Martín-Moya, R.; Ruiz-Montero, P.J.; Tejada-Medina, V.; Rivera García, E. (202x) Motivators of Physical Exercise in Older Adults from Different Contexts. Revista Internacional de Medicina y Ciencias de la Actividad Física y el Deporte vol. X (X) pp. xx. Http://cdeporte.rediris.es/revista/\_\_\_\*

## **ORIGINAL**

## MOTIVATORS OF PHYSICAL EXERCISE IN OLDER ADULTS FROM DIFFERENT CONTEXTS

# MOTIVOS DE PRÁCTICA DE EJERCICIO FÍSICO EN ADULTOS MAYORES DE DIFERENTES CONTEXTOS

Martín-Moya, R.<sup>1</sup>; Ruiz-Montero, P.J.<sup>1</sup>; Tejada-Medina, V.<sup>1</sup>y Rivera García, E.<sup>2</sup>

**Spanish-English translator:** Rocío Domínguez Castells, rociodominguezcastells@gmail.com

Código UNESCO / UNESCO code: 2411.99 Actividad Física y Salud.

Clasificación Consejo de Europa / Counci of Europe classification: 17.

Otras: Actividad Física y Salud / Others: Physical Activity and Health.

Recibido 19 de julio de 2021 Received July 19, 2021 Aceptado 6 de enero de 2022 Accepted January 6, 2022

#### ABSTRACT

The aim of the present study was to understand the reasons to join or to continue in a physical exercise programme based on the perceptions of the older adults participating in the study. Four focus groups were selected in various contexts, with a total of 39 older adults. An emergent induction analysis methodology was applied, handling the participants' speeches from the specific to the general through the coding process proposed in the grounded theory. The differences among contexts regarding personal reasons for physical practice were presented, as well as the role of physical and psychological benefits, and body image. The participants of this research engaged in physical exercise to pursue physical health benefits in the first place, followed by psychological well-being, and leaving body image aside.

**KEYWORDS**: qualitative; older adult; exercise; barriers.

Department of Physical Education and Sports, Faculty of Educational and Sports Sciences, University of Granada, Melilla (Spain) <a href="mailto:rmartinm@ugr.es">rmartinm@ugr.es</a>, <a href="mailto:pedratama: pedratama: Qugr.es">pedratama: Qugr.es</a>, <a href="mailto:vtejada@ugr.es">vtejada@ugr.es</a>
 Body Expression Area, Faculty of Education. University of Granada, Granada (Spain) <a href="mailto:erivera@ugr.es">erivera@ugr.es</a>

#### RESUMEN

Este estudio se realizó para tratar de comprender cuáles son los motivos encontrados al unirse a programas o mantener la práctica de ejercicio físico en base a las percepciones de las personas adultas mayores que participan en el estudio. Se realizaron cuatro grupos focales en diferentes contextos con un total de 39 adultos mayores. El análisis metodológico es inductivo, emergente, delimitando los discursos de los participantes del estudio de lo específico a lo general, a través del proceso de codificación de la teoría fundamentada. Se presentaron las diferencias entre contextos sobre los motivos de carácter personal para la práctica física, el papel de los beneficios físicos, psicológicos y la imagen corporal. Los participantes de esta investigación realizan ejercicio físico buscando en primer lugar los beneficios para la salud física, seguido del bienestar psicológico y dejando de lado la mejora de la imagen corporal.

PALABRAS CLAVE: cualitativo; adulto mayor; ejercicio, barreras.

## INTRODUCTION

The increase in physical activity is important to improve the health and quality of life of older adults (Broekhuizen et al., 2016; Soto et al., 2016). Regular physical exercise may reduce the risk of chronic disease, falls, depression and dementia in this population group (Ahlskog, Geda, Graff-Radford & Petersen, 2011; Brown et al., 2012), revealing as a non-pharmacological therapy to prevent and treat various conditions (Yuing Farías et al., 2019). European physically-active older adults were estimated to have 41% lower risk of mortality over a 10-year period than inactive older adults (Brown et al., 2012). Among the latter, age, the lack of regular physical activity practice in the past, depressive symptoms and disability to do instrumental activities of daily life revealed as factors associated with physical inactivity (Menezes et al., 2015). Optimal health status in older adults is unnatural and it must be specifically addressed in this population group (Clark et al., 2011). Whilst ageing cannot be prevented, many of the health care costs associated to the ageing process are preventable.

Physical exercise, performed in an organised and structured way (Araque-Martínez et al., 2020; Hall-López et al., 2017; Matos-Duarte et al., 2021), reduces the incidence of non-transmissible diseases associated with ageing. Nevertheless, less than a third of the older adults declare following the guidelines established by the Centres for Disease Control and Prevention (Bethancourt et al., 2014). Seals et al. (2009) stated that daily physical exercise reduces the incidence of cardiovascular diseases by increasing the vascular wall elasticity, which reduces the risk of suffering a heart attack or type II diabetes (García-Molina et al., 2010; Trejo et al., 2020). On the other hand, maximum and sub-maximum acute exercise improves renal function in older adults, leading to improved general health (Trejo et al., 2020). Having an active lifestyle improves self-perceived health in older adults, fosters their independence and mobility, and reduces the health care costs especially associated to the treatment of chronic diseases (Lera-López et al., 2017;

Rahman et al., 2019). Since physical practice is a complex and dynamic process involving a series of behaviours, it is often complicated to identify the variables that affect exercise adherence (Cigarroa et al., 2022). Nonetheless, knowledge of the individual factors that affect exercise behaviours in older adults is essential to determine which interventions would lead to higher participation and exercise habit adherence (Martín-Moya et al., 2020).

With regard to psychological factors, older adults reported the benefits related to mobility preservation and physical and mental health improvement to be the most valuable ones for them (Greenwood-Hickman et al., 2016; Witcher et al., 2016). Physical activity programmes for older adults must be based on a thorough understanding of their preferences related to starting or continuing to do physical exercise. Qualitative studies have identified low-cost functional activities, general fitness activities and group programmes that can be done with friends to be popular options in this population group (Biedenweg et al., 2014; Witcher et al., 2016). Van Uffelen, Khan and Burton (2017) discovered that older adults reported doing physical exercise to improve their health, well-being, quality of life and mood. Consequently, leisure-time physical activity was proposed as an alternative to improve the quality of life of older adults (Lera-López et al., 2017).

