



Wishes and perceptions about exercise programs in exercising institutionalized older adults living in long-term care institutions: A qualitative study

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ABSTRACT

The level of exercise among older adults is low, particularly among those living in health-care institutions. To gain insight into the perceptions of institutionalized older adults towards the exercise programs developed in long-term care institutions and to identify their wishes and needs regarding these programs, we conducted a qualitative study using focus group discussions. Thirty-six institutionalized participants (≥ 65 years) were recruited. Six common themes emerged: participants' attitudes and motivations towards the exercise programs, self-perceived health, knowledge of the concept of physical exercise, perceived effects of the exercise programs, and wishes or expectations for the exercise programs. The main wishes were to increase frequency of exercise sessions, to exercise outdoor and to increase walking times. The results suggest the need for changes in the development of exercise programs, including changes in the frequency, performance environment and types of exercises performed.

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Introduction

Despite the fact that physical exercise has shown great benefits in preventing diseases and improving the health of institutionalized older adults (preventing falls¹, improvement in strength², improvement in incontinence³ and reduced depression⁴), levels of exercise in this population group are still low.^{5,6} Sedentary lifestyle is frequent amongst older adults in general and even more accentuated among people living in long-term care (LTC) institutions.⁷ In 2016, approximately 165 845 individuals over the age of 65 were institutionalized in Spain and approximately 1 169 898 in the United States.⁸ Institutionalization implies an important change in the daily activities of these people, who tend to see their activity and sometimes their quality of life progressively reduced, compared to the older adults

living in the community.⁹ This reduction in the level of activity in older adults who are institutionalized could be influenced by different factors, some of them described in other studies as barriers to physical exercise.¹⁰

To address sedentary lifestyles, institutions usually include exercise programs among their activities.¹¹ Exercise is a planned, structured, repetitive activity and purposeful in the sense that the improvement or maintenance of one or more components of physical fitness is the objective. Physical activity includes exercise as well as other activities which involve bodily movement and are done as part of playing, working, active transportation, house chores and recreational activities.^{12,13} Typically, physical therapists and other health professionals are responsible for designing the most appropriate exercise programs for residents. Generally, the design of these programs is subjected to the knowledge of the professional or to what the published evidence considers best according to the age parameters or pathologies experienced by the population. Furthermore, parameters such as frequency or intensity should be provided, otherwise such activities could be ineffective.¹⁴ However, and according to their low level of physical activity, such planning usually does not consider the preferences, wishes, and needs of individuals.^{7,14–16}

Abbreviations: LTC, Long-term Care

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Considering these aspects more closely could potentially lead to a greater follow-up and acceptance of the programs by the users.¹⁷

The aims of this study were: 1) to gain a better understanding of the perceptions of older adults who are institutionalized and exercise, towards the exercise programs developed in LTC and 2) to identify the wishes and needs of older adults who are institutionalized in relation to these programs.

Material and methods

Design

A qualitative study was carried out using focus groups, since group interaction can favor the appearance of certain responses that do not generally appear during individual interviews. Focus groups have been previously used in studies to identify experiences on physical exercise among older people.¹⁸

Participants

The study participants were residents living in four LTC institutions, one public and three private (independent companies) in the southeast of Spain. Participants were eligible if they were 65 years old or older, participated in exercise programs and had a score of > 23 in the Mini-Mental State Examination (MMSE). Participants with communication issues were excluded.^{19,20}

A professional from each center invited the eligible residents to participate in the focus group discussion. The professionals were instructed to recruit subjects with the highest possible range of diversity: different ages, different levels of functionality, different genders, active users with different extents of activity and different exercise-based experiences. Non-active subjects refused to participate in the study. One week later, the physical therapist asked the residents to determine their willingness to participate, and to clarify any questions. Moreover, participants were given the opportunity to ask questions before the start of the focus group.

The total number of participants was 36 (16 men and 20 women). Eight focus groups were conducted until data saturation was reached. In each of the four LTC institutions, a group was held for women and another for men.

Ethical considerations

Ethical approval was obtained from the local ethics committee. Prior to the focus group meetings, participants were informed of the study, provided demographic information, and signed an informed consent to confirm their agreement to participate. They were also reassured of the confidentiality of the information provided prior to beginning their focus group session.

