



Article

Health, Functional Ability, and Environmental Quality as Predictors of Life Satisfaction in Physically Active Older Adults

Rafael Zapata-Lamana ¹, Felipe Poblete-Valderrama ², Andres Ledezma-Dames ³, Patricia Pavón-León ⁴, Ana María Leiva ⁵, María Trinidad Fuentes-Alvarez ⁶, Igor Cigarroa ⁷ and María Antonia Parra-Rizo ^{8,9,*}

- Escuela de Educación, Universidad de Concepción, Los Ángeles 4440000, Chile; rafaelzapata@udec.cl
- Departamento de Ciencias del Deporte y Acondicionamiento Físico, Facultad de Educación, Universidad Católica de la Santísima Concepción, Concepción 4030000, Chile; fpoblete@ucsc.cl
- ³ Centro de Investigación en Gerontología Aplicada (CIGAP), Facultad de Salud, Universidad Santo Tomás, Antofagasta 1240000, Chile; aledezma@santotomas.cl
- ⁴ Instituto de Ciencias de la Salud, Universidad Veracruzana, Xalapa 91090, Mexico; ppavon@uv.mx
- Instituto de Anatomía, Histología y Patología, Facultad de Medicina, Universidad Austral de Chile, Valdivia 5090000, Chile; aleiva@uach.cl
- División Académica de Ciencias de la Salud, Universidad Juárez Autónoma de Tabasco, Villahermosa 86150, Mexico; trinidad.fuentes@ujat.mx
- Escuela de Kinesiología, Facultad de Salud, Universidad Santo Tomás, Los Ángeles 4440000, Chile; icigarroa@santotomas.cl
- Faculty of Health Sciences, Valencian International University—VIU, 46002 Valencia, Spain
- Department of Health Psychology, Faculty of Social and Health Sciences, Campus of Elche, Miguel Hernandez University (UMH), 03202 Elche, Spain
- * Correspondence: maria.parrar@umh.es

Abstract: The factors that make physically active older people feel more satisfied in adulthood have not been extensively studied. For this reason, the aim of this work has been to evaluate, among physically active older adults, whether the level of physical activity they perform and the factors that foster their quality of life can be predictors of their satisfaction with life. For this, the IPAQ, CUBRECAVI and LSI-A scales were applied to a sample of 397 people between 61 and 93 years old (M = 69.65, SD = 4.71). The results show that health (β = 0.373), functional abilities (β = 0.159) and environmental quality (β = 0.105) are predictors of satisfaction in the most active adults. In conclusion, neither physical activity (to a greater or lesser extent) nor income are predictive variables of satisfaction with life but, rather, predict some of the components that cement their quality of life (health, fending for themselves and the home environment).

Keywords: life satisfaction; elderly; health; functional ability; environmental quality; physical activity; income



Citation: Zapata-Lamana, Rafael,
Felipe Poblete-Valderrama, Andres
Ledezma-Dames, Patricia
Pavón-León, Ana María Leiva, María
Trinidad Fuentes-Alvarez, Igor
Cigarroa, and María Antonia
Parra-Rizo. 2022. Health, Functional
Ability, and Environmental Quality
as Predictors of Life Satisfaction in
Physically Active Older Adults.
Social Sciences 11: 265. https://
doi.org/10.3390/socsci11060265

Academic Editor: Nigel Parton

Received: 24 January 2022 Accepted: 8 June 2022 Published: 17 June 2022

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1. Introduction

The demographics of aging stems from two fundamental issues today: the low fertility rate and the increase in life expectancy. This latest matter indicates that 31.4% of the Spanish population in 2050 will be between 65 and 79 years old and 11.6% will be over 80 years old (National Institute of Statistics, INE 2020); this situation will make Spain one of the oldest countries in Europe, above Italy, Germany, the United Kingdom or France. In fact, the current life expectancy in the country (83 years for men and 86 for women) is exceeded only by Japan and Switzerland (INE 2020). This reality makes institutions related to this area and society in general consider how to deal with the problems that are generated in an increasingly aging society, as well as how aging can be addressed in a proactive way. In this regard, it is crucial to take into account existing population growth, studies and initiatives to avoid discriminating against older people (Fragoso and Fonseca 2022); therefore, it is of paramount importance to research the aging process.

For this reason, the World Health Organization (WHO) model of aging focuses on improving health, lifelong learning, and participation and safety, while providing a policy framework for aging where the central axis is to promote well-being and longevity (Hijas-Gómez et al. 2020). The aging process should also be linked to the role changes that take place in older people always from the perspective of active ageing, such as being an active citizen who contributes to improving their well-being and quality of life and makes social and political decisions (Del Barrio et al. 2018). In fact, the development of active aging is related to personal enrichment as well as the participation of older people in centers or universities, that is, in the social sustainability of aging by postponing the retirement age (Someya and Hayashida 2022).

However, faced with this longevity and life expectancy, it is necessary to know which factors influence satisfaction with life in older adults during the aging process.

In this way, most participants in this study perceived that good old age was related to being able to live in a healthy way and stay active (Hsien and Leng 2022) and with having the opportunity to participate in the life of their neighborhood, in local corner shops, in cultural activities, etc. They considered that living in this way has an impact on their psychological, social and emotional well-being (Domínguez-Parraga 2020). Additionally, living in highly urbanized areas and participating in fewer social activities were predictors of loneliness in a study of 8356 adults. In this study, people who were sightseeing or visiting amusement parks/zoos or in clubs reported feeling less lonely (MacDonald et al. 2020).

