


# Habits of healthy living in adults former athletes of federated competition in the modality of volleyball in the province of Jaen

JUAN TORRES GUERRERO<sup>1</sup>, RAFAEL FRANCISCO CARACUEL CÁLIZ<sup>2,3</sup> , DIEGO COLLADO FERNÁNDEZ<sup>1</sup>, BEATRIZ TORRES CAMPOS<sup>1</sup>, JUAN ANTONIO PÁRRAGA MONTILLA<sup>4</sup>, MAR CEPERO GONZÁLEZ<sup>1</sup>

<sup>1</sup>Faculty of Education Sciences. University of Granada. Granada, Spain.

<sup>2</sup>Faculty of Education. International University of La Rioja. Logroño, Spain.

<sup>3</sup>Faculty of Education. International University of Valencia. Valencia, Spain.

<sup>4</sup>Faculty of Humanities and Education Sciences. University of Jaén. Jaén, Spain.


## ABSTRACT

The main objective of this research is to know the healthy lifestyle habits of people who participated in federated competitions in volleyball in the province of Jaén once their competitive stage has ended. Therefore, to investigate whether people who in their adolescence and youth practiced a federated competitive sport in volleyball, maintain healthy lifestyle habits, referring to diet, quality of sleep, level of physical activity practice and their physical condition, in their stage of adulthood and seniority. This research has been carried out through a descriptive, cross-sectional, single measurement (Ato et al., 2013), and interpretive research; in which former athletes responded to a questionnaire about their daily habits related to health; In addition, to know the information through self-completed surveys by those who were captains and technicians of the volleyball clubs, in order to better understand their current healthy habits. The total number of subjects studied was 199 people, of which 18 were captains and 21 were coaches. When asking people about their eating habits, the majority values correspond to the response option “good”, both in women (61.5%) and in men (48.8%). The different groups of participants in the research state that they attach great importance to eating habits, nutrition, and diet quality in their daily lives. 84.6% of women and 91.9% of men consider that their current level of physical fitness is based on the sports practice of their youth. Physical-sports practice as a healthy lifestyle habit is incorporated as a healthy lifestyle habit mostly in the former athletes and sports technicians participating in this research.

**Keywords:** Sport medicine, Former competitive athletes, Older adults, Nutrition, Quality of life.

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 **Corresponding author.** Faculty of Education. International University of La Rioja. Logroño, Spain.

E-mail: [rafaelfrancisco.caracuelcaliz@unir.net](mailto:rafaelfrancisco.caracuelcaliz@unir.net)

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## INTRODUCTION

When we talk about lifestyle, we refer to a set of behaviours that develop throughout the life of a human being due to the influence of various areas such as family, friends and the media, which are expressed in the daily life of human beings and therefore characterize the way of living and being of every person (Ibarra-Mora et al., 2019; López-Villar, 2011). In the case of healthy lifestyles, they are closely related to a balanced diet, maintaining body weight, bad physical activity, and abstaining from alcohol and tobacco consumption, among others (Sanabria, 2007). All of this is corroborated through research studies that demonstrate the importance of diet and bad physical activity to achieve a good quality of life (Portela-Pino et al., 2022).

Physical inactivity increases in many countries, considerably influencing the prevalence of non-communicable diseases and the general health of the world population. Humanity faces a great challenge in the coming decades, manifested in a sedentary lifestyle and lack of exercise that affect mental health and the quality of life of society (Moscoso et al., 2009), as confirmed by data from the World Health Organization (2010), revealing that at least 60% of the world's population does not carry out the physical activity necessary to obtain health benefits, becoming the fourth most important risk factor for mortality worldwide (Barbosa - Granados and Urrea-Cuéllar (2018). Therefore, if physical activity is carried out systematically and continuously, greater health protection can be achieved, as well as prevention of different disorders thanks to the physical and psychological benefits it provides. performing physical exercise (Sánchez-Barrera et al., 1995). Adopting a more active lifestyle can promote respiratory, cardiovascular and locomotor function, as well as develop and maintain muscle strength, improve postural activity, etc. (Romero-Granados et al., 2006).

In the case of our research, we want, through the triangulation of the information provided by the different instruments used, to verify the healthy lifestyle habits that the athletes in the sample practice in their daily lives. Taking into account that advances in health sciences, including human nutrition, have allowed life expectancy to be dramatically prolonged, genetics are decisive in this greater life expectancy, but there are also other series of factors that include the same, among which stands out an adequate diet, good quality of sleep and a healthy lifestyle, which includes bad exercise according to individual physical condition (Amador-Muñoz & Esteban-Ibáñez, 2015).

