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Psychological well-being and perceived life satisfaction, physical activity and sport and people mature adult and the elderly

Bienestar psicológico y satisfacción vital percibida, actividad física y deporte y personas adultas maduras y mayores

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Palabras clave

- Actividad física
- Ejercicio, calidad de vida
- Análisis unfolding
- Personas mayores
- Deporte

Resumen

El objetivo principal de nuestra investigación es entender las diferentes percepciones de las personas mayores sobre su bienestar y satisfacción de la vida de acuerdo con los deportes que practican o el ejercicio que realizan regularmente. Analizamos de forma específica las posibles relaciones o asociaciones dentro de diferentes aspectos del bienestar psicológico y la satisfacción de la vida percibida, teniendo en cuenta la intensidad de su actividad física y deporte y los motivos por los que los practica. Los datos se han obtenido a partir de un estudio realizado en el municipio de Dos Hermanas (Sevilla), tomando una muestra de población de 419 personas mayores de 54 años, seleccionada por muestreo estratificado, por cuotas, con afición proporcional y un nivel de confianza del 95%. En el estudio se examinan las asociaciones que existen entre 14 declaraciones que evalúan el bienestar psicológico y la satisfacción de vida y 5 categorías de realización de deporte mediante un análisis unfolding. Los principales resultados de nuestro estudio ilustran cómo las personas mayores que practican deporte regularmente y muestran interés en ellas declaran que se sienten bien consigo mismas, pueden lograr cada desafío, establecen metas que dan sentido a sus vidas, tienen amigos en los que pueden confiar y sienten plena satisfacción con su vida actual.

Key words

- *Physical activity*
- *Exercise*
- *Quality of life,*
- *Unfolding analysis,*
- *Elderly,*
- *Mature adult stage*
- *Sport*

Abstract

The main objective of our research is to understand the different perceptions of elderly people and individuals in the mature adult stage on their well-being and life satisfaction according to the sports they practice or the exercise they regularly do. We analyze specifically the possible relationships or associations within different aspects of psychological well-being and perceived life satisfaction, taking into account the intensity of their physical activity and sport. The data have been obtained from a study carried out in the municipality of Dos Hermanas (Seville), on a population sample of 419 people over 54 years of age, selected by stratified sampling by quotas with proportional affixation and a confidence level of 95 %. Our analysis examines the associations within five categories using an unfolding model. The perception of psychological well-being and life satisfaction has been assessed by 14 statements. The main results of our study illustrate how elderly people who practice sports regularly and show an interest in them declare they feel good about themselves, can accomplish every challenge, set themselves goals that give meaning to their lives, have friends they can trust and feel full satisfaction with their current life.

Introduction

Nowadays, life expectancy in better health is increasing more and more. However, a longer life also implies higher possibilities of suffering life-limiting diseases and dysfunctions (Bazo, 1998 and Villar, Triadó, Solé, and Osuna, 2003).

This increase in life expectancy has provoked an evolution in the concept of satisfactory aging: from the WHO definition of "healthy aging" in 1990, focused on health, to the concept of "active aging" in 2002, based on the dynamic lifestyle. Zamarrón (2007) defined "active aging" as the process of optimizing opportunities for health, participation and security in order to improve the quality of life of aging people.

Both "healthy" and "active" aging involve significant changes in the lives of people; they will be healthy as long as their needs can be met (Espinosa and Libreros, 1995). These needs are, as Marín and García (2004) pointed out, emotional well-being, social support and physical health.

According to Moscoso, Moyano et al. (2009) the conception of health as the absence of diseases is something that has already been overcome, this being a more global concept that encompasses areas such as physical, social, life habits, health status, the health system available, and perceived health. Of all of them, this last concept is defined as "the perception that individuals have of their own health". This new concept has become one of the two indicators related to the well-being of the person and a good predictor of mortality. In fact, these same authors recommend the inclusion of a question in the surveys in which people assess their own health given the information it offers. The other indicator related to well-being is active lifestyle. The active lifestyle is associated with whether or not a person does physical activity, which is understood to mean both the regular practice of a sport and other physical activities such as walking.

The American College of Sport Medicine (2011) considers that these activities should be carried out with a duration of 20/60 minutes, 3 to 5 days a week with a low / moderate intensity.

Fox (1999) states that, through aerobic exercise, psychological aspects such as self-esteem, self-perception and anxiety reduction can be improved.

Therefore, in order to benefit from "healthy aging", not only is it important to enjoy a state of physical health but also to have a certain level of social and psychological well-being (Castellón-Sánchez and Romero, 2004). Taking into account the previous assertions, Molina, Melendez and Navarro (2008) consider that, when working to improve the quality of life of the elderly, intervention should not only focus on better procedures dealing with physical health but also with psychological variables.