Data collection

Two researchers who had no prior relationship with the participants, moderated the different focus groups. One of them had a clinical background and both had previous experience facilitating face-to-face focus group sessions.

A question guide related to exercise programs was developed based on a review of the literature in this area (Table 1). The moderator asked questions, providing examples when the participants failed to respond; the moderator emphasized that no right or wrong answers existed and that all opinions were equally valued. The focus group sessions lasted approximately 30–40 minutes. For data collection purposes, the sessions were recorded using a tape recorder and written notes. After each focus group, a debriefing session was performed and the moderator, the assistant and a third member of the

Table 1
Focus group questions.

• In the past, have you performed any kind of physical exercise? • What kind of activity? • Since when? • Among the exercises you perform at the center, which ones do you like best? • Why do you like to perform them? • Have you noticed any changes after performing them? In what aspect? • What are the benefits of doing these exercises? • What difficulties do you face when doing these exercises? • Which exercises do you not like? • Do you think it is important to do these exercises? Why? • What other types of exercise or activity would you like to do and are not currently doing? • Do you want to add anything else that has not been asked?

team extracted notes. The participants were unable to review the transcripts and verify the content during the COVID-19 pandemic due to lockdown restrictions which prevented access to LTC facilities.

Data analysis

The Atlas.ti program was used for data analysis. Sessions were transcribed verbatim. The data were coded and organized into themes. Each participant received a numerical code to incorporate data. The process of analysis was carried out independently by the three researchers according to the following steps: initial reading of all transcripts and notes from the focus groups and debriefings to obtain a general idea of the contents; selection of meaningful phrases; coding of categories and generation of themes and sub-themes. Reflexivity and a self-critical attitude were maintained by all researchers throughout the process.

Modified grounded theory was used for data analysis, incorporating data collection, coding, and analysis, and conducting a constant comparison process without the theory development component.^{21,22}

The three researchers-independently coded the sentences that contained significant information and labeled them in categories, using codes. The categories were then organized into key themes and sub-themes. The researchers reviewed and compared their results until a consensus was reached in each phase. There were three series of coding and discussion with the aim of improving the reliability of the analysis results and defining clear themes and sub-themes. This process was carried out in parallel with the data collection procedure, allowing new themes to be implemented from the data of the transcripts of the focus groups that were progressively incorporated. After incorporating the information stemming from the eighth focus group, no new themes were extracted, implying that saturation of information had to been reached. To verify the consistency of the final themes and subthemes, two additional investigators collated their results by blind review using codes for the same passages from two transcripts. Disagreements between the two investigators were resolved by discussion. At each step, an independent investigator reviewed whether the analysis was consistently supported by the data, with the intention of improving reliability. Confirmability was verified when the same categories were obtained from the data transcripts of different focus groups.

Results

Participant characteristics

The age of the 36 participants ranged from 65 to 94 years, with a mean age (standard deviation) of 80.9 (9.02) for women and 76.0 (8.22) for men. A total of 9 (45.0%) women and 5 (31.2%) men used a

wheelchair, cane, or another assistive device. The sample was quite heterogeneous in terms of functional characteristics.

Characteristics of the exercise programs

Concerning the physical exercise programs, different characteristics were identified across the residences where the research was carried out. The exercise programs were directed by physical therapists, and were performed in groups. The number of participants per group in the programs ranged from 20 to 50 users. Some participants also performed activities individually in the physical therapy rooms. The length of the sessions was quite homogeneous across the different residences, lasting approximately one hour, while the frequency of the sessions ranged from once a week (in one residence) to 5 days a week (in three of them). The spaces used for these activities were multipurpose rooms, large rooms, or dining rooms.

The programs were generally carried out in a seating position on a chair or in the participant's wheelchair. Regarding the contents, flexibility exercises for the head and neck, upper limbs and lower limbs were generally performed. In some centers, exercises were performed to music and in some cases resistance and coordination exercises and motricity-related games were also conducted.