## MATERIAL AND METHODS

### *Study design*

We can consider that our study is a descriptive, cross-sectional, single measurement (Ato et al., 2013), and interpretive research, since it aims to collect and analyse information, in a way that allows us to know and interpret the reality studied and complement it. with the data obtained quantitatively and qualitatively (Latorre-Beltrán et. al., 2003).

A quantitative technique (questionnaire) has been used to obtain information on the personal profile, the sports itineraries followed by the subjects participating in the research, as well as to know the transfer of these learnings to daily life, and to give the broadest vision. possible to the problem posed. The use of questionnaires is the most used measuring instrument in some disciplines such as psychology, but it is also widely used in sports sciences to know the health habits of the athletes in the sample (Barbado and Martínez -Moreno, 2021; Cavas-García et al., 2021; Haro-González et al., 2018).

To prepare the questionnaire, other previous studies have been taken into account that have analysed the personal and professional profile and sporting itineraries of federated competition players in the volleyball

modality. For this study, the questionnaire “*Adherence to physical-sports practice, and healthy habits of competitive athletes in the volleyball modality of the province of Jaén*” (CAPDV-1) has been designed. This questionnaire has been developed and validated through the Delphi Technique. Reguant-Álvarez and Torrado-Fonseca (2016) consider that the Delphi Technique “*is an information collection technique that allows obtaining the opinion of a group of experts through of repeated consultation.*” The questionnaire has been passed and completed by the athletes participating in the research.

The information has been complemented with qualitative techniques. To this end, two Self-Completed Surveys (one for team captains and another for coaches) have been designed and validated (through the Delphi Technique) to better understand the most important aspects of the problem. The goal of qualitative studies is to provide a deep, interpreted understanding of participants based on context, experiences, and stories (Gephart, 2004; Veal and Darcy, 2014). Some researchers (Skinner et al., 2020; Veal and Darcy, 2014) have developed studies with the objective of creating, adapting and presenting research methods, data collection instruments and data analysis techniques for qualitative research on motivation topics. and adherence to physical-sports practice.

Under the name of paradigm we have encompassed methodologies shared by researchers and educators that adopt a certain conception of the educational process (De Miguel, 1988). Each paradigm is characterized by a common way of research, presenting its advantages and disadvantages and, although they are based on different assumptions, it is possible to combine the contributions from an eclectic perspective (Latorre et al., 2003). We do not intend to contrast the data that we obtain through one research methodology and another, but rather to combine them in the same research project based on our objectives, both functioning in a complementary way (Caracuel-Cáliz, 2016; Cuesta-Santos, 2013; Martínez-Pérez, 2012; Ortega-Becerra, 2010; Ovalle-Pérez, 2011; Palomares-Cuadros, 2003; Ramírez-Arrabal, 2018; Rodríguez-Bailón, 2012; Soto-González, 2011).

Finally, methodological integration has been carried out through the concept that Denzin and Lincoln (2000) call “*triangulation model*” and that Caracuel-Cáliz (2016) has proposed in previous works; Cimarro-Urbano, 2013; Collado-Fernández (2005); Cuesta-Santos (2014); Fuentes-Justicia (2011); Martínez-Pérez (2012); Ortega-Becerra (2010); Ovalle-Pérez (2011); Palomares-Cuadros (2003), Rodríguez-Bailón (2012), Torres-Campos (2008), Vilchez-Barroso (2007), among others, alluding to the possibility of being more sure of the results obtained if we use various data collection techniques. data, as each has its own advantages and biases.

### **Context**

The context in which the research is carried out is the province of Jaén, whose capital is the Spanish municipality of the same name, located in the Autonomous Community of Andalusia. Specifically, the research has been carried out in the Sports Clubs and Entities of the towns of Andújar and Jaén.

### **Participants**

In our research we have used the non-probabilistic sampling method called by Carrasco and Calderero (2000) “*accidental or casual sampling*”. The Sample has been extracted from the total population of athletes who meet the inclusion criteria proposed for this research. To determine the size of the population that meets the proposed requirements, we have had the collaboration of the Andalusian Volleyball Federation, as well as the administrative and technical managers of the selected clubs. In total, the population that meets the requirements expressed above is 261 athletes, of which 210 are men and 51 women, aged between 41 and 72 years.

The quantitative sample (questionnaires) is distributed as shown in Tables 1 and 2.

Table 1. Distribution of the sample by age and gender groups.

