




A narrative exploratory study on the perspectives about physical exercise practise in a sample of Portuguese elderly

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Abstract

The overall prevalence of inactivity among individuals aged 55 or older in Portugal is the highest in Europe therefore it's important to develop effective strategies to increase adherence to structured exercise programs by older adults (Picorelli et al., 2014a). The purpose of this paper is to characterise different perspectives on barriers and facilitators to the practise of physical exercise in a sample of the Portuguese elderly. Two groups of enrolled and non-enrolled in a community exercise program were recruited. Each group had 6 participants that were included in the study if they were ≥ 60 years of age. Two focus groups were conducted via Zoom and lasted ≤ 60 min. Participants were asked about five domains regarding physical exercise. Data analysis occurred in three phases by 2 trained and experienced examiners. While the enrolled group highlighted benefits ($n=6$) and facilitators ($n=6$), and shared strategies to overcome some barriers ($n=2$) the non-enrolled group focused on the barriers ($n=6$) instead and shared more excuses to justify their non-practice of physical exercise ($n=3$). To overcome the barriers considered by the participants in the non-enrolled group, some education strategies focused on physical literacy might be crucial. The high number of barriers felt by the less active older people makes it more complicated for them to adopt and maintain an exercise program. Narratives-based methodologies are interesting methodologies to collect patient-centred perspectives about exercise practise and therefore design adequate programs.

Keywords Physical Exercise · Healthy aging · Patient-Centred Care · Training programs · Health literacy

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1 Introduction

The world continues to experience a sustained change in the age structure of the population, driven by increasing life expectancy and decreasing levels of fertility. The overall number of older people is increasing rapidly. By 2020 there were about 727 million people aged 65 or over in the world. This number is expected to double to 1.5 billion in 2050, increasing from 9.3% to 2020 to 16.0% in 2050 (United Nations, 2020).

Older people have a more inactive lifestyle, spending more than 9.4 h in sedentary activities per day. Physical inactivity is multifactorial and includes factors related to physical, cognitive, and psychological conditions (e.g., frailty, disability, depression, physical limitations, poor sense of meaning in life, social support, and memory loss). Therefore, this population should be encouraged to perform or maintain regular physical activities throughout their ageing process. The overall prevalence of inactivity among individuals aged 55 or older in 16 countries from Europe was 12.5%. This prevalence varied between countries, ranging from 4.9% in Sweden to 29% in Portugal (Gomes et al., 2017).

According to the WHO (World Health Organization), healthy ageing is “the process of developing and maintaining the functional ability that enables well-being in older age.” This functional ability refers to the interaction between the capacity and performance of the individual and the relevant characteristics of his surrounding environment (World Health Organization, 2020). To attenuate several physiologic changes associated with ageing and the progressive decline in function, physical exercise should be implemented into older people’s lifestyles (Galloza et al., 2017).

Physical exercise has many favourable benefits for older adults including improving physical function and overall quality of life and decreasing cardiovascular risk factors and all-cause mortality. Furthermore, exercise also has benefits like maintaining functional performance with an improvement of muscle mass, strength, and mobility of older people (e.g., decrease chances of development sarcopenia) and improving bone mineral density (e.g., prevention osteoporotic), reducing symptoms of pain and improvements in functional capacity (Galloza et al., 2017; Mora & Valencia, 2018; Taylor, 2014a). Moreover, a physically active lifestyle promotes feelings of well-being and is associated with a lower risk of cognitive decline. Improvements in memory, attention, and reaction time can result from a single bout of aerobic exercise. Aerobic exercise plus resistance exercise training can also produce improvements in anxiety, depression, overall well-being, and quality of life (Galloza et al., 2017; Taylor, 2014b). Nevertheless, the benefits of exercise depend on continued participation, however, a change in lifestyle is something difficult for many people of all ages (Picorelli et al., 2014b).

There is still an interchange of the concepts of physical activity and physical exercise, both in the population and in the research literature. While physical activity is simply put, any movement of the body generated by the skeletal muscles, physical exercise is a more complex subset of physical activity that requires planning, structure, repetition, and that is focused on the improvement or maintenance of physical fitness (Dasso, 2019). It is this definition of physical exercise that will be used throughout this paper.

To develop effective strategies for increasing adherence in structured exercise programs by older adults it is important to understand the individual (e.g., experiences, beliefs, and attitudes), social, community and demographic factors. Knowing which are associated with

participation in this health-promoting behaviour will help us translate the strong evidence of the benefits of physical activity into practice (Franco et al., 2015a; Picorelli et al., 2014a).