Themes

Six major themes regarding the perceptions of the physical exercise programs emerged from the analysis of the focus groups: 1) Participants' attitudes towards exercise programs; 2) Participants' motivations towards the exercise programs, 3) Participants' self-perceived health, 4) Participants' knowledge of the concept of physical exercise, 5) Perceived effects of the exercise programs, and 6) Wishes and expectations for the exercise programs. (Table 2)

Theme 1. Participants' attitudes towards exercise programs

Older adults' attitudes towards participation in the LTC exercise programs varied between individuals. Four different attitudes were identified. A proactive attitude was seen in some participants, who were aware of the need to exercise and self-initiated exercises without guidance. They took advantage of any opportunity to exercise. A participatory attitude was demonstrated by many participants who expressed receptiveness to the programs, and to participation in the activities included in the programs. Some valued exercise programs for their usefulness in staying active and being more independent in their day-to-day tasks. Participating residents with limitations were convinced that exercise programs could help them to recover after experiencing an injury. A conformist attitude was seen in some participants who claimed to be satisfied with the activities that they carried out in the center. These older adults stated that they performed the exercises as a part of their routine and did not feel the need to change anything. They considered that what they already did was more than enough. An evasive attitude was noted by some participants, referring to other residents. The participants commented that some other residents lacked interest in the program, including observing evasive behavior to avoid carrying out the exercise. However, other participants alluded to their own need to reduce activity levels and be left alone as causal factors for their lack of interest in the program.

Theme 2. Participants' motivations towards the exercise programs

Extrinsic motivators were identified when some participants commented that they carried out the exercise programs because the professionals directed them to do so. However, most of the motivators identified were intrinsic: some of the residents stated that the

need to improve and maintain health status impelled them to participate in the programs, even initiating the exercise by themselves in some cases. Another strong motivator was the feeling of usefulness through the collaboration with the professionals of the center (for example, by helping other users to propel the wheelchair, or during the exercise program itself, helping other users to adopt a particular stance and/or organizing the material). Residents also felt that participation in the programs could help them to avoid feelings of loneliness: the fact that many residents come together to carry out the activity was a powerful stimulus for others to participate.

Theme 3. Participants' self-perceived health

Despite the health problems, the participants attended their exercise program. However, individuals commented on different health-related issues which were commonly perceived as barriers to perform exercise. In addition, this sometimes lead missing exercise sessions. Age was one of the limitations that older people most frequently mentioned to justify their inactivity or lack of exercise (feeling too old for exercise), which is in line with other studies. Some participants stated feelings of limited mobility - such as previous falls or respiratory problems, among others - which made it difficult for them to participate in physical exercise programs or caused them to require external help. Besides, those participants with visual sensory deficits manifested difficulties in their ability to either walk on their own or go outside.

Theme 4. Participants' knowledge of the concept of exercising

Lack of knowledge about the concept of exercise was evident among the participants. Within this theme, three subthemes were observed. Many participants showed confusion regarding the concept of physical exercise. When asked if they had exercised during their youth, they described their professional engagements, regardless of whether these activities were related to the practice of sport or to the concept of physical exercise. This was especially the case for people who held jobs that were very physical, such as agricultural labor. In addition, for many participants, their previous employments often required walking, which they considered as physical exercise. Some of them stated that, in the past, there were not as many chances to exercise compared to present times. Furthermore, others considered that, although they were presently willing to participate in new activities, they would be at a loss as to what to request, because they were lacking information on this subject. In contrast, a few participants had played sports in their youth, and others simply claimed to go out for a walk, without practicing a specific sport.

Theme 5. Perceived effects of the exercise programs

Participants identified numerous effects of exercise in different areas. These were classified into six subthemes. Most residents considered that exercising improved agility and mobility or pain relief. Furthermore, they found exercise to be good for improving certain general health parameters, such as avoiding weight gain or controlling blood glucose. Moreover, the participants also reported perceiving benefits in the emotional sphere. Thus, they felt that exercising served as an escape from negative thoughts, but also felt that exercise served as entertainment, providing enjoyment, laughter and a positive experience while performing the activities. Many participants also felt that exercising helped them to promote fellowship, to connect with others and to avoid social isolation. Besides, they noticed benefits beyond the physical or emotional sphere, as they perceived benefits at a cognitive level, such as memory improvement. However, some other participants indicated that they did not perceive any type of benefit from exercise; they felt that they had experienced no

