

HOW SPANISH FITNESS INSTRUCTORS ARE TRAINED: A COMPARATIVE STUDY ACROSS A RANGE OF VARIABLES

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ABSTRACT

Introduction: Instructors' adequate intervention and professional performance, which generate and guarantee educational, social and health benefits, depend on fitness instructors having the appropriate initial training as well as completing and improving through the necessary ongoing training. Objectives: this study aimed to know the formal and ongoing education carried out by fitness instructors and to inter-relate and compare it in terms of gender, age and work experience. Method: This research falls within the methodology of quantitative type with a descriptive cut and the procedures followed were those of a sectional survey. Structured interviews based on the standardized questionnaire "PROAFIDE: Sport and physical activity human resources", were conducted with 631 fitness instructors from Spain. Key results indicated that 39.8% of them had studied a university degree. Fitness instructors most frequently attend courses with a diploma or certificate (X = 67.4%), attend at conferences (X = 20.1%) and attend at congresses (X = 13.3%) for the development of their professional activity. 70.2% said that their organizations did not arranged training activities for them. In general men, aged between 30 and 45 and with 10 years of experience or more and with higher education level attended more formal learning situations.

Conclusions: efforts should continue to develop relevant and useful learning situations for fitness instructors as well as extend their knowledge into new areas. Also, sport organizations should provide continuing education experiences for their fitness instructors.

Keyword: formal education; ongoing education; learning situations; level of education

Título: La formación de los monitores de fitness españoles: un estudio comparativo a través de variables.

RESUMEN

Introducción: La adecuada intervención docente y profesional, que genera y garantiza beneficios educativos, sociales y de salud, depende de que los monitores de fitness posean la formación inicial adecuada, así como una necesaria y actualizada formación continua. El objetivo principal de este estudio fue conocer la educación formal y educación permanente realizada por los monitores de fitness y relacionarla y compararla en términos de género, edad y experiencia laboral. Método: La metodología seguida fue cuantitativa de corte descriptivo y los procedimientos fueron los propios de un estudio seccional. Se realizaron entrevistas estructuradas basadas en el cuestionario estandarizado "PROAFIDE: Recursos humanos deportivos y de actividad física", con 631 instructores de fitness de toda España. Los resultados indicaron que sólo el 39,8% de ellos habían estudiado un título universitario. También se obtuvo que los instructores de fitness suelen asistir a cursos con un diploma o certificado (67,4%) para



el desarrollo de su actividad profesional, a conferencias ($X = 20,1\%$) y a congresos ($X = 13,3\%$). El 70,2% dijo que sus organizaciones no planificaban formación continua para ellos. En general, los hombres, con edades comprendidas entre los 30 y los 45 años y con 10 años de experiencia o más y con un nivel de educación superior realizaban más formación formal.

Conclusiones: los esfuerzos deben continuar desarrollando situaciones de aprendizaje relevantes y útiles para los monitores de fitness, con las que puedan ampliar sus conocimientos en nuevas áreas. Además, las organizaciones deportivas les deben proporcionar más experiencias de educación continua.

Palabras clave: educación formal, formación continua, situaciones de aprendizaje, nivel educativo

INTRODUCTION

Physical activity provides different educational, social and health benefits to society as a whole and each of its citizens (European Observatoire of Sport & Employment [EOSE], 2011, 2014). Lack of physical activity is associated with health problems and diseases such as obesity, type 2 diabetes, cardiovascular disease and depression (Warburton, Nicol & Bredin, 2006). The benefits of physical activity depend on the people who work in occupational functions of physical activity and sport (Campos-Izquierdo, González-Rivera & Taks, 2016).

