

Program "VAMOS" (Active Living, Enhancing Health): from conception to initial findings

Programa "VAMOS" (Vida Ativa Melhorando a Saúde): da concepção aos primeiros resultados

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Abstract - Despite increased governmental efforts towards promoting healthy and active lifestyles among Brazilians, physical inactivity is a serious concern in the population. Therefore, we developed a new approach to community interventions for the promotion of physical activity called "Project VAMOS: Active Living, Enhancing Health". In this article we review information about the conception of the program, as well as name, brand, and logo development. We discuss issues related to translation and cultural adaptation, evaluation strategies, and we review lessons learned from the pilot phase of the project that involved older adults and public health centers (CS) in Florianopolis. One hundred older adults registered in six CS participated in the pilot study. They were randomly assigned into three different groups: "VAMOS" (n=33), traditional physical activity classes (n=35), and a control group (n=32). "VAMOS" is an educational program based on behavioral change principles that consists of 12 meetings. Based on an American evidence-based program ("Active Living Every Day"), "VAMOS" was translated and culturally adapted to the Brazilian context. A number of adjustments were made to the original American version of the program prior to conducting the pilot study. For example, the content of the lessons and homework were revised, we shortened the length of the lessons, as well as lowered the complexity of some of the materials. The results of the pilot study suggest that there was broad acceptance of the "VAMOS" program by the older adult participants. Also, interviews with administrative staff and health professionals working for the CS indicated a possibility and interest to continue to offer "VAMOS" as part of their regular programming for the community. In summary, "VAMOS" has great potential to be used with the Brazilian population. Adjustments are necessary for its utilization with other age groups and across different regions in Brazil.

Key words: Behavioral change; Older adult; Physical activity program; Public health centers.

Resumo – Apesar do aumento nos incentivos públicos voltados à promoção de um estilo de vida ativo entre os brasileiros, o perfil de inatividade física da população é preocupante. Neste sentido, desenvolvemos uma nova estratégia de intervenção na comunidade por meio do programa "VAMOS: Vida Ativa Melhorando a Saúde". Neste artigo, serão discutidos informações referentes à concepção, à criação do nome, ao logotipo, à tradução, às adaptações culturais, às estratégias de avaliação do programa e aos primeiros resultados obtidos no estudo piloto conduzido entre idosos em Centros de Saúde (CS) de Florianópolis. Participaram do estudo 100 idosos cadastrados em seis CS. Os idosos foram direcionados aleatoriamente a participarem de um dos três grupos do estudo: "VAMOS" (n=33), atividade fisica "tradicional" (n=35), e grupo controle (n=32). "VAMOS" é um programa educacional de mudança de comportamento que consiste em 12 encontros. Baseado no programa norte-americano "Active Living Every Day", o "VAMOS" foi traduzido e adaptado culturalmente à realidade brasileira. Vários ajustes foram realizados à versão original americana do programa, especialmente, nos conteúdos de leitura, preenchimento do material, tamanho e dificuldade de compreeenssão de algumas sessões. O estudo piloto apontou uma aceitação muito boa ao programa "VAMOS", por parte dos idosos. Entrevistas com gestores e profissionais dos centros de saúde apontaram a viabilidade e o interesse deles em oferecer o "VAMOS" à comunidade como atividade rotineira da rede de saúde pública. Conclue-se que o "VAMOS" tem potencial de uso para a população brasileira, embora seja necessário alguns ajustes para sua utilização com outras faixas etárias e nas diferentes regiões do Brasil.

Palavras-chave: Programa de atividade física; Centros de saúde; Idosos; Mudança de comportamento.

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INTRODUCTION

This article describes the development and implementation of a behavior change program named VAMOS (Acronym in Portuguese for Active Living, Enhancing Health). Important information is discussed regarding the program design, creation of the name and logo, translation, cultural adaptations, strategies for evaluating the program, and the first results obtained in the pilot study. Project VAMOS was offered through community Health Centers (HC) and the program was delivered by physical education professionals working for these centers. This project will help to understand some of the advantages and disadvantages of using Health Centers (a sustainable system) to implement a pioneer behavior change program in Brazil.

METHODS

Conception of the Program

The VAMOS program originated from discussions among the authors of this article about the importance of physical activity (PA) in the lives of Brazilians in the context of statistical data showing low levels of PA in the country. Furthermore, the group also discussed the recent participation in the field of PA by participation and funding agencies, resulting from investment in PA promotion programs in recent years. The search for alternative and creative solutions to the problem of physical inactivity translated into a novel proposal for the Brazilian context – the use of behavior change techniques to promote PA. In this section, we describe the facts and scientific knowledge that served as basis for the "VAMOS" program.