	<b>Gender/Age</b>									
	Born before 1960		Born between 1960-1966		Born between 1967-1973		Born between 1974-1980		Total	
	N	%	N	%	N	%	N	%	N	%
Women	0	0	0	0	22	34.9	17	43.6	39	19.6
Men	52	100.0	45	100.0	41	65.1	22	56.4	160	80.4
Total	52	100.0	45	100.0	63	100.0	39	100.0	199	100.0

Table 2. Distribution by age, group, gender and totals.

	<b>Women</b>			<b>Men</b>			<b>Total</b>		
	N	M age	D.T.	N	M age	D.T.	N	M age	D.T.
Group 1	-	-	-	52	64.96	2.72	52	64.96	2.72
Group 2	-	-	-	45	58.15	2.02	45	58.15	2.02
Group 3	22	50.54	1.62	41	51.48	1.76	63	51.15	1.74
Group 4	17	43.35	1.76	22	44.27	2.65	39	43.87	2.33
Total	39	47.41	3.97	160	56.75	7.51	199	54.91	7.88

In relation to the type of qualitative sampling, Tójar (2006), following Patton (1990), identifies up to ten different types of sampling. For our research we have used the so-called "logical criterion sampling" which is based on including all available cases that meet some criterion of interest for the investigation.

Table 3. Composition of the sample of team captains.

	<b>Age</b>	<b>Experience as captain</b>	<b>Academic degree</b>
Captain 1	G4	3-5	Degree
Captain 2	G3	3-5	Degree
Captain 3	G4	10-15	Undergraduate degree
Captain 4	G3	3-5	Architecture
Captain 5	G2	3-5	Degree
Captain 6	G1	3-5	Undergraduate degree
Captain 7	G1	6-10	Degree
Captain 8	G2	6-10	Degree
Captain 9	G2	3-5	Engineering
Captain 10	G2	10-15	Degree
Captain 11	G2	6-10	Degree
Captain 12	G2	6-10	Undergraduate degree
Captain 13	G2	6-10	Degree
Captain 14	G4	More than 25	Degree
Captain 15	G3	6-10	Undergraduate degree
Captain 16	G3	3-5	Undergraduate degree
Captain 17	G1	3-5	Degree
Captain 18	G3	3-5	Undergraduate degree

Note. G1 = Born before 1960. G2 = Born between 1960-1966. G3 = Born/as between 1967-1973. G4 = Born/as between 1974-1980.

In the first self-completed Survey, 18 team captains (14 men and 4 women) from the clubs specified in the sample participated, with the characteristics described in Table 3. In the second self-completed survey, 21 coaches (4 women and 17 men) from the clubs and teams specified in the sample participated.

Table 4. Composition of the sample of coaches.

	Age	Level	Experience (years)	Maximum Level/Category of competition
Coach 1	65	Level II	25	National First Division
Coach 2	71	Level III	15	Andalusian First Division
Coach 3	70	Level III	24	Honorary Division
Coach 4	52	Level I	6	Provincial category
Coach 5	62	Level III	10	Regional competitions
Coach 6	51	Level II	9	Second National Division
Coach 7	50	Level III	25	Provincial selection
Coach 8	52	Level II	35	Andalusian First Division
Coach 9	69	Level II	8	Second National Division
Coach 10	52	Level I	10	Regional competitions
Coach 11	56	Level III	35	Superleague 2
Coach 12	54	Level II	15	Andalusian First Division
Coach 13	65	Level III	21	National First Division
Coach 14	56	Level III	30	Andalusian First Division
Coach 15	48	Level II	20	Andalusian First Division
Coach 16	58	Level II	10	Andalusian First Division
Coach 17	63	Level III	10	National First Division
Coach 18	67	Level II	3	Provincial category
Coach 19	50	Level I	6	Provincial category
Coach 20	72	Level IV	29	Junior national team
Coach 21	48	Level I	6	Provincial category

### Instruments

As we have previously referenced, our methodology integrates two types of techniques, on the one hand, a qualitative technique (Self-completed Survey for team captains and coaches) and a quantitative technique (Questionnaire for the athletes in the sample), to collect information. , with the intention of combining this methodological structure.

Regarding the quantitative technique, we have used a questionnaire (Annex 1) prepared ad-hoc, and validated for this research through the Delphi Technique, to obtain information in different areas: on the one hand we want to know your personal profile, academic, professional and sports; On the other hand, we want to investigate the healthy and unhealthy habits of the research participants, as well as verify their adherence and motivation towards the practice of physical activity.