Barriers to physical activity practice have been further explored in different cultures. For example, two German studies discussed the high importance of psychological and physiological barriers (e.g., perceived abilities, pain, fear of pain), specifically for women and the lack of motivation as a specific criterion for men (Denk & Pache, 1999; Rütten et al., 2009).

An Australian survey (N=402) reported physical habits and the 3 main barriers to more physical activity in older people. More than 10% of inactive men and women reported six specific barriers: “already active enough”; “have an injury or disability”; “poor health”; “too old”; “don’t have enough time”; and “I’m not the sporty type” (Booth et al., 2002).

About barriers to the practice of physical activity in the older Portuguese population, there is a previous study (N=1624) based on a cross-sectional study from 2012 that reported the “lack of time” as the most referred barrier for the participants (Guedes-Estevéz et al., 2021).

A broad analysis of these studies might suggest the wide variability of factors that contribute to physical activity practice, in different populations from different countries. Only one of these studies (Booth) had provided a data analysis in a specific group on inactive people. Collecting perspectives from people with different physical habits is important because it might help us to build a decision tree in designing physical activity programs, according to a self-related experience.

. This way, it’s important to conduct studies that explore the factors which facilitate or hamper the practice of physical exercise, according to different contexts and physical habits, from a perspective of small groups and in specific community contexts. Therefore, the objective of this paper is to characterise different perspectives about physical exercise among older adults divided into two groups (enrolled and non-enrolled in a community exercise program), emphasizing facilitators and barriers to the practice of exercise in a sample of Portuguese elderly.

2 Methods

In order to report qualitative data, the COREQ (Consolidated Criteria for Reporting Qualitative research) checklist was followed (Tong et al., 2007).

2.1 Study design and participants

The authors consider a narrative methodology based on the focus group conduction, because of the cultural influences on the barriers or facilitators for physical activity practice, that can be well captured using this method. Focus groups are important for contexts where the collective view and the attributed meanings are determinants. On the other hand, the methodology of data collection by focus group allows an important exploratory analysis of participants’ experiences and beliefs (Gill et al., 2008).

This was a qualitative exploratory study, with a purposive sample, conducted with two groups (one group of participants in the Community exercise program and one group of non-enrolled), recruited from an elderly community program.

Each group had 6 participants. Patients were included in the study if they were ≥ 60 years of age and agreed to participate voluntarily.

All identified and invited subjects agreed to participate. A meeting was scheduled using the zoom platform and was recorded. Written informant consent forms were obtained prior to any data collection.

The characteristics of each of the groups are presented in Table 1 (Enrolled Participants) and Table 2 (Non-Enrolled Participants).

2.2 Data collection

Data were collected from March 2021. Information on gender, age, marital status, physical activity/exercise practised was collected. For the purpose of this study, participants were asked about five domains: Definition of physical exercise (PE); physical exercise habits; benefits of the practice of PE; facilitators for the practice of the PE; barriers to practice. Participants were free to respond in ways they felt comfortable and were encouraged to present their own understandings and meanings. The researcher could explore a particular meaning or sentence and could clarify any question raised. One health psychologist (RF) with experience in sport and exercise psychology research and interviewing conducted the focus groups. Only the participants and the researcher were present during the interview. On average, each group session lasted 60 min.

The researcher responsible for conducting the focus group started to explain the nature of the research, as recommended by Brink (1993)[], e.g.: why the researcher is there; what he is studying; how we will collect data, etc. The researcher maintain his attention to all interventions, registering some notes about how participants answered the questions and some variations over time. These notes might support later data analysis. When new theo-

Table 1 Enrolled Participants' Characteristics

Group of participants in the Community exercise program		
CODE	Gender	Age
A1	Female	64
A2	Female	75
A3	Female	64
A4	Female	66
A6	Female	70
A7	Male	67

Table 2 Non-Enrolled Participants' Characteristics

Group of non-enrolled in the Community exercise program		
CODE	Gender	Age
P1	Female	71
P2	Female	71
P3	Female	72
P5	Female	76
P6	Male	69
P7	Male	76

retical hypotheses became from the participant's answers, the research tried to confirm his perspective, by repeating the same question again, with further reinforcement (Brink, 1993).

Interviews were digital video, and audio recorded, with the participant's permission, for further transcription and analysis.