In this regard, subjective well-being is one of the main concepts in the sciences that study "the good life". In fact, Meléndez et al. (2008) indicate that well-being is an ingredient of quality of life and of successful aging as a subjective experience. This feeling of well-being comprises two components: an emotional or affective component related to feelings of pleasure and displeasure (happiness), and a cognitive component of the self-assessment of one's life events.

Therefore, it is relevant to analyze what are the elements that can improve the quality of life in the aging process. These factors include health, functional abilities or capacities, the quality of the home environment and income, all of which are discussed in this article, from the understanding of life satisfaction based on the multidimensional components of quality of life.

Health, obviously, generates satisfaction with life, as was concluded by the Survey on Health, Aging and Retirement in Europe (SHARE) carried out between 2007 and 2015 in 10 European countries, in which 41,258 people participated (Bussiere et al. 2021). In fact, health is a factor associated with satisfaction above socioeconomic factors (Soldevila-Domenech et al. 2021).

In relation to the effect of physical activity on life satisfaction, the bibliography consulted refers to the high or moderate intensity of this activity as an indicator of good satisfaction (An et al. 2020). Liang et al. (2021), with a sample of 2345 people who practiced moderate activity for 150–300 min per week or 75–150 min per week of high intensity in older adults in Taiwan, highlighted this question.

Income is also a relevant factor in quality of life. In this regard, Zielinska-Wieczkowska (2017) stated that financial situation has a significant impact on life satisfaction, which, in turn, has an impact on the development of the individual as well as the improvement of their socioeconomic status, which influenced successful and healthy aging in 320 Polish older adults. Furthermore, authors such as Capone et al. (2021), in a representative sample from Italy, also highlighted the importance of household income on life satisfaction, as it resulted in greater life satisfaction. Hu and Wang (2020); Okulicz-Kozaryn and Morawski (2021) obtained similar results, and Potter et al. (2020) linked worse health and low income with lower life satisfaction, as did Kieny et al. (2020).

Regarding functional ability, this capacity is part of autonomy and the activities of the daily living, that is, fending for oneself, and therefore is part of intrinsic capacity (sum of physical and mental capacities of the person) (Parodi and Runzer-Colmenares 2021).

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Several studies carried out with older adults relate to autonomy and activities for daily living, that is, fending for oneself. However, in the aging process and as a consequence of age, functional health deteriorates (Wettstein et al. 2020) and this health (physical/functional fitness) is related to greater satisfaction with life and healthy aging (Zurek et al. 2020). Thus, the existing relationship between low performance in physical grip strength tests and lower rates of life satisfaction has been pointed out (Potter et al. 2020). Along these lines, a recent study shows the correlation between frailty and lower satisfaction with life in 1205 Chilean older adults (Palomo-Vélez et al. 2020).

Furthermore, to explain satisfaction with life, the adaptive mechanisms derived from the experience of aging itself must also be taken into account, which, in turn, will generate an increasing level of well-being.

In addition, the overall quality of life of an older person depends on factors such as "quality of life" of certain environmental elements related to the home (temperature, furniture, comforts, or appliances), but this issue has not received enough attention from academia in Spain. In this regard, a recent study carried out with a sample of 1602 people over 65 years of age in Japan showed an association among well-being and home ownership and household organization (Hidaka et al. 2020). Authors such as Kazumasa (2019) also indicate that homes must be adapted to the needs of older people. Thus, housing seems to be of vital importance since it is where most time is spent; therefore, it is related to quality of life and health in older adults.

Thus, while in Spain this aspect does not receive enough consideration, in countries such as China, it has been intensively investigated (Mu et al. 2021a, 2021b; Lu 2021; Zhou et al. 2021). Despite the lack of studies on the importance of housing for health-related aging in Spain, an investigation (Amián et al. 2021) carried out with 714 older adults from the south of the country recently revealed this correlation, with decent housing in optimal habitability conditions being a necessity for better health of the elderly.

In conclusion, it should be noted that there are few scientific studies that predict the level of satisfaction with life based on the multidimensional components of quality of life in physically active older adults from 60 years of age without dementia or any other complex pathologies. In fact, there is little research that considers the importance of studying the environmental quality and general satisfaction with the home in relation to noise, temperature, lighting, furniture and comforts, despite the fact that the home is the space in which older adults spend most of their time.

Likewise, except for some studies (Meléndez et al. 2008, 2018), little is known about the predictors in the physically active elderly Spanish population and their satisfaction with life according to their levels of physical activity. This study could perhaps provide a predictive model of life satisfaction considering the main components of quality of life.

Therefore, the aim of this research study is to examine how, in physically active older people, level of physical activity, economic resources or income, quality of the home, functional capacity and health can predict the level of satisfaction with life.

2. Methodology

2.1. Participants

Initially, the sample was made up of 613 elderly people who attended sports and social centers or exercised in open spaces and sports areas. Of these, 89 participants did not return the completed questionnaires and 127 were excluded for the following reasons: the questionnaires were incomplete, contained inconsistencies or it was advisable to eliminate them after prior analysis of the data.

In this cross-sectional study, finally, 397 physically active elderly volunteers residing in Alicante (Spain) participated, 64.7% of which were women and 35.3% of which men. The mean age was 69.65 years (SD = 4.71). Regarding their marital status, 69.3% were married, 16.4% widowed, 8.2% single and 6.1% divorced; 31.6% of the participants lived alone.

For the selection of the sample, the following inclusion criteria were established: (1) being over 60 years old; (2) be physically active; (3) having been physically active for more

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than a year; and (4) giving informed consent. This data was obtained by asking how long subjects had been practicing physical activity on a regular basis. The exclusion criteria were: (1) not carrying out any type of physical activity; (2) being unable to read the questionnaires; (3) being under the age of 60.

In the health context, regarding tobacco habits, 91.6% did not smoke, 1.8% smoked between 1 and 5 cigarettes a day, 4.3% smoked between 6 and 20 cigarettes a day, 1.5% smoked more than 20 cigarettes a day and 0.8% smoked only on special occasions. Concerning alcohol consumption, 51.9% never drink, 21.1% drink sometimes in a week, 20.2% drink alcohol daily and 7.1% only drink on special occasions. Regarding diseases, 71.3% had no physical ailments and 87.9% lacked psychological ailments.

Of the participants, 12.3% perform low physical activity, 41.6% moderate physical activity and 46.1% high physical activity.

It should be noted that this study was carried out in physically active elderly people, without pathologies, and that they could understand and answer the questionnaires. Dementia has not been evaluated in this study. Moreover, all of them live in their homes or habitual residences, so they are not institutionalized elderly people, nor do they have cognitive pathologies.

2.2. Instruments

2.2.1. International Physical Activity Questionnaire, IPAQ, OMS

The Physical Activity Questionnaire (World Health Organization 2012) evaluates three types of physical activities: low intensity activities (walking), moderate intensity activities and high intensity activities. It also allows the classification of participants into three activity levels: 1 = low, 2 = moderate and 3 = high. These activity levels correspond to: <3 METs, 3–6 METs and >6 METs, respectively (Ainsworth et al. 2000). MET is an objective measure of the ratio of the rate at which a person expends energy, relative to that person's mass, while performing some specific physical activity compared to a reference, and is facilitated by the IPAQ questionnaire. Participants with high activity levels are those who practice at least one more hour of moderate intensity activity daily above the baseline activity level, or half an hour of a high intensity activity above the baseline daily levels (equivalent to 5000 steps per day). Participants with moderate activity levels are those who practice at least half an hour of physical activity of moderate intensity almost every day. Participants with low activity levels are those without moderate or high activity levels (Milanovi'c et al. 2015). The short version of the questionnaire used in this study asked participants to answer seven items related to the physical activity that they carried out during the past seven days (three of the items are quantified in days and four items in hours and minutes). The short version of the IPAQ has a reliability coefficient of 0.65 (rs = 0.76; 95% CI: 0.73-0.77). This questionnaire has recently been used in studies related to older adults (Liao et al. 2021).

2.2.2. Brief Questionnaire on Quality of Life, CUBRECAVI

This questionnaire consists of 21 subscales grouped into nine scales: health (subjective, objective and psychic health), social integration (satisfaction with coexistence, frequency of social relationships, satisfaction with social relationships), functional skills (functional autonomy, activities of daily life), activity and leisure (level of activity, frequency of activities, satisfaction with activities), environmental quality (satisfaction with environmental elements, general satisfaction with housing), satisfaction with life, education, income and social and health services (frequency of use of services, satisfaction with the use of services) It is based on the multidimensional concept of quality of life proposed by the WHO.

This questionnaire is highly recommended to assess quality of life (Fernández-Ballesteros and Zamarrón 2007). The participant assesses 71 items, almost all constructed according to Likert-type rating scales with 3, 4 or 5 response options, which assess the degree of satisfaction or the frequency of different aspects considered. The time to complete the questionnaire is approximately 20 min. The levels of internal consistency of the scales range

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between 0.70 and 0.92. This questionnaire was used recently to assess quality of life in older adults (Luque-Reca et al. 2018).

Five of the scales have been used in this study: health (score from 1 to 4), Functional abilities (score from 1 to 4), activity and leisure (score from 1 to 3.67), environmental quality (score from 1 to 3) and income (score from $1 \le \text{€}300$ to 9 > €2700). Higher scores imply a higher level of the dimension measured on each scale. The health scale assesses subjective health (satisfaction with one's state of health), objective health (frequency of having suffered physical symptoms selected from a list of 22 symptoms) and mental health (frequency of three psychological problems most common to older people: feeling depressed or distressed, having memory problems, and being disoriented or lost). The functional abilities scale measures the degree of independence that the individual maintains to function in their daily life and the specific difficulties that older people may have. The activity and leisure scale explores in which activities the person spends his or her time and the degree of satisfaction that carrying out such activities produces, the subject's level of physical activity, and how often they engage in leisure-related activities. The environmental quality scale assesses the level of satisfaction of the individual in relation to a series of objective aspects of their home or the residence in which they live, as well as their general satisfaction with it. The income scale measures monthly income.

2.2.3. Life Satisfaction Index, Index A

The Life Satisfaction Index (Adams 1969) has five aspects: enthusiasm, purpose and strength, congruence between desire and the real possibility of reaching goals, positive self-concept, and mood. The original LSIA scale consisted of 20 items, but was reviewed (Adams 1969) and reduced to 18 items through which participants must assess their level of conformity with score values ranging from 0 to 2 (0 = Disagree, 1 = Don't know and 2 = Agree). The questionnaire asks about items such as "My life could be happier than it is now"; "When I look back, I feel quite satisfied"; "I have achieved almost everything I expected from life". The scale score fluctuates between 0 and 36. The higher the score, the greater the satisfaction.

The internal consistency level of the scale is $\alpha = 0.74$. This scale has obtained good results when used with similar participants in other research studies (Cohen 1988). This questionnaire has recently been used to assess life satisfaction in older people (Phulkerd et al. 2021).

2.3. Procedure

The selection of the participants has been carried out in two settings in Alicante: in sports and social centers and in outdoor spaces for regular sports practice.

Thirty-eight centers were contacted, 18 of which agreed to collaborate. Attendees interested in participating were given a copy of the informed consent form and the questionnaire, which they completed individually after practicing physical activity.

In external sports practice areas, contact was made with people who met the inclusion requirements, and the study and its goals were explained to them. Those who wanted to participate were given an envelope with the questionnaire and informed consent form that they had to return completed at a later appointment set at that time.

This study was approved by the ethics committee of the Miguel Hernández University of Elche with reference DPS.MPR.01.20.

2.4. Data Analysis

Firstly, a descriptive and correlational analysis of the study variables has been carried out; given the lack of normality of the variables, the Spearman coefficient has been applied.

Secondly, to verify the predictive level of the components of the quality of life and the level of physical activity on the satisfaction with life of the physically active elderly, a multiple linear regression analysis was carried out using the method of successive steps.

The established significance value is <0.05.

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The data analyses were carried out with the SPSS statistical package, version 23.0. (IBM Corp., Armonk, NY, USA).

3. Results

Table 1 shows the results of the descriptive and correlation statistics for the variables of satisfaction, quality of life and physical activity. The results obtained indicated that all the components of quality of life of the study correlated positively and significantly with satisfaction with life (p < 0.001); likewise, the correlation of the physical activity variable with life satisfaction is also positive and significant (p < 0.05). Given the association between the variables shown in Table 1, a prediction model of these variables on satisfaction with life is generated.

Table 1. Mean, standard deviation and Spearman correlations of the variables of satisfaction with life, quality of life and physical activity of the participants.

	M	SD	1	2	3	4	5	6	7
1. Satisfaction with life	22.37	6.20	1						
2. Health	3.15	0.48	0.467 **	1					
3. Functional abilities	3.69	0.43	0.367 **	0.511 **	1				
4. Activity and leisure	2.80	0.44	0.244 **	0.324 **	0.346 **	1			
5. Environmental quality	2.96	0.09	0.211 **	0.314 **	0.077	0.222 **	1		
6. Income	5.40	2.21	0.219 **	0.243 **	0.401 **	0.248 **	0.039	1	
7. Physical Activity	2.34	0.69	0.121 *	0.087	0.217 **	0.434 **	0.053	0.129 *	1

Note: M = mean; SD = standard deviation; * p < 0.05; ** p < 0.01.

The multiple linear regression analysis (Table 2) shows that health, functional abilities and environmental quality predicted 25.3% of the explained variance of satisfaction with life in physically active elderly people. Health is the main predictor of life satisfaction ($\beta = 0.373$), followed by functional abilities ($\beta = 0.159$) and environmental quality ($\beta = 0.105$).

Table 2. Multiple regression analysis (successive stages) of life satisfaction with respect to quality of life and physical activity variables.

Model	Variables	В	β	R ²	R ² adjusted	t	F(gl ₁ , gl ₂)	T	VIF	D-W
1	Constant Health	2.789 6.212	0.483	0.233	0.231	10.961 **	F _(1, 395) = 120.153 **	1	1	
2	Constant Health Functional abilities	-1.924 5.251 2.100	0.408 0.145	0.249	0.245	8.009 ** 2.844 **	F _(2, 394) = 65.199 **	0.734 0.734	1.362 1.362	1.907
3	Constant Health Functional abilities Environmental quality	-23.454 4.794 2.303 7.497	0.373 0.159 0.105	0.259	0.253	7.037 ** 3.114 ** 2.311 *	F _(3, 393) = 45.724 **	0.672 0.724 0.914	1.487 1.382 1.094	

Note: T = tolerance; VIF = variance inflation factor; D-W = Durbin–Watson; * p < 0.05, ** p < 0.01.

In this model, the Durbin–Watson statistic obtained is close to 2, thus fulfilling the assumption of independence of the residuals. Furthermore, the VIF values and the tolerance statistics indicate that there are no collinearity problems.

Table 3 lists the variables that have been excluded in the steps to obtain the regression model according to the statistical significance criterion of the probability value associated with each variable.

Model	Variables	β_{dentro}	t	р	Parcial Correlation	T	VIF
1	Functional abilities	0.145	2.844	0.005 *	0.142	0.734	1.362
	Activity and leisure	0.125	2.675	0.008 *	0.134	0.873	1.145
	Environmental quality	0.088	1.934	0.054	0.097	0.927	1.078
	Income	0.108	2.403	0.017 *	0.120	0.944	1.060
	Physical Activity	0.057	1.291	0.198	0.065	0.984	1.017
2	Activity and leisure	0.100	2.079	0.038 *	0.104	0.825	1.212
	Environmental quality	0.105	2.311	0.021 *	0.116	0.914	1.094
	Income	0.080	1.712	0.088	0.086	0.875	1.142
	Physical Activity	0.040	0.888	0.375	0.045	0.962	1.040
3	Activity and leisure	0.084	1.747	0.081	0.088	0.805	1.242
	Income	0.076	1.630	0.104	0.082	0.874	1.144
	Physical Activity	0.038	0.849	0.396	0.043	0.962	1.040

Table 3. Variables excluded from the regression model.

Note: * p < 0.05.

4. Discussion

The purpose of this article is to analyze whether, in the physically active elderly, the level of physical activity, economic resources or income, quality of the home, functional capacity and health predict their level of satisfaction with life.

The results obtained indicate that, in a physically active population of older adults, the practice of physical activity does not predict satisfaction with life, although a positive association was found between physical activity and satisfaction with life in a correlation analysis. These results are in line with other studies that indicate that physical activity has a low, albeit significant, impact on the subjective well-being of older people, with the duration of the activity, followed by the frequency and intensity having the greatest effects in older adult Koreans (Won et al. 2020). Furthermore, the study by Weng et al. (2021), despite relating good physical and psychological health with the practice of physical activity in a sample of 2212 adults, did so in general terms. In fact, the regular practice of sports and strenuous activities is associated with low levels of depression and illnesses (Castello and Tubianosa 2020), but not with feeling more satisfied with life in physically active adults. In conclusion, the revised research (as well as this study) reveals that the practice of physical activity generates benefits in general health, but it is not clear if this fact results in feeling more satisfied with life.

On the other hand, our results indicate that income is not predictive of life satisfaction in active older adults either, although it also correlates with it; likewise, Lamu and Olsen (2016) revealed that income had a relative but not determining importance in satisfaction, and authors such as Cabiedes-Miragaya et al. (2021) pointed out the positive relationships between income and well-being, but not with satisfaction. In contrast, Okulicz-Kozaryn and Morawski (2021) did find a positive relationship between income and life satisfaction in older adults, having a beneficial effect similar to that of volunteering.

However, our research does show that functional skills have an impact on greater satisfaction with life in physically active older adults, specifically aspects such as carrying out activities outside the home and maintaining personal relationships, with the latter being a predictor of well-being.

Regarding fragility, various investigations have revealed the need to lessen the negative effects of fragility and functional impairment on health in relation to life satisfaction. Thus, Qin et al. (2020), in a study carried out with 7070 people over 60 years of age, suggest that participation and social integration play an important role in well-being and that maintaining a socially active life with social interactions is a source of support that can mitigate low levels of well-being. Nakagawa and Hülür (2021) reached the same conclusions in a 15-year longitudinal investigation carried out with a sample of 1119 Japanese adults with a mean age of 79 years. In this regard, it should be noted that the practice of physical activity encourages greater autonomy and functional capacity, which results in independence in

activities of daily life and fosters social ties (Parra-Rizo and Sanchís-Soler 2021). These same authors (Parra-Rizo and Sanchís-Soler 2020) add that functional skills, activities for daily living and functional autonomy are related to the level of physical activity that is practiced.

Our results also show that health is associated with higher satisfaction with life in older people, as also did the research by Zadworna (2020), who showed that general health behavior influenced life satisfaction. Similarly, Schilling et al. (2018), in a longitudinal study carried out in Amsterdam with a sample of 2310 older adults, indicated that health affects well-being, and authors such as Zaninotto and Steptoe (2019) found that health associated with greater satisfaction had an impact on a longer life expectancy. Along the same lines, Camacho et al. (2019), in their study carried out with 2200 Mexican adults, found that that health and interpersonal activities were related to greater satisfaction with life. In fact, Saunders et al. (2018) reported lower mortality when there were higher levels of satisfaction in 3987 people, since health allowed greater satisfaction with life and was a protective factor against morbidity and mortality (Steptoe 2019). Similarly, Papi and Cheragui (2021) recently revealed the importance of the various dimensions of health for greater life satisfaction in 679 older adults in Iran. Another author (Lou 2022) highlights the importance of the relationship that older people maintain with themselves, family, friends and the environment to achieve spiritual well-being and a meaningful life.

In our research, home conditions are also a predictor of life satisfaction. However, the quality of life linked to the home environment has barely been studied, nor have the mobility problems derived from architectural barriers (Daban et al. 2021).

On the limitations of this study, one of them is the impossibility of extrapolating the results to another age group or to a group with different characteristics. Specifically, the results obtained on income or functional skills for physically active people cannot be extrapolated to another sector of the population. It should be taken into account that the study participants were physically active and had similar incomes and therefore, the low variability of the variables could have made it difficult to find significant associations.

In addition, the small size of the sample in this publication suggests the value of conducting research with a larger sample. Furthermore, satisfaction with life is a variable with multifactorial causes and here, only some associated with quality of life and level of physical activity were measured; many others were missed, as they were unrelated to our research objectives, such as the influence of the family, among others. Furthermore, the correlational study design does not allow for causal inferences. Responses to self-reported questionnaires could also be influenced by social desirability.

Faced with these important limitations, however, it should be noted that the strength of the study lies in its peculiarity, that is, in understanding the relevant factors that determine life satisfaction in physically active older adults.

Likewise, it should be noted that the results of this study could have a positive effect on society in the form of programs and interventions that focus on improving the living environment, as well as designing activities that result in increased physical autonomy of older people through the development of their daily life activities.

Furthermore, as a theoretical application of this research to the scientific literature, the need to establish a theoretical model based on care with impact on greater well-being in social health centers, homes and families has been revealed. This care model should be based on health and the improvement of functional skills through physical activity, which allows, in turn, the improvement of functional capacity and care in a good environment. As a practical application, in this context, a predictive model has been generated that helps to understand the life satisfaction of active older adults. This information could be useful for physical and mental health professionals who work with older adults and wish to create programs to maintain and/or increase mental health indicators.

Another strength of this research, in our opinion, is that it shows that. for physically active people, regardless of the level of physical activity they practice (low, moderate or intense), the variables that are most related to well-being are ability to fend for themselves and carry out the activities of daily living independently from the age of 60, together with a

good environmental quality at home, which are scarcely studied in the literature, compared to the social relevance that is given nowadays to income or to the level of physical practice.

Therefore, one future line of research could be to carry out an intergenerational comparison to observe changes in the prediction of satisfaction with life in each age range (adolescents, young people, adults and the elderly) and perhaps make a comparison between sedentary people and active people, which would allow us to observe the relevance of these variables and better understand various aging processes.

5. Conclusions

This research shows that health, functional abilities and environmental quality of the home are predictive variables of satisfaction with life of older people who perform physical activity; while level of physical activity and income are elements that, although related, are not included as predictors of satisfaction with life in this population.

Specifically, this study suggests that taking care of the home (comfortable in terms of noise, temperature, furniture, etc.) is relevant to being satisfied with life in adulthood. In addition, health and functional capacity also result in satisfaction with life and these variables are most valuable for satisfaction in older adults.

Author Contributions: Conceptualization, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Data curation, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Formal analysis, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Funding acquisition Investigation, R.Z.-L.; Methodology, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Supervision, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Validation, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Writing—original draft, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Writing—review & editing, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R.; Writing—review & editing, R.Z.-L., F.P.-V., A.L.-D., P.P.-L., A.M.L., M.T.F.-A., I.C. and M.A.P.-R. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and was approved by the Institutional Review Board (or Ethics Committee) of Miguel Hernández University DPS.MPR.01.20.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The database is under the custody of the IP with anonymized data.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

Adams, Andrew. 1969. Analysis of a life satisfaction index. Journal of Gerontology 24: 470–74. [CrossRef] [PubMed]

Ainsworth, Barbara, William Haskell, Melicia Whitt, Melinda Irwin, Ann Swartz, and Scoott Strath. 2000. Compendium of physical activities: An update of activity codes and MET intensities. *Medicine & Science in Sports & Exercise* 32: 498–516. [CrossRef]

Amián, Josue, David Alarcón, Cristina Fernández-Portero, and Jose Sánchez-Medina. 2021. Aging living at home: Residential satisfaction among active older adults base don the perceived home model. *International Journal of Environmental Research and Public Health* 18: 8959. [CrossRef]

An, Hsin Yu, Wei Chen, Cheng-Wei Wang, Hui-Fei Yang, Wan-Ting Huang, and Sheng-Yu Fan. 2020. The relationships between physical activity and life satisfaction and happiness among Young, middle-aged, and older adults. *International Journal of Environmental Research, and Public Health* 17: 4817. [CrossRef]

Bussiere, Clémence, Nicolas Sirven, and Philippe Tessier. 2021. Does ageing alter the contribution of health to subjective well-being? *Social Science & Medicine* 268: 113456. [CrossRef]

Cabiedes-Miragaya, Laura, Cecilia Diaz-Mendez, and Isabel Garcia-Espejo. 2021. Well-being and the lifestyle habits of the spanish population: The association between subjective well-being and eating habits. *International Journal of Environmental Research and Public Health* 18: 1553. [CrossRef]

Camacho, David, Yookyong Lee, Anindita Bhattacharya, Laura Vargas, Laura Kimberly, and Ellen Lukens. 2019. High life satisfaction: Exploring the role of health, social integration and perceived safety among Mexican midlife and older adults. *Journal of Gerontological Social Work* 62: 521–42. [CrossRef]

- Capone, Vincenza, Mohsen Joshanloo, and Heinz Scheifinger. 2021. Predictors of life satisfaction in a large representative sample from Italy. *Current Psychology* 40: 3609–27. [CrossRef]
- Castello, Judit Vall, and Charisse Tubianosa. 2020. Linking mediterranean diet and lifestyle with cardio metabolic disease and depressive symptoms: A study on the elderly in europe. *International Journal of Environmental Research and Public Health* 17: 7053. [CrossRef]
- Cohen, Jacob. 1988. Statistical Power Analysis for the Behavioral Sciences, 2nd ed. Hillsdale: Lawrence Erlabaum Associates.
- Daban, Ferran, Irene García-Subirats, Victoria Porthé, María José López, Begoña De-Eyto, Isabel Pasarín, Carmen Borrell, Lucía Artazcoz, Anna Pérez, and Elia Díez. 2021. Improving mental health and wellbeing in elderly people isolated at home due to architectural barriers: A community health intervention. *Atención Primaria* 53: 102020. [CrossRef]
- Del Barrio, Elena, Sara Marsillas, Tine Buffel, An-Sofie Smetcoren, and Mayte Sancho. 2018. From active aging to active citizenship: The role of (age) friendliness. *Social Science* 7: 134. [CrossRef]
- Domínguez-Parraga, Lidia. 2020. The effects of gentrification on the elderly: A case study on the city of Cáceres. *Social Science* 9: 154. [CrossRef]
- Fernández-Ballesteros, Rocío, and María Dolores Zamarrón. 2007. CUBRECAVI Cuestionario Breve de Calidad de Vida. Madrid: TEA Ediciones.
- Fragoso, Antonio, and Josélia Fonseca. 2022. Combating Ageism through adult education and learning. *Social Science* 11: 110. [CrossRef] Hidaka, Tomoo, Shota Endo, Hideaki Kasuga, Yusuke Masuishi, Takeyasu Kakamu, Koichi Abe, and Tetsuhito Fukushima. 2020. Associations of combinations of housing tenure status and household structure with subjective happiness among community-dwelling elderly people: A cross-sectional study with stratified random sampling. *Geriatrics and Gerontology International* 20: 615–20. [CrossRef]
- Hijas-Gómez, Ana Isabel, Alba Ayala, M. P. Rodríguez-García, Carmen Rodrígez-Blázquez, V. Rodríguez-Rodríguez, Fermina Rojo-Pérez, Gloria Fernández-Mayoralas, A. Rodríguez-Laso, Amaia Calderón-Larrañaga, and M.J. Forjaz. 2020. The WHO active ageing pillars and its association with survival: Findings from a population-based study in Spain. *Archives of Gerontology and Geriatrics* 90: 104114. [CrossRef] [PubMed]
- Hsien, Hui, and Leng Leng. 2022. Active aging through later life and afterlife planning: Shukatsu in a super-aged Japan. *Social Science* 11: 3. [CrossRef]
- Hu, Anning, and Yihong Wang. 2020. Multi-track pension system and life satisfaction of urban elders in China. *Ageing and Society* 40: 1887–905. [CrossRef]
- Instituto Nacional de Estadística (INE). 2020. Proyecciones de población 2020–2070. Press Release 22 September 2020. Madrid: INE.
- Kazumasa, Yamada. 2019. An acquaintance with an aging society. Social Science 8: 110. [CrossRef]
- Kieny, Clémence, Gabriela Flores, Michael Ingenhaag, and Jürgen Maurer. 2020. Healthy, wealthy, wise, and happy? Assessing age differences in evaluative and emotional well-being among mature adults from five low-and middle income countries. *Social Indicators Research* 160: 1–32. [CrossRef]
- Lamu, Admassu, and Jan Abel Olsen. 2016. The relative importance of health, income and social relations for subjective well-being: An integrative analysis. *Social Science and Medicine* 152: 176–85. [CrossRef] [PubMed]
- Liang, Chyi, Pei-Ling Wu, Po-Fu Lee, and Chien-Chang Ho. 2021. Association of regular leisure-time physical activity with happiness among middle-aged and older adults in Taiwan. *International Journal of Environmental Research and Public Health* 18: 8175. [CrossRef] [PubMed]
- Liao, Yi-Hsueh, Tung-Wei Kao, Tao-Chun Peng, and Yaw-Wen Chang. 2021. Gender differences in the association between physical activity and health-related quality of life among community-dwelling elders. *Aging Clinical and Experimental Research* 33: 901–8. [CrossRef]
- Lou, Vivian. 2022. Meaningful aging: A relational conceptualization, intervention, and its impacts. *Social Science* 11: 10. [CrossRef] Lu, Shiyu. 2021. Perceived housing conditions, home satisfaction, control beliefs over aging experience, and life satisfaction among chinese older adults: A path analysis study. *Journal of Aging and Environment* 35: 88–105. [CrossRef]
- Luque-Reca, Octavio, Manuel Pulido-Martos, Esther Lopez-Zafra, and José Augusto-Landa. 2018. The importance of emotional intelligence and cognitive style in institutionalized older adults' quality of life. *Journal of General Psychology* 145: 120–33. [CrossRef]
- MacDonald, Kristi, Gonneke Willemsen, Dorret Boomsma, and Julie Schermer. 2020. Predicting loneliness from where and what people do. *Social Science* 9: 51. [CrossRef]
- Meléndez, Juan, Ana Isabel Agustí, Iraida Delhom, María Fernanda Reyes, and Encarnación Satorres. 2018. Subjective and psychological well-being: Young and older adults comparison. *Summa Psicológica* 15: 18–24. [CrossRef]
- Meléndez, Juan Carlos, José ManuelTomás, and Esperanza Navarro. 2008. Análisis del bienestar en la vejez según la edad. *Revista Española de Geriatría y Gerontología* 43: 90–95. [CrossRef]
- Milanovi'c, Zoran, Goran Sporis, and Matthew Weston. 2015. Efectiveness of high-intensity interval training (HIT) and continuous endurance training for VO2max improvements: A systematic review and meta-analysis of controlled trials. *Sports Medicine* 45: 1469–81. [CrossRef]

Mu, Jingyi, Shanshan Zhang, and Jian Kang. 2021a. Estimation of the quality of life in housing for the elderly based on a structural equation model. *Journal of Housing and the Built Environment*. in press. [CrossRef]

- Mu, Jingyi, Shanshan Zhang, and Yue Wu. 2021b. The influence of physical environmental factor son older adults in residenctial care facilities in northeast China. *Health Environments Research and Design Journal* 2021: 19375867211036705. [CrossRef]
- Nakagawa, Takeshi, and Gizem Hülür. 2021. Social integration and terminal decline in life satisfaction among older Japanese. *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 75: 2122–31. [CrossRef] [PubMed]
- Okulicz-Kozaryn, Adam, and Leszek Morawski. 2021. A similar effect of volunteering and pensions on subjective wellbeing of elderly. *Economics and Sociology* 14: 11–39. [CrossRef] [PubMed]
- Palomo-Vélez, Gonzalo, Fracisco García, Diego Arauna, Carmen Muñoz-Mendoza, Eduardo Fuentes, and Iván Palomo. 2020. Effects of frailty status on happiness and life satisfaction: The mediating role of self-perceived health. *Revista Latinoamericana de Psicología* 52: 95–103. [CrossRef]
- Papi, Shahab, and Maria Cheragui. 2021. Multiple factors associated with life satisfaction in older adults. *Przeglad Menopauzalny* 20: 65–71. [CrossRef]
- Parodi, Jose, and Fernando Runzer-Colmenares. 2021. Impact of social support on limited mobility in older people in high Andean communities in Peru. *Pan American Journal of Public Health* 45: e88. [CrossRef]
- Parra-Rizo, María Antonia, and Gema Sanchís-Soler. 2020. Satisfaction with life, subjective well-being and functional skills in active older adults base don their leve lof physical activity practice. *International Journal of Environmental Research and Public Health* 17: 1299. [CrossRef]
- Parra-Rizo, María Antonia, and Gema Sanchís-Soler. 2021. Physical activity and the improvement of autonomy, functional ability, subjective health, and social relationships in women over the age of 60. *International Journal of Environmental Research and Public Health* 18: 6926. [CrossRef]
- Phulkerd, Sirinya, Sasinee Thapsuwan, Aphichat Chamratrithirong, and Rossarin Gray. 2021. Influence of healthy lifestyle behaviors on life satisfaction in the aging population of Thailand: A national population-based survey. *BMC Public Health* 21: 1–10. [CrossRef]
- Potter, Sophie, Johanna Drewelies, Jenny Wagner, Sandra Duezel, Annette Brose, Ilja Demuth, Elisabeth Steinhagen-Thiessen, Ulman Lindenberger, Gert Wagner, and Denis Gestorf. 2020. Trajectories of multiple subjective well-being facets across old age: The role of health and personality. *Psychology and Aging* 35: 894–909. [CrossRef]
- Qin, Wenzhe, Lingzhong Xu, Long Sun, Jiajia Li, Gan Ding, Qian Wang, Jiao Zhang, and Hui Shao. 2020. Association between frailty and life satisfaction among older people in Shandong, China: The differences in age and general self-efficacy. *Psychogeriatrics* 20: 172–79. [CrossRef] [PubMed]
- Saunders, Gretchen, Irene Elkins, Kaare Christensen, and Matt McGue. 2018. The relationship between subjective well-being and mortality within discordant twin pairs from two independent simples. *Psychology and Aging* 33: 439–47. [CrossRef] [PubMed]
- Schilling, Oliver, Dorly Deeg, and Martijn Huisman. 2018. Affective well-being in the last years of life: The role of health decline. *Psychology and Aging* 33: 739–53. [CrossRef] [PubMed]
- Soldevila-Domenech, Natalia, Carlos Forero, Itxaso Alayo, Jordina Capella, Joan Colom, Davide Malmusi, Anna Mompart, Philippe Mortier, Beatriz Puértolas, Néstor Sánchez, and et al. 2021. Mental well-being of the general population: Direct and indirect effects of socioeconomic, relational and health factos. *Quality of Life Research* 30: 2171–85. [CrossRef]
- Someya, Yoshiko, and Cullen Hayashida. 2022. The past, present and future direction of government-supported active aging initiatives in Japan: A work in progress. *Social Science* 11: 65. [CrossRef]
- Steptoe, Andrew. 2019. Investing in happiness: The gerontological perspective. Gerontology 65: 634-69. [CrossRef]
- Weng, Chie Weng, Wei Chen, Chen Wang, Hui Yang, Jian Wang, Wan Huang, and Sheng Fan. 2021. Relationships between physical activity, age, and self-rated physical and psychological health in community-dwelling adults. *Taiwan Journal of Public Health* 40: 100–10. [CrossRef]
- Wettstein, Markus, Svenja Spuling, and Anja Cengia. 2020. Trajectories of functional health and its associations with information processing speed and subjective well-being: The role of age versus time to death. *Psychology and Aging* 35: 190–203. [CrossRef]
- Won, Doyeon, Jung-Sup Bae, Hyun Byun, and Kwang-Bong Seo. 2020. Enhancing subjective well-being through physical activity for the elderly in Korea: A meta-analysis approach. *International Journal of Environmental Research and Public Health* 17: 262. [CrossRef]
- World Health Organization. 2012. IPAQ. International Physical Activity Questionnaire (Versión 2.0. Español). Available online: http://www.who.int/chp/steps/instrument/es/index/html (accessed on 8 June 2022).
- Zadworna, Magdalena. 2020. Healthy aging and the University of the Third Age–Health behavior and subjective health outcomes in older adults. *Archives of Gerontology and Geriatrics* 90: 104126. [CrossRef]
- Zaninotto, Paola, and Andrew Steptoe. 2019. Association between subjective well-being and living longer without disability or illness. [CrossRef] [PubMed]
- Zhou, Kui, Jing Tan, and Kojiro Watanabe. 2021. How does perceived residential environment quality influence life satisfaction? Evidence from urban China. *Journal of Community Psychology* 49: 2454–71. [CrossRef] [PubMed]
- Zielinska-Wieczkowska, Halina. 2017. Correlations between satisfaction with life and selected personal resources among students of universities of the third age. *Clinical Interventions in Aging* 12: 1391–99. [CrossRef] [PubMed]
- Zurek, Grzegorz, Ewelina Lepsy, Alina Zurek, Alina Radajewska, Kuba Pataszkoeski, and Magdalena Golachowska. 2020. The relationships between the leve lof physical activity, Independence in daily activities, and life quality and satisfaction in women over 80 living in rural áreas—A pilot study. Roczniki Panstwowego Zakladu Higieny 71: 171–80. [CrossRef] [PubMed]