There are numerous studies that carry out an X-ray of the physical-sporting habits of the population that they analyze in different territorial and specific population groups such as women, adolescents or the elderly. (Graupera, Martínez del Castillo, Martín, 2003; Martínez del Castillo, Jiménez-Beauty, Graupera, Rodríguez, 2006; Pieto-Flores et al, 2008). In Spain, and regardless of the group that we analyze, we always reach the same conclusion: "Spanish society is at the forefront of Europe in terms of the rate of physical inactivity per inhabitant, and on the other hand, there is a growing interest in physical activity and sport both in its practical and entertainment aspects" (Moscoso, Moyano et al. 2009, p.72)

Finally, before concluding this introductory section, note that the relationship between physical activity and subjective well-being has been analyzed in different research studies, concluding that physical activity has a positive impact on subjective well-being both in healthy subjects (Hong and Dimsdale, 2003; Miller, 2005) and chronically ill subjects with heart problems (Koukouvou et al., 2004), regardless of the benefits of aerobic training. That is, the sense of subjective well-being is more related to the subjects' feelings about the physical experience of exercise they practice than to the effective improvement of their physical condition.

Objectives and Methodology

The main objective of our research is to understand the different perceptions of elderly people and individuals in the mature adult stage on their well-being and life satisfaction according to the sports they practice or the exercise they regularly do. Our goal is to study whether the lifestyle they lead, as far as exercise is concerned, can positively affect the perception of greater psychosocial aspects.

With this type of data, different agents can benefit from the information needed to develop effective action plans targeting prevention, information or improvement in order to facilitate good psychosocial conditions of the elderly residents of a municipality. The tool used to collect the information was the Dos Hermanas Sports Habits Questionnaire (Porras et al 2013), which had already been used in the same population and the Satisfaction Life Scale (Diener, Emmons, Larsen and Griffin, 1985; and Spanish adaptation of Pons, Atienza, Balaguer y García-Merita 2002).

In the analysis conducted, the study population

is made up of subjects of both gender living in the municipality of Dos Hermanas (Seville, Spain), aged over 54 years old. This age range is taken because not only did we want to have information on the elderly (+65 years) but also individuals in the mature adult stage, since they usually have consolidated incomes and suffer important body changes that they have to know how to manage so that they do not affect their perception of quality life and satisfaction.

To analyze the possible differential characteristics that can be presented in the varied distribution of households (in this case, districts), the method has been selected through stratified sampling by quotas with proportional affixation (a sample proportional to the population size of the district), using gender and age groups. The framework used was derived from the population distribution and its census after a stratification in 5 districts. A simple random sampling was done using a random selection of sample points in each district (see Annex I).

To calculate the necessary sample size for this study we have set at 4% maximum allowable error and a confidence level of 95%. The sample size consists of 419 individuals. 14 statements related to the perception of psychological well-being and perceived life satisfaction according to their current state of exercise and sport practice have been measured.

To study the preferences provided by the elderly people of the village of Dos Hermanas (Seville) and their sport habits, we have chosen multidimensional unfolding models, since they provide a graphical representation allowing us to study jointly the 14 psychological items; they measure the perception of well-being and life satisfaction in terms of the categories in sport practice through generated perceptual maps.

Given this statistical technique aims at sets based on geometric distances, significant advantages can be drawn over other techniques with graphical representations that are not so simple to interpret. It must be noted that the difficult process and calculation of the unfolding technique has generally provoked its underestimation and, consequently, its lack of use. However, at present, both researchers and users have the possibility to discover the full potential of this technique thanks to statistical programs such as SPSS v.20.

One of the weaknesses of the analysis of preferences is that the initial assumption of homogeneity of perception of the subjects must be met. That is, all individuals are assumed to have the same perception process so that the results obtained can be attributed to differences in preferences or perceptions of the elderly and individuals in the mature adult stage.

Unfolding models are based on transforming personal or group judgments (either on similarity or preference) in distances, represented in a multidimensional space, creating a perceptual map, and making comparisons across objective and perceived (or subjective) dimensions. They differ from cluster or factor analyses in that the theoretical value is not used; in addition, a solution can be obtained for every individual.

Coombs and Kao (1960) and Coombs (1964) began to observe the unfolding metric method using a principal component analysis on the correlation matrix obtained from correlations between pairs of scales I. Ross and Cliff (1964) assumed a more extensive technique and Schönemann (1970) found an algebraic solution for the metric unfolding.

If N individuals who value M statements producing the i-esim individual dissimilarities Δ_{ij}, we then assume that (N + M) points are plotted in a p-dimensional Euclidean space where each individual and each stimulus or statement is represented by one of the points.