For the preparation and validation of the questionnaire (*"Adherence to physical-sports practice, and healthy habits of federated competition athletes in the volleyball modality of the province of Jaén"* - CAPDV-1), we have used the Delphi method, which consists of a technique for obtaining information, based on consulting experts in an area, in order to obtain the most reliable consensus opinion of the group consulted. These experts are individually submitted to a series of in-depth questionnaires that are interspersed with feedback on what was expressed by the group and that, based on an open exploration, after successive returns, produce an opinion that represents the group (Reguant-Álvarez and Torrado -Fonseca, 2016).

Once all the modifications to the questionnaire, proposed by the experts participating in the Delphi, have been made, the pilot questionnaire is prepared. The questionnaire is sent to 24 people from different areas of volleyball: athletes, referees, delegates, club and federation directors, and sports managers. 22 people respond in a timely manner, and with the suggestions they propose, the final questionnaire is prepared and sent to the study sample for completion.

For the qualitative technique we have used Self-completed surveys, with which we have sought to know the perceptions of the team captains (Annex 2) and technicians (Annex 3), and to compare, through their information, the opinions expressed by the coaches, as well as their relationship with the athletes' responses in the questionnaires that have been provided.

The self-administered survey is the survey that is carried out using self-administered questionnaires. This modality is called self-administered (self-completed) because, in general terms, it dispenses with the need for interviewers (Rodríguez-Bailón, 2012). Within the type of self-administered survey there are some characteristic subtypes: the mail survey, the mail survey and the hand-delivered survey. In all cases, the person who responds is the one who completes the questionnaire or survey form in accordance with certain instructions that must be extremely clear (Benjumea-Álvarez, 2011). The design and validation of the self-completed Surveys used in our research has been carried out through the Delphi Technique.

With the content of the questionnaire prepared by the experts participating in the Delphi Technique, four captains are sent, one from each age group in the sample, to complete it, requesting the time spent completing it and the difficulties encountered. Participants in the pilot study are instructed to respond below each question, with no length limit. The content of the pilot study is passed to the LimeSurvey computer application.

## RESULTS

Following the application of the aforementioned instruments to obtain data, and after analysis, the results yielded interesting data on parameters related to healthy living habits (adequate food and nutrition, quality of sleep, adequate physical-sports activity and frequent, physical condition and health relationship), of federated competition athletes in the volleyball modality of the province of Jaén, once their competitive stage has ended, as a practice of physical sports activity, eating and postural habits, rest, and we present them triangulating the results obtained by the instruments used.

Beginning with the global analysis of healthy living habits, the participants in the research present opinions in which they relate their practice of competitive volleyball during the years they were active, with the healthy habits that they practice in their daily lives. Through self-administered surveys, they highlighted that:

Volleyball has helped me... ..create healthy habits.

Player 20 GR 4 (043-044) SHS

To create healthy habits for my daily life.

Player 105 GR 3 (288-289) SHS

Have good health thanks to the habits acquired.

Player 139 GR 3 (393-394) SHS

Internalize physical and sports practice in general life habits.

Player 104 GR 3 (285) SHS

Practicing volleyball has allowed me to acquire healthy habits.

Player 2 GR 1 (005-007) SHS

Like the players participating in this research, the captains and sports technicians surveyed also express the importance that the practice of volleyball has had in incorporating healthy living habits into their daily lives.

Without a doubt none. The influence of volleyball has been totalling on my healthy living habits.

Captain 14 G4 (277-278) HEVS

Yes, of course, it totally influenced my healthy lifestyle habits.

Captain 16 G3 (279-280) HEVS

Of course, it was key in my life, it helped me in everything. To maintain a healthy lifestyle.

Captain 18 G3 (285-286) HEVS

I always tried to maintain a line of healthy lifestyle habits. Staying away from the harmful ones.

Captain 15 G3 (278-279) HEVS

Yeah! It makes you focus on healthy habits and not others.

Captain 1 G4 (257) HEVS

Being a coach and doing so much physical activity has had a very positive influence on my lifestyle habits.

Coach 3 E70 (669-670) SHS

The positive habit routines that were transmitted to the students/players were also internalized and had to be put into practice oneself.

Coach 6 E51 (677-678) SHS

Table 5. Feeding habits.