The occupation of fitness instructors has grown in response to a high demand for fitness and health services (Viallon, Camy & Collins, 2003). Fitness instructors' knowledge and behaviors are essential because they play a fundamental role in giving exercise information, exercise prescription and guidance. They are an essential resource for the health of the general public (Stacey, Hopkins, Adamo, Shorr & Prud'homme, 2010). The function of a fitness instructor is to develop and to conduct basic fitness and basic physical conditioning programs for groups (Campos-Izquierdo, 2010; Campos-Izquierdo, et al., 2016). According to Rosado, Araújo, Mesquita, Correira, Mendes & Guillén (2014) a fitness instructor's work includes supervising customers to ensure that they are exercising safely and effectively, conducting group exercise classes and carrying out consultations with new members. The key to the health and safety of facility members is the availability of knowledgeable fitness instructors capable of establishing a safe exercise environment (Abbott, 2009). Around the millennium, fitness instructors became more prominent (Campos-Izquierdo, 2005). In the region of Comunidad Valenciana for example, the second most performed profession was fitness instructor (Campos-Izquierdo, 2005). This occupation is delimited in some regions of Spanish law (Ley 3/2008; Ley 6/2016).

Instructors' adequate intervention and professional performance, which generate and guarantee the benefits mentioned above, depend on fitness instructors having the appropriate initial training as well as completing and improving through the necessary ongoing training (Campos-Izquierdo, 2010). The discussion of educational processes in sport and physical activity professions is assuming particular importance (Whaley, 2003b). Most studies are based on coaches (Sullivan, Paquette, Holt & Bloom, 2012), not focused on fitness instructors, particularly in the context of continuing education (Stacey, et al., 2010).

Education, both initial and continuing, is considered to be extremely important for fitness instructors since it improves their effectiveness (Sullivan, et al. 2012; Whaley, 2003b). Initial education is the most significant factor to achieve a solid knowledge base and develop an understanding of exercise safety (Malek, Nalbone, Berger & Coburn, 2002). A certification assures that fitness instructors have completed a professional training curriculum and that they have the appropriate knowledge for the development of their profession (Malek, et al.,



2002). A study in southern California showed that only 3% of fitness instructors had a master's degree, 27% had a bachelor's degree and 70% studied less than a bachelor degree (Malek, et al., 2002). In their study on 110 health clubs, McInnis, Hayakawa, Balady (1997) found that in only 34% of fitness clubs did each instructor have a bachelor's degree. In Spain, a high percentage of sports professionals work in sports and physical activities without adequate initial training (Campos-Izquierdo, 2016). Continuing education is an extremely important element once one enters the profession (Whaley, 2003a). It is essential for improving, updating and continuously reconstructing knowledge and skills as well as performance, intervention and professional development (González-Rivera & Campos-Izquierdo, 2014; Whaley, 2003a). Lifelong education takes place through a wide variety of learning activities ranging from the formal to the informal (Colom, 2005). Formal training takes place under regulation of the educational or sports system, while non-formal training occurs as a set of experiences and learning acquired outside the education system (Colom, 2005). Stacey et al., (2010) observed that the most common training that fitness instructors attend is seminars. But Fuller, Feyrer-Melk, Thomas and Harding (1995) discovered that no course had been taken by more than 60% of the health fitness professionals they studied. When focusing on other sports professionals such as coaches, courses and seminars are the most common learning situations (Reade, 2008; Young, 2009).

Studies in which fitness instructors' education is examined according to the emerging variables of gender, age and work experience are non-existent. However, it has been suggested that more research is needed to understand this topic between inexperienced coaches and exceedingly experienced ones and also between genders (Misener & Danylchuk, 2009; Nash & Sproule, 2009), as the number of females in sports training in Spain continues to increase (González-Rivera, 2008). Therefore, it is highly relevant to analyze fitness instructors by taking into account these variables, while making sure all parts of the country are well represented.

Research also illustrates the important role of sport organizations in promoting education and professional development (Misener & Danylchuk, 2009; Nash & Sproule, 2009; Sullivan, et al., 2012). Sport organizations should support the education of their sport workers through certified education programs because such programs appear to be an investment in efficacy (Sullivan, et al., 2012). However, only a few sport organizations provide continuing education experience (Nash & Sproule, 2009; National Association for Sport and Physical Education, 2008). Likewise, there is no research in this field regarding fitness instructors.

Therefore, this article covers more ground regarding the profession of fitness instructor and it is based on and compared with the existing literature on the fitness instructor and other sports professions. The purpose of this paper is twofold:

- Study and examine the initial and continuing education carried out by fitness instructors and interrelate and compare them with one another and in terms of gender, age and work experience.
- Study the lifelong training activities organized for fitness instructors by their organizations in the last 12 months.