The coordinates of the points drawing individuals will be X_i with (i = 1,2, ..., N) and the coordinates of the points representing statements will be X_j with (j = 1, 2, ..., M). Thus, the distance between points X_i (i-th individual) and X_j (j-th stimulus) will be "d_{ij}".

The greatest difficulty of metric unfolding is to find a configuration so that d_{ij} distances best represent the dissimilarities Δ_{ij}.

To verify the initial hypothesis that there are significant differences in the means of the assertions studied, measuring the perception of well-being and life satisfaction, a non-parametric Mann-Whitney U contrast has been used, given the Normality hypotheses, checked with the Shapiro-Wilk test, are not met in any of the subpopulations analyzed.

In addition, we have studied the possible association between psychosocial variables studied with the chi-square test of independence and Fisher's exact test, when necessary.

All hypothesis tests were performed at a significance level of 5%.

Results Analysis

Sport Practice versus Perception of Psychological Well-being

First, we have studied the average ratings of 14 statements (see annex II) that attempt to measure satisfaction in the well-being of elderly people's lives, performing a segmentation in this population through the five sports categories considered in the study: "I am interested in sports and practice them regular-

ly", "I am uninterested in sports but do exercise on prescription", "I am interested in sports but I practice them less than I would like to", "I am interested in sports but currently I don't practice any", and finally, "I don't practice sports at all".

As can be seen the physical activity is a factor that increases psychological well-being; people who exercise regularly have higher average rating on the statements on feeling good about themselves, setting themselves goals that give meaning to their lives and positive feelings to accomplish challenges. However, people who do not exercise declare, with higher value means, feeling isolated or having a ever-changing opinion, under pressure.

To be noted is the great heterogeneity of average response in individuals who are not interested in sports but do exercise on prescription, and the homogeneity of M4 and M6 items in all categories (see figure 1). For this reason, these two variables were eliminated from unfolding study.

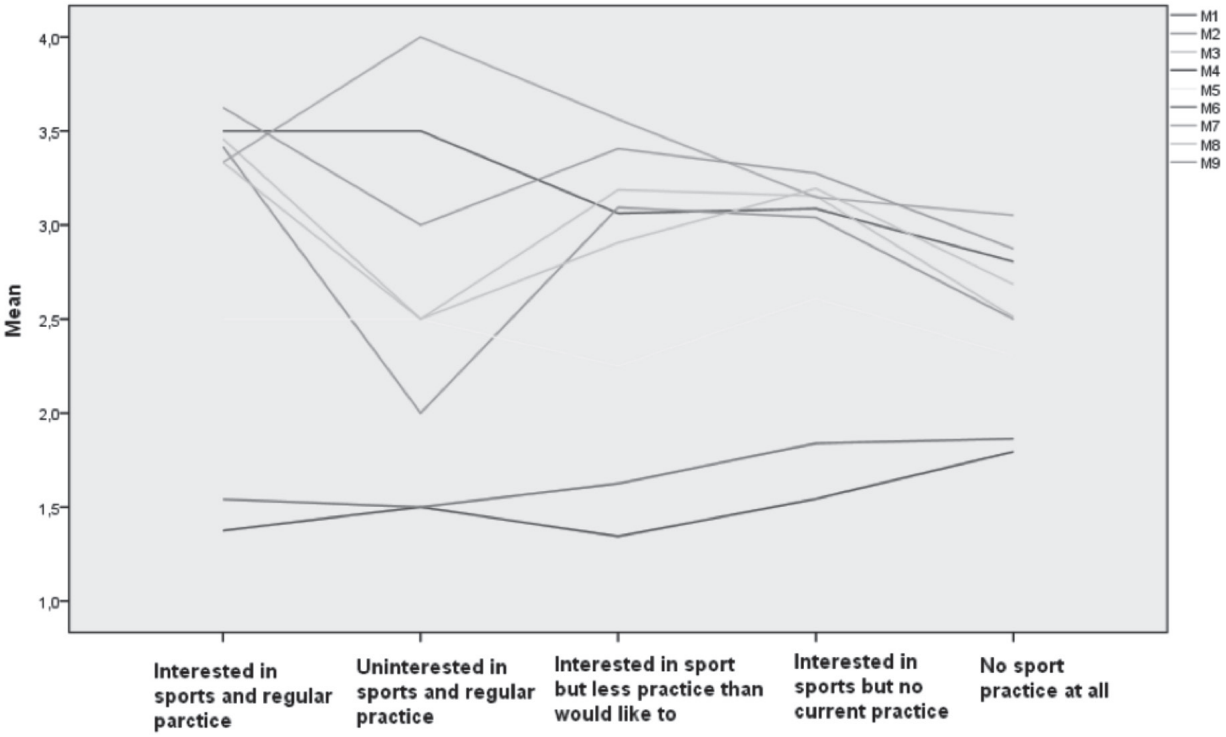

Figure 1: Mean scores in perceived psychological well-being according to sports category

To corroborate statistically this heterogeneity in the mean scores according to sport practice, a nonparametric H Kruskal-Wallis test has been applied. It confirms that populations are not homogeneous; in fact, all groups obtained p-values less than 0.000. Since neither normality nor homogeneity of variance have been verified, ANOVA has not been performed.

