

RESEARCH PAPER (ORIGINAL)  
ARTIGO DE INVESTIGAÇÃO (ORIGINAL)

## Community care unit and elderly health promotion: an intervention program

Unidade de cuidados na comunidade e promoção da saúde do idoso: um programa de intervenção

Unidad de cuidados en la comunidad y promoción de la salud en los ancianos: un programa de intervención

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### Abstract

**Background:** Healthy aging is assumed as a challenge of modern societies, yet not having enough concerns for this age group in health promotion programs.

**Objectives:** Describe the relevant data of the profile of the elderly of a UCC of the north of Portugal to guide us to an intervention program in the promotion of healthy lifestyles.

**Methodology:** Quantitative, descriptive and exploratory study, with a sample of 1,522 elderly subjects of a northern municipality of Portugal.

**Results:** The studied sample shows moderate self-care dependency, being skeletal disease and osteoarticular the most frequent pathology found, followed by endocrine and cardiovascular diseases. Most of the subjects adopt unhealthy lifestyles habits while existing differences between both genders.

**Conclusion:** These findings show existing characteristics on the elderly that can be the target of an early intervention by rehabilitation nurses. This could be done through a specific health promotion program that can respond to the identified health needs.

**Keywords:** aged; program; health promotion; life style; nursing

### Resumo

**Enquadramento:** Envelhecer saudável constitui um desafio das sociedades atuais denotando-se, ainda, pouca preocupação com este grupo etário quanto a programas de promoção da saúde.

**Objetivo:** Descrever os dados relevantes do perfil dos idosos de uma unidade de cuidados na comunidade (UCC) do norte de Portugal a fim de nos orientar para um programa de intervenção no âmbito da promoção de estilos de vida saudáveis.

**Metodologia:** Estudo quantitativo, descritivo e exploratório, com uma amostra de 1.522 idosos a viver no seu domicílio num concelho do norte de Portugal.

**Resultados:** A amostra estudada revela já dependência moderada no autocuidado, predominando a doença músculo-esquelética e osteoarticular, seguindo-se a doença endócrina e a cardiovascular. A maioria dos idosos adota estilos de vida pouco saudáveis, verificando-se diferenças entre géneros.

**Conclusão:** Os dados obtidos revelam a existência de características nos idosos que podem ser alvo de intervenção precoce pelos enfermeiros de reabilitação, através de um programa de promoção da saúde específico que responda às necessidades em saúde identificadas.

**Palavras-chave:** idoso; programa; promoção da saúde; estilo de vida; enfermagem

### Resumen

**Marco contextual:** Envejecer de forma sana constituye un desafío de las sociedades actuales. No obstante se observa que hay todavía poca preocupación por los programas de promoción de la salud en este grupo etario.

**Objetivo:** Describir los datos relevantes del perfil de los ancianos de una Unidad de Cuidados en la Comunidad (UCC) del Norte de Portugal con el objetivo de orientarnos hacia un programa de intervención en el ámbito de la promoción de estilos de vida saludables.

**Metodología:** Estudio cuantitativo, descriptivo y exploratorio, con una muestra de 1.522 ancianos que viven en su domicilio en un concejo del Norte de Portugal.

**Resultados:** La muestra estudiada revela ya una dependencia moderada en el autocuidado y una predominancia de enfermedad músculoesquelética y osteoarticular, a las cuales las siguen la enfermedad endocrina y la cardiovascular. La mayoría de los ancianos adopta estilos de vida poco saludables, aunque se observan diferencias entre géneros.

**Conclusión:** Los datos obtenidos revelan la existencia de características en los ancianos que pueden ser objeto de intervención precoz por parte de los enfermeros de rehabilitación a través de un programa de promoción de la salud específico que responda a las necesidades relativas a la salud identificadas.

**Palabras clave:** anciano; programas; promoción de la salud; estilo de vida; enfermería

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Recebido para publicação em: 12.10.16

Aceite para publicação em: 14.03.17

## Introduction

Aging is a gradual process that results in significant biological, psychological, and social changes. Impaired adaptive capacity and progressively reduced functional reserve lead to frailty.