Table 2
Themes

Themes	Subthemes	Statements
Participants' attitudes towards exercise programs	Proactive attitude	"Well, for example, I try to improve myself, in my own wheelchair I do exercises that no one directs me to do. I do that to avoid being inactive, but with no orders or no direction" (male, 85).
	Participatory attitude	"For me, even if it is difficult, I try to be active and do all the exercise they tell me to do" (female, 91). "I think it is important to be able to move and not be dependent at all, that we can do some activities such as washing or putting on shoes" (male, 65). "I had a stroke and could not walk, but I insisted that I wanted to walk again and working hard together with my physical therapist we finally succeeded" (female, 82).
	Conformist attitude	"The truth is that I have enough with the exercise we do in the morning, I don't want more" (female, 82).
	Evasive attitude	"There are some colleagues who do not want to do any exercise and when they find out that we are going to exercise, they go to their room" (female, 85). "Well, the truth is that I would not want to do any more activities. At this point of my life and because of how old I am, what I really want is peace and quiet" (female, 89).
Participants' motivations towards the exercise programs	Extrinsic motivations -Motivated by professionals	"Exercise is not mandatory, but the assistants tell us that we have to go" (female, 79).
	Intrinsic motivations -Need to keep healthy -Feeling useful -Avoiding loneliness	"I see exercise as essential for mobility and to be more agile" (female, 81). "I sometimes help to transport colleagues who are in wheelchairs to the room where we perform the exercise" (male, 83). "Sometimes you don't feel like going to do the exercises, but in the end, you see that you are alone in your room, so you decide to participate" (male, 79).
Participants' self-perceived health	Age limitations	"The truth is that as we get old, everything becomes more difficult" (female, 81).
	Limitations by functional status	"I used to go out for a walk every day for an hour and a half, more or less, until I got sick and I had to quit because I couldn't" (male, 68).
	Limitations due to sensory deficits	"Right now, I only see through one eye and I don't go out because I am afraid of falling or that something will happen to me" (female, 83).
Participant's knowledge of the concept of physical exercise	Mistaking work activity for exercise Misinformation	"I worked in the fields. I did all the exercise there, pulling potatoes" (female, 89). "In the past there were no sports or anything that we could do, it's not like today" (female, 82). "I think we also have a lack of information, because if more activities were proposed to me, I would be delighted to participate, but if we are not informed, I would not know what to ask for" (male, 85).
	Previous experience of exercise	"I have played a lot of sports, for example soccer. I played in the village team and, aside from that, while I was a student, I also did a lot of sport" (male, 69).
Perceived effects of the exercise programs	Benefits on functional status	"For me, I think that exercise, whatever I can do, benefits me in general" (female, 67). "When I finish the exercise, I feel very calm and I am very agile and very willing to do anything" (female, 79). "When I do the exercises, I start with pain and when I finish, I have no pain" (male, 83). "I think it is essential for mobility. When I arrived at the residence I couldn't even stand up and now at least I can lie down by myself" (female, 71).
	Benefits on general health status	"I think exercise is also useful to prevent weight gain" (female, 65). "I also think it is good for lowering sugar. I am diabetic and they recommended me to walk and with that my sugar levels would go down" (male, 68).
	Benefits on emotional state	"When you do physical therapy exercises, you clear your mind; if you were in your room all day, you would be thinking about things that are not good" (male, 79). "When we do the exercises, we have a good time, and have a lot of fun" (male, 79).
	Benefits on social relationships	"I think group exercises also help foster camaraderie" (male, 78).
	Benefits on cognitive status	"I think exercise is also good for improving memory" (male, 68).
	No benefit or worsening	"I think it has no benefit, because I came here with pain on my legs and they are still the same" (female, 72). "After doing the exercise, my knees hurt" (male, 79).
Wishes and expectations for the exercise programs	Wishes and expectations about spaces -Outdoor activities	"I would love to have the garden outside, to be able to do activities outside or just to go for a walk" (female, 74).
	-Facilities	"One of the things I miss is that the residence had more space for all the games that we would like to play and we could walk more" (male, 79). "Well, I wish there were so many things, for example, a long corridor to walk on" (female, 65).
	Wishes and expectations about types of activity -Walking	"What I'd like the most is walking" (female, 71). "Some time ago, we used to go out with a group of people at 8 in the morning to walk with the physical therapist. We used to walk for about 45 minutes, and we no longer do it. I would like to take it up again" (male, 83).
	-Exercise adapted to different needs	"I would like the exercises to be more difficult for me, to notice that we make an effort and the body works harder" (female, 71). "Some cannot participate because they are in a wheelchair" (male, 65). "Man, sometimes they do some very childish activities, and when they give me those activities at my age, it's not in good taste" (male, 68).
	-New and varied activities	"Well, yes we would like to do more activities, but, of course, we don't know exactly which either" (male, 85).