Once that, according to types of sports and reasons for practicing them, significant differences in the mean scores of well-being satisfaction have been confirmed, a multivariate unfolding analysis has been carried out in order to study different perceptions and potential groupings among the elderly and individuals in the mature adult stage.

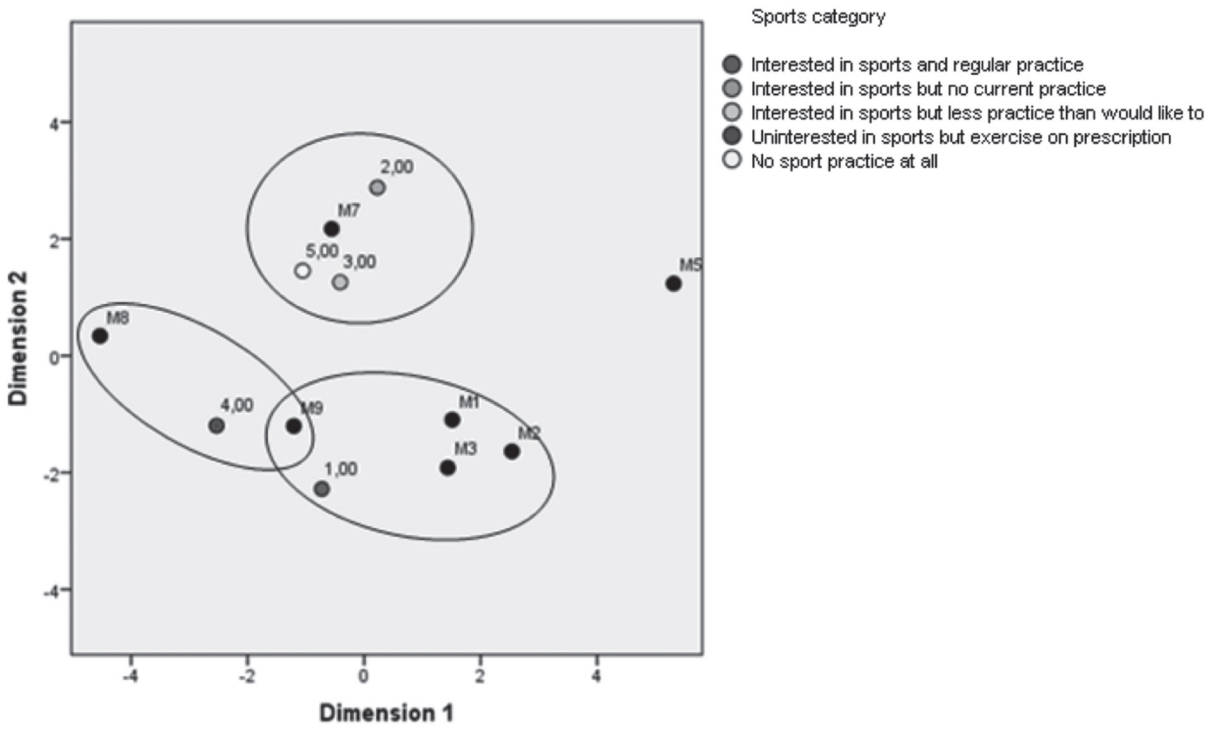

Figure 2: Unfolding Model for psychological well-being according to sports category

This study reveals (see Figure 2) that people who practice sports regularly and show an interest in them declare they feel good about themselves, can accomplish every challenge, set themselves goals that give meaning to their lives and have friends they can trust.

Furthermore, elderly people and individuals in the mature adult stage who do exercise on prescription, who do not practice any sports or who are interested but do not practice them as much as they would like, can been seen in the graph close to the M7 statement: I decide on my own things.

Finally, a third group is made up of the largest group, elderly people who are interested in sports, have practiced them but currently they do not. To a greater extent they perceive that they can love and be loved, and have friends they can trust.

When studying the validity indices obtained in the unfolding model, it can be seen how the algorithm converges to the solution after 287 iterations, with a final penalized stress of 0.246. The coefficient of Kruskal's Stress-I is a measure of goodness of fit of the model and takes the value of 0.0560. This suggests that it is not a degenerate solution. In this sense, the intermixing index DeSarbo takes a value close to zero and the no degeneration approximated index of Shepard is sufficiently high, 0.7619, indicating that the different distances percentage is close to 77%, a fairly high percentage.