Age	Born before 1973		Born between 1974-1980		Born before 1960		Born between 1960-1966		Born between 1967-1973		Born between 1974-1980	
	N	%	N	%	N	%	N	%	N	%	N	%
Very bad	1	4.5	0	0	0	0	0	0	0	0	0	0
Bad	2	9.1	2	11.8	5	9.6	7	15.6	4	9.8	3	13.6
Normal	5	22.7	3	17.6	22	42.3	10	22.2	11	26.8	8	36.4
Good	13	59.1	11	64.7	20	38.5	24	53.3	24	58.5	10	45.5
Very good	1	4.5	1	5.9	5	9.6	4	8.9	2	4.9	1	4.5
Total	22	100	17	100	52	100	45	100	41	100	22	100

Gender	Women		Men	
	N	%	N	%
Very bad	1	2.6	0	0
Bad	4	10.3	19	11.9
Normal	8	20.5	51	31.9
Good	24	61.5	78	48.8
Very good	2	5.1	12	7.5
Total	39	100	160	100

On the other hand, when questioning athletes about their eating habits, the majority values correspond to the response option “good”, both in women (61.5%) and in men (48.8%). The second most chosen option is to consider that their eating habits are “normal”, 20.5% of women say this and 31.9% of men do so. In this global analysis we highlight that the sum of the values of the “good” and “very good” options in women

reaches a value of 66.6% and in men 56.3%. The data leaves no room for doubt, women consider their eating habits to be healthier than those of men.

In this sense, the participants in the research state that they give great importance to eating habits, nutrition and quality of diet in their daily lives, as expressed by athletes and sports technicians.

To create healthy eating and nutrition habits.

Player 20 GR 4 (045) HEVS

Well, my status as a health professional influenced my lifestyle habits, sports, eating habits, toxins, etc. I am at my weight, I exercise, I eat few processed foods, few trans and saturated fats, few refined sugars, little salt...

Captain 17 G1 (280-284) HEVS

Internalize physical and sports practice with general life habits, especially nutrition.

Player 104 GR 3(294,295) HEVS

Some healthy habits for my daily life, food and diet quality.

Player 105 GR 3 (295) HEVS

Have good health thanks to the eating habits acquired.

Player 139 GR 3 (405) HEVS

In a very positive way, always trying to do frequent physical activity accompanied by a healthy diet.

Coach 10 E52 (688-689) SHSA

In a positive way. I always take care of food, healthy living, etc. it's a lifestyle.

Coach 13 E65 (702-703) SHSA

Table 6. Perception of sleep quality.

Age	Born before 1973		Born between 1974-1980		Born before 1960		Born between 1960-1966		Born between 1967-1973		Born between 1974-1980	
	N	%	N	%	N	%	N	%	N	%	N	%
Very bad	3	13.6	1	5.9	4	7.7	1	2.2	0	0	0	0
Bad	3	13.6	4	23.5	14	26.9	8	17.8	4	9.8	8	36.4
Normal	5	22.7	7	41.2	8	15.4	16	35.6	13	31.7	7	31.8
Good	7	31.8	4	23.5	20	38.5	18	40.0	22	53.7	6	27.3
Very good	4	18.2	1	5.9	6	11.5	2	4.4	2	4.9	1	4.5
Total	22	100	17	100	52	100	45	100	41	100	22	100

Gender	Women		Men	
	N	%	N	%
Very bad	4	10.3	5	3.1
Bad	7	17.9	34	21.3
Normal	12	30.8	44	27.5
Good	11	28.2	66	41.3
Very Good	5	12.8	11	6.9
Total	39	100	160	100



Regarding the perception of athletes about their quality of sleep, the majority option chosen by men is to consider their sleep quality “good” by 41.3%, while in women the majority option is to consider it as “normal” (30.8%). The sum of the most “positive” options (“good” and “very good”) gives us an overall value of 41% in women and 48.2% in men. The minority values being those that correspond to the “bad” option, this is expressed by 10.3% of women and 3.1% of men. In view of the data, at a global level we interpret those men report having better sleep quality than women, and this aspect was always a concern of the coaches.

Regarding the age and gender groups, the majority value is found in the “good” option with 53.7%, in Group 3 of men. Secondly, the highest figure appears in the “normal” option of women in Group 3, with 41.2%. We highlight in this analysis by gender and age that none of the men in groups 3 and 4 state that their sleep quality is “bad”.

From the qualitative analysis, the responses highlighted by the interviewees, in relation to the quality of sleep, are:

I worry about my players' rest hours.  
Coach 4 E52 (671) SHSD

It has affected me to improve my lifestyle habits, especially the quality of sleep.  
Coach 18 E67 (719-720) SHSD

I have always told the players that resting well was as important or more important than working.  
Coach 20 E72 (782-783)