There is scientific evidence showing that a healthy lifestyle, including regular exercise or the practice of PA, is an effective strategy for preventing and controlling various chronic diseases and health care cost. Since 2006, there has been a rise in the availability of financial resources to support new projects, such as those funded by the Brazilian Ministry of Health, and for the publication of the National Policy on Health Promotion¹⁻³. Examples of initiatives to promote an active lifestyle across Brazil include city fitness centers (academia da cidade) in Recife⁴ and Aracajú⁵ (Northeast) and "Active" community based PA programs in Curitiba⁶ and Florianópolis⁷ (South region).

Despite increased governmental efforts towards promoting healthy and active lifestyles among Brazilians, the practice of PA in older adults remains below recommended levels: in 2011, only 22.2% of individuals above 65 year of age practiced some PA during their leisure time, and 32.3% of the individuals in this age group were considered inactive³.

In the past decade, the fight against inactivity seems to have become a major public health concern. Studies in this field seek to understand the best ways to promote an active lifestyle for the population. Even though a consensus has not been reached, investigators have been able to point out the advantages and disadvantages of different types of initiatives, such as "traditional" exercise sessions, awareness campaigns in the media, or behavioral change.

Traditional exercise programs are based on structured classes taught by physical education teachers or instructor, including gymnastics classes, water aerobics, swimming, volleyball, yoga, weightlifting, and dance, among others, in weekly sessions lasting a total of two to three hours. Limitations of this approach include limited reach: only a small percentage of the population will be likely to benefit, especially because the high cost of PA programs for city or state governments often restricts their expansion. The success of such programs is often compromised by the lack of trained instructors or unavailability of adequate facilities. Also, this approach is not successful in raising the awareness of the older adults concerning the importance of PA, and participant retention rate is low.

Indeed, many researchers in the field of PA are adapting their initial recommendations in favor of more simple, flexible, and less structured forms of PA. As a result, they have proposed the use of activities that can be incorporated into daily routines and serve as encouragement for the adoption of a more active lifestyle^{9,10}. In fact, doing any amount of PA seems to be more advantageous than sedentariness⁹. Recent studies show that even light and moderate PA result in health benefits and should be encouraged².

With the purpose of complementing "traditional" physical exercise programs, several studies have highlighted the importance of teaching behavior change strategies for promoting active living¹¹. Behavior change programs convey important knowledge that will help people to adopt active habits and maintain them for long periods of time¹². For example, understanding why PA is important and which type of PA is most appropriate will help people cross barriers that stand in the way of continued and sustainable PA. Behavior change programs (which have also been used to promote lifestyle changes in other critical areas such as anti-smoking and healthy diet efforts) are based on social-cognitive¹³, decisional balance¹⁴, and ecological theories¹⁵, among others.

The literature shows that the notion of behavior change is new in Brazil. Countries such as the United States, Canada, and England are exploring are exploring increasingly more alternative forms of promoting PA that rely on evidence-based community interventions, with an impact on public health. Research results show that these programs are simple, effective, reproducible, and inexpensive¹⁶. Some studies in the United States indicate that behavior change has a better cost/benefit ratio than "traditional" exercise programs¹⁷, but that both are effective in promoting health benefits¹⁸.

One example of a behavior change program is *Active Living Every Day* $(ALED)^{19}$. Previous studies show that 70% of the individuals completing the entire ALED program were still active one year later^{16,19}. ALED was the basis for the development of "*VAMOS*" in Brazil.

ALED is structured with 12 meetings lasting from one hour and 30 minutes to two hours each. The sessions follow specific goals to achieve related to behavior change for people to adopt a more active lifestyle. Each meeting proposes a goal to be achieved, that follows along with the text book sessions:

- Week 1. Ready, Set, Go.
- Week 2. Finding new opportunities.
- Week 3. Overcoming challenges.
- Week 4. Setting goals and rewarding yourself.
- Week 5. Gaining confidence.
- Week 6. Enlisting support.
- Week 7. Avoiding pitfalls.
- Week 8. Step by step.
- Week 9. Defusing stress.
- Week 10. Finding new ways to be active.
- Week 11. Positive planning.
- Week 12. Making lasting changes.