2.3 Data analysis

Focus groups were transcribed verbatim and analysed using thematic analysis (Miles et al., 1994) using a reflexive perspective about themes construction as recommended by Braun & Clarke (2021). Identification was coded and numeric and alphabetic codes were used to preserve anonymity. For ensuring the quality of the verbatim transcription, this procedure was routinely reviewed, namely in terms of pausing, overlapping speech or other relevant events. Two authors (PM and RC) independently performed data analysis. However, the entire research team (MR, PM, RA, RC and RF) organized and conducted regular online meetings to examine and discuss topics regarding data analysis to ensure reflexivity. Data analysis occurred in three phases: data reduction, data display and conclusion drawing/verification (Miles et al., 1994). In the first phase (i.e., data reduction) significant sections of the answers were coded into themes. All answers were meticulously read in order to obtain a complete picture of the focus group. Furthermore, interpretative notes were made. Subsequently, emerging subthemes were grouped into major themes. The data display permitted drawing conclusions. In order to organise and facilitate data analysis, the map's themes and quotations were created. In "conclusion drawing/verification" researchers reviewed the meaning and significance of the data analysed. Emergent conclusions were confirmed as a means of testing the validity of the findings (Miles et al., 1994). Both themes and subthemes were examined, reviewed and iterated to guarantee that they reflected the data collected. After independent analysis, researchers compared and discussed the findings. Slightly differences were found between the two researchers, however, visions between them were analysed by the entire team that found they are not truly inconsistent, but rather perspectives of the same scenario. According to Sandelowski (1993), reaching a consensus could not be the most important aspect of qualitative data analysis. What could be really important is to respect different perspectives and submit these different visions to collaborative data analysis. The narrative final classification was then the comprehensive perspective reached by all researchers.

3 Findings

Group of non-enrolled in the Community exercise program.

3.1 Definition of physical exercise (n = 3)

In this major theme, the participants began by defining what was, in their opinion, physical exercise. Most of the participants, about 75% (n=2), defined physical exercise as an activity that they practice almost every day like walking outdoors in the street (n=2), or indoors on a treadmill at home (n=1). Furthermore, physical exercise is also defined by one participant as an unspecified but essential activity, which consists of moving the entire body.

3.2 Practice of physical exercise (n = 6)

During the focus group, the participants identified the current exercise they do and their previous history of the practice. A range of exercises they once practised or that current practice was given, thus identifying two subthemes.

3.3 Current (n = 4)

For this sub-theme, four participants, about 75% (n=3) reported that they walk almost every day, some of them long distances (five kilometres) and others only what they can, not specifying. Additionally, it was also identified by one participant (n=1), who now performs exercise indoors, at home, that he/she used to attend the gym.

3.4 Previous History (n = 5)

In this sub-theme, of the five participants, about 75% (n=4) reported that they previously performed physical exercise in aquatic environments (e.g., Water aerobics, swimming, and underwater fishing). Activities such as maintenance gymnastics, gym activities, Pilates and cycling activity (n=1), and walking activity on higher courses were also reported. School activities (n=1) was reported as a previous history of physical exercise, despite discontent.

3.5 Physical exercise monitoring (n = 3)

In this major theme, three participants mentioned that they monitor their physical exercise in various ways, using technologies (n=2), through the smartphone, and monitoring without technologies (n=1) by time and distance.

3.6 Benefits of physical exercise (n = 5)

The participants recognized and described the benefits they consider that the practice of physical exercise may have, generally, for themselves. Thus, four subthemes related to this major theme were identified.

3.7 Physical Health (n = 3)

In this topic, of the five participants, about 75%, reported benefits at the muscular level like avoiding the loss of muscle capacity (n=2), as well as the decrease in pain symptomatology and painful involuntary contractions in the lower limbs (n=1). Finally, benefits such as preserving functional capacity and movement agility (n=1) were also reported.

3.8 General Health (n = 3)

In this sub-theme, three participants defined a series of benefits for their health in general. They said physical well-being (n=2) and help with digestion after meals (n=1).

3.9 Mental Health (n = 3)

Furthermore, three of them also identified some psychological and mental benefits such as mental well-being (n = 1) and the feeling of rejuvenation and joy of living (n = 2).

3.10 Control of chronic diseases (n = 3)

In this sub-theme, three participants identified the importance of physical exercise in controlling their health conditions such as obesity (n = 2), rheumatoid arthritis (n = 1) and diabetes (n = 1), as well as maintaining their physical form, more specifically in controlling body weight (n = 1).

3.11 Facilitators of physical exercise (n = 6)

Throughout the focus group, the participants identified what do they consider to be facilitators for the practice of physical exercise, resulting in six different subthemes.

3.12 Practice context (n = 5)

In this sub-theme, the five participants reported that contact with nature in rural areas and parks with clean air is a great motivator for the practice of physical exercise.

3.13 Pleasure (n = 5)

In this topic, the participants reported several activities that offer them pleasure and encourage them to practice them. All five participants mentioned walking as the activity that they most enjoy performing.

3.14 Free Time (n = 3)

The amount of free time available has been identified as a great facilitator to perform the tasks they like the most and also increase the amount of exercise they should do.