The National Health Plan (NHP) emphasizes the concern with the increase in life expectancy, recognizing the need for interventions targeted at the elderly population. However, the NHP does not include the characteristics and perceptions of older people from the different Portuguese municipalities as being essential for the implementation of a rehabilitation nursing program with the purpose of monitoring older people in community care units (CCU).

CCUs are units that provide health care in close contact with the community in their geographical area of intervention; hence they work together with several community partners. Health care is provided based on the health diagnosis of the community, the intervention strategies established in the NHP, and the development of community outreach programs and projects aimed at promoting healthy lifestyles and supporting individuals and families. Thus, through interventions aimed at the education of the population, the maintenance of functional abilities, and the prevention of disabilities, it is possible to contribute to improving the quality of life of older people/families by reducing the costs associated with illness processes.

The main objective of this study was to describe relevant data of the profile of older people of a community care unit in the north region of Portugal with a view to designing an intervention program for the promotion of healthy lifestyles. It also had the following specific objectives: to identify the sociodemographic profile of the elderly in the CCU; to describe the level of independence in activities of daily living and the health conditions of both men and women; to analyze lifestyles in order to identify needs related to physical activity, nutrition, and social participation of both men and women.

This analysis is part of a broader research proj-

ect entitled Living well and older: from the family context to the institutional support (*Viver bem, com mais idade, do contexto familiar ao apoio institucional*) that results from a partnership between the Nursing School of Porto and the city of Vila Nova de Famalicão.

## Background

In recent decades, the population has become increasingly aged. According to the Statistics Portugal (INE, 2011), the aging index was 104 in 2001, increasing to 131 in 2011. In 2013, the growing trend remained, with an aging index of 136.

The aging process is characterized by multiple morphological, functional, biochemical, and psychological changes, which increase vulnerability and the incidence of pathological processes (Fries & Pereira, 2011). The concept of aging is associated with the concept of functional capacity, defined as the older person's ability to remain autonomous and independent in his/her daily life, despite some physical, mental or social constraints.

In addition, Nahas (2013) mentions that there is evidence on the high impact of personal lifestyles on health. Lifestyle is defined as a set of beliefs, values, and attitudes that are reflected in our daily habits and determine how sick or healthy individuals will be in the medium- and long-term. The same author points out five key lifestyle-related factors: nutrition, stress management, physical activity, social relationship, and preventive behavior.

Health promotion programs consist of actions aimed at the prevention of individuals' exposure to conditioning and determining factors of diseases, encouraging more appropriate behaviors that improve health and quality of life. Initiatives of healthy aging promotion have shown to improve older people's quality of life by encouraging their participation, interaction, integration, and empowerment (Araújo et al., 2011).

In this context, the promotion of elderly health should be based on the development of operating models of care delivery that facilitate

the implementation of evaluation and intervention projects, both at the community and institutional levels, and that promote older people's active and successful aging and quality of life.

Bearing in mind that programs involving health institutions and community partners should be implemented, we searched for the best evidence on programs for the elderly and found that there is still a long way to go, especially in the nursing domain.

Of the search conducted, 10 articles were selected. Hence, given the scarce number of recent publications on the topic, the search was expanded to include the past 20 years. The following health benefits from the implementation of these programs were identified: increased functional independence (Kono et al. 2012, Nuñez, Armbruster, Phillips, & Gale, 2003), quality of life, and social participation (Buijs, Ross-Kerr, Cousins, & Wilson, 2003; Nuñez et al., 2003); increased knowledge and awareness about lifestyles and their impact on health (Huang, Chen, Yu, Chen, & Lin, 2002); fewer medical consultations and hospitalizations (Nuñez et al., 2003); and improved mental health (Buijs et al., 2003; Kono et al., 2012).

These programs have many activities in common: the promotion of physical exercise, social interaction, and mental health, as well as promotion of education about healthy eating habits, prevention and self-monitoring of chronic diseases, medication management, and safety/fall prevention.

After analyzing the programs' quality and efficiency, we selected the program described by Nuñez et al. (2003) because it is a group-based, nurse-managed senior health promotion program of community partnerships that is based on three key categories: Health promotion; Senior education; and Self-management of chronic diseases.