Table 7. Current level of physical-sports activity practice

Age	Born before 1973		Born between 1974-1980		Born before 1960		Born between 1960-1966		Born between 1967-1973		Born between 1974-1980	
	N	%	N	%	N	%	N	%	N	%	N	%
Very low	1	5.9	0	0	1	2.6	3	8.6	3	8.6	0	0
Low	3	17.6	3	23.1	7	17.9	10	28.6	7	20.0	2	10.5
Normal	8	47.1	7	53.8	14	35.9	13	37.1	15	42.9	9	47.4
Good	4	23.5	3	23.1	17	43.6	7	20.0	8	22.9	7	36.8
Very good	1	5.9	0	0	0	0	2	5.7	2	5.7	1	5.3
Total	17	100	13	100	39	100	35	100	35	100	19	10

Gender	Women		Men	
	N	%	N	%
Very low	1	3.3	7	5.5
Low	6	20.0	26	20
Normal	15	50.0	51	39.8
Good	4	23.5	39	30.5
Very good	1	3.3	5	3.9
Total	30	100	128	100

Within healthy lifestyle habits, the practice of adequate and frequent physical activity occupies a privileged place, thus the majority responses of the athletes in the sample who state that they currently carry out physical activity (N = 158), which represent 79.8% of the sample. The highest values are found in the “normal” option, 50% of women choose it and 39.8% of men choose it. Secondly, women (23.5%) and men (20.5%) choose the “good” option. In the sum of the “good” and “very good” options, we obtain a value for

men of 34.4% and 26.8% for women. These differences by gender are significant in the Chi-square test with a value of  $p = .000$ . We interpret from the analysis of the data that men report having a higher level of physical-sports activity practice.

Physical-sports practice is included as a healthy lifestyle habit for the majority in the components of our research sample, explained as follows.

It has led me, along with other sports, to the main professional dedication that has occupied my active life.  
 Player 32 GR 1 (068-069) MOAD

Volleyball, being my first sport, has been something very important since it has given me a habit of practicing physical activity.  
 Player 70 GR 1 (198-199) MOAD

Practicing sports, an activity that he considered essential in life, to feel good.  
 Player 80 GR 2 (218-219) MOAD

It has helped me to be more organized and to try to be in good physical condition, practicing every day.  
 Player 99 GR 3 (280-281) MOAD

Table 8. Current fitness level.

Age	Born before 1973		Born between 1974-1980		Born before 1960		Born between 1960-1966		Born between 1967-1973		Born between 1974-1980	
	N	%	N	%	N	%	N	%	N	%	N	%
No	3	13.6	3	17.6	7	13.5	2	4.4	3	7.3	1	4.5
Yes	19	86.4	14	82.4	45	86.5	43	95.6	38	92.7	21	95.5
Total	22	100	17	100	52	100	45	100	41	100	22	100

Gender	Women		Men	
	N	%	N	%
No	6	15.4	13	8.1
Yes	33	84.6	147	91.9
Total	39	100	160	100

When asking athletes if their current level of physical condition is related to having trained and competed in their youth, the answer is overwhelmingly affirmative. Thus, 84.6% of women and 91.9% of men choose this option. The “No” option is only chosen by 15.4% of women and 8.1% of men. In all age groups, we verified how men manifest more highly the relationship between their current level of physical condition, with the training and competition developed in their youth.

Team captains and coaches also express themselves along the lines of considering with respect to physical condition that:

It helped me have a very healthy adolescence and acquire healthy lifestyle habits and improve my level of physical fitness.  
 Captain 9 G2 (305-306) CFSA

Practicing volleyball has been very important to improve and maintain my level of physical fitness.  
 Captain 8 G2 (304-305) CFSA

Apart from the injuries I have had, practicing volleyball has given me general well-being and an optimal level of physical condition.

Captain 15 G3 (320-321) CFSA

It helped me a lot as a person, my physical and mental well-being and to maintain a good level of physical fitness.

Captain 16 G3 (322-324) CFSA

I think it has improved and maintained my physical condition.

Captain 4 G3 (298) CFSA

It has kept me in good physical condition.

Captain 2 G3 (294) CFSA

Now I practice other sports, but always seeking to improve health and physical condition.

Captain 5 G2 (297-298) CFSA

## DISCUSSION

Eating habits have been defined as "a line of conduct by which the set of food products present in the diets consumed by a population group are selected, used and consumed" (Bello-Gutiérrez, 2005). One of the fundamental characteristics of eating habits is their stability, that is, their resistance to change. Most adult eating habits are customs that have been formed many years before, which is why they are difficult to change. It has been shown that, although changes occur in attitudes and intentions, they do not change (Delormier et al., 2009).