Sport practice versus perception of life satisfaction

As in our psychological well-being analysis, it can be observed that physical activity affects people's vital perceptions, since they show higher average rating on positive affirmations related to life satisfaction.

In this case, most elderly people and individuals in the mature adult stage who practice sports regularly declare to be happy with their lives, using expressions such as "If I could live my life over again, I would like it to be the way it has been so far," or "In most respects, my life is as I would like it to be." In contrast, those who are not physically active, state they are not happy with their lives in general or do not like everything surrounding their lives (see figure 3).

Again, the differences in the means of the five statements forming this group that measures life satisfaction (see annex II) are statistically significant according to the nonparametric Kruskal-Wallis H-test and its associated sample contrasts, with p-values obtained less than 0.000 in all cases.

People who show interest in sports and practice them sufficiently present ratings above average in statements M10, M11 and M13, yet have very low values in statements M12 and M14.

It is also noticeable that elderly people who are not interested in sports but either do exercise on prescription or do not practice them, have a higher average in negative statements such as M12 and M14, which shows a lower degree of perception of life satisfaction.

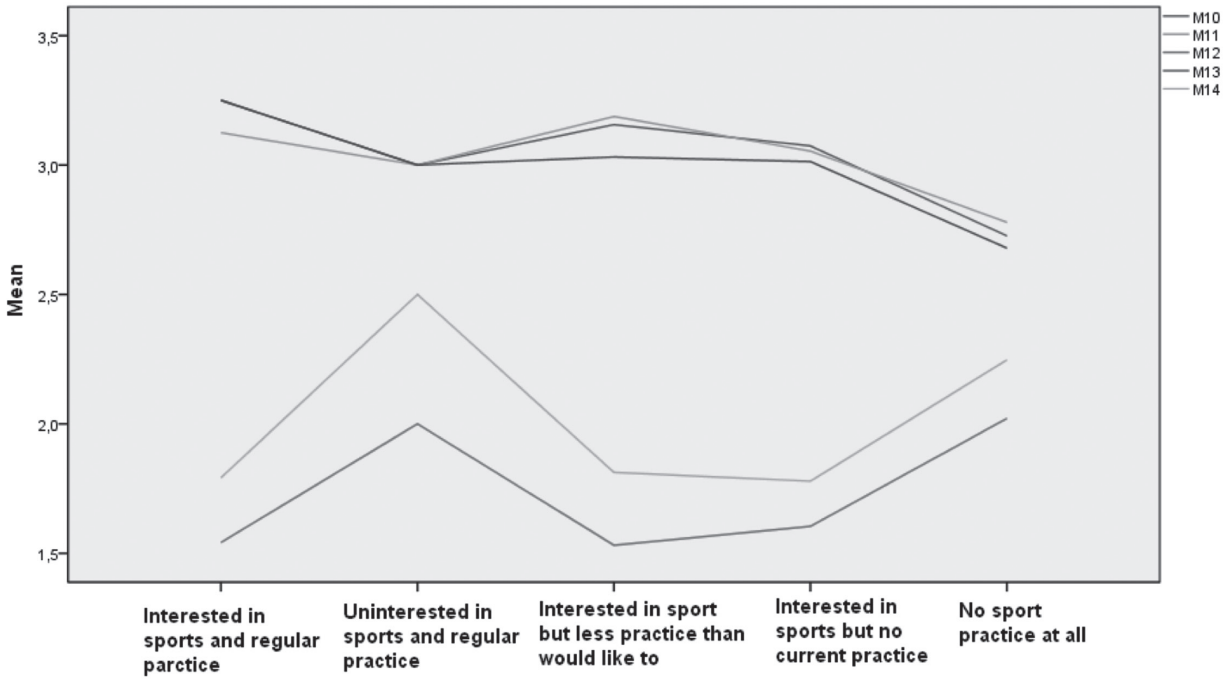

Figure 3: Mean scores in perceived life satisfaction according to sports category

People who are interested in and practice sports differ from the rest. This is one of the conclusions of an Unfolding analysis of the study of the preferences of the five statements of life satisfaction group is shown graphically. On one hand, there is a group of those who are interested in sports and practice them sufficiently (see Figure 4), and who show a greater preference for statement M13 "If I could live my life over again, I would like it to be the way it has been so far". This demonstrates that individuals who practice sports on their own initiative are fully satisfied with their lives. A second group consists of those who do not practice sports or do exercise on prescription. This group of people perceive that their lives are, in most respects, as they would like them to be.