## Research questions

What are the characteristics of people older than 65 years living at home that are essential

for the development of a health promotion program? What are the characteristics and the level of independence in activities of daily living of people older than 65 years living at home in Vila Nova de Famalicão that are essential for the development of a health program at the CCU? What are the health conditions and lifestyles of the elderly living in this city? What differences are identified in the needs of the elderly in terms of gender and age?

## Methodology

This is a descriptive and exploratory study using a quantitative approach. This study aims to develop a proposal for an intervention program that meets the health needs identified in the study sample to be later implemented at a CCU of Vila Nova de Famalicão.

This study resulted from the development of the research project of the Scientific-Pedagogical Unit – Nursing: Discipline and Profession (UCP-EDP) of the Nursing School of Porto (ESEP) entitled *Living well and older: from the family context to the institutional support (Viver bem, com mais idade, do contexto familiar ao apoio institucional)* from the NursID: Innovation and Development in Nursing research group, which incorporates the Center for Health Technology and Services Research of the Faculty of Medicine of the University of Porto (CINTESIS - FMUP). The study was approved by the Ethics Committee for Health of the Hospital Center of S. João/FMUP 244-14.

## Population and Sample

The study population consisted of people older than 65 years, living at home, in the city of Vila Nova de Famalicão. The Parish Council presidents selected a sample of 2,461 older people using the non-probability purposive snowball sampling method. Of these, 1,522 older people from 14 parishes in the geographical area supported by a CCU were excluded from the sample.

### Data collection procedure

First, the Parish Council presidents received specific training. Each of them designated two to five people, with secondary (12<sup>th</sup> grade) or higher education, to be part of the group of collaborators who received 35 hours of training on the following topics: social research, ethical procedures, and questionnaire completion. Data were collected throughout 2015 at the older people's home or at a location of their choice. The data collection procedure included requesting participation in the research, explaining the research goals, ensuring confidentiality, administering the questionnaire, and negotiating with the older person about how to complete the questionnaire (self-completion or completion with the help of a collaborator). Consent was obtained, in writing, in the questionnaire header, after the collaborator provided information about the research.

### Data collection instrument

The instrument used was an ad hoc questionnaire divided into four parts: I – Sociodemographic characteristics; II - Autonomy in instrumental activities of daily living (IADLs); III - Health Conditions; IV - Lifestyles.

The following variables were used: sociodemographic characteristics, independence in instrumental activities of daily living, health conditions, lifestyles, physical activity, nutrition, and social participation. For the operationalization of these variables, we applied the following specifications: sociodemographic characteristics – gender, age, marital status, number of children, literacy level, education level, source of income, occupation, and cohabitation; independence in IADLs – Lawton and Brody Scale, in the version of Sequeira (2007); health conditions – perceptions of health status, body mass index (BMI), diseases, signs and symptoms, falls, and medication regimen); lifestyles – “Individual Lifestyle Profile” (Nahas, 2013) (nutrition, physical activity, preventive behavior, social relationship, and stress management). The end result of this scale is a positive or negative lifestyle; physical activity – Physical Activity Habits

Questionnaire (Nahas, 2013; physical activity habits in daily tasks and leisure-time). The result follows this classification: 0-5 points *inactive*, 6-11 points *slightly active*, 12-20 points *moderately active* and more than 21 points *highly active*; nutrition - Food Frequency Questionnaire (FFQ; Nahas, 2013) (list of foods rated from 0 to 10 points) with the following response options: *daily*; *3-6 times/week*; *1-2 times/week*, and *3 times/month*). A sum of 160 to 200 points indicates excellent eating habits, from 120 to 159 points *needs improvement* and less than 120 points *requires major improvement*; social participation –involvement in social-community life initiatives: *does not apply*, *yes*, *no*, *no answer*

### Ethical-legal considerations

During this research, all fundamental human rights were safeguarded in accordance with the codes of ethics. Permission to conduct this research was obtained from the Ethics Committee for Health of the São João Hospital Center, EPE, since this study is registered in CINTESIS (Favorable opinion no. 244/14). The consent was asked by the Parish president or a person designated by the President for that purpose.