3.15 Social pressure (n = 2)

Concerning formal and informal influences, two participants identified that health professionals (doctors) pressured them to perform a physical exercise like walking. A participant also identified that taking care of her granddaughter at home increase her physical activity.

3.16 Characteristics of physical exercise (n = 4)

In this sub-theme, four participants reported several factors that helped them start practising exercise. The participants recognised that captivating and enticing activities, having some kind of reward at the end (n = 1) and not having a fixed schedule (n = 2) were all important characteristics. Also, the exercise could not be repetitive and had to have variation between different types of exercise, constantly occurring either a change of location or a variation

of the activity to be performed. Allied to this, in this sub-theme was also identified, by 50% (n=2), that all physical exercise performed in a group or collectively was a facilitator. However, contrary to the previous strategy, one participant reported that the practice individually is a facilitator, since going in a group distracts her and limit her from performing the physical exercise.

3.17 Circadian rhythms (n = 4)

In this sub-theme, four participants reported the time of day at which they prefer to perform physical exercise or other activities. The majority, about 75% (n=3), preferred in the morning or early morning because there are fewer people around. However, it was also identified the early afternoon period, just after lunch (n=1).

3.18 Barriers to physical exercise (n = 6)

Throughout the focus group, the participants shared some aspects that they consider to be barriers to the practice of physical exercise, resulting in five different subthemes.

3.19 Characteristics of physical exercise (n = 3)

In this sub-theme, three participants identified the types of proposals they consider as barriers to their practice of physical exercise. In this sense, it was mentioned by them that repetitive exercises such as gym/gymnastics, in the same place, within mandatory times and indoors did not motivate them at all for the practice of physical exercise.

3.20 Comorbidities (n = 3)

In this topic, three participants reported their health conditions that they consider to be barriers to the practice of physical exercise. Cardiovascular problems were identified as arrhythmias and infarct followed by catheterization (n=2), and cardiorespiratory problems as shortness of breath (n=1). Furthermore, operation due to a herniated disk and spinal prosthesis (n=2), musculoskeletal problems related to knee and spine prostheses (n=2) and lower limb pain and problems in unspecified tendons (n=1) were also reported.

3.21 SARS-CoV-2 Pandemic (n = 3)

In this sub-theme, three people identified the SARS-CoV-2 pandemic as a barrier to the practice of physical exercise due to the confinement restrictions imposed.

3.22 Medical restrictions (n = 2)

The formal influences, coming from health professionals, were identified as barriers to the practice of physical exercise. Thus, for two participants, the medical recommendation by neurosurgeons was recognized as barrier due to spinal operations.

Table 3 Summary Table of Results of the Non-Enrolled Participants

Analysis of the Non-Participant –Barriers and facilitators for physical exercise

Main theme	Subthemes	Illustrative expression	N°
Definition of Physical Exercise		"... physical exercise is moving the body... basically its: I move my arms forwards, backwards, upwards, as far as I can move them. With the legs I do stretches, I turn my torso, turn and turn, basically I try to move my body the way I want it to move and in the was that I think is essential..." (P3)	3
Practice of physical exercise	Current	"... I walk every day." (P2)	4
	Previous History	"I did physical exercise for several years at the gym... I did pilates... and I did water aerobics..." (P3)	5
Physical exercise monitoring		"I walk 10 thousand steps, but in general I do around 13, 14 thousand a day... I use a very good app. It's called "myfitnesspal". Knowing what we eat, how much we walk, what we do it's very good." (P2)	3
Benefits of physical exercise	Physical Health	"[I do it] To feel agile, to feel that I am not stuck under any circumstances... that I can move easily... Today is what I think I need to do... we exercise our muscles so that they don't become atrophied." (P3)	3
	General Health	"I feel great, better than I used to when I was working ... " (P2)	3
	Mental health	"... walking also gave me that joy for a living (...)" (P5)	3
	Control of chronic diseases	"I do it [physical exercise] because I have obesity and I have acute rheumatoid arthritis... to maintain [the weight], I don't ask to lose a lot... I go for walks precisely to help myself" (P2)	3
Facilitators of physical exercise	Practice context	"I have always loved being in contact with nature... especially in the countryside, outside the cities." (P6)	5
	Pleasure	"Walking is pleasurable ... walking is really good. I now go for walks and every day I do them. I tell myself how wonderful it is to be able to walk and how wonderful it is to be able to see" (P6)	5
	Free time	"...now I don't work anymore. So I have more time to be able to have time for myself and to enjoy what I like to do..." (P2)	3
	Social Pressure	"You must walk strongly, not as if you were «seeing the shop Windows», as the doctor says! ... I have my granddaughter here so it's even worse. (...) then, at night, I get a pain in my back that I don't know what to do? But «those who run for pleasure don't get tired», it's that?" (P5)	2
Characteristics of physical exercise		"If it was consecutive exercises, let's say, there was no schedule, a bit of walking, a bit of physical exercise involving push-ups, (...) after that, another bit of walking, etc., I think that would interest me. ... Now, if the person were in a group, it is logical that it is more pleasant... we talk and we don't even notice, therefore, the kilometres pass..." (P6)	4
Circadian rhythms		"... I like the dawn, which a way not to find anyone on the street and not be obliged to start a conversation" (P1)	4