(continued)

Table 2 (Continued)

Themes	Subthemes	Statements
	-Playing sports	"I would like to have access to a heated pool to do activities and exercise there" (female, 72). "I would like to play basketball and soccer or be able to do some other sport" (male, 83).
	Wishes and expectations about the frequency of activities	"For me, personally, if you could also exercise on a Saturday, I would be delighted to do it and it would be very good for me" (female, 72). "I would like the exercises to be practiced more often, more often" (male, 83).

change compared to the period prior to doing physical exercise and that they were not improving at all. Some even felt that the activity hurt them, since they felt pain after the activities.

Theme 6. Wishes and expectations for the exercise programs

When asked about their wishes for the programs, several proposals for improvement were highlighted by participants. These were grouped in terms of use of spaces, types of activity and frequency of activities. A concept reiterated in most of the focus groups was the possibility of carrying out activities outside, in the open air. The participants stated that they needed to go outside and take advantage of the daylight hours. Another request was to have space at the centers to practice sports activities or even space to walk without having to leave the center. Moreover, when the participants were asked about the type of activities they would like to implement, the desire to dedicate more time to walking appeared unanimously in all the focus groups. The participants highly valued walking as a fundamental activity for their day-to-day life. Both the participants who had the ability to walk independently, as well as those who needed assistance to do so, claimed they needed to increase the time dedicated to walking. One of the reasons shared for not walking more frequently was that they needed supervision. In relation to the current development of the exercises, the participants expressed the need to adapt the exercise to their different needs and abilities. For example, they sometimes felt the activities did not require the intensity of effort desired. Moreover, in some institutions, the exercises were not adapted to people in a wheelchair. Many participants disliked the activity because of the lack of adaptation and some users expressed their disagreement with some activities which they felt were too childish. Some participants stated that they would like to see more activities but did not know exactly what they could request. Others, knew what they would like to do however, requesting such activities to the center, for example, swimming pool activities or certain sports, such as basketball or soccer, was unfeasible. In relation to wishes and expectations about the frequency of activities, study participants indicated that they would like to increase the frequency of exercise. Both the ones who exercised every day, and those who exercised less frequently during the week, yearned for more activity, especially on the weekends.

Discussion

This study describes the insights, the wishes and expressed needs of older adults living in LTC facilities who took part in exercise programs. The main wishes of the participants in our study, consistently with previous studies, were to exercise outdoors, to walk more, and to increase the frequency of exercise.^{13,23–25} These findings may be of paramount importance for both health workers and institutions when designing programs that engage aging people living in LTCI.

The existing literature clearly identifies the necessary components of an effective exercise program for older adults living in LTC facilities (type, frequency, intensity, duration, personalized, and adapted according to residents' needs, capacities, and desires). This training program should be of moderate intensity, be performed at least twice a week and last 35–45 minutes per session, including strength

training, aerobic exercise, and balance, coordination, and flexibility.²⁶ However, in our study, the programs did not follow all these recommendations. Thus, they mainly focused on flexibility exercises. In terms of frequency, most centers in our study provided five sessions of exercises of one hour per week, which considerably exceeds the recommended frequency outlined in the guidelines, however, surprisingly, most participants asked for more sessions both during the week and on weekends, since the LTC institutions generally did not offer physical activities at those times. Perhaps these exercise programs were not intense enough for all the participants, even though they were delivered five days a week in most cases. A low frequency of sessions is a deficiency that has been clearly stated in previous studies, commonly performed under twice per week.²⁷ In contrast, some studies show that people who are not engaged to exercise felt that exercising was an activity that took too much of their time. In this regard, studies recommend a balance between the frequency of exercise and the interference in already existing routines in the participants' life.^{28,29} Older people living in LTC facilities usually have much spare time and many of them could benefit from having more opportunities to exercise.