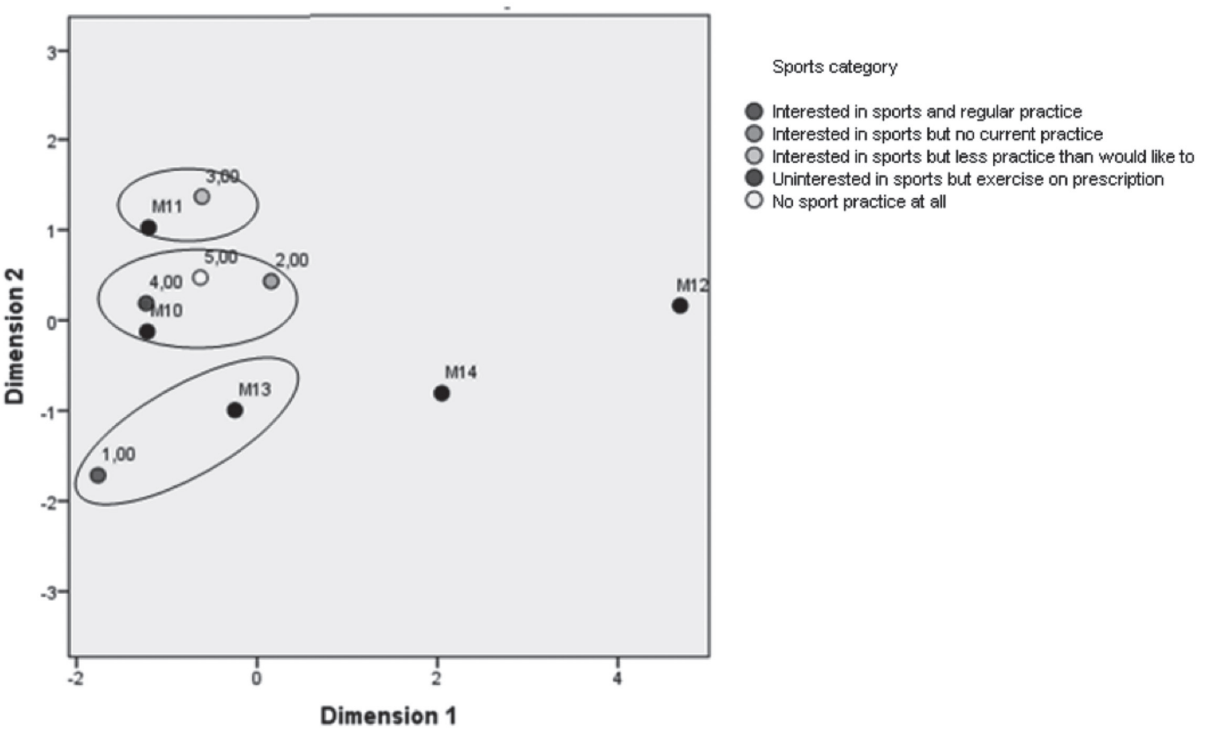

Figure 4: Unfolding Model for life satisfaction according to sports category

Finally, there is another group of people who are interested in sports but cannot practice them as much as they would like because of their personal circumstances. These people show that, so far, they already have all they would like to achieve in their lives.

As shown by validity indices obtained in the unfolding model there are no indications that the solution is degenerate. There is a convergence of the algorithm in 178 iterations, with Kruskal's Stress-I coefficient very close to zero, which suggests that the solution presented is not degenerate. The rate of approximate non-degeneration according to Shepard is sufficiently high, 0.9, indicating that the different distances percentage is close to 90%, a very high percentage.

In both studies, graphical solutions are obtained considering a convergence 0.000001 stress, a minimum stress of 0.0001 and a maximum number of 5000 iterations. As for the penalty term, a magnitude of 0.5 and 1.0 range have been considered.

Finally, the similarities in the distributions of scores assigned by the elderly in the 14 statements according to the sociodemographic variables are studied; age group, gender, either you have dependent children, study levels and employment situation in which you are.

To perform this analysis, the Mann-Witney U or Kruskal-Wallis H contrast is done, since the hypothesis of normality is not verified in the groups studied. The study highlights that almost all the variables studied, except gender, show a different data distribution in the 14 statements studied (see annex III).

It is remarkable that the data distributions analyzed, in the statements about Psychological Well-being Perception and Perceived Life Satisfaction, are similar and do not depend on whether the individual is a woman or a man, and there is no statistical evidence to reject the equality of the median.

Discussion and Conclusions

The study of quality of life, the perception of health during all stages of life have been extensively analyzed. These concepts are usually more important when we refer to the elderly and adults in the mature stage.

According to various studies, for an individual's healthy aging process certain emotional, social and physical (Espinosa and Libreros, 1995, Marin and Garcia, 2004) must be met (Castellón-Sanchez and Romero, 2004).

Thus, there are two lines of action:

- The first line promotes an intervention with elderly people in order to improve their quality of life from three perspectives: physical, social and psychological (Castellón-Sanchez and Romero, 2004; Molina, Melendez and Navarro, 2008).