Although the literature provides reasonable evidence to understand the attitudes, preferences and experiences related to physical exercise practice in older adults from other regions, research examining these important aspects in Spanish older adults is limited. Physical exercise interventions must be tailored to match the specific needs and wishes of the population under study in order to achieve maximal effectiveness (Short et al., 2013). As mentioned above, the personal type of motivation can play a relevant role in the selection of the persuasive strategy most appropriate for every individual. This statement has been mainly studied within the context of physical activity and exercise promotion (Van Velsen et al., 2019). Ingledew and Markland (2008) found that, in general, different types of motivation were associated with different reasons to do physical exercise and, consequently, the persuasive strategies should match these reasons.

Older adults' commitment to physical exercise practice can be influenced by behavioural factors, such as motivation and personal beliefs, and by external factors (Parra et al., 2019). Qualitative research can provide a better understanding of older adults' implicit theories regarding physical activity participation and help us put the strong evidence about physical exercise benefits into practice (Ramalho et al., 2019). Understanding this population's perceptions about the reasons for physical exercise practice can help the institutions and health care professionals to provide appropriate information to this group in order to increase their physical activity adherence and healthy habits in general (Moral-García et al., 2019). Therefore, the aim of this study was to determine the reasons for physical exercise practice related to physical health, psychological health and body image, based on the perceptions of the older adults who participated in the study.

#### RESEARCH DESCRIPTION

## Design

A qualitative research design was used for this study, which is part of a doctoral thesis on older adults who followed instructor-led physical exercise programmes with the aim to preserve their physical function and quality of life. The purpose of the study was to understand the older adults' perceptions of their participation experiences and to understand the key factors to increase their adherence to practice.

## Sample

The older adults were recruited through convenience sampling, based on the context where they attended the physical exercise programmes. There were three different contexts located in the province of Granada, in the south of Spain. As a differentiating element of the present research, a focus group composed only of men was included since, after reviewing the literature, no study was found that had considered men's perceptions and it was deemed necessary in order to fully explore the findings and to establish relationships. The three contexts were: 1) neighbourhood at risk of social exclusion (12 participants), 2) city centre with high socio-economic status (8 + 7 participants), and 3) rural setting (12 participants). The homogeneity factors were: a) adults older than 60 years old, b) older adults living in Andalusia, c) older adults that had been following a physical exercise programme for at least 2 years. On the other hand, the heterogeneity factors were: age, sex, socioeconomic status, socio-cultural status and years of physical practice. Three levels were identified for the socio-cultural status: primary education, secondary education and university studies. The time of practice was divided into longer than 10 years, between 5 and 10 years, and shorter than 5 years. Sex was categorised into woman (W) or man (M).

<b>Table 1</b> . Homogeneity of	criteria for c	older adult incl	lusion in	the focus	groups
---------------------------------	----------------	------------------	-----------	-----------	--------

	Attribute	Value	Code	Pa	artic	ipa	nts
	Age	60-64	1	5	7		
		65-69	2	1	3	4	6
/		>70	3	2	8		
	Socio-cultural status	Primary education	4	1	4		
		Secondary education	5	3	5	8	
	•	Higher education	6	2	6	7	
	Adherence level	Low	7	3	4	8	
		Medium	8	2	6	7	
		High	9	1	5		
	Years of physical practice	>10	10	2	5		
		5-10	11	7	8		
		<5	12	1	3	4	6

#### Data Collection

Four focus groups were created with a total of 39 older adults, always keeping their context and the programmes they were attending in mind, in order to produce the most appropriate information for them. These groups spent approximately one hour and a half and were audio and video recorded. The transcription was used for textual analysis. Following Hamui-Sutton and Varela-Ruiz (2013), it was considered necessary to use a thematic guide as an instrument (Figure 1) for the facilitator, consisting of open questions related to the study subject. The thematic guide started with a guestion on the reasons and interests that made them get up every day to do physical exercise. Subsequently, the participants' speech was guided by means of facilitating questions on facts, feelings and barriers encountered when starting or keeping physical practice. Lastly, questions were asked to delve into the topics of interest that arose during the participants' interventions or that seemed interesting to be developed in every focus group. The same researcher acted as a facilitator in all focus groups, and another colleague helped to collect any additional observations that could be of interest to the research. The information collected from the audio and video recording and the observation notes of the four focus groups was organised and prepared for analysis with Nvivo software (Version 12, QSR International Pty Ltd, Melbourne, Australia). The direct transcription of the audiovisual material thanks to the software allowed us to identify the real timeline of every intervention for the subsequent analysis.

## **Analysis**

A mixed analysis methodology was applied, since we started from the questions previously established in the focus group guide (deduction) and we also respected the participants' speeches (emerging induction). A number of Grounded Theory guidelines were followed, examining the speeches from the specific to the general level through categorisation and later coding (Glaser et al., 2019). The general emerged from the data, in this case, the older adults' speeches (Sandín Esteban, 2000). Open axial coding was performed based on the previous and the emerging categories, essentially in the second and third categorisation levels, according to the researchers' interpretation.

The data analysis, supported by NVivo software, was based on coding matrices to obtain relationships among the different categories and on the cross-reference to interrelate the relevant categories in each case and the attributes used as homogeneity or heterogeneity criteria. This allowed us to compare, establish relationships and detect the questions arisen from the participants' speeches. The strategies applied allowed us to compare the participants' implicit theories with the researchers' ones, generating the substantive theories of the present research (Cervantes et al., 2016).

Following Vasilachis de Gialdino (2006), who nourished from Richardson's (2017) contributions, a holistic approach using the crystallisation metaphor was applied in order to interpret the speeches and their relationships with the researcher's formal and implicit theories. There are multiple faces that cross with each other reflecting different study perspectives, and we must be aware

that they won't be static, but will keep constantly changing and moving. In Richardson's (2017, 135) words, 'we do not triangulate, we crystallize. [...] the central imaginary is the crystal, which combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approach'. In short, what we are transmitting is what we saw and interpreted, but we should not forget that it will still be the true reflection of what we observed from the angle we are standing in as researchers of this study.