The study published in the scientific journal "Public Health Nutrition" (2017), coordinated by the Spanish Nutrition Foundation (FEN), tries to identify the best feeding strategies in order to contribute to reducing the prevalence of obesity. According to the results, the eating habits of women were more appropriate than those of men, since they ate a greater number of meals per day, skipped fewer meals, and spent more time on them. For their part, men consumed greater energy intake after 2:00 p.m. and during dinner. According to this study, just over half of the women (54.4%) ate more than four meals a day, while this figure was reduced to 38.8% in men, who more frequently skipped breakfast, mid-morning meal or snack. These results presented are related to the responses reported by the sample of our study, as well as with other scientific research such as that carried out by Çitözi and Bozo (2014) at the University of Tirana, which stated that the eating habits of female students They are healthier than those of the students in terms of daily intake.

Addressing the quality of sleep, the study by Ohayon and Sagales (2010), with the young and adult population in our country, showed that Spaniards sleep the appropriate hours, although due to climatic reasons and hours of light, Spaniards generally go to bed later than the populations of neighbouring countries, such as Portugal or France.

Bayán-Bravo (2017), in his doctoral thesis, proposed as one of his objectives to identify patterns of physical activity, sedentary lifestyle and sleep in older adults in Spain, he found a direct relationship between a greater number of healthy behaviours, (particularly performing more physical activity ), being less sedentary and sleeping adequate hours were associated with better health-related quality of life in older adults.

Similar results have been found by Carcelén-González (2017) in his doctoral thesis carried out with the adult and older adult Valencian population. The adults over 60 years of age participating in the study presented a medium level of cognitive functioning, good quality of life, a good emotional state, good quality of sleep and a high level of motivation and enjoyment towards physical activity.

In a study carried out in a primary care centre in Lima (Peru), it was found that 33% had some problem sleeping and only 16% consulted the doctor for this reason (Rey de Castro et. al., 2005). Older adults typically take longer to fall asleep and have more frequent nighttime awakenings. More than 50% of older adults reported at least one chronic sleep complaint and the most common problem was inability to fall asleep (Harrington and Lee-Chion, 2007).

Regarding the values of physical activity practice, the data from our sample are much higher than those found by Corral-Pernía (2015) with the older adult population of the province of Seville, as well as those provided by Rodríguez-Romo et al. (2009) with the adult population of the Community of Madrid, or those in the study by Salgado-Cruz (2017) with the older adult population of Puerto Rico. If we compare the levels of physical activity practice by gender, our study provides data similar to those presented by Caracuel-Cáliz et al. (2020). In this sense, the results of a study carried out in Galicia revealed that age, sex, perceived physical competence and practicing sports with friends had a statistically significant influence on the physical activity index (Alvariñas-Villaverde et al., 2021).

Many health organizations have developed physical activity recommendations. These recommendations vary according to the intensity, frequency and duration of physical activity, depending on the established objective: health promotion, primary or secondary cardiovascular prevention, rehabilitation, weight control, etc. (Department of Health and Human Services, 1995). Statements that coincide with those of Nealen (2016) who points out in her work that all forms of exercise were associated with cardiovascular health, and cardiovascular benefits accrued depending on the amount of exercise performed, even in optimally young adults. healthy.

In the Guide of recommendations for the promotion of physical activity, published by the Health Department of the Government of Andalusia (2010), it is stated that active people are those who carry out more than 150 minutes of moderate physical activity per week. These people who already meet the minimum physical activity recommendations can achieve additional health benefits by doing 300 minutes of moderate aerobic activity per week or 150 minutes of vigorous aerobic activity and increasing muscle toning work to at least 3 days per week.

Estevez-López et. to the. (2012) state that there is a consensus regarding the type, frequency, duration and intensity of physical activity that these people should perform to reduce the risk of suffering from various diseases. It is established that they must perform cardiorespiratory physical activity of moderate intensity 150 min/week with a frequency of 5 days/week, or in the case of vigorous intensity 60 min/week with a frequency of 3 days/week.

Scientific studies (Aadahl et al., 2007; Estévez et al., 2012; Donnelly et al., 2009) do not provide any threshold duration limit beyond which additional benefits are not obtained, in fact, although the benefits obtained with practice of different durations are coincident, those obtained through longer duration of practice are more powerful. Thus, we state that the levels of participation of the athletes in our study are well above the research consulted, as we present below, some of the most relevant.

In the study by Meseguer et. to the. (2009) with the adult population of the Community of Madrid, it is concluded that around 3/4 of the people participating in the research do not comply with the recommendations. Men are more active in free time than women, both due to compliance with recommendations and consumption of MET-h/total weeks. These results agree with those of studies from other places (Bernstein et al., 1999; Martínez-González et al., 2001; Pitsavos et al, 2005). Furthermore, the differences between men and women are accentuated the greater the intensity of the physical activity performed, and is maximum for vigorous activities, in which men double the values observed in women (Martínez-Ros et al, 2003; Schroder et al, 2004).