Initially, an agreement was established with Human Kinetics, copyright holder of ALED, for use of the program in Brazil. Training for using ALED was required. During the training, leadership workshops were offered to future facilitators, focusing on specific techniques. A test was given after the training in order to check the knowledge acquired. The appropriate fees were paid to Human Kinetics for the rights to adapt/translate ALED into Brazilian Portuguese and for ALED training.

Creation of the name and logo

In order to make the teaching material more attractive, a partnership was established with the Federal University of Santa Catarina (UFSC) Orientation of Organizational Genese Laboratory (LOGO). The LOGO group defined branding strategies for the project by using a "brand DNA process" Having a strong brand was critical to improving the presenting and interpretation of the project. Because of the co-creative nature of the brand DNA process, a number of people and organizations were engaged from step 1: senior citizens, municipal public health managers, physical education professionals working to the graduate programs at UFSC and to GEAFI (Group of studies in physical activity for senior citizens), and other technical groups. This helped to build a cohesive and engaged group of people interested in the project.

As a result, the brand's DNA (Figure 1) was defined, along with the brand positioning and visual identity. The name and logo were chosen, as well as the guidelines for the graphical presentation of materials²⁰. Thus, the program's initial name ("VIA: Active Life ") evolved to "VAMOS: Vida Ativa Melhorando a Saúde" ("*LET'S GO*: Active Living, Enhancing Health") with its logo as shown in Figure 2.

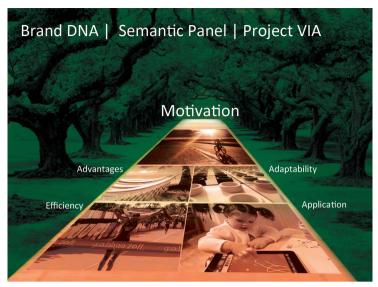


Figure 1. Final DNA of the VAMOS program



Figure 2. VAMOS (LET'S GO: Active Life Enhancing Health) program logo

The LOGO team suggested that translation of the specific titles for each weekly ALED session should include the word VAMOS (equivalent to "let's"). With this the first weekly session, for example, was entitled *Vamos preparar, decidir e fazer? – Let's get ready, set and go?* After eight months of hard work, the material was ready to be tested in a pilot study.

Translation and cultural adaptations

ALED materials were translated from English into Brazilian Portuguese and adapted to the local culture as appropriate, following the steps below:

- 1) Translation of the material done by a bilingual English-Portuguese translator.
- 2) Reading and cultural adaptation. At this stage, all contents specifically related to American culture were revised and modified. For example, texts referring to American football were changed to soccer. Some cases that were not compatible with the Brazilian reality were also removed.
- 3) Interviews. Ten interviews were conducted with older adults in Florianópolis in order to check the material that was translated and culturally adapted for clarity. They made important suggestions in order to improve the program, such as pointing out phrases that were not clear.

- 4) Focus groups. After the interviews, the program was adjusted by the research team and then tested again in four focus groups involving different groups of older adults for another round of suggestions and revisions.
- 5) The material was revised one more time and the final version was ready to be tested in a pilot study.

Program evaluation strategies

Another very important factor to be considered in the area of PA and public health is how programs are evaluated. Major findings on the effects of programs on various physiological, psychological, and social parameters are based on trials that are randomly controlled and research that is carefully planned and coordinated by specialists. Nevertheless, this form of assessment has limitations when seeking to understand how a program works in a sustainable context - in the community, a much more complex and dynamic environment. The success of programs is often gauged on the basis of their effectiveness, that is, comparing pre- and post-test results of participants²¹. The assessment of different aspects that influence the success of "real-world" programs using more comprehensive methodologies has attracted the interest of investigators in the field of public health²². One example is "RE-AIM," a tool developed to evaluate the effect of programs at multiple levels, such as the individual level (target population) or the institutional/organizational level (program provider)²³. Evaluation through "RE-AIM" provides a comprehensive understanding of the impact of programs in terms of scope, effectiveness, adoption, implementation, and maintenance, and produces information on planning and implementing strategies that maximize reach and sustainability. In addition, it provides conditions for public health professionals, the community, and researchers for evaluating built environment strategies²⁴. In this article we will be exploring some aspects that were relevant to the "VAMOS" program.

Pilot Study

The pilot study was implemented in Health Centers in Florianópolis, state of Santa Catarina. In June 2002, the Florianópolis City Health Department created five regional health districts in different parts of the city in order to better manage the city's health care network. These health districts include several Health Centers (HC) that provide health care to the specific population in the area.