## Ethical Considerations

The research ethical criteria and good practices established by the University of Granada were strictly followed. The participants and the management teams of the centres the older adults were attending to do physical exercise were asked permission to create the groups and to organise meetings with them. The ethical aspects that must be taken into account in research according to Quinn Patton and Cochran (2007), i.e. confidentiality and consent, were considered. Therefore, the participants were informed about the aims and the discussion topics, and their identity was protected by assigning a pseudonym to each of them to preserve their anonymity.

## Rigour

Scientific rigour was guaranteed through faithful transcriptions, thorough data collection, expert opinion, observation of participant reactions thanks to audiovisual support, verification of the methods used for detailed and deep analysis, observation field notes and research notes that guided the data analysis and interpretation process.

#### STUDY FINDINGS

In this section, the main topic is presented showing how the older adults perceived and experienced their participation in physical exercise programmes, and how various barriers affected this participation. The older adults reported different reasons for doing physical exercise. Three subtopics can be identified within this topic: 1) physical benefits at the functional level, 2) reasons related to the pursuit of psychological benefits, and 3) reasons for practice based on the heterogeneity criteria.

## Physical Benefits

Physical Health Improvement

Rather than perceiving health in general based on an abstract concept, older adults refer to the feelings they experience when they do physical exercise, either instructor-led activities or on their own. Bearing this in mind, physical practice for this population group leads to a well-being state, satisfaction feelings and an emotional sense of feeling alive. The participants believed that physical activity improved their physical fitness, resulting in increased muscular strength, balance or agility: 'I feel really agile, at my age I go up and down the

stairs to clean or anything else and I feel physically great' (5, Artemisa). A number of them acknowledged physical activity as a relevant strategy to reduce fall risk, improve mobility and delay the ageing process: 'It is very good for my blood pressure, I feel better because it is much lower now and, therefore, I am more agile when bending down or standing up' (17, Circe). For older adults, health means feeling good, with no pain, and having emotional stability; in their words: 'Of course, because it's good and physical activity helps you feel better, more agile and mentally better' (31, Hebe). Doing physical exercise improves their autonomy and self-sufficiency in their daily life: 'You feel more independent, more agile, more active' (18, Hefesto). Likewise, the physical well-being is even experienced by this population group as a positive emotional status during their daily routine: 'I feel satisfaction because it gives meaning to my day; when it is four in the afternoon I'm very tired, but I keep physically quite well for my age; I not only don't have a humpback, but I am also very agile' (9, Hera).

If we look at the interventions based on health and well-being improvement, we can see that physical activity and general health improvement, as well as mood improvement and stress reduction, are important to older adults. In particular, physical activity was perceived to help to control eating, blood flow, longevity, weight, sleep quality and breathing. Furthermore, some of the participants understood the benefits of having a healthy lifestyle, in terms of both physical exercise and eating:

'It's great to do some general fitness activities to stay better so that I can get to my 70s, 80s or 90s in good condition, it is ideal to get used to doing exercise from childhood, and also to learn an appropriate diet that helps you stay healthy' (14, Jano).

In this context, older adults became increasingly aware of the benefits they obtained from physical practice, and they used it as a means to improve their health and reduce their medicine intake: 'I do it for my well-being, to take care of my body and to try to skip some cholesterol-reducing pills' (84, Hades).

Attending to the reasons for practice reported by the older adults participating in the present research (Table 2), we can see that men declared health to be the main reason for them, while women, despite also showing this same trend, also revealed psychological and social reasons to be their major motivations for doing physical exercise.

**Table 2**. Reasons for practice divided by sex

<b>Y</b>	Men	Women
Body image		
Physical		
Psychological		

<sup>\*</sup>The colour gradient indicates the topic's presence level in the participants' speech. The more intense the colour, the higher the number of references to this topic and the node saturation when coding every participation.

#### Independence

Older adults wished to avoid depending on others and to be able to take care of themselves. In this context, they considered that exercise was important to preserve their autonomy and independence.

'My mother suffered from hemiplegia for four years and my brother was also ill, so my aim is not to depend on anyone, to be self-sufficient until I die, and coming here is ideal to achieve it' (117, Afrodita).

In the same line, some participants declared that the consideration for their family or having to take care of their grandchildren was an important reason to stay active: 'Every day I tell myself to go because sometimes I must take care of my grandchildren, or do things at home, or go to the countryside with my son... in short, you need energy' (34, Perséfone).

## Psychological Benefits

## Mental Well-Being Improvement

The pursuit of mental well-being, apart from the physical one, was very closely related to doing physical exercise practice with their peers, with whom they shared life experiences; besides feeling happy, they tried to transmit those feelings to those they shared practice with. If come for health, because I need to walk a lot to improve blood flow in my legs) and also for the social relationships' (32, Perséfone). In keeping with this, we saw that the benefits reached various aspects of the older adults' quality of life: I always look forward to the exercise day, it does a lot of good to my body, my health and also my mind' (11, Enio). An immediate improvement in mental alertness was detected, which made the participants believe that physical practice could effectively prevent mental diseases. 'Health is the most important thing at this age, and the same applies to the mind; you feel different from at home' (56, Leto) or I come for the satisfaction and because, otherwise, I would stay at home taking pills. For health' (8, Aura).

The importance of leaving the house to do various activities was pointed out; in particular, a participant added: 'Unbelievably, when we are here we feel great and we laugh, and then we get home and all that is gone' (8, Artemisa). Artemisa's testimony reveals how leaving the house to do physical exercise with her peers felt like liberation and how going back home made her feel sad and think that all the good things end when arriving home again. Likewise, it was detected that the home represented a place with no way out for female older adults and they got the opportunity to feel and live freely when they went out to do instructor-led physical exercise: 'When I have exercise session, I am looking forward to leaving the house, I don't want to be at home' (83, Aura) or 'Leaving the house is good for your body, you disconnect and you feel different when you get back. When you get back home you notice you have been out' (15, Leto).

The personal relationships developed by female older adults during their physical practice are a fantastic opportunity to build friendship bonds that will cause a positive change in the way they live this life period. These social relationships make the loneliness feeling that the majority of older adults start to get in this period, disappear. These interventions are the most emotionally charged since they produce significant life changes in their present, compared to their past:

'No money can pay that, only love can, because you are home alone crying, as I was. Now that I feel surrounded by people after only one year coming, I think there is not enough money to pay this' (45, Ceres).

In this context, establishing positive feelings towards others raised awareness of the importance of socio-affective bonds with their peers: 'It makes me feel alive in all senses; I had almost disappeared and now I feel alive again because I go here and there, speak to different people, and that's life for me' (80, Cárites).