METHODS

Participants

631 fitness instructors from Spain participated in the study. The people selected were working in functions of fitness in all provinces of Spain. Their age ranged from 16 to 70 years ($X = 32.82$; $SD = 7.933$), 378 were male and 253 female. As far as work experience, 408 fitness instructors



had less than 10 years of experience and 223 had 10 or more years of experience in the field (Campos-Izquierdo, et al., 2016).

Since it is an infinite or very large population, and the study is working with a confidence interval of 95.5%, and if it is assuming the population variance in the worst case of p equal to 50%, then $q = 50%$, the margin of error sampling allowed would be +2% (Cea, 2010).

Instrument and data collection

To capture the necessary information for the purposes of the study, we used the validated PROAFIDE standardized questionnaire: Human Resources of sport and physical activity. This questionnaire analyzed the professional situation and functions of people working in physical activity and sport in Spain (Campos-Izquierdo, 2011). The survey was oral and individual. It was conducted by personal standardized interview using the questionnaire to all fitness instructors selected and took place in the sport facilities they were working in (Campos-Izquierdo, 2011). To ensure content validity of the instrument, the following measures were taken: expert opinion provided by 16 independent experts, a discussion group composed of national and international experts. In addition a pre-test was carried out to see that the interviews were reliable (Campos-Izquierdo, 2011).

The final version of the PROAFIDE questionnaire consisted of 57 closed questions, divided in five sections: socio-demographic characteristics, sport and physical activity functions, professional performance in specific occupations, work characteristics, and training characteristics (Campos-Izquierdo, 2011). From this questionnaire, three items related to the objectives of this study were selected. The three items were: to determine the highest degree the fitness instructor has studied, to know if the fitness instructor has attended any course, master's degree or ongoing education for the past three years and to discover if the organization has provided any training activity for them during the last year. All the answers were closed. These items have been studied between each other and have been compared with gender, age and work experience.

Procedure

To complete this descriptive study, researchers used a random sample of participants. A probabilistic multi-stage sampling was employed to select the participants. The groups were stratified by: region, province, municipality, sport facility, and subject to be interviewed. Proportional stratification according geographical area allowed interviewing a maximum of two people in each sports facility (Campos-Izquierdo, 2011).

The interviews were conducted by 19 interviewers, face to face with all fitness instructors selected, providing the participants an opportunity to ask any questions they may have had. Fitness instructors knew that it was an anonymous interview and that they could leave it at any time. All interviewers were trained for the PROAFIDE by completing an interviewer training seminar. In it, interviewers were provided with detailed explanations of the procedures to be followed for collecting information and strategies for effective interviewing. On average, the interview lasted fifteen minutes (Campos-Izquierdo, 2011).

Statistics

The methodology followed in this investigation has been descriptive (Thomas, Nelson & Silverman, 2011) and the procedures followed were those of a sectional survey (García Ferrando, 2002).

A univariate and bivariate descriptive analysis has been performed as well as an inferential analysis with Crosstabs Commands that included Pearson χ^2 value and significance, and the Phi correlation coefficient. Data analysis was performed after the computer data was tabulated and mechanized, using the statistical package SPSS for WINDOWS (19.0 V).



Ethical clearance

An ethical clearance was obtained from the ethical commission of the Technical University of Madrid. The commission validated the objective of this project and the methodology. The Law for the Protection of Data was satisfied and fulfilled during the planning and during the project.