Some participants reported on the consequences of following exercise programs or activities that sometimes lacked individualization and failed to meet their expectations. For example, some residents stated that activities in exercise programs were not challenging enough, were generally carried out in a sitting position, seemed somewhat childish, or they did not see any change with the programs. Other participants, however, were happy enough with the current programs. Perhaps the centers or the professionals that direct the sessions are unfamiliar with the guidelines or only follow these loosely. The lack of follow-up of the guidelines may be due to the large number of residents in each group, supervised by one only professional, the lack of experience or updating of some professionals or the lack of knowledge of some residences regarding the guidelines.^{30,31}

Moreover, there seems to be a lack of communication between the users and the professionals who directed the program, and a lack of personalization of the programs, which is revealed by the fact that some residents did not feel changes with the programs, despite continuing to perform them.¹⁴

In line with the literature, we found different profiles among the users.^{26,30} Most of the residents had an open and participatory attitude towards the programs, others were less enthusiastic, although they accepted the programs as part of their routines in the LTC institution,²⁴ whereas others avoided exercising and preferred to be left alone or perform other activities instead. Residents who expressed a higher interest in participating in the programs, also talked about much more perceived benefits than those who only attended the programs in a "mandatory" manner as a part of their routines. In fact, it is common that, amongst community-dwelling older people, non-active subjects perceive less benefits of exercise than those who are active.²⁸

The motivations for exercising, as shown previously in literature, were mixed and mostly related to the need to maintain and recover health, well-being and functioning,^{7,32,33} establishing or maintaining social relationships, and avoiding loneliness.^{7,30} In addition, many claimed to feel beneficial changes thanks to exercise, at both a cognitive and emotional level.^{15,18,23,32,34,35} Social interaction has

previously been shown to be a strong motivator of physical activity in LTC institutions.^{10,11} Furthermore, the scientific literature shows that fun and enjoyment during physical activity are key motivators for older people to participate in programs, in addition to the sense of usefulness and meaning of the activities.^{11,36–38} Hence, these components need to be considered in the design and implementation of the different programs.^{37,39}

Some studies found differences in patterns and priorities of exercise among older adults, when they could choose them^{11,15,17}; for example, women exercised more frequently alongside others compared to men, however both genders determined that both individual and group-related exercise interventions were interesting.¹⁷ Furthermore, including participants' wishes in the programs, enhances their perception of autonomy.⁴⁰

The heterogeneity among the population in LTC not only refers to their interests and preferences but also to their functional ability, cognitive functioning, age, or independence, which makes it necessary to develop different programs for subgroups of residents.²⁶ It would be interesting to offer a variety of programs for different levels and difficulty, adapted to the demands and needs of each profile.

Regarding the size, the exercise groups in the residences were too numerous and directed by solely one or two professionals.³⁰ This fact could hinder an adequate understanding and compliance of the program by the participants. Thus, studying the possibility of reducing the number of participants per group, or holding several sessions adapted by levels, could be a good way to improve the functioning of exercise programs in LTC.³⁷

Participation in exercise programs could also be influenced by the perceptions that participants have on their own health status.²⁴ Overall, some participants felt severely limited by age^{15,18,33,35} or by functional^{23,32,41} and sensory deficits³². For some of the participants, these limitations could translate into a fear of falling. The literature has shown similar results for older adults who claimed analogous limitations along with fear of falling.^{7,15,24,25,32,33,36} However, other studies have not identified these limitations as barriers to exercise, possibly because most older adults have experienced these limitations for many years.^{7,18,23,34} Additionally, some participants talked about pain. In line with previous studies, we found that pain could both facilitate and impede physical activity.^{9,15,39} Some residents exercise to reduce pain, others found pain to be a limiting factor for exercising, whereas others felt discomfort after doing the exercise program. Effective pain management must be provided to institutionalized older adults, in order to facilitate their participation in physical activities, otherwise the cycle of pain and sedentary behavior can be perpetuated.⁴²

The lack of information and experience on physical exercise is common among older adults and has been reported in several studies.^{15,23,32,33} Furthermore, this situation can influence residents' exercise behaviors. In fact, in our study, some participants confused physical exercise with the activities carried out in their work or daily life.⁴³ However, despite the widespread misinformation, participants were clear about the perceived benefits of exercising, especially in terms of mobility, cognition, and emotional well-being. A direct association has been detected between participants' previous experience of exercise and their motivation to perform the programs in care institutions.^{15,18,24} In our study, the participants who had previously practiced exercise provided many more suggestions for new activities compared to other residents.