Besides, the benefits of physical exercise on pharmaceutical therapies improved biomarkers, and functional and quality of life aspects. In this regard, the participants of this research reported that the physical exercise practice led to a reduction of drug intake due to the benefits obtained from the activity.

'I signed up for all this because I had health issues and also visited a psychologist, and there I was recommended to start activities like exercise. I used to take two pills and now I take a quarter of a pill because I don't need it anymore' (89, Gea).

## Self-Efficacy

A number of older adults mentioned that one of the reasons for them to do physical exercise was to feel they pushed themselves and tried to complete exercise sessions that may have been above their level and constituted a challenge. One participant added: 'When I am in a session, I try to do what the person next to me does. If I can't, I can't; but if I can, I try. I come to work' (55, Afrodita). It is important, especially in this period, for them to feel that they can still achieve physical challenges and improve their self-esteem. This life period is usually associated with a dependence feeling and difficulty to achieve the goals proposed. Nevertheless, we can notice in the participants' interventions how, thanks to physical exercise, their satisfaction improved as they excelled themselves. 'I feel satisfied because I feel much better with my body. The joy of doing an exercise well and also sharing it with your mates. I feel more satisfied with my body' (81, Hebe).

Cognitive stimulation was achieved through the activities, as the participants were able to remember dancing steps, learn new skills and complete a session with a more positive feeling than the previous one: 'I am very interested in the exercises, I like them, I check what I manage to do better or I can't do. When I achieve something, it is very satisfactory' (83, Aura). The present research

showed how mastering an activity gave the participants a sense of competence that encouraged them to continue doing exercise.

'Everything has improved for me: my legs, my quality of life, my mind. You can feel it in your body, for example, you notice you can move better, and you also get a closer relationship with others. That provides complete satisfaction' (24, Harmonía).

The acknowledgement of the improvements achieved and their satisfaction was inherent to the older adults' speeches. In their interventions, they described physical activity as a space to consolidate certain life attitudes, very closely related to self-improvement, acceptance of the life period they were in, joy of living, gratitude and willingness to keep learning.

## Previous Experiences and Habit Adherence

The participants admitted that their previous lifestyle had affected their current active behaviour. Some of them reported that they stayed active at an advanced age as a result of having always been active: 'I started doing sports when I was very young, I have been a very active woman, very hard-working, growing up my children and working. I have always walked a lot and I try to keep doing it' (19, Némesis). By contrast, those who had never practised regular physical activity declared having been more hesitant to start doing exercise at an older age.

'My story differs from most of the stories told here. I have never been keen on sports or body culture; actually, in high school, I found it the most hateful subject and I was the clumsiest, even to jump over the horse. But when I retired, a group of good friends invited me to join them hiking, so I started moving for health' (16, Himeneo).

Some older adults experienced high psychological satisfaction after finishing the physical practice. These feelings arose in the majority of interventions, related to the positive perceptions older adults experience when they successfully complete the activities they attend. These perceptions could explain their adherence to practice, since it was always associated with positive feelings, even though they needed to strive to achieve the proposed goals: 'When you have attended the session and it was tough, like yesterday, you climb the stairs with muscle soreness and laugh, but you also feel very good for having done a good job' (85, Hebe). It is easier to keep an activity over time when a positive effect is obtained from it: 'For me, the best moment of the day is once I have finished the activity, take water, and I am having a shower. I'm psychologically perfect' (120, Hera). Practice provided them with such good feelings as vitality: 'Physical exercise revitalises me, it provides satisfaction' (36, Niké).

## Mental Disorders and Physical Exercise

The activity and the socialisation during practice seemed to offer a way to disconnect from daily life, which helped to reduce stress and depression: 'My

blood pressure is not that high anymore; I take magnesium, collagen and I have less anxiety' (105, Fortuna). Physical exercise was observed to be an opportunity to stop the mental disorders that may appear due to staying at home, and to socialise with others to feel they belong to society. This helped to avoid loneliness and the associated damage:

'I feel psychologically very good. I usually get on well with everyone, but I was at home with depression and now, since I started the exercise sessions, I have much more contact with people' (87, Estigia).

It was important to the participants to break with a bad personal or family situation thanks to activities performed out of their homes and that provided them with an opportunity to stop thinking about their problems. The physical exercise and the social relationships generated helped them overcome difficult moments.

'I have suffered from depression at least since 14 years ago, when my son and my husband got ill. For that reason, I signed up for everything: general fitness, dancing, and I am delighted with everything because I have so much fun and it is great for the body' (19, Harmonía).

## Body Image and Physical Practice

While the main reasons for doing physical exercise exposed by the older adults participating in the present research were related to the improvement of their general health, social relationships and psychological well-being, none of them declared doing exercise for aesthetic reasons or to improve their body image. In this regard, a clear lack of interest in the aesthetic results obtained from the physical exercise practice was detected: 'Not for aesthetics, at this point it is health and feeling good, also psychologically, what matters to me' (141, Atenea). Body image during the ageing process was pushed into the background by the older adults, who always prioritised health benefits: 'The aesthetic and health components have nothing to do with each other for us' (138, Hera).

Body image was observed not to be a relevant reason for practice. Even though it could be perceived as something positive, it did not affect their decision to start or continue doing physical exercise, as it occurred with health benefits or the creation of new friendship bonds, as the women participating in this research reported: 'We are not going to change our image at this point. It is about health and the relationships with others' (54, Perséfone).

Although body image was present in their speeches as an important factor, it was not a reason for the participants to start doing physical exercise. Thus, they tried to take care of their image, but the pursuit of a better body image was not their ultimate motivation. In line with this, body image was one of the dimensions that generated the lowest motivation towards physical activity practice among older adults.

## Reasons for Practice Based on the Heterogeneity Factors

Considering the heterogeneity factors used in this research, we can see that physical health was the most relevant reason for practice. First of all, if we focus on the participants' socio-cultural status (Table 3), those with primary education seemed to give the highest importance to physical and psychological health. The same occurred as the level of studies increased. Body image was left aside by the three categories of this factor.