RESULTS

Initial education

As seen in Table 1, the initial training analysis shows that 39.8% of Spanish fitness instructors have a university degree, 23.6% of them completed a vocational program, 33.4% of them finished secondary school and 3.2% of them studied primary school or less. In addition, the initial training analysis shows that 36.6% of Spanish fitness instructors could not obtain any of the different types of sport qualifications required to be a fitness instructor because they have studied secondary school or less. Another observation is that males fitness instructors have completed more demanding studies than their female counterparts, such as a university degree ($X_{men} = 42.9\%$; $X_{women} = 35.2\%$) or vocational training ($X_{men} = 24.1\%$; $X_{women} = 22.9\%$). With respect to the other variables, age and work experience were the factors that had the greatest variability among the fitness instructors' ratings. For example, fitness instructors aged from 60 to 70 had studied more university degrees ($X = 50\%$) and secondary school ($X = 50\%$), while those aged from 45 to 59 studied more vocational programs ($X = 30.8\%$) and primary school or less ($X = 5.8\%$). Regarding work experience, fitness instructors with less than ten years of experience studied more vocational programs ($X = 23.8\%$) and secondary school ($X = 38\%$), and those with ten years of experience or more studied a university degree ($X = 47.5\%$) and primary school ($X = 4\%$) the most. In this analysis there is a moderate and statistically significant relationship [$p < .005$; $\Phi = .309 - .423$].

Table 1. Initial education itself and regarding gender, age and work experience

Higher degree studied	N	%	Gender (%)		Age (%)				Work Experience (%)	
			Male	Female	16-29	30-44	45-59	60-70	Less than 10 years	10 years or more
University graduate	251	39.8	42.9	35.2	38.8	44.0	19.2	50	35.5	47.5
Vocational program	149	23.6	24.1	22.9	25.5	21.0	30.8	0	23.8	23.3
Secondary school	211	33.4	30.2	38.3	34.6	30.6	44.2	50	38.0	25.1
Primary school and less	20	3.2	2.8	3.6	1.1	4.4	5.8	0	2.7	4.0
Total	631	100	100	100	100	100	100	100	100	100

Continuing learning situations

The results in Table 2 show that fitness instructors in this study most frequently attend courses with a diploma or certificate ($X = 67.4\%$) for the development of their professional activity. Other sources of knowledge used by these fitness instructors were attendance at conferences ($X = 20.1\%$) and attendance at congresses ($X = 13.3\%$). At lower percentages, fitness instructors also conducted unofficial postgraduate studies ($X = 1.6\%$), master's degrees ($X = 1\%$) and performed work groups ($X = 1\%$). Regarding gender, male fitness instructors attended all



continuing learning situations more than female fitness instructors with the exception of performing work groups. Fitness instructors from 30 to 44 years old carried out more lifelong learning situations followed by those aged from 45 to 59. The first group attended more courses (X = 70.7%), attended more congresses (X = 13.7%) and performed more work groups (X = 1.6%). In comparison those aged from 45 to 59 attended more conferences (X = 27%) and obtained more master's degrees (X = 1.9%). With respect to years of professional experience, fitness instructors with less than 10 years of experience most frequently attended courses (X = 68.1%) and conducted unofficial postgraduate studies (X = 2.1%). On the other hand, fitness instructors with 10 years of experience or more were found to attend more conferences (X = 22.9%), attend more congresses (X = 13.9%), obtain more master's degrees (X = 1.8%) and perform more work groups (X = 1.8%).

Focusing on Table 3, the fitness instructors who had studied a university degree carried out more activities of continuous education than the rest of the instructors ($X_{\text{attendance at conferences}} = 25.5\%$, $X_{\text{attendance at congresses}} = 16.7\%$, $X_{\text{conducting unofficial postgraduate studies}} = 3.2\%$, $X_{\text{conducting master's degrees}} = 2\%$, $X_{\text{performing work groups}} = 2.4\%$). They were the ones who gave the highest percentage to all training activities except to courses, which was also high, but not as high as that of fitness instructors who had studied secondary school. In this analysis there is a moderate and statistically significant relationship [$p < .005$; $\Phi = .323 - .378$].

Table 2

Training	N	%	Gender		Age				Work Experience		
			Male	Female	16-29	30-44	45-59	60-70	Less than 10 years	10 years or more	
Attend courses (with a diploma or certificate)	No	206	32.6	31.5	34.4	35.7	29.3	36.5	50	31.9	34.1
	Yes	425	67.4	68.5	65.6	64.3	70.7	63.5	50	68.1	65.9
Attendance at conferences	No	504	79.9	79.4	80.6	81.4	79.6	73.1	100	81.4	77.1
	Yes	127	20.1	20.6	19.4	18.6	20.4	27.0	0	18.6	22.9
Attendance at congresses	No	547	86.7