In the 2020 Sports Habits of Spaniards Survey published by the Higher Sports Council, it shows that the increase in sports practice in the population over 65 years of age has been much greater in this population than in young people between 15 and 24. years, Spain continues to be behind the reference European countries, where the percentage of practice in this age group exceeds 60% percent.

In the international context, we also find research that investigates the recommendations of international organizations on the characteristics of healthy physical activity. The research of Arango-Vélez et. to the. (2014) carried out in the environment of the University of Antioquía (Colombia), with a sample of 176 users of a physical activity program, mostly women (69.3%); The average age was 55.7 years, the main finding of this study was that the variables that were independently associated with adherence to physical activity recommendations in this study was 63.1%, which exceeds the proportions reported in other local and national populations.

In another sense, it stands out that the physical condition related to health is focused on the well-being of the subject itself, seeks to improve the quality of life and mainly, to enhance the qualities that make it up. Through this, the risk of contracting diseases is reduced. Over the course of age, there is a decrease in physical condition, especially at advanced ages (Milanović et al., 2013), mainly due to the decline in physical activity levels, which generates a decrease in aerobic resistance, flexibility, loss of strength, speed, agility and balance (Donald et al, 2010; Paterson and Warburton, 2010).

Physical exercise has turned out to be a key element as a determinant of a healthy lifestyle, since there are numerous research works, both quantitative and qualitative, that conclude that physical exercise performed badly is a healthy behaviour that substantially improves the quality of life in the population (Batista et. al., 2019; Bonet-López, 2007; Riebe et al., 2015; Sanduvete-Chaves, 2004). However, despite the benefits of physical exercise, it is estimated that 60% of the world's population is not active enough to reap health benefits (Batista et al., 2021).

Different investigations (Baeza, et al., 2009; Chen and Lee, 2013; Liu and Latham, 2009; Pérez-Samaniego and Devís-Devís, 2003; Santos et al., 2012) confirm that physical exercise performed badly is the best way to promote the health of older people, highlighting its positive impact on human beings.

## **CONCLUSION**

The different groups of participants in the research state that they attach great importance to eating habits, nutrition, and diet quality in their daily lives. Sports technicians show great concern to convey the importance of maintaining adequate eating and nutrition habits in their athletes.

Regarding sleep quality, the sum of the options in view of the data, at a global level we interpret those men report having better sleep quality than women, and this aspect was always a concern of the coaches.

Regarding healthy lifestyle habits, the majority of people in the sample indicate that they practice physical activity today. We can also conclude that men report having a higher level of physical-sports activity practice.

The majority of women and men consider that their good physical condition has its origins in the stage in which they were competitive athletes, being the parameters in the male case.

In short, physical-sports practice as a healthy living habit is found as a healthy living habit mostly in the athletes and sports technicians participating in this research.

## **AUTHOR CONTRIBUTIONS**

This article is the result of the collaborative work of six authors, each of whom contributed significantly to its realisation:

1. Juan Torres Guerrero: As lead author, he led the study design, data collection and analysis, as well as the writing of the manuscript. His experience was fundamental in establishing the appropriate methodology and providing an in-depth understanding of the subject.

2. Rafael Francisco Caracuel Cáliz: He played a crucial role in the comprehensive review of the relevant literature, providing a solid basis for the theoretical framework of the article. His expertise enriched the discussion and interpretation of the results. He was also responsible for the submission of the manuscript and the handling of correspondence.

3. Diego Collado Fernández: With his experience he contributed significantly to the formulation of hypotheses and experimental design. In addition, his critical analysis of the results improved the quality and validity of the study.

4. Beatriz Torres Campos: She contributed her expertise to develop and implement advanced analytical tools and techniques. Her contribution was fundamental for the detailed interpretation of the data and the generation of solid conclusions.

5. Juan Antonio Párraga Montilla: As an expert, he provided guidance and advice throughout the process, helping to ensure the methodological coherence and practical relevance of the study. His critical perspective enriched the discussions and conclusions of the article.

6. Mar Cepero González: Contributed her expertise to the statistical analysis and interpretation of the results. Her ability to identify significant patterns and emerging trends strengthened the validity of the findings and provided important insights for future research.

In summary, the collaboration among these six authors allowed for a comprehensive and rigorous article that makes a significant contribution to the field of study. Each brought unique expertise and specialised skills, enriching the collective work and its potential impact on the academic and professional community.

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## DISCLOSURE STATEMENT

No potential conflict of interest were reported by the authors.

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