

A Stimulation and rehabilitation program: Oficina da Lembrança

Programa de estimulação e reabilitação cognitiva: Oficina da Lembrança

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ABSTRACT

This study aimed to present the method of the multi-center program of cognitive stimulation and rehabilitation known as “Oficina da Lembrança” (Memory Workshop), held at the University of Southern Santa Catarina, Federal University of Santa Catarina and Federal University of São Paulo. This project has assisted about 450 people aged 50 or older with memory complaints. Each session consists of one to three meetings/week (approximately 20 meetings/semester), with groups of 10 to 20 participants to carry out activities on computers, physical activity and individual oral reports of the experiences they had at the meetings (approximately 90 minutes). In the first and final six-monthly meeting, socio-demographic, health and behavioral variables, cognitive performance, functional disability and presence of depressive symptoms are collected. The project was implemented in 2006 and it is expected to continue. Programs like this are extremely important in society because they can provide benefits to the population, especially in terms of helping cognitive improvement, thus promoting health and socialization.

KEYWORDS

Elderly Individuals; Motor Activity; Computers; Cognitive Therapy.

RESUMO

Este estudo objetivou apresentar o método do programa multicêntrico de estimulação e reabilitação cognitiva “Oficina da Lembrança”, em execução na Universidade do Sul de Santa Catarina, Universidade Federal de Santa Catarina e Universidade Federal de São Paulo. O projeto já atendeu aproximadamente 450 pessoas com 50 anos ou mais de idade com queixas de memória. Cada sessão é composta de um a três encontros/semana (aproximadamente 20 encontros/semestre), com grupos de 10 a 20 participantes que realizam atividades em computadores, atividades físicas e relatos individuais orais sobre as experiências do encontro (aproximadamente 90 minutos). No primeiro e último encontro semestral são coletadas variáveis sociodemográficas, de saúde e comportamentais, desempenho cognitivo, capacidade funcional e presença de sintomas depressivos. O projeto foi implementado em 2006 e tem perspectiva de continuidade. Programas como este são extremamente importantes na sociedade, pois podem proporcionar benefícios à população, principalmente auxiliar na melhora cognitiva, promovendo saúde e socialização.

PALAVRAS-CHAVE

Idosos; Atividade motora; Uso de computadores; Terapia cognitiva

INTRODUCTION

Individuals aged over 50 years are more exposed to risk factors for diseases and cognitive decline, which can increase the risk of mortality^{1,2}. In this perspective, developing cognitive function is important for general health, apart from functioning as a marker of social inequalities³⁻⁷.

Some of the most effective ways to improve cognitive function are the use of computers and the practice of physical activities^{3,8}. In addition to stabilizing and/or delaying cognitive decline, the use of computers can help to reduce physical and mental limitations, and promote citizenship, education, work, leisure and health^{3,6,8}. In contrast, physical activities decrease the risk of cognitive decline⁵.

Working with adults and elderly individuals should be aimed at improving and promoting their health⁹. Programs that improve cognitive function can help to prevent the development of diseases and provide autonomy and quality of life^{3,5}. The present study aimed to show the multicenter program method of cognitive stimulation and rehabilitation known as “Oficina da Lembrança” (Memory Workshop).

BACKGROUND

The Oficina da Lembrança was created by gerontologist André Junqueira Xavier in 2000. It began as a Master’s dissertation theme for the Postgraduate Program in Computer Sciences of the Universidade Federal de Santa Catarina (UFSC – Santa Catarina Federal University), aimed at “Drawing, describing and analyzing the process of interaction through the Internet in an elderly group in the light of Maturana, Varela and Paulo Freire’s theory, with the purpose of contributing to the development of the human/computer interaction and accessibility in gerontology”.

In 2003, the same proposal was implemented at the Universidade Federal de São Paulo (UNIFESP – São Paulo Federal University) as a doctoral thesis theme for the Postgraduate Program in Computer Sciences and Health. In 2006, the Oficina da Lembrança became a university outreach project with medical follow-up and health guidance for participants at the Universidade do Sul de Santa Catarina (UNISUL – Southern Santa Catarina University) in the city of Tubarão/SC and subsequently extended to the city of Palhoça/SC, in 2009. This first intervention followed nearly 250 individuals from 2006 to the end of 2012.

Initially, this program included the use of computers, stretching exercises and discussions in inter-generational groups. From 2012, its importance as a teaching strategy was recognized through the Memory Outpatient Clinic, created in the internship program of UNISUL’s medical course to follow participants. From 2013, this program became the object of study of postgraduate students in the areas of Medicine, Physical Education and Physiotherapy, functioning as a research field for university research projects or those developed through the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq – National Council for Scientific and Technological Development).

In the same year, the practice of physical activities was included in the schedule of workshops at UNISUL for the first time, in the cities of Tubarão/SC and Palhoça/SC, aiming to collect the best pieces of evidence

for this project. This second stage of intervention, which has occurred since 2013, already includes nearly 150 people. In 2014, the workshop began to be held at UFSC and UNIFESP and it has continued until now.

Becoming acquainted with the locations and target population

At UNISUL and UFSC, the Workshop functions as an outreach project. Projects include multi-professional teams with two professors, postgraduate students, students receiving research and outreach grants, and volunteer students. This project was funded by CNPq in 2011-2012 and approved in the PROEXT-2016 (2016 University Outreach Program). At these three campuses, it is held in the existing computer science laboratories.