Among their proposals, many residents spoke of the desire to perform exercise outdoors.^{7,23,34,37} Studies carried out in older adults living in the community reveal the benefits of outdoor exercises to improve physical function and well-being, and ensure even greater participation compared to indoor activities.^{17,44} The main difficulty may be that the implementation of outdoor exercising in people living in LTC institutions would require a change in the infrastructure, spaces and, probably require additional staff.^{7,37}

Another clear proposal in all the focus groups of our study, consistent with previous studies and closely linked to outdoor activities, was the need to increase walking periods.^{9,24,45} This need was expressed by almost all participants, from the most independent to those who needed more assistance during ambulation.⁹ Thus, walking was not only considered as an exercise, but as a means of maintaining their independence and not relying on others, in line with previous studies^{23,25,46} in which participants were not exercise-engaged.^{19,34,36} Fear of falling, environmental restrictions^{15,24} or the need for assistance or supervision while walking⁷ are some of the reasons why older adults walk less often.¹⁵

In our study, as reported in other studies,^{42,47} the physical therapists were the main professionals who organized, implemented, and developed the exercise programs. Thus, there are many opportunities for these professionals to advocate on behalf of the residents, and to introduce changes that may enhance the adherence to physical activity. These professionals can promote and drive institutional changes such as including the opportunity to exercise every day during different schedules or over the weekend, since flexible schedules could enhance the engagement of non-active people living in LTC facilities towards exercise.^{9,48} Health professionals could also converse with older adults to understand their preferences and subsequently design tailored physical activities and exercise programs following the recommended guidelines, including outdoor activities, a walking program,⁷ and more meaningful activities, so that residents could choose based on their preferences. To enhance the engagement of participants, the activities might be designed considering social and entertainment-based components, adequate level of intensity and different types of exercises. Advocating the benefits of physical activity amongst the residents and their families and providing verbal compliments or rewards could also enhance their participation in programs. Health professionals and institutions may also act as advocates for changes in laws and regulations focusing on the enhancement of active-living attitudes amongst older adults living in LTC facilities.

Conclusions

The participants in this study expressed a wide variety of needs and desires in relation to the implementation of exercise programs in long-term care institutions: the need to increase the frequency of exercise sessions even on the weekends, the desire to exercise outdoors and the importance of walking activities. Our findings therefore suggest a series of major changes to be implemented by physical therapists designing in exercise programs in terms of frequency and content of the sessions, the environment, the type of exercise performed, and the information provided to the participants.

Adapting to the wishes of older adults living in long-term care institutions is clearly needed to foster the interest and ensure greater participation in exercise programs. To achieve this goal, both the institutions and the physical therapist designing the programs need to implement changes based on the aforementioned proposals. In addition, specific talks expounding the benefits of physical exercise at any age and any condition in the care centers may be developed to enhance adherence and participation. Likewise, institutions should offer programs tailored to the different characteristics, needs, and wishes of individuals, without establishing limits on residents' participation in activities, but rather adapting activities to their specific profile.

Limitations

Our findings should be interpreted in the light of several limitations. First, participants in this study were recruited by the physical therapy departments of the care residences. Second, recruitment of inactive residents was difficult, therefore, not having included all

perspectives in the current study is therefore possible. Third, socio-economic data and the functional status of the participants were not included in the study; the influence of socio-economic factors in our participants is therefore unknown. Also, the findings were challenging to interpret in relation to the participant's level of independence. Finally, the focus group sessions were conducted at the same care centers where the participants were recruited. Despite guaranteeing confidentiality of responses, a possible influence of the environment on participants to provide socially desirable responses may have occurred

Ethical review committee statement

The study was approved by the Research Ethics Board at the University of Murcia, Spain

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