Table 3. Reasons for practice divided by socio-cultural status

Reason for practice	Primary education	Secondary education	Higher education
Body image			
Physical			
Psychological			

With regard to the adherence level (Table 4), we can see that the participants who did physical exercise the least regularly were the ones who gave the most importance to physical and psychological health. These data could be explained because a minimum amount of practice and adherence over time are needed in order to obtain benefits from physical practice. Therefore, those participants who attended the sessions less often did not achieve the expected results and their major reason for practice continued to be health improvement.

Table 4. Reasons for practice divided by adherence level

Reason for practice	Low	Medium	High
Body image		Y	
Physical			
Psychological			

Lastly, regarding the participants' context (Table 5), the neighbourhood at risk of exclusion showed a slight difference, being the only context in which psychological well being was considered a stronger reason for practice than physical health. In both city and rural contexts, these two factors were considered to be the main reasons for practice, physical health being the most relevant of the two to the older adults participating in this research.

**Table 5**. Reasons for practice divided by context

F	Reason for practice	Rural setting	City centre	Neighbourhood at risk of exclusion
	Body image			
	Physical			
V	Psychological			

It can be observed that, when considering the socio-cultural status, the adherence level or the context where the physical practice was performed, the reasons related to physical health always seemed to prevail. In this population group, regardless of sex, the pursuit of health improvement was the main reason to start or continue doing physical exercise.

#### **Discussion**

It was observed that the participants incorporated the physical exercise practice as a habit and the benefits they obtained were pointed out very clearly when interacting with each of them in the focus groups. The older adults' interventions revealed that they acknowledged the potential benefits of physical activity to improve general health, independence and mental well-being (Enriquez-Reyna et al., 2018; Franco et al., 2015), allowing them to be more self-sufficient in their daily life (Hall-López et al., 2017), and to preserve appropriate joint mobility and range of movement levels (Matos-Duarte & Berlanga, 2020). In line with this Louw et al. (2012) examined gender and exercise rates and determined that women mentioned the improvement of health, psychological well-being and physical fitness as the three major reasons for doing exercise, while men reported physical fitness, strength and general health as the main motivating factors. In the present study, the participants who did physical exercise the least regularly were the ones who gave the most importance to physical and psychological health. These data could be explained because a minimum amount of practice and adherence over time are needed in order to obtain benefits from physical practice (Lindsay-Smith et al., 2018).

Health is a significant indicator of psychological well-being among older adults (Cho et al., 2015). Health issues were associated with happiness in older adults (Kim et al., 2009). An immediate improvement in mental alertness was detected, which made the participants believe that physical practice could effectively prevent mental diseases. Furthermore, the opportunity to leave the house and spend longer time out was found to be associated with improved health, which was in keeping with the data obtained by Petersen et al. (2015). Besides, the benefits of physical exercise on pharmaceutical therapies improved biomarkers, and functional and quality of life aspects (Alexandrino-Silva et al., 2019). In this regard, the participants of this research reported that the physical exercise practice led to a reduction of drug intake due to the benefits obtained from the activity.

Depression and anxiety are some of the major mental disorders among older adults, and both are frequent causes of emotional suffering and decreased quality of life (Alexandrino-Silva et al., 2019; Blazer, 2009). These disorders were associated with functional decline, high health care costs and increased mortality (Porensky et al., 2009). Moreover, it is known that depression may worsen the development and prognosis of cardiovascular diseases, strokes and other related diseases (Beekman et al., 2000; Van der Kooy et al., 2007). Given the physical and psychological benefits of physical exercise, its implementation in older adults with depression without comorbidities may foster the prevention and reduction of depressive symptoms (Ku & Chung, 2017). The role of physical practice in depression prevention suggests two possibilities: depression reduces exercise practice, or physical practice may be useful to prevent depression (Hu et al., 2020).

A number of participants mentioned that one of the reasons for them to do physical exercise was to feel they pushed themselves and tried to complete exercise sessions that may have been above their level and constituted a challenge. According to Rahman et al. (2019), self-efficacy and enjoyment were some of the major reasons for doing physical exercise. As regards previous experiences, the older adults of the present research reported that their current practice was influenced by positive exercise-related experiences from their youth, in line with the findings described by Franco et al. (2015). By contrast, those who had never practised regular exercise in the past declared having been more hesitant to start doing exercise at an advanced age, as self-perceived health becomes poorer with age (Lera-López et al., 2017). Besides, older adults who underwent a healthy ageing process continued with their active lifestyle, which positively affected their life satisfaction (Meléndez et al., 2009). In this line, older adults always experienced high psychological satisfaction after finishing the physical practice.

Lastly, although body image was present in their speeches, it was not a reason for the participants to start doing physical exercise. Thus, they tried to take care of their image, but the pursuit of a better body image was not their ultimate motivation. The importance of preserving physical fitness and improving health instead of appearance was also made evident in various studies (Drummond, 2003; Jankowski et al., 2016; Tiggemann, 2004). In line with this, body image was one of the dimensions that generated the lowest motivation towards physical activity practice among older adults (da Silva et al., 2016). When analysing the reason for practice based on the participants' context, a clear difference was noted between the neighbourhood at risk of exclusion and the other two environments, the former being the only case in which the psychological well-being was perceived as a more important reason than physical health. These data could be explained because, in contrast with the other two contexts, these participants coexist every day out of the physical exercise programme and they can strengthen the social relationships created during practice as an essential aspect of their participation (Bennett et al., 2018; Franke et al., 2021).

## **CONCLUSIONS**

The participants of this research engaged in physical exercise to pursue physical health benefits in the first place, followed by psychological well-being and leaving body image aside. Staying physically active is a key factor to preserving good health and daily function. Men declared doing physical exercise for health reasons, while women, despite showing the same trend, reported the psychological and social benefits to be another important motivation to get involved in physical exercise. Physical inactivity is associated with a tendency for illness and increased early mortality risk due to several causes in older adults. Besides, the older adults' previous experiences seemed to help them to continue with physical practice once they reached this age. Therefore, it is important to generate physical practice habits during earlier life periods that can help to maintain and foster activity at more advanced ages.

The personal relationships created during the physical exercise practice represent an excellent opportunity for older adults to build friendship bonds, which will result in positive lifestyle changes during this life period. A number of

participants mentioned that one of their reasons to do exercise was to feel they were working hard and to try to do exercises beyond their level, facing and overcoming challenges. With regard to the socio-cultural status, the participants with primary education were the ones who gave the greatest importance to physical and mental health as reasons for doing exercise. However, no differences were detected based on the level of studies and all participants mentioned the pursuit of physical and mental health as their main reason to do physical exercise.