At UNIFESP, the Workshop is part of the research project known as PPSUS (Unified Health System Research Program), which enabled the acquisition of computers and accessories to set up the rooms. The participating team includes professors, researchers, health professionals, postgraduate students and volunteer undergraduate students. This project is held at UNIFESP's Aging Research Center, which has conducted the Epidoso Project since 1991, following a cohort of individuals aged 60 years and more living in the city of São Paulo, Brazil.

These projects share common characteristics such as the inter-generational group meetings, which are held at the computer sciences laboratory, easily accessed by participants. Physical activities are performed in different spaces (in rooms or halls, outdoors, on walking paths or at the "Elderly Gym").

The target population is comprised of individuals aged 50 years and more, living in cities where this project is conducted, who have had complaints about their memory and showed interest in participating in it. At UNISUL, the elderly are recruited through the longitudinal medical follow-up program (Geriatrics and Primary Care Outpatient Clinic). At UFSC, this project is connected to the Epifloripa Idoso population-based study¹⁰, which follows a cohort of individuals aged 60 years and more living in the city of Florianópolis/SC. Elderly individuals involved in this study, who reported having complained about their memory and being interested in joining the cognitive stimulation/rehabilitation program, are selected randomly and invited to participate in it. The same occurred at UNIFESP, where this program is connected to the Epidoso study.

When the campuses are considered together, this project cares for nearly 50 people per semester, 10 to 20 people per campus. In all, approximately 450 people have been cared for.

The cognitive stimulation and rehabilitation program

The main goal of this program is to prevent, stabilize and/or delay the development of cognitive problems. It is comprised by a sequence of 20 to 30 minutes of computer activities, followed by 20 to 25 minutes of physical activities and an additional 20 to 30 minutes of computer use. In the end, oral individual reports are made and experiences that participants had at the meetings are shared for 10 to 15 minutes.

A total of 20 meetings are usually held per semester, which take place one to three times a week, depending on the availability of instructors, elderly individuals and the laboratories used.

The use of computers is based on explanations about their functions and potentials, mouse use, free drawing tools, photo viewer, games with and without a set time, browser, Internet navigation, electronic mail use and social networking tools. All activities are performed in group, although each participant uses a computer individually.

Physical activities are usually provided by a physical educator, comprised of global stretching exercises, aerobic exercises (walking, dancing or circuit training), muscle-building exercises or balance-rehabilitation exercises, and performed in a group setting. Materials such as free weights, balls, cones and chairs are used.

All activities are designed and conducted by undergraduate students receiving grants and volunteer students, including the assessment of elderly individuals through questionnaires.

Instructors are advised to encourage the elderly to use computers, perform activities that stimulate memory, and practice physical activities on different weekdays.

Assessments are performed individually in a separate room in the form of face-to-face interviews, in the beginning and end of each semester. The questionnaires applied are as follows:

- Diagnostic form¹⁰ to identify socio-demographic variables, personal health history and behavioral variables;
- Mini Mental State Examination (MMSE)¹¹, which assesses cognitive capacity;
- Brazilian Multi-dimensional Functional Assessment Questionnaire⁷, which assesses functional incapacity or the performance of daily life activities;
- Montreal Cognitive Assessment Test¹², which identifies cognitive impairment;
- Clinical Dementia Rating¹³, which assesses and categorizes the stage and development of dementia clinically;
- Geriatric Depression Scale (GDS)¹⁴, which identifies symptoms of depression.

Thus, the basic workshop protocol was established:

- Initial interview:
 - a) Explanation about the project goals and the fact that the workshop is not a “computer class”, instead, computers will be used as a digital tool and for this reason their basic aspects will be taught.
 - b) Application of questionnaires.
 - Beginning of workshops:
 - a) Introduction of instructors and participants.
 - b) Signing of contract of honesty, spontaneity and privacy of work.
 - c) Performance of workshop.
 - Final interview:
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a) Application of questionnaires.

The logical model of functioning of the Oficina da Lembrança is described in Figure 1.



FIGURE 1 – Logical model of the Oficina da Lembrança.

CONTRIBUTIONS AND EXPECTED RESULTS

The Oficina da Lembrança aims to improve citizenship, social inclusion and the functional, physical and cognitive capacity of participants. Additionally, we expect to provide greater autonomy, independence and social inclusion and to reduce morbi-mortality rates.

Such actions are viable alternatives to prevent health problems and promote health through cognitive stimulation/rehabilitation. The current state

of dementia in Brazil and worldwide foresees a significant increase in the number of elderly individuals affected, which translates into more expenses on health and greater social impact.

As a contribution, the development of a reproducible method capable of working on cognitive function through digital tools and physical activity, which are organized according to increasing levels of complexity that can be used in both the Unified Health System in partnership with universities and private institutions, is an innovative initiative that blends scientific knowledge and social awareness.

CONCLUSION

The Oficina da Lembrança has a simple and easy methodology that can be implemented in different environments apart from university campuses. With the advent of tablets, laptops and smart phones, this program can also be performed outdoors and in public spaces such as squares, parks and museums, not necessarily requiring desktops.

Moreover, the description of the structure/development of the Oficina da Lembrança can help us to seek improvements when planning interventions of this nature, as it is characterized as a new method that connects computer use and physical activities in the same program.

Authors' contributions

Rodrigo de Rosso Krug, Lariane Morteau Ono, Anna Quialheiro, Eleonora d'Orsi, Luiz Roberto Ramos and André Junqueira Xavier contributed to the planning, creation, drafting, critical review, content guidance and approval of the final version.

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