Table 3 (continued)

Analysis of the Non-Participant –Barriers and facilitators for physical exercise		
Barriers to physical exercise	Characteristics of physical exercise	“Now... being inside a closed gym, as P3 says, within schedules etc., is a bummer for me ... it doesn't give me pleasure ... being inside a gym and «run there, now run over there, now lie on your back, now lie down...» no, not for me... honestly, it is repetitive” (P6) 3
	Comorbidities	“... I am very conditioned because I have back problems... my prosthesis is deflected and a small gesture can catch the spinal cord and I am may end up in a wheelchair... I have constant arrhythmia and have many heart problems and shortness of breath. I am just going up the ramp here from my garage to the road... because of the tendons, I have a lot of pain in my calves and there are certain things I can't do. ... I stopped being able to do it because I felt bad, when I arrived I had to lie down because I couldn't stand up.” (P5) 3
	SARS-CoV-2 Pandemic	“I had to stop doing water aerobics when the pandemic started...” (P4) 3
	Medical restrictions	“... my neurosurgeon, forbade me to even swim ...” (P5) 2
	Lack of time	“If I had more time, I would, but I don't have... I have had elderly people in my care and I don't have the time to make it” (P2) 4
Other justifications for non-practice of physical exercise		“Simply unwillingness. ... I would do it if I wanted to, but I don't because I don't like it.... There is always something to do and it gets done. ... weather complaints, «now it's raining I can't go, now it's cold I can't», so these constraints are always present...” (P1) 3

3.23 Lack of time (n = 4)

In this sub-theme, four participants identified that the time incompatibility (n = 1), the delays in schedules and the lack of time available limited their levels of physical exercise. Furthermore, the care of family members was identified as a barrier (n = 2), hindering the practice due to decreased availability and lack of time.

3.24 Other justifications for non-practice of physical exercise (n = 3)

Throughout the focus group, participants felt the need to express some justifications for the lack of physical exercise practice. Three of them identified factors as unwillingness, the atmospheric conditions, the invented excuses, and the fact of performing many domestic activities (n = 2). Results on perspectives about physical exercise in the group of non-enrolled participants in a community exercise are summarised in Table 3.

Group of participants in the Community exercise program.

3.25 Definition of physical exercise (n = 4)

At the beginning of the focus group session, participants gave their understanding of what physical exercise is.

3.26 Structured Exercise (n = 2)

Two participants defined physical exercise as any type of coordinated or oriented movement that is performed in a specific correct way.

3.27 Non-specific activity (n = 3)

Three participants did not define physical exercise in any specific way, saying it's any movement of the body, as long as it implies that they stay active.

3.28 Benefits (n = 6)

Throughout the focus group, the participants were demonstrating some of the benefits they receive from the practice of exercise, which was mainly related to health and well-being.

3.29 General Health (n = 6)

All participants reported that the practice of physical exercise makes them feel good and that it makes them lead a healthier life. One participant stated that some momentary bad feelings (*e.g.* headache) disappear with the practice of physical exercise.

3.30 Mental health (n = 4)

Mental health was a sub-theme well addressed within the benefits in that 4 participants reported that the practice of physical exercise is also healthy for the mind and that it helps to face some vicissitudes and more depressive moments.

3.31 Physical Health (n = 3)

In addition to mental health, physical well-being was also mentioned as a benefit by three participants, with a participant stating that exercise is necessary for people their age due to the joints and bones.

3.32 Facilitators (n = 6)

Facilitators and motivators for the practice of physical exercise was another topic much expressed by the participants during the focus group, being approached by all 6 participants.

3.33 Pleasure (n = 5)

Five participants indicated that the pleasure they derive from performing physical exercise facilitates its performance, especially when they can perform activities of their preference. A participant (A3) also indicates that at these ages physical exercise is no longer done so much by competition, to see who wins, but for pleasure and well-being.

3.34 Specialized Follow-up (n = 4)

Four participants stated that the help of professionals, whether health or physical education, is important and allows them to perform the most appropriate types of exercises in the most correct way.

3.35 Relationship with others (n = 6)

All 6 participants reported the importance of having contact with other people during the practice of physical exercise, including with other students or even with teachers, being fundamental in the creation of an empathic relationship between them, making the practice more joyful and with a better disposition.