In conclusion, although it would be necessary to consider everyone's individual characteristics, recommending a detailed physical exercise programme as a treatment for anxiety or depression symptoms may be effective to improve mental disorders in older adults. Exercise levels tend to decrease with age. Consequently, it is important to develop strategies to overcome the barriers to practice and to stimulate the engagement of older adults in physical exercise programmes through adaptation to their specific characteristics and interests and individualised monitoring. The challenge seems to be to organise and lead the learning process as a process of building experiences that are significant to the older adults, based on their previous interests and putting them in the centre through conscious practice, always guided by a physical exercise professional. Mechanistic practices that aim to obtain physiologically effective individuals, as we can find in most of the physical exercise programmes focused on this population group, should be avoided.

#### **REFERENCES**

- Ahlskog, J. E., Geda, Y. E., Graff-Radford, N. R., y Petersen, R. C. (2011). Physical exercise as a preventive or disease-modifying treatment of dementia and brain aging. In *Mayo Clinic Proceedings* (Vol. 86, Issue 9, pp. 876–884). https://doi.org/10.4065/mcp.2011.0252
- Alexandrino-Silva, C., Ribeiz, S. R., Frigerio, M. B., Bassolli, L., Alves, T. F., Busatto, G., y Bottino, C. (2019). Prevention of depression and anxiety in community-dwelling older adults: The role of physical activity. *Revista de Psiquiatria Clinica*, 46(1), 14–20. https://doi.org/10.1590/0101-60830000000185
- Aparicio García-Molina, V. A., Carbonell-Baeza, A., y Delgado-Fernández, M. (2010). Health benefits of physical activity in older people. *Revista*Internacional de Medicina y Ciencias de La Actividad Fisica y Del Deporte, 10(40), 556–576.
- Araque-Martínez, M. Á., Ruiz-Montero, P. J., y Artés-Rodríguez, E. M. (2020). Efectos de un programa de ejercicio físico multicomponente sobre la condición física, la autoestima, la ansiedad y la depresión de personas adultas-mayores (Effects of a multicomponent physical exercise program on fitness, self-esteem, anxiety and depres. *Retos*, 39. https://doi.org/10.47197/retos.v0i39.83282
- Beekman, A. T. F., De Beurs, E., Van Balkom, A. J. L. M., Deeg, D. J. H., Van Dyck, R., y Van Tilburg, W. (2000). Anxiety and depression in later life: Co-occurrence and communality of risk factors. *American Journal of Psychiatry*, *157*(1), 89–95. https://doi.org/10.1176/ajp.157.1.89

- Bennett, E. v., Hurd Clarke, L., Wolf, S. A., Dunlop, W. L., Harden, S. M., Liu, Y., Estabrooks, P. A., Rhodes, R. E., y Beauchamp, M. R. (2018). Older adults' experiences of group-based physical activity: A qualitative study from the 'GOAL' randomized controlled trial. *Psychology of Sport and Exercise*, 39. https://doi.org/10.1016/j.psychsport.2018.08.017
- Bethancourt, H. J., Rosenberg, D. E., Beatty, T., y Arterburn, D. E. (2014). Barriers to and facilitators of physical activity program use among older adults. *Clinical Medicine and Research*, *12*(1–2), 10–20. https://doi.org/10.3121/cmr.2013.1171
- Biedenweg, K., Meischke, H., Bohl, A., Hammerback, K., Williams, B., Poe, P., y Phelan, E. A. (2014). Understanding older adults' motivators and barriers to participating in organized programs supporting exercise behaviors. *Journal of Primary Prevention*, 35(1), 1–11. https://doi.org/10.1007/s10935-013-0331-2
- Blazer, D. G. (2009). Depression in Late Life: Review and Commentary. *Focus*, 7(1), 118–136. https://doi.org/10.1176/foc.7.1.foc118
- Broekhuizen, K., De Gelder, J., Wijsman, C. A., Wijsman, L. W., Westendorp, R. G. J., Verhagen, E., Slagboom, P. E., De Craen, A. J. Van Mechelen, W., Van Heemst, D., Van Ouderaa, F. Der, y Mooijaart, S. P. (2016). An Internet-based physical activity intervention to improve quality of life of inactive older adults: A randomized controlled trial *Journal of Medical Internet Research*, 18(4). https://doi.org/10.2196/jmir.4335
- Brown, W. J., McLaughlin, D., Leung, J., McCaul, K. A., Flicker, L., Almeida, O. P., Hankey, G. J., Lopez, D., y Dobson, A. J. (2012). Physical activity and all-cause mortality in older women and men. *British Journal of Sports Medicine*, *46*(9), 664–668. https://doi.org/10.1136/bjsports-2011-090529
- Cho, J., Martin, P., Poon, L. W., Jazwinski, S. M., Robert, C. G., Marla, G., Markesbery, W. R., Woodard, J. L., Tenover, J. S., Siegler, I. C., Rott, C., Rodgers, W. L., Dorothy, Hausman, B., Arnold, J., y Davey, A. (2015). Successful aging and subjective well-being among oldest-old adults. *Gerontologist*, 55(1), 132–143. https://doi.org/10.1093/geront/gnu074
- Cigarroa, I., Zapata-Lamana, R., Leiva-Gajardo, G., Vásquez, E., Parrado-Romero, E., Vásquez-Gómez, J., Álvarez, C., Petermann-Rocha, F., y Reyes-Molina, D. (2022). Adherence characteristics and reasons for abandonment of physical exercise-based interventions older adults in Latin America: A scoping review. *Retos*, *44*, 10–26. https://dialnet.unirioja.es/servlet/articulo?codigo=8104620
- Clark, P. G., Blissmer, B. J., Greene, G. W., Lees, F. D., Riebe, D. A., y Stamm, K. E. (2011). Maintaining exercise and healthful eating in older adults: The SENIOR project II: Study design and methodology. *Contemporary Clinical Trials*, 32(1), 129–139. https://doi.org/10.1016/j.cct.2010.10.002
- da Silva, A. N. C., Castanho, G. K. F., Chiminazzo, J. G. C., Barreira, J., y Fernandes, P. T. (2016). Motivational factors related to the practice of physical activities of the elderly. *Psicologia Em Estudo*, 21(4), 677–685. https://doi.org/10.4025/psicolestud.v21i4.32198
- del Valle Soto, M., Prieto Saborit, J. A., Nistal Hernández, P., Martínez Suárez, P. C., y Ruíz Fernández, L. (2016). Impacto de las estrategias de ejercicio físico en la CVRS de adultos sedentarios / Impact Exercise Strategies in the HRQOL of the Sedentary Adults. *Revista Internacional de Medicina y*