Currently there are 50 Health Centers: five in the Downtown district, 12 in the Mainland district, nine in the East district, 11 in the North district and 13 in the South district²⁵. An organizational and individual enrollment methodology was applied to define which HCs would participate in the pilot study.

Recruitment of organizations

At this stage it was decided that only HCs whose inclusion was accepted by all hierarchical instances, from the City Health Department down to each member of the HC team, would be enrolled. This period of negotiations involved the following steps:

- 1) The study was presented to the City Health Department, which approved the ants de implentation implementation of "VAMOS" in HCs. In the City Health Department, the program was approved by project management and by the coordinators of NASF (Family Health Support Centers), to which the physical education professionals who work in the Health Department are subordinate. We then chose to develop VAMOS in districts that did not have ongoing PA or exercise programs. Eligible HCs were found in all districts.
- 2) The next step was to present the program to the coordinators of the five districts. The Downtown district was not eligible because it was already participating in a Ministry of Health survey. Therefore, four districts remained.
- 3) The next step was to present the program to the six physical education professionals who work in the districts. Two professionals showed interest and agreed to participate in the study. Four professionals did not get involved for health reasons or because their workload did not allow time for the project. Therefore, a partnership was established with two physical education professionals.
- 4) The two physical education professionals who were interested in participating in the study took a survey in their districts of three locations that would met the requirements for implementing the program. This led to the selection of six HCs that fulfilled the requirements. After presentation of the study to the health team of each HC, the health team professionals were asked if they would be interested in participating in the study. Discussions and clarifications were made to the health teams. All six HCs agreed to participate.
- 5) After this, a raffle was held at each regional district for randomization purposes. Three HCs were selected: one to implement a "traditional" PA program, the second to implement the behavior change program *VAMOS*, and the third for control.
- 6) After definition of the HCs and program types, the physical education professionals were replaced with master's and doctoral students at UFSC in routine tasks for a total of 20 hours a week. The city's physical education professionals were then trained and certified to work together with the research team to implement both the traditional PA program and VAMOS. After this, advertising strategies were developed with the health teams to reach the older adults affiliated with each health center.

Recruitment of individuals

Various advertisement strategies suggested by the health staff and researchers were used: posters put up on the boards at the health centers and highly visible locations next to each HC, distribution of flyers at HCs and at strategic locations, invitation by physicians during medical appointments, invitation by health agents visiting households and invitation at churches close to the HCs.

Potential participants were invited to attend an initial meeting in which the project was explained. Separate meetings were scheduled for each group according to the type of PA program to be developed. Questions about health conditions and the everyday practice of PA were also made at this time. The inclusion criteria for participants were as follows: no severe physical and/or mental impairment, not having participated in PA groups during the past six months, and having an interest in participating in the research for one year and in the intervention group or control groups for three months. Those who met the criteria for inclusion were invited to participate in the study and asked to sign an informed consent form. The study was approved by the Research Ethics Committee at the Federal University of Santa Catarina (UFSC) (CONEP process no. 480560 and CEPSH no. 2387/2010).

After the research was presented, a meeting was scheduled to collect data (pre-test) and explain the program in detail.

The final sample consisted of 100 senior citizens recruited in the 6 HCs, who were directed to one of the three groups stated in the study's protocol: group of traditional physical exercise, behavior change group VAMOS, or control group.

Assessments: physical tests, questionnaires, and focus groups

To date, the 3-month program has already been completed, with pre- and post-intervention assessments. Two more evaluations will be conducted, at six months and one year in order to verify adherence to the proposal. The conclusion of this study is scheduled for May 2013.

The tests used for assessment were as follows: (1) functional capacity Fullerton test²⁶, (2) anthropometric measurements (height, body mass, waist and hip circumferences), (3) level of physical activity (accelerometry, Actigraph GT3X), and (4) questionnaires and scales (quality of life, depression, sleep, self-efficacy) before and three months after the intervention.

Several qualitative observations were also made throughout the entire intervention in the HCs. Each stage (four weeks, eight weeks, end of intervention) was discussed in the focus groups with the professionals who implemented the program. At the end of the intervention, a focus group was conducted with participants at each HC addressing specific issues of the content taught.

The focus of the present article is to report some results obtained in the VAMOS program through interviews and focus groups.

Start of the "VAMOS" program

The program began in two HCs (group 1 and group 2).