## Results

This sample was composed of 560 (36.8%) older men and 962 (63.2%) older women, mostly women aged less than 80 years, married, with children, who knew how to read and write, who attended basic education, and who were economically dependent on their pensions. With regard to the levels of independence, we found that most older people (55.2%) was moderately dependent, but when analyzing each IADL (Table 1), we found that the majority of the elderly is able to use the telephone and a mode of transportation, which indicates that they can participate in activities organized by telephone, in outdoor locations.

Table 1  
*Distribution of the level of independence by IADL and gender*

Instrumental Activities of Daily Living	Gender	
	Male (%)	Female (%)
Ability to use telephone		
On own initiative	58.0	58.2
Dials a few well-known numbers	25.6	25.9
Answers telephone, but does not dial	9.1	9.8
Unable	7.3	6.0
Shopping		
Independent	61.4	59.0
Independent for small purchases	19.2	16.2
Needs to be accompanied	10.0	11.0
Unable	9.4	13.9
Food preparation		
Plans, prepares, and serves meals	51.3	72.2
Prepares meals if supplied with ingredients	13.3	13.3
Heats, serves and prepares meals or prepares meals but does not maintain adequate diet	7.7	4.0
Unable	27.7	10.5
Housekeeping		
Maintains house alone or with occasional assistance (heavy work)	41.8	61.7
Performs light tasks	17.8	20.9
Performs light tasks but cannot maintain acceptable level of cleanliness	9.4	7.1
Needs help with all tasks	7.1	5.7
Unable	23.9	4.6
Laundry		
Does laundry independently	45.4	75.1
Launders small items	9.4	10.8
Unable	45.2	14.1
Mode of transportation		
Travels independently on public transportation or drives own car	68.9	55.1
Only taxi	8.2	12.3
Travels on public transportation when accompanied	4.1	5.8
Travels on taxi or automobile with assistance of another	9.5	12.7
Does not travel at all	9.3	14.1
Responsibility for own medications		
Capable of managing medication (correct time and dosages)	77.6	75.7
Capable if medication is prepared in advanced	11.2	10.4
Unable	11.2	13.9
Ability to handle finances		
Manages financial matters independently	77.9	66.6
Needs help in major purchases or with banking	13.5	24.2
Incapable if handling money	8.6	9.2

Statistically significant gender differences were found in all IADLs, except for the ability to use the telephone and to manage medication.

With regard to the Health conditions, 48.2% of the elderly rate their health status as *good* and 26.3% as *very good*. With regard to the BMI, the mean value of 29.0 corresponds to pre-obesity. As for diseases, the most predominant are musculoskeletal and osteoarticular diseases, followed by endocrine (32.0%) and cardiovascular (19.8%) diseases. Reduced visual acuity and musculoskeletal and osteoarticular pain are the main signs/symptoms, followed by reduced auditory acuity and gait problems. With re-

gard to falls, 22.4% reported having fallen once in the 6 months prior to questionnaire completion and 30.4% reported at least one fall (22.4% 1 fall + 5.5% 2 falls + 2.5% 3 or more falls). It should be noted that older people fell more often in their homes (70.9%) and that 56.8% had a perceived fall risk. With regard to the adherence to medication, 51.6% of the elderly denied changing their medication regimen without medical consent. As for the lifestyles, the analysis of the values obtained for each component (Table 2) revealed that 45.7% of the elderly had a negative lifestyle profile, with a mean of 28.63 points (out of a possible maximum of 45 points).

Table 2

*Description of the individual lifestyle profile*

Lifestyle profile	It is not part of my lifestyle		Sometimes true		Often true		Always true in my day-to-day	
	N	%	N	%	N	%	N	%
Nutrition								
I eat at least five portions of fruit and vegetables per day	538	35.3	286	18.8	375	24.6	323	21.2
I avoid eating food high in fat and sugar	563	37.0	326	21.4	295	19.4	338	22.2
I eat four to five meals per day, including a good breakfast	93	6.1	107	7.0	346	22.7	976	64.1
Physical activity								
In my free time I practice physical activity	134	8.8	732	48.1	260	17.1	396	26.0
I do strength and muscle stretching exercises at least twice a week	132	8.7	746	49.0	189	12.4	455	29.9
I my day-to-day, I walk or use the bike for transportation or take the stairs instead of the lift	125	8.2	763	50.1	246	16.2	388	25.5
Preventive behavior								
I am familiar with my blood pressure and cholesterol levels and try to manage them	116	7.6	357	23.5	188	12.4	861	56.6
I do not smoke, and drink alcohol in moderation (or do not drink)	125	8.2	387	25.4	182	12.0	828	54.4
I respect the traffic rules and wear a seat belt and never drink while driving	147	9.7	169	11.1	143	9.4	1063	69.8