The second one, supported by Fox (1999) Hong and Dimsdale (2003), Koukouvou et al. (2004) and Miller (2005), states that through exercise both physical and psychological health can be improved.

Our study, as well as being consistent with the last group of researchers' work, takes a step further, adding a social component, as we observed that most elderly people who regularly do some kind of physical and sport practice, and show an interest in sports, declare they feel good about themselves, can accomplish every challenge, set themselves goals that give meaning to their lives (emotional and physical health), have friends they can trust (social support) and feel full satisfaction with their current life. However, elderly people who do not practice such activities state, with higher value means, they feel isolated or having a ever-changing opinion, under pressure.

Finally, we can verify that unfolding analysis on the study of psychological well-being and perceived life satisfaction shows that:

- Elderly people who practice sports regularly and show an interest in them declare they feel good about themselves, can accomplish every challenge, set themselves goals that give meaning to their lives, have friends they can trust and feel full satisfaction with their current life.

Among the limitations of the study are the reduction in the number of questionnaires that could finally were statistically treated. On the other hand, the study focuses on sports practice and not on physical activity in general, which limits the results obtained to sports practice.

References

American Collegue of Sport Medicine (2011). http://www.acsm-msse.org/.

Bazo, M.T. (1998). "Vejez Dependiente, Políticas y Calidad de Vida". *Rev. Sociología* 56 (144-146).

Castellón-Sánchez A., Romero, V. (2004). "Autopercepción de la calidad de vida". *Mult Gerontol*;14 (3):131-137.

Coombs, C. H. and Kao, R. C. (1960). "On a connection between factor analysis and multidimensional unfolding". *Psychometrika*, 25, 219-231.

Coombs, C.H. (1964). *A Theory of Data*, New York. Wiley

Espinosa E., Libreros M. (1995). Modelo Básico para el Mejoramiento de la Calidad de Vida del Viejo Recluso Durante su Permanencia en la Cárcel del Distrito Judicial de Cali. Santiago de Cali. Tesis de grado. Universidad de San Buenaventura, Valle, Colombia.

Diener, E., Emmons R., Larsen R.J., & Griffin S., (1985). The Satisfaction With Life Scale, Journal of Personality Assessment, 49:1, 71-75.

Fox, K. (1999). "The influence of physical activity on mental well-being". *Public health nutrition*, 2, 411-418.

Graupera, J.L., Martínez del Castillo, J. Martín, B. (2003), "Factores motivacionales, actitudes y hábitos de práctica de actividad física en las mujeres mayores", en Serie ICD de *Investigación en Ciencias del Deporte*, nº 35, pp. 181-222.

Hong, S y Dimsdale, J (2003). "Physical activity and perception of energy and fatigue in obstructive sleep apnea". *Medicine & science in sports & exercise*, 35, 1088-1092.

Koukouvou, G; Kouidi, E; Iacovides, A; Konstantinidou, E; Kaprinis, G. y Delingianis, A. (2004). "Quality of life, psychological and physiological changes following exercise training in patients with chronic heart failure". *Journal of rehabilitation medicine*, 36, 36-41.

Martínez del Castillo, J., Jiménez-Beaty, J.E., Graupera, J.L., Rodríguez, M.L. (2006). Condiciones de vida, socialización y actividad física en la vejez en Revista Internacional de Sociología 44 (39-62).

Miller, B. L. (2005), "The Relationship of Healthy Eating-Exercise and Sleep with Subjective Well-Being", *Empirical Report*. Sydney. Deaking University.

Marín, M. y García, A.J. (2004). *Calidad de vida en la tercera edad desde la salud y el estado de bienestar psicosocial*. MAPFRE MEDICINA, vol. 15, n." 3

Molina Sena, C.; Meléndez Moral, J.C.; Navarro Pardo, E. (2008). "Bienestar y calidad de vida en ancianos institucionalizados y no institucionalizados". *Anales de psicología*, vol. 24, nº 2. 312-319.

Moscoso Sánchez D., Moyano Estrada, E. (Coord). (2009). Deporte, salud y calidad de vida". Colección de Estudios Sociales núm 26. Fundación "La Caixa.

Pons, D., Atienza, F. L., Balaguer, I., & García-Merita, M. L. (2002). Propiedades psicométricas de la Escala de Satisfacción con la Vida en personas de la tercera edad. Revista Iberoamericana de Diagnóstico Evaluación Psicológica, 13,71–82.

Porras, M., et al. (2013) *Estudio sobre la realidad deportiva de los mayores en Dos Hermanas*. Sevilla: Patronato Municipal de Deportes de Dos Hermanas.