- Ciencias de La Actividad Física y Del Deporte, 64(2016). https://doi.org/10.15366/rimcafd2016.64.008
- Drummond, M. (2003). Retired Men, Retired Bodies. *International Journal of Men's Health*, 2(3), 183–199. https://doi.org/10.3149/jmh.0203.183
- Enriquez-Reyna, M. C., Bautista, D. C., y Orocio, R. N. (2018). Nivel de actividad física, masa y fuerza muscular de mujeres mayores de la comunidad: Diferencias por grupo etario (Physical activity level, muscle mass and strength of community elderly women: Differences by age group). *Retos*, 35. https://doi.org/10.47197/retos.v0i35.59956
- Franco, M. R., Tong, A., Howard, K., Sherrington, C., Ferreira, P. H., Pinto, R. Z., y Ferreira, M. L. (2015). Older people's perspectives on participation in physical activity: A systematic review and thematic synthesis of qualitative literature. In *British Journal of Sports Medicine* (Vol. 49, Issue 19, pp. 1268–1276). https://doi.org/10.1136/bjsports-2014-094015
- Franke, T., Sims-Gould, J., Nettlefold, L., Ottoni, C., y McKay, H. A. (2021). "It makes me feel not so alone": features of the Choose to Move physical activity intervention that reduce loneliness in older adults. *BMC Public Health*, *21*(1). https://doi.org/10.1186/s12889-021-10363-1
- Glaser, B. G., Strauss, A. L., Glaser, B. G., y Strauss, A. L. (2019). The Discovery of Grounded Theory. In *The Discovery of Grounded Theory*. https://doi.org/10.4324/9780203793206-1
- Greenwood-Hickman, M. A., Renz, A., y Rosenberg, D. E. (2016). Motivators and barriers to reducing sedentary behavior among overweight and obese older adults. *Gerontologist*, *56*(4), 660–668. https://doi.org/10.1093/geront/gnu163
- Hall-López, J. A., Ochoa Martínez, P. Y., Alarcón Meza, E. I., Moncada-Jiménez, J. A., Garcia Bertruy, O. y Martin Dantas, E. H. (2017). Programa de entrenamiento de hidrogimnasia sobre las capacidades físicas de adultas mayores. *Revista Internacional de Medicina y Ciencias de La Actividad Fisica y Del Deporte*, 17(66), 283–298. https://doi.org/10.15366/rimcafd2017.66.005
- Hamui-Sutton, A, y Varela-Ruiz, M. (2013). La técnica de grupos focales. Investigación En Educación Médica, 2(5), 55–60. https://doi.org/10.1016/s2007-5057(13)72683-8
- Hu, M. X., Turner, D., Generaal, E., Bos, D., Ikram, M. K., Ikram, M. A., Cuíjpers, P., y Penninx, B. W. J. H. (2020). Exercise interventions for the prevention of depression: A systematic review of meta-analyses. *BMC Public Health*, 20(1). https://doi.org/10.1186/s12889-020-09323-y
- Ingledew, D. K., y Markland, D. (2008). The role of motives in exercise participation. *Psychology and Health*, 23(7), 807–828. https://doi.org/10.1080/08870440701405704
- Jankowski, G. S., Diedrichs, P. C., Williamson, H., Christopher, G., y Harcourt, D. (2016). Looking age-appropriate while growing old gracefully: A qualitative study of ageing and body image among older adults. *Journal of Health Psychology*, 21(4), 550–561. https://doi.org/10.1177/1359105314531468
- Kim, O., Byeon, Y. S., Kim, J. H., Endo, E., Akahoshi, M., y Ogasawara, H. (2009). Loneliness, depression and health status of the institutionalized

- elderly in Korea and Japan. *Asian Nursing Research*, *3*(2), 63–70. https://doi.org/10.1016/S1976-1317(09)60017-7
- Ku, Y. L., y Chung, L. Y. (2017). Integrated Literature Review of Depression in Elderly People. *Journal of Gerontology y Geriatric Research*, *06*(04). https://doi.org/10.4172/2167-7182.1000446
- Lera-López, F., Garrues Irisarri, M. A., Ollo-López, A., Sánchez Iriso, E., Cabasés Hita, J. M., y Sánchez Santos, J. M. (2017). Actividad física y salud autopercibida en personas mayores de 50 años. *Revista Internacional de Medicina y Ciencias de La Actividad Fisica y Del Deporte 17*(67), 559–571. https://doi.org/10.15366/rimcafd2017.67.011
- Lindsay-Smith, G., O'Sullivan, G., Eime, R., Harvey, J., y Van Uffelen, J. G. Z (2018). A mixed methods case study exploring the impact of membership of a multi-activity, multicentre community group on social wellbeing of older adults. *BMC Geriatrics*, *18*(1), 243. https://doi.org/10.1186/s12877.018-0913-1
- Martín-Moya, R., Ruiz-Montero, P. J., García, E. R., y Leeson, G. (2020). Psychological and environmental factors for older adults to exercise: A systematic review. *Revista de Psicologia Del Deporte*, 29(2).
- Matos-Duarte, M., y Berlanga, L. A. (2020). Efectos del ejercicio sobre la flexibilidad en personas mayores de 65 años. Revista Internacional de Medicina y Ciencias de La Actividad Física y Del Deporte, 20(80), 611–622. https://doi.org/10.15366/rimcafd2020.80.010
- Matos-Duarte, M., de Haro, V. M., Arribas, I. S., y Berlanga, L. A. (2021). El estilo de vida como condicionante de la flexibilidad del adulto mayor Lifestyle as a determinant of flexibility in the elderly. *Retos*, *43*. https://doi.org/10.47197/RETOS.V43I0.88752
- Meléndez, J. C., Tomás, J. M., Óliver, A., y Navarro, E. (2009). Psychological and physical dimensions explaining life satisfaction among the elderly: A structural model examination. *Archives of Gerontology and Geriatrics*, 48(3), 291–295. https://doi.org/10.1016/j.archger.2008.02.008
- Menezes, A. S., Dos-Santos-Śilva, R. J., Tribess, S., Romo-Pérez, V., y Virtuoso-Júnior, J. S. (2015). Inactividad física y factores asociados en personas mayores en Brasil. *Revista Internacional de Medicina y Ciencias de La Actividad Fisica y Del Deporte*, *15*(60), 773–784. https://doi.org/10.15366/rimcafd2015.60.010
- Moral-García, J. E., Al Nayf Mantas, M. R., López-García, S., Maneiro, R., y Amatria, M. (2019). Estado nutricional y condición física en personas mayores activas vs sedentarias. *Revista Internacional de Medicina y Ciencias de La Actividad Fisica y Del Deporte*, 19(76), 685–698. https://doi.org/10.15366/rimcafd2019.76.003
- Parra, D. C., Wetherell, J. L., Van Zandt, A., Brownson, R. C., Abhishek, J., y Lenze, E. J. (2019). A qualitative study of older adults' perspectives on initiating exercise and mindfulness practice. *BMC Geriatrics*, *19*(1), 1–11. https://doi.org/10.1186/s12877-019-1375-9
- Petersen, J., Austin, D., Mattek, N., y Kaye, J. (2015). Time out-of-home and cognitive, physical, and emotional wellbeing of older adults: A longitudinal mixed effects model. *PLoS ONE*, *10*(10). https://doi.org/10.1371/journal.pone.0139643