#### Social relationship

I try to cultivate my relationships and I am pleased with them	133	8.7	237	15.6	202	13.3	950	62.4
In my free time I try to spend time with my friends, in sport or group activities, I participate in associations or social institutions	155	10.2	342	22.5	308	20.2	717	47.1
I try to play an active role in my community, I feel useful in my social environment	156	10.2	292	19.2	379	24.9	695	45.7

#### Stress management

I take some time (at least 5 min.) every day to relax	167	11.0	500	32.9	288	18.9	567	37.3
I stay calm in an argument, even when I know I am right	166	10.9	347	22.8	423	27.8	586	38.5
I balance my professional time with my leisure time	157	10.3	426	28.0	340	22.3	599	39.4

As for the physical activity, 30% of older people always included physical activity in their day-to-day and 8.5% did not include it in their lifestyles. With regard to social relationships, 10% did not include this type of behavior in their daily lives. Results show that 10% of the elderly did not take into account an adequate stress management strat-

egy. The analysis of the means obtained in the five lifestyle profile components showed that physical activity was the component with the lowest score ( $\bar{x}=4.83$ ). With regard to older people's habitual physical activity, results showed that 70% of them are inactive or slightly active, as can be seen in Table 3.

Table 3

*Classification of older people's physical activity by gender, according to the Habitual Physical Activity Questionnaire*

Classification of Older People's Physical Activity	Masculino		Feminino		Total	
	N	%	N	%	N	%
Inactive	247	16.2	412	27.1	659	43.3
Slightly active	171	11.2	234	15.4	405	26.6
Moderately active	113	7.4	235	15.4	348	22.9
Highly active	29	1.9	81	5.3	110	7.2

As for nutrition, 63.4% of the elderly needed to significantly improve the quality of

their diet and only 5.5% have an excellent diet, as can be seen in Table 4.

Table 4

*Classification of older people's diet by gender, according to the Food Frequency Questionnaire*

Classification of Older People's Diet	Men		Women		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Excellent	31	2.0	54	3.5	85	5.5
Balanced, but can improve	186	12.2	286	18.8	472	31.0
Needs a significant improvement	343	22.5	622	40.9	965	63.4

As for social participation, the results showed that the majority of the elderly (53.2%) did not participate in social activities. Based on these findings, we tried to design a program taking into account the different characteristics of men and women. In relation to gender differences in the autonomy to perform IADLs, the following results were obtained:  $X^2 = 8.822$ ;  $gl = 2$ ;  $p = 0.012$ , with women being generally more autonomous. The analysis of each IADL showed that men are more autonomous in shopping ( $X^2 = 8.006$ ;  $gl = 3$ ;  $p = 0.046$ ), using modes of transportation ( $X^2 = 27.141$ ;  $gl = 4$ ;  $p = 0.001$ ), and handling finances ( $X^2 = 22.855$ ;  $gl = 2$ ;  $p = 0.001$ ); in turn, women are more autonomous in preparing meals ( $X^2 = 84.108$ ;  $gl = 3$ ;  $p = 0.001$ ), housekeeping ( $X^2 = 137.128$ ;  $gl = 4$ ;  $p = 0.001$ ), and doing laundry ( $X^2 = 156.425$ ;  $gl = 2$ ;  $p = 0.001$ ).

