew, about a

2. While author who did the interviews, transcription and the translation is a native Portuguese speaker, she lived and studied in the USA for ten years, and completed both her master's and doctoral degrees using English as the official language.

trip that you have made.... You feel more alive.... You start to have activity in your mind. If you stay home by yourself, you only think about bad stuff.... For me it is a kind of analysis. I play, talk, forget my problems, do my exercise.... It is therapy, what we do here! (Dorothy, 71 years old).

While you are here, you leave everything outside. Then you go out and can start all over.... Sometimes you come worried. . . . There is always something that is not working out. You get in here and you play, you fool around with others.... You leave here very happy! (Hilda, 70 years old).

Another important adherence factor that emerged in the participants' speech was the caring manner that they were treated by the teachers. The latter gave them a kind of attention that they did not always have in other instances of their lives. The following speech illustrates this point:

I didn't use to have this [kind of attention]. I worked a lot and I would get in and do the work. We did not have much time to do certain things. It was only work! (Andrade, 76 years old).

Some people are like the man above, who did not have many opportunities to socialize when he was younger, and as people age this seems to become worse and many of them feel lonely. As they become older, they tend to lose friends and not rarely face the disinterest of others regarding their issues. Therefore, as they meet people who pay attention to them and are caring, they tend to get attached. The data revealed that for the participants of our study, feeling part of the group and receiving the support, love, and attention of their peers and teachers was as important an adherence factor as were the improvements they perceived in their physical health.

As the research participants spoke about socialization as an invaluable factor that kept them engaged in the PA program, they raised

another important determinant of their participation in the program: the fact that it is especially designed for older adults. This was important for them not only because the activities were carefully chosen to meet their expectations and needs, but also because as part of a group where everyone had about the same age, they had some common interests—which facilitated their socialization—and also (and very importantly) similar difficulties. Since the program had a well established culture that each participant should work according to his/her capabilities, and since they observed that not only them, but also their peers had difficulties performing certain activities, they felt more comfortable to do what was asked of them within their own possibilities, without feeling embarrassed about their limitations. As two of the participants explained:

You feel much, much more at ease with people in your age-group, in a group where everyone has some kind of limitation, where everyone has little problems, or most of them have.... I think that one of the things that are important is that everyone has similar limitations! (Rachael, 81 years old)

You feel better with people in your age-range.... If you are going to do some kind of exercise, among us, if you make a mistake, it is OK. If you cannot do it, you sometimes stop and sit down.... The teachers will not say "hey you, try doing it again!", and I will not feel embarrassed. In the gym you feel embarrassed, because there, there are people of all ages and then you do not feel so comfortable. (Ambrosio, 78 years old)

A few participants said that before enrolling in the project, they had been in gyms and dropped out because they did not feel comfortable in that kind of environment. In the gyms, the activities were not specifically designed for their age-range, and they felt obliged to do things that they did not feel comfortable doing. Besides, in the gyms they

found themselves comparing their performance with people much younger than themselves, which led them to continually face their limitations. In the “Without Borders” project, on the other hand, since the activities were specifically designed for their age-group, they did not have to constantly face certain difficulties and compare themselves with people who seemed much “better” than them. Another advantage of being in the “Without Borders” project with people of similar ages was that they felt more at ease to express themselves. Note, as an example, what one of the participants said about how she felt about this, as she talked about a costume party promoted by the project during an overnight trip to the beach:

If I had been in a trip with people of different ages, I would not have had the courage to get there and shake my hips, really shake them the way I did. I would not!....It is important, actually very important, that the activities be developed with a group of the same age! (Hilda, 70 years old)

Even though the majority of the research participants stated to have had some physical pain during the activities, they all stated that they would normally leave the project better than they had come in. They said they really enjoyed the recreational characteristic of the activities. Besides, they also said they really appreciated the games, parties and field trips that were part of the project. According to them, the project was helping them feel happier, younger and more alive than they felt before engaging in it. Some of the research participants also said that their participation in the project was helping them to “open their minds” and to develop a better relationship with themselves and with the world. The following speeches illustrate this point:

[I like it] because you feel well. You feel better with yourself. You do not yell at others. It is a thorough change! You become another person.... It is good for

our mind, for our health, especially for our mind. It becomes more open! (Wanda, 72 years old)

I liked it from the beginning. It was really good! For me it was as if I had been reborn....I have more disposition to work, to go out, to make new friends, you know? It is another life! (Marcia, 83 years old)

Based on what was presented so far, we can conclude that the research participants adhere to the project not only for its contribution to their physical, mental, and emotional health, but also because they enjoy it, feel better doing it, and recognize the benefits that being in a group with people the same age-range offers them (such as exchange of knowledge, experiences, support, and affection). All this in turn, seems to add new dimensions and meanings to their lives, providing them new and good reasons for being alive.

Barriers and the overcoming of difficulties

As they were questioned about the major obstacles for their adherence to the project, the aspects most emphasized by the research participants were health problems and body “pains”. It is important to note that lack of financial resources was probably not brought up as an issue, since the project does not charge any mandatory fee and public transportation is free for people older than 60 in Brazil. If the project and transportation were not free, most participants would probably not be able to attend.