- *Group 1*: This local community is mostly of Azorean ancestry. Participants from this community have a low level of education. Mean age was 71.47 years (SD 7.86). Initially, 20 older adults were included, only two of whom were men. After the initial tests (one month after the first meeting), it was decided that the meetings would take place on Tuesdays from 2:30 to 4:30 pm at the Parish Hall of the church for lack of space at the HC for meetings. Some participants dropped out because on this day they could not attend the meetings, resulting in 16 older adults attending the first meeting of the program. At this location, many participants missed some of the meetings, but their absences were not consecutive (reason for exclusion from the program). Eight female participants completed the three-month program.
- *Group 2*: This is a community with older adults from various locations in Brazil and with a higher level of education. The mean age was 70.08 years (SD 5.77). Initially there were 17 participants (four males). After the initial tests, it was decided that the meetings would take place on Tuesdays from 8:30 to 10:30 am in the auditorium of the HC. One man dropped out because he could not attend on this day and two others because they had understood the program would involve practical classes. In this location there were some initial dropouts due to health problems and personal issues, but 11 senior citizens were regulars (4 men) and completed the program successfully.

PRELIMINARY RESULTS

The participants and physical education professionals were unanimous in stating that the program was of great value in their lives and that it changed their behavior toward adopting a more active lifestyle. As one older adult person put it

... "if I had known about this before, I would not need this health center for another 10 years"...(participant C.).

Various factors were highlighted that contributed to this change, but the understanding of how PA translates into health benefits was a highlight in both groups. Another participant reported that:

...I didn't know that I had to exercise at such a high intensity level (referring to moderate) (participant T.)

Before the program, the older adults believed that they were physically active – and realized that they were not after using an accelerometer for 7 days. A remarkable moment occurred when participants used a pedometer, which was donated by the behavior change program, and discovered that they had difficulty in reaching the recommended daily number of steps (8,000 to 10,000 steps).

.. "I thought I was active....because I helped build our house and I thought that it was enough because I got tired, but at night this thing here showed that I had taken only 4,000 steps"... (participant N).

The coffee break at the end of each session was mentioned as important because it allows group members to socialize.

..."This is when we all talk with each other"... (participant O)...

The prizes suggested by the program were not mentioned by any of the older adults during the interviews, so apparently they are not important nor necessary, but the donation of pedometers on the other hand was a milestone. Both participants and health professionals recognized this as a turning point after which all previous lessons took on meaning.

... "They really got excited"... (physical education instructor PEF1).

..."I realized that I don't do anything" ... (participant M1).

Participants, physical education facilitators, and the team of health professionals all indicated that the program should not be limited only to the older adults, but that all adults should do to change their lifestyle.

... "what good is it to learn this when I am already full of disease—I should have learned this before..." (participant T).

...this should have begun sooner" ... (participant C).

According to them, an early start could reduce health care spending later on ensure independence for a longer period of time. This was also mentioned by the project management staff of the city health department – with a suggestion to extend the program to schools. The health agents and team of health professionals pointed out that they themselves should also do the program.

... "We need to start doing it"... (health agent AS1).

... "It would be nice if the team could do the program"... (health agent PS2).

Issues such as lack of space for PA, lack of safety when walking at night, streets without sidewalks, and no lighting were also raised. Together with this, they also pointed out that their grandchildren spend hours in front of the television, video game, and computer, that their children are not physically active because they are immersed in the work world...

"...my grandson stays in front of that junk all day long"... (referring to the computer) (participant O).

"...I invited my son to walk with me... he seems to be so tired" (participant C).

The physical education professionals who administered the program believe programs such as VAMOS to be the solution for public health.

... "This is what I always wanted to see in Physical Education"... (physical education instructor PEF1).

... "The program is wonderful"... (physical education instructor PEF2).

The facilitators who taught the program recognize its importance, but show a concern in terms of the program's format:

... "Our older adults do not like to read. This needs to be changed"... (physical education instructor PEF1).

... "The classes cannot be so theoretical"... (physical education instructor PEF2).

These statements make it clear that the program needs to be thought through. The professionals adapted some meetings to better use the content, especially at the end of the program.

... "The topics are interesting but you can't just sit around discussing things"... (physical education instructor PEF1).

... "They just can't stand it"... (referring to the older adults) (physical education instructor PEF2).

Each class has different ways of working depending on the audience involved. This was the synthesis of the Physical Education professionals who taught the program. They studied the content, prepared themselves, and often discussed with the investigators the best way to present a topic because the participants would not understand it in the format that was originally proposed. Also, some themes were difficult. Adjustments were made to all classes, but the content of the meetings was kept in the original format of ALED, involving reading and filling out the material. This was also problematic due to the low level of education many participants, who required more time for filling out the forms because they needed help from friends or health workers.