With regard to the lifestyle profile, men scored higher in eating habits ( $X^2 = 12.758$ ;  $gl = 1$ ;  $p = 0.001$ ) than in stress management ( $X^2 = 4.789$ ;  $gl = 1$ ;  $p = 0.034$ ). As for physical activity in daily occupational activities, men walk or use a bike more often ( $X^2 = 17.215$ ;  $gl = 1$ ;  $p = 0.001$ ) and prefer to use the stairs instead of the lift ( $X^2 = 5.496$ ;  $gl = 1$ ;  $p = 0.019$ ); women perform more intense aerobic exercises once a week ( $X^2 = 10.853$ ;  $gl = 1$ ;  $p = 0.001$ ) and twice a week ( $X^2 = 18.710$ ;  $gl = 1$ ;  $p = 0.001$ ), flexibility and concentration exercises, such as Yoga and Tai-Chi-Chuan ( $X^2 = 4.592$ ;  $gl = 1$ ;  $p = 0.04$ ), and relaxation exercises ( $X^2 = 6.865$ ;  $gl = 1$ ;  $p = 0.010$ ); women perform moderate ( $X^2 = 9.917$ ;  $gl = 1$ ;  $p = 0.002$ ) and intensive ( $X^2 = 6.007$ ;  $gl = 1$ ;  $p = 0.016$ ) daily physical activities more often, although they report

spending most of their time sitting or walking short distances ( $X^2 = 4.833$ ;  $gl = 1$ ;  $p = 0.029$ ). With regard to literacy level, men are more qualified than women ( $X^2 = 56.270$ ;  $gl = 9$ ;  $p = 0.001$ ) and scored higher in terms of the ability to read ( $X^2 = 9.934$ ;  $gl = 1$ ;  $p = 0.002$ ) and write ( $X^2 = 18.057$ ;  $gl = 1$ ;  $p = 0.001$ ).

With regard to diseases, results showed that the incidence of musculoskeletal and osteoarticular diseases and mental diseases was significantly higher in women:  $X^2 = 19.814$ ;  $gl = 2$ ;  $p = 0.001$ , and  $X^2 = 19.764$ ;  $gl = 2$ ;  $p = 0.001$ , respectively. The signs/symptoms also affect mainly women, namely: urinary incontinence ( $X^2 = 13.514$ ;  $gl = 2$ ;  $p = 0.001$ ), persistent feeling of sadness ( $X^2 = 14.087$ ;  $gl = 2$ ;  $p = 0.001$ ), memory changes ( $X^2 = 9.104$ ;  $gl = 2$ ;  $p = 0.011$ ), musculoskeletal and osteoarticular pain ( $X^2 = 14.316$ ;  $gl = 2$ ;  $p = 0.001$ ), gait difficulties ( $X^2 = 11.327$ ;  $gl = 2$ ;  $p = 0.003$ ), and constant imbalance ( $X^2 = 12.282$ ;  $gl = 2$ ;  $p = 0.002$ ).

Statistically significant differences were also found in falls between men and women ( $X^2 = 16.747$ ;  $gl = 3$ ;  $p = 0.001$ ). In total, 76.5% of men and 65.7% of women reported having not fallen.

## Discussion

In Portugal, the average life expectancy is 82.79 years for women and 76.91 years for men (INE, 2014). In this study, the participants' mean age is 73.5 years. The sample is mostly composed of women (560 men and 962 women), which is a situation similar to the national panorama, in which "the elderly population is predominantly composed of women, because they tend to live longer than men" (INE, 2014, p. 2).

In this sample, 39.0% of the older people had no formal education and about half of women had only completed basic education (50.1%). With regard to older people's literacy level, it should be emphasized that men scored higher, which may be explained by women's exclusion from school in the past (Menezes, 2013). With regard to participation in IADLs, Ferreira (2011) notes that the majority of older people have limited independence, and the data of this study corroborate this information, since most of the sampled older people (55.2%) were moderately dependent.

The most predominant diseases are musculoskeletal and osteoarticular diseases, followed by endocrine and cardiovascular diseases, which is in line with Lebrão and Laurenti (2005).

In turn, reduced visual and auditory acuity are two of the main signs/symptoms which may predispose to balance changes, functional dependence, and episodes of falls (Palma, 2012). On the other hand 22.4% reported having fallen once in the 6 months prior to questionnaire completion and 30.4% reported at least one fall (22.4%-1 fall + 5.5%-2 falls + 2.5%-3 or more falls). According to the 2006-2008 Report on Home and Leisure Accidents, most accidents with older people occur at home, with falls being the most common accident. Women fall more often and with more severe consequences than men, which is in line with Fhon et al. (2012) and Palma (2012).