When we asked the research participants what motivated them to continue in the project despite all their health problems and the pains that they said they felt before, during and after the PA sections, once again we confirmed socialization as a key adherence factor. The following response by one of the participants, when answering this question, reveals how much he—like the other participants of the project—treasures the relationships developed with peers and teachers and the fact that in the project, they had someone

with whom to talk, play and even joke about their common problems:

I have arthrosis and....I do not have much disposition to walk and to exercise. It hurts a lot.... But there are a lot of things that we like. There is the friendship of the people who are in the project. We miss someone to talk to, to laugh with, and to tell stories. Each one of us has his/her illness and talks about it as if it were a trophy: My arthrosis, my high blood pressure, my diabetes! That seems to be a trophy and we all laugh about it. I like to be with the group.... These young people tolerate us, all these volunteers are fantastic!....Then you feel you have the obligation to come! (Andrade, 76 years old)

Besides health problems and pains, other important barriers the research participants said they have to deal with to attend the project are family commitments. Some of them care for their parents and/or ill spouses, and most of them help their children in daily tasks such as paying bills at the bank (in Brazil many bills are still paid at the bank), taking objects to be repaired and/or picking them up; taking grandchildren to or from school and other kinds of activities such as swimming, ballet, and soccer classes.

...and then the daughter calls: "Father, could you pay a bill for me? Then I get this bill and pay it for her. Then I get to the bank and there is a huge line.... Then I come back home.... Then I obviously bring her food at school. Then I also take my grandson to school. Then I feel guilty and go pay the mortgage for her.... Then the day ends and our time is over! (Walter, 61 years old).

In the case of some of the research participants, they had to struggle to find some free time to take care of themselves and attend the project. They and their relatives tend to assume that since they do not officially work, they should be available to run errands that nobody else seems to have time

to do. They actually have to battle with their own consciences, spouses and children to avoid being consumed by such tasks. This issue probably does not appear as an important barrier to PA in other studies, considering that it is not as usual in developed countries to have members of the extended family living close to each other, as happens in Brazil.

As we compare the results of our study to the results of other studies about PA adherence factors for older adults, we find some similarities. Health and enjoyment in participating in a PA program also appear as important adherence factors in Freitas et al. (2007), Okuma (1998) and Rhodes et al. (1999). A sense of well-being is also shown as an important PA determinant in Freitas et al. (2007) and Okuma (1998). Opportunities to socialize and to exchange affection, support, experiences and information are also pointed out by Okuma as some of the most—if not the most—important PA program adherence factors. Our findings are equally consistent with this author's study, when she states that, these opportunities seem to add new dimensions and meanings to the lives of older adults.

According to the participants of our study, the main barrier to their participation in the PA program is poor health and/or illnesses. This finding is consistent with the studies by Rhodes et al (1999) and Sheppard (1994). Other studies, such as Mota, Ribeiro, Carvalho & Matos (2006), also show an important association between the person's physical condition and adherence to PA practices.

Conclusion

Projects like "Without Borders", which besides PA, also involve socio-educative activities, are important social investments. Besides promoting physical, mental, emotional and social health, they also stimulate new learnings, friendships and the formation of support groups. These experiences can prevent isolation and depression and generate new dimensions and meanings for the life of older adults.

Based on everything that was previously discussed, we can conclude that the research participants adhered to the project not only for its contribution to their physical health, but also, and very importantly, to socialize and be with people in the same age-range, with whom they can exchange knowledge, experiences, support, and affection, which in turn, seems to add new and interesting dimensions and meanings to their lives. Other important adherence factors are: (1) the fact that the activities are especially designed according to the interests and needs of their age group; (2) the activities are developed within a recreational and playful approach; (3) the culture of the project fosters the idea that each participant should do the activities according to his/her capabilities; (4) because of this culture, and because they know they are with people within a same age-range, they feel comfortable participating in the activities according to their possibilities and according to who they are, with all their gifts and also limitations. The main barriers the research participants find to continued participation in the project are health problems and family commitments. The main motivators to help them overcome these barriers are exactly the main adherence factors: the desire to improve their health, to socialize, and to enjoy the benefits of being with their peers.

While the kind of research we developed does not allow us to generalize conclusions, what we have learned with this exploratory study does offer us some elements to make a few suggestions that may be helpful for the development of PA programs for older adults with similar characteristics: (1) The programs should be specifically designed for older adults, where they can interact with people the same age-range and can do the activities according to their needs and limitations, not feeling embarrassed about their difficulties. (2) The programs should be focused not only on PA, but also on education, socialization, and exchange of experiences among the older adults and between them and the professionals who they are working with. This

broader focus can promote not only their physical health, but also their cognitive, emotional and social health, and offer new meanings to their lives. (3) Some activities should have a recreational approach, so that older adults can feel competent and enjoy themselves while doing them, thus helping to maintain interest in PA. (4) Finally, considering that family commitments may become a major barrier to older adults' engagement in PA practices, many of us need to be educated to respect the right of older adults to invest their time and energy in their own health and development. Many older adults, on the other hand, also need to make the decision to take good care of themselves, and when needed, to say no to the demands of others so that they can take care of their own needs

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Dr. Doralice Lange de Souza and Mr. Rosecler Vendruscolo both teach at the Physical Education Department of the Universidade Federal do Paraná, Brazil.