3.36 Barriers (n = 5)

In addition to facilitators and motivators, participants also shared several factors that act as barriers to physical exercise, including the recent pandemic.

3.37 Professional life (n = 2)

Two participants, although now retired, indicated that when they worked, it was very difficult for them to coordinate and reconcile their professional life with their personal lives, to find time to exercise.

3.38 Pandemic (n = 2)

Only 2 participants pointed to the present pandemic as a barrier, but that they did not completely cease the practice of physical exercise due to it.

3.39 Non-pleasurable activity (n = 3)

Half of the participants highlighted the fact that certain activities, or very difficult or unpleasurable, led them to give up, with one participant (A1) reporting that going to the gym was almost torture and that she would leave the gym with horrendous pain.

3.40 Pain / Physical Restriction (n = 3)

2 participants specifically indicated that pain is a barrier to practice, and the same participant (A1) who said that the gym experience had been torture, reported that the pain made her give up many “things” where she had signed up. One participant, not specifying, said that “There is no doubt that there are physical constraints that make certain exercises not possible”.

3.41 Strategies to overcome barriers (n = 2)

Participants were asked if they had some strategies to overcome the barriers they felt and there were two participants (A6 and A1) who answered that "... if we can't do the 100%, we do 80". and that they used the help of teachers if they felt some difficulties in doing specific exercises. Results on perspectives about physical exercise in the group of enrolled participants in a community exercise are summarised in Table 4.

Figure 1 summarises the main subthemes found in each group of participants.

Table 4 Summary Table of Results of the Enrolled Participants

Focus Group Analysis (Participants) - Barriers and facilitators of exercise practice			
Main Theme	Subthemes	Illustrative expression	N°
Definition of Physical Exercise	Structured Activity	"Any kind of movement, coordinated or oriented..." (A3)	2
	Non-specific exercise	"or any other type of movement, whether climbing a ladder, walking, or doing any other type of movement" (A3)	3
Benefits	General Health	"It is when we stop that we realize the importance of physical exercise and what benefits it can have for our body" (A4)	6
	Mental health	"...to feel stronger and able to face all the vicissitudes, all the more depressive moments, this well-being, this mental well-being has a lot to do with all this physical activity that is done" (A3)	4
	Physical Health	"Because at our age it is necessary to do even more exercise, because of the joints, the bones, everything, it is necessary!" (A6)	3
Facilitators	Pleasure	"At this age, it is not for the competitions, no. You won't do the races to see who gets there first. You won't do the swimming or the exercises to see how many you do or how many minutes and how many seconds the other did. It's actually about the pleasure, the interaction, the joy and the feeling of well-being." (A3)	5
	Specialized Follow-up	"Because if the person has a teacher who knows how to «pass the message» and knows how to help us and correct us, we will exercise our muscles, we will exercise our skeleton, with as little pain as possible." (A1)	4
	Relationship with others	"...but I love it for all reasons. Even for the joy, for the enjoyment too, of the colleagues, of the teachers, it is very good." (A6)	6
Barriers	Professional Life	"...Because I live here and work in Lisbon, I had many years without being able to coordinate... I started, but ended up giving up because I didn't have time" (A1)	2
	Pandemic	"...now I interrupted some of these activities a little, because of the pandemic, unfortunately..." (A7)	2
	Non-pleasurable activity	"I remember going to a gym... «this is torture, this is torture» and then I leave in terrible pain" (A1)	3
	Pain / Physical Restriction	"I have already given up many times... exactly because of the limitation and the pain... For 2 years I had a problem in a shoulder, and I also walked for about 1 year or so with a problem in the sacro-elite." (A1)	3
Strategies to overcome barriers.		"And the teacher, the teacher helped me a lot, and said to me, when I was in pain, «then don't do this exercise. Try doing the exercise in another way.» And he would tell me what exercise I had to do to ease the pain." (A1)	2