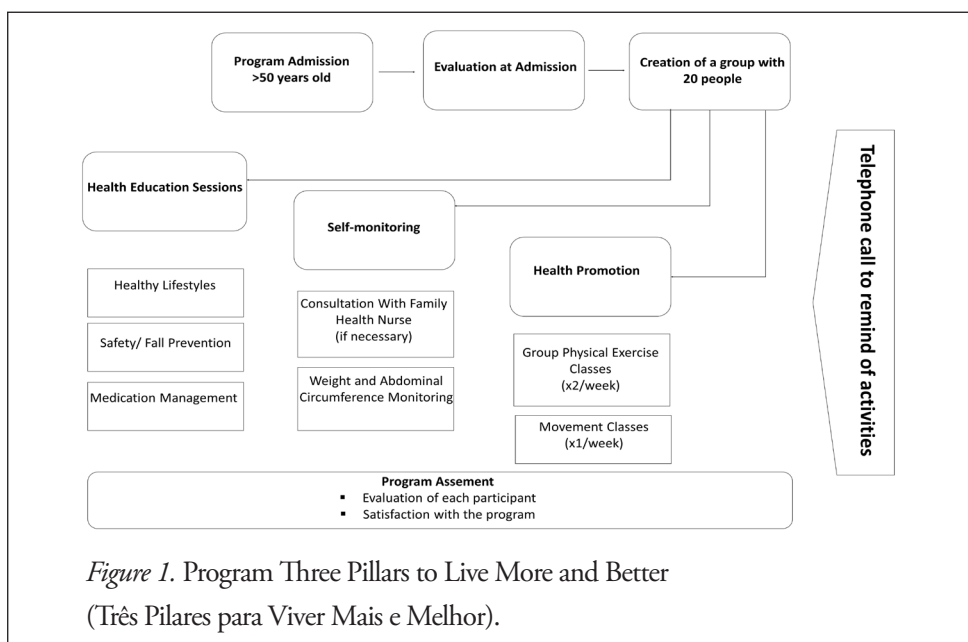
In relation to the medication management, although most of the older people denied forgetting or changing their medication, polypharmacy is a known predisposing factor for taking duplicate or inadequate doses of medication (Direção-Geral da Saúde, 2016).

Nearly half of the older people reported a negative lifestyle profile (45.7%). The analysis of the five components shows that the highest scores were obtained in preventive behavior and the lower scores in physical activity, taking into account that longevity is very much dependent on individual behaviors and that healthy aging requires an early intervention (Nahas, 2013).

According to a study conducted by Malta, Papini, and Corrente (2013) on the diet of the elderly in a municipality, nutrition plays an important role. These authors found similar results to the ones in this study, concluding that older people need to improve their diet. In addition, the higher scores in men suggest that they have a better diet.

It should be noted that the majority of the elderly (53.2%) does not participate in social activities, which may have consequences since a satisfactory level of social participation is associated with a successful aging (Gorjão, 2011).