The managers described a smooth implementation of VAMOS, and praised the organization of the study.

... "We only heard good comments about the program"... (Manager 1).

They did however perceived health teams to have been burdened during the process, and pointed out that implementing a program such as VAMOS in the public health care system would require teams and departments to be structured for the task in advance. Still they believed that using VAMOS would be feasible in the municipal health care network. When asked about the funding of the program, the managers indicated that resources can be obtained for good programs.

The groups also indicated problems in five chapters: some chapters were considered to be excessively long, repetitive, and tiring, and for of the older adults (especially those with less education) these chapters were difficult to understand. Because of this, these chapters will be rewritten or shortened for a future application by removing or dividing parts of the content.

For the present, both VAMOS groups faced the difficulty of teaching illiterate adults and those with little schooling. This complicated understanding and required the constant intervention of some friend, physical education professional, or health agent to help carry out the tasks proposed in each chapter.

It was also observed that the classes should have both theoretical and practical parts, and that sitting for two hours can be very tiresome.

..." Just sitting here is very boring"... (participant MZ).

... "If the class is about being more active, we need to move around here a little bit more"... (participant E). So the team is developing strategies to meet this demand.

Limiting the program to 12 meetings was also questioned both by physical education professionals and participants.

... "We aren't going to see each other anymore? I think we should continue the meetings"... (participant I).

Both the physical education professionals as well as the older adults mentioned the importance of continuing the meetings, perhaps not weekly, but monthly with specific topics in each encounter that reinforce what they are doing. According to them, an initial step has been taken, but they feel insecure in relation to continuity. The support and a monthly discussion would help motivate them to stay active.

..."I would feel more motivated if I came here"... (participant N).

This possibility is being considered by the team. It is clear that adjustments will definitely be needed before the program can be made available to be used in other locations.

We observed that most of the older adults, during or after the intervention, got involved in some group activity such as relaxation groups, gyms, etc. in order to continue their activities.

DISCUSSION

Our preliminary analyses with the team of health professionals involved in the VAMOS project underscored the need to make people recognize opportunities to practice PA – therefore, it is important to suggest activities that can be done at home, or provide information on the conscientious and efficient use of outdoor fitness equipment, among others.

The results presented so far support the findings of studies conducted in the United States that report positive results from this type of intervention. The programs are simple, effective, reproducible, and inexpensive¹⁶, making them a good alternative for the public health care system, especially to be implemented by physical education professionals who work in Family Health Support Centers.

It should be noted that "traditional" exercise programs have a cost for the government of around R\$ 60 per month per student. These amounts cover costs relating to physical education instructors, classroom materials, and use of facilities. The total cost of VAMOS for the 3-month program was R\$ 350.00 including instructors, right to use the material, pedometer, prizes, and coffee. This amount can be decreased to around R\$ 150 if course materials are printed in large amounts. So far only photocopies have been used, which makes it more expensive.

VAMOS requires only two hours a week for three months, for a total load of 24 hours, and can be offered 4 times a year. We believe, however, that it should be offered only twice yearly, in spring and autumn. The "traditional" exercise program is continuous and demands 36 hours in three months. Also, participants depend on the availability of the program to practice PA.

Some of the programs that propose changing behaviors and that have proven to be effective, with a high retention rate include the Community Healthy Activities Model Program for Seniors (CHAMPS)²⁷, Active Living Every Day (ALED)^{10,19}, Active-for-Life (AFL)²⁸, and Active Choice²⁹. AFL and ALED have a retention rate of 61% and 70% respectively one year after the program was given¹⁶. As mentioned previously, ALED was the basis for our study. For Brazilian public health, a PA program with high retention of older adults is valuable. Although the cost and retention rate are similar to that of traditional exercise programs, the cost-effectiveness is higher. Some studies conducted in the United States indicate that behavior change programs have a better cost-benefit ratio when compared to "traditional" exercise programs¹⁷, but show that both are effective in promoting health benefits¹⁸. The retention rate for VAMOS is not yet known, but it was found that the older adults who participated in this behavior change program were motivated for change, which favors retention.

The VAMOS program needs adjustments, but we are convinced that it is a promising path toward change of behavior and regular PA. The necessary adjustments to our reality are currently being evaluated so that a revised, Brazilian version of this instrument can be tested again in the near future.

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