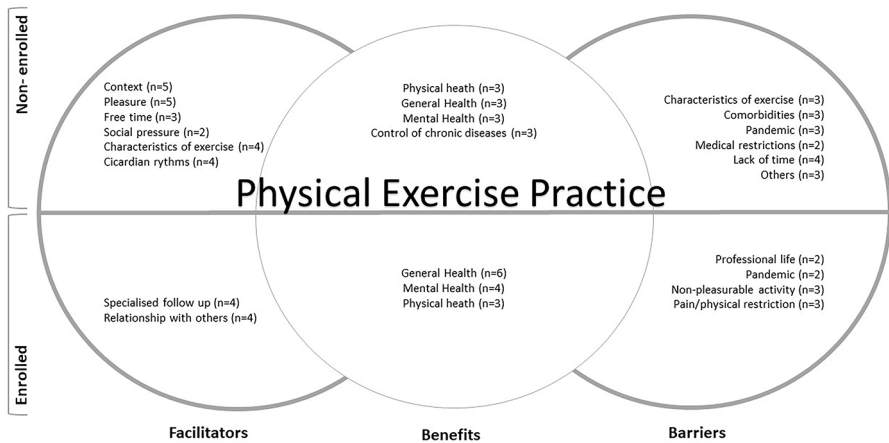


Fig. 1 Summary of the main subthemes found in each group

4 Discussion

The purpose of this narrative exploratory study was to identify different perspectives from two groups (one group of participants in a community exercise program and one group of non-enrolled in a community exercise program) regarding their practice of physical exercise. These perspectives highlighted by the participants may be relevant to adapt strategies, including physical exercise programs, or create new ones according to personal needs. Moreover, these outcomes would be important to understand the adherence to these practices in older adults, and, especially to design person-centred healthy ageing policies.

During the interview, participants gave their definitions regarding physical exercise. The group enrolled in the community program appeared to have partial knowledge about the difference between physical exercise and physical activity, while the group of non-enrolled participants showed difficulties defining physical exercise. That is probably a trend to a better literacy surrounding physical exercise in the enrolled group. Although there is evidence supporting a relationship between physical literacy and the practice of physical exercise (Belanger et al., 2018; Cornish et al., 2020), its direction is unknown. Despite this, we recommend current and future exercise programs to include a first stage focused on the improvement of the participant's physical literacy as it would be crucial to understand related potential benefits, and therefore to potentialize older participants' adherence.

Despite not practising regular exercise, a few of the non-enrolled participants demonstrate some concern about monitoring their exercise. In fact, self-monitoring is a very effective behaviour change technique useful to increase physical activity and exercise (Donnachie et al., 2017). Moreover, previous literature on this topic confirms that there is a significant relationship between monitoring physical activity (with accelerometers) and lower levels of anxiety and depression (Parker et al., 2008). These two reasons may explain why the less active group may feel the need to measure and monitor their physical exercise.

Regarding the benefits obtained from the practice of physical exercise, although both groups referred to physical benefits, the enrolled group highlighted mental health benefits (e.g., physical exercise helped them when in difficult times such as the current pandemic) while the non-enrolled group focused on the benefits regarding the management of current health conditions (e.g., obesity, diabetes, attenuation, pain, and muscle loss). This may be due to the fact that the participants who exercise regularly in a community program may, in fact, start to feel mental health benefits which is a known effect of physical exercise and physical activity (Penedo & Dahn, 2005; Violant-Holz et al., 2020). In contrast, the participants who do not regularly exercise may feel or believe that the benefits of physical exercise are mostly physical and condition control.

When asked what factors facilitated or motivated the practice of physical exercise, both groups shared several examples (8 different factors overall) with an emphasis on doing pleasurable activities, in a group, in the morning, and in a nature-rich environment. In fact, previous literature has concluded that group-based physical activity programs result in better mental-health improvements when compared with home-based ones (Mortazavi et al., 2013). However, it is important to note that one person stated that she preferred to do exercise alone and in the afternoon. This highlights the importance of future programs to be person-centred and tailored to the individual's preferences and objectives, which has been supported by previous research of (Lachman et al., 2018) in which they sought to identify motivational and behavioural strategies to increase levels of physical activity in sedentary older adults. Furthermore, rather than a "one size fits all" approach to exercise programs, a more personalized approach involving participants' decisions and choices, tailored to sub-groups or individuals, and their contexts should be taken (Kaehne, 2018; Lange et al., 2019; Miller, 2016).

There were also different perspectives regarding the barriers that might influence the exercise practice. While the enrolled group tend to focus on pain and other physical restrictions, the non-enrolled group said referred that the lack of time, comorbidities, and characteristics of the exercises (e.g., location, repetitions, scheduling) were the biggest barriers. Accordingly, previous studies confirmed that the lack of time and the comorbidities were the most noted difficulty in the practice of physical activity and exercise in the scientific evidence (Cavill & Foster, 2018; Franco et al., 2015b) however, these authors have not concluded about specific differences between enrolled and non-enrolled elderly in exercise programs. Data collected in the groups included in this study highlighted the importance of performing guiding narratives as a method to provide valuable personal perspectives about physical exercise in elderly people. Collecting the personal perspectives on physical exercise would provide professional teams with strategies to overcome the barriers. In fact, according to previous studies, the adherence to physical exercise in old people can improve when it is encouraged the exercise as leisure-time activity (Kolt et al., 2004). Furthermore, considering the elderly participants in the present study, it would be important to explain not only the health-related benefits of exercise activity, but especially those related to socializing enjoyment, relaxation, and physical and mental well-being (Kolt et al., 2004).