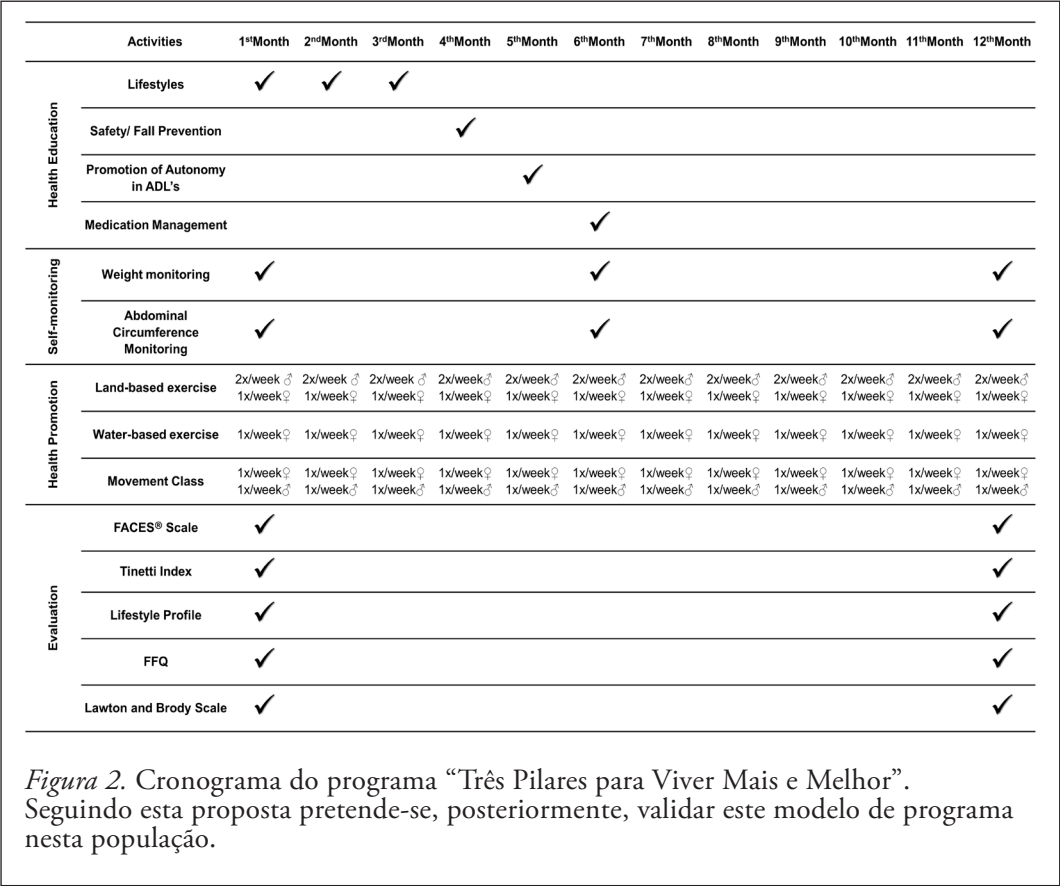
In light of these results, we designed a program for elderly health promotion based on the model of Nuñez et al. (2003), as shown in Figure 1.



*Figure 1. Program Three Pillars to Live More and Better (Três Pilares para Viver Mais e Melhor).*

It should be noted that the frequency of physical exercise classes is scheduled according to gender, as can be seen in Figure 2. Given that the musculoskeletal and osteoarticular diseases affect mostly women, we propose one of two weekly classes in the municipal pool, thus reducing pain and enabling exercises that would be difficult to do on the ground. The second weekly group exercise class for women encompasses Kegel and hypopressive abdominal exercises, which have shown good results in the prevention of urinary incontinence (Silva & D'Elboux, 2012). Balance

training exercises for fall prevention are more frequent in women. Men perform more stress management, flexibility, concentration, and relaxation exercises. Thus, in addition to performing movement exercises in group classes with women, men are expected to attend a weekly class based on the Pilates and Yoga methods, which have well-known benefits (Cogo, Pizzato, & Vargas, 2014), and muscle strengthening and aerobic exercise classes, since the incidence of endocrine and cardiovascular diseases was very significant in the sample under analysis.



### Conclusion

The scientific and social advances which have improved the living conditions of the populations have led to an increasing longevity and life expectancy, particularly in more developed countries. At the same time, the incidence of chronic diseases and disabilities has also increased.

This study contributes to expand the knowledge about a rising age group in our population, and proposes a local intervention program to be implemented by rehabilitation nurses. This program will be validated after its application during a 1-year period. We concluded that the elderly have negative lifestyles, with differences between men and women; thus, a controlled program should be

implemented. Based on the differences found between men and women, we suggest that the program interventions should be adjusted according to gender. Based on the needs identified among the elderly, taking into account the characteristics of men and women, we propose that the CCU should develop an elderly health promotion program by creating partnerships in the community and working closely with each older person's family health care team. Despite the sample size and the collaboration with a single CCU, we concluded that the study provides an adequate overview of the local intervention, and guides the development of new projects in the area under analysis. In addition, it can be a basis for reflecting about nurses' education and training processes.

The fact this was a merely descriptive and exploratory study conducted in a single municipality and untested in its population are limitations or weaknesses of this study. Future studies should compare older people from several municipalities, and compare older people covered by the health promotion program being proposed to those who have not received this intervention.

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