- Porensky, E. K., Dew, M. A., Karp, J. F., Skidmore, E., Rollman, B. L., Shear, M. K., y Lenze, E. J. (2009). The burden of late-life generalized anxiety disorder: Effects on disability, health-related quality of life, and healthcare utilization. *American Journal of Geriatric Psychiatry*, *17*(6), 473–482. https://doi.org/10.1097/JGP.0b013e31819b87b2
- Quinn Patton, M., y Cochran, M. (2007). A Guide to Using Qualitative Research Methodology. *Medecins Sans Frontieres*, 1–36.
- Rahman, M. M., Liang, C. Y., Gu, D., Ding, Y., y Akter, M. (2019). Understanding Levels and Motivation of Physical Activity for Health Promotion among Chinese Middle-Aged and Older Adults: A Cross-Sectional Investigation. *Journal of Healthcare Engineering*, 2019. https://doi.org/10.1155/2019/9828241
- Ramalho, A., Petrica, J., y Rosado, A. (2019). As crenças de saúde compensatórias e o comportamento sedentário dos idosos: estudo qualitativo. *Retos*, *37*. https://doi.org/10.47197/retos.v37i37.71984
- Sandín Esteban, M. (2000). Criterios de validez en la investigación cualitativa: de la objetividad a la solidaridad. *Revista de Investigación Educativa, RIE*, 18(1), 223–242.
- Seals, D. R., Walker, A. E., Pierce, G. L., y Lesniewski, L. A. (2009). Habitual exercise and vascular ageing. In *Journal of Physiology* (Vol. 587, Issue 23, pp. 5541–5549). https://doi.org/10.1113/jphysiol.2009.178822
- Short, C. E., Rebar, A. L., Plotnikoff, R. C., y Vandelanotte, C. (2013).

  Designing engaging online behaviour change interventions: A proposed model of user engagement. *The European Health Psychologist*, *17*(1), 32–38.
- Tiggemann, M. (2004). Body image across the adult life span: Stability and change. *Body Image*, 1(1), 29–41 https://doi.org/10.1016/S1740-1445(03)00002-0
- Trejo Trejo, M., Pineda Espejel, H., Villalobos Molina, R., Ramos Jiménez, A., Vázquez Jlménez, J. G., Machado Contreras, J. R., Mejía-León, M. E., y Arrayales Millán, E. (2020). Efecto del ejercicio agudo sobre la filtración glomerular en adultos mayores. Revista Internacional de Medicina y Ciencias de La Actividad Física y El Deporte, 20(78), 289–298. https://doi.org/10.15366/rimcafd2020.78.007
- Trigueros Cervantes, C., Rivera García, E., Moreno Doña, A., y Muñoz Luna, R. (2016). Uso del software CAQDAS Nvivo en ciencias sociales: Para la investigación con grupos de discusión. *Index de Enfermeria*, *25*(3), 171–174.
- Van der Kooy, K., van Hout, H., Marwijk, H., Marten, H., Stehouwer, C., y Beekman, A. (2007). Depression and the risk for cardiovascular diseases: Systematic review and meta analysis. In *International Journal of Geriatric Psychiatry* (Vol. 22, Issue 7, pp. 613–626). https://doi.org/10.1002/gps.1723
- Van Uffelen, J. G. Z., Khan, A., y Burton, N. W. (2017). Gender differences in physical activity motivators and context preferences: A population-based study in people in their sixties. *BMC Public Health*, *17*(1). https://doi.org/10.1186/s12889-017-4540-0
- van Velsen, L., Broekhuis, M., Jansen-Kosterink, S., y Akker, H. op den. (2019). Tailoring persuasive electronic health strategies for older adults on the

basis of personal motivation: Web-based survey study. *Journal of Medical Internet Research*, *21*(9). https://doi.org/10.2196/11759

Vasilachis de Gialdino, I. (2006). Estrategias de investigación cualitativa. *Gedisa*.

Witcher, C. S. G., Holt, N. L., Young, W., Blanchard, C., Murnaghan, D., y Spence, J. C. (2016a). Physical Activity Perceptions and Influences among Older Adults in Rural Nova Scotia. *Canadian Journal on Aging*, *35*(1), 115–129. https://doi.org/10.1017/S0714980815000598

Yuing Farías, T., Henríquez Flores, R., Pradanos Salomon, N., Cortés Villalobos, S., y Curilem Gatica, C. (2019). Efecto hipotensor agudo del ejercicio de oclusión vascular sobre adultos mayores. *Revista Internacional de Medicina y Ciencias de La Actividad Física y El Deporte*, 19(74), 197–208. https://doi.org/10.15366/rimcafd2019.74.002

Número de citas totales / Total references: 55 (100%) Número de citas propias de la revista / Journal's own references: 9 (16.3%)

Rev.int.med.cienc.act.fís.deporte-vol. X - número X - ISSN: 1577-0354