The high number of barriers felt by the less active older people makes it more complicated for them to adopt and maintain an exercise program. Because of this, it is necessary to personalize and consider many factors such as personal attributes, e.g., age, personality, cognitive and health status, and socioeconomic status, as well as their environmental context, to achieve long-term maintenance to a more active lifestyle (Lachman et al.,

2018). Both groups highlighted the current SARS-CoV-2 pandemic as a barrier, which goes accordingly to the evidence of the impact of the pandemic on levels of physical exercise. During the quarantine, adults increased sedentary behaviours and decreased their physical activity levels which consequently may prejudice psychological outcomes (Violant-Holz et al., 2020).

While the enrolled group stated that health and physical education professionals helped or guided them to the practice of physical exercise, some participants in the non-enrolled group stated that, sometimes, doctors prohibit or restrict the practice of certain types of physical exercise, leading the patients to occasionally cease all types of exercise habits. Thus, the way in which communication is carried out by health professionals is crucial to limit or increase these practices. In fact, multiple studies have demonstrated that effective communication between physician-patient is positively related to the adherence to several different regimens being over two times higher (Haskard Zolnerek & Dimatteo, 2009).

Finally, an interesting aspect was that while the enrolled participants shared some strategies to overcome the barriers they mentioned, the non-enrolled group tried to come up with excuses for the lack of practice. In fact, the more active group has possibly turned the practice of physical exercise into a habit or regular routine, decreasing the chances of stopping, while the less active individuals, who do not exercise regularly, are less prone to start or maintain the practice of physical exercise, creating and giving excuses to justify it. Interestingly, it seems that habit-formation can promote an effect on behavioural change, as reported by (Gardner & Rebar, 2019). As for those who are more sedentary, they hold incorrect, negative, and self-defeating views about their ability to exercise making it less likely for them to adhere to physical exercise programs, and their participation is typically not maintained over time (Lachman et al., 2018).

4.1 Practical Implications

The barriers and facilitators highlighted in this narrative exploratory study can assist in the development of more engaging physical exercise programs targeting older adults, from a person-centered perspective.

- Health professional's communication with older people at community might be a crucial factor that affects adherence to physical exercise programs and should be specially trained;
- The perspectives about the enrollment in Physical Exercise Programs by old people might change according to the level of physical literacy;
- Physical literacy sessions should highlight the health benefits of exercise, but also, may include person-centred education strategies on how to overcome barriers the participants may encounter (e.g., help organize and set priorities to avoid excuses like "lack of time");
- Implementing self-monitoring may positively influence the old people's concerning about physical exercise practice;

4.2 Limitations

Although we were able to identify relevant perspectives about barriers and facilitators to physical activity practice, according to previous habits, the present study used a narrative design based on the focus group technique. It would be interesting to include other data collection strategies, in order to get a comprehensive understanding of the self-rated barriers and facilitators to exercise practice. For example, performing personal interviews would be interesting to complete data with a more personal perspective about the theme. Conducting studies that include mixed methods, for example quantitative and qualitative data collection, would also be important to further describe profiles in physical exercise practice for elderly Portuguese people.

5 Conclusions

With this study we identified relevant perspectives about the practice of physical exercise in active and non-active Portuguese older adults, emphasizing the importance of knowing the benefits of physical exercise, creating facilitators and strategies to overcome the barriers. These perspectives highlighted by the participants may be relevant in the development of patient-centred strategies for the design of physical exercise programs targeting older adults, to increase their practice and healthy ageing. We encourage future development of exercise programs to include early stages focused on physical literacy and the program designers should also understand the preferences and objectives of the older population to improve adherence of all participants and overall quality of life. We also alert to the need of health and physical education professionals to improve their methods of communication with, and motivation of patients as these are effective and crucial tools capable of changing the individuals' lifestyles. Further research is needed, including more comprehensive methodologies (e.g., personal interviews) to improve the understanding of what criteria need to be addressed in order to design biopsychosocial exercise programs focused on the individual. Also, it would be important to design mixed studies on this topic, by including quantitative and qualitative data, which would contribute to further understanding participant's points of view about physical exercise practice.

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Declarations

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Ethical review and approval were not required for the study on human participants in accordance with the local legislation and institutional requirements. Procedures followed standards for research in sports medicine and were performed according to the Declaration of Helsinki.

Participants were fully informed about the nature of the study and the procedures involving data recording. Participants were voluntary, could withdraw from the study at any time and provided informed consent before the questionnaire's completion. Anonymity was guaranteed.

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