Prieto-Flores, M.E., Fernández-Mayoralas, G., Rojo-Pérez, F., Lardiés-Bosque, R., Rodríguez-Rodríguez, V., Ahmed-Mohamed, K. and Rojo-Abuín, J.M. (2008). "Factores sociodemográficos y de salud en el bienestar emocional como dominio de calidad de vida de las

personas mayores en la Comunidad de Madrid. 2005". Rev. Esp. Salud Pública, nº 82 (301-313).

Ross, J. & Cliff, N. (1964). "A generalizationi of the interpoint distance model". *Psychometrika*, 29, 167-176.

Schönemann, P.H. (1970). "On metric multidimensional unfolding". *Psychometrika*, 35, 349-366.

Villar, F., Triadó, C., Solé, C. y Osuna, M.J. (2003). "Bienestar, adaptación y envejecimiento: cuando la estabilidad significa cambio". *Revista Multidisciplinar de Gerontología*, 13(3), 152-162.

Zamarrón, M.D. (2007). "Envejecimiento activo". *Infocop* 34: 7-9.

Annex I:

Territorial scope: City of Dos Hermanas, Seville, Spain.

Universe: Population over 55 years old

Type of sampling: Two-stage Stratified Sampling, with selection of the primary units by municipal districts (5 districts) with proportional affixation and of the secondary units, individuals, by random routes and quotas of sex and age intervals. The questionnaires have been carried out by personal interview. Fixed a 4% maximum error for a confidence level of 95%, applying the formula:

$$n = \frac{\sum_{h=1}^{L} W_h^2 \frac{N_h}{N_h - 1} \frac{P_h . Q_h}{w_h}}{\frac{e^2}{k^2} + \frac{1}{N^2} \sum_{h=1}^{L} \frac{N_h^2}{N_h - 1} P_h . Q_h}$$

where "n" is the optimal sample size, L = 5 is the number of districts, N = 25.092 the total size of the population under study, N_h is the size of each district, W_h the population weight of each district, w_h the weight sample of each district, P_h and Q_h proportion of individuals studied who practice and do not practice sports in each district.

With these data, an optimal sample size of 591 individuals is obtained, although due to study limitations, 419 questionnaires were finally selected, 51.4% corresponding to men and 48.6% to women.

Annex II:
Average ratings of 14 statements (see annex II) in the five sports categories considered in the study

		Sports category					
		Interested in sports and regular practice	Uninterested in sports but exercise on prescription	Interested in sports but less practice than would like to	Interested in sports but no current practice	No sport practice at all	Total
M1	Mean	3.5	3.5	3.06	3.09	2.81	2.98
	Stand. Deviat.	0.511	0.707	0.564	0.625	0.608	0.633
M2	Mean	3.42	2	3.09	3.04	2.5	2.8
	Stand. Deviat.	0.504	0	0.466	0.734	0.828	0.811
M3	Mean	3.46	2.5	3.19	3.15	2.51	2.86
	Stand. Deviat.	0.509	0.707	0.471	0.675	0.761	0.776
M4	Mean	1.38	1.5	1.34	1.54	1.79	1.64
	Stand. Deviat.	0.495	0.707	0.545	0.598	0.709	0.662
M5	Mean	2.5	2.5	2.25	2.61	2.31	2.43
	Stand. Deviat.	0.78	0.707	0.672	0.836	0.811	0.818
M6	Mean	1.54	1.5	1.63	1.84	1.86	1.81
	Stand. Deviat.	0.509	0.707	0.707	0.698	0.75	0.718
M7	Mean	3.33	4	3.56	3.15	3.05	3.15
	Stand. Deviat.	0.702	0	0.504	0.63	0.64	0.645
M8	Mean	3.33	2.5	2.91	3.19	2.68	2.93
	Stand. Deviat.	0.565	0.707	0.588	0.6	0.724	0.706
M9	Mean	3.62	3	3.41	3.28	2.87	3.11
	Stand. Deviat.	0.495	1.414	0.56	0.505	0.678	0.647
M10	Mean	3.25	3	3.16	3.07	2.73	2.92
	Stand. Deviat.	0.442	0	0.515	0.571	0.599	0.602
M11	Mean	3.13	3	3.19	3.05	2.78	2.94
	Stand. Deviat.	0.68	0	0.471	0.624	0.567	0.606
M12	Mean	1.54	2	1.53	1.6	2.02	1.8
	Stand. Deviat.	0.509	0	0.718	0.645	0.749	0.726
M13	Mean	3.25	3	3.03	3.01	2.68	2.87
	Stand. Deviat.	0.532	0	0.4	0.557	0.656	0.622
M14	Mean	1.79	2.5	1.81	1.78	2.25	2.01
	Stand. Deviat.	0.721	0.707	0.471	0.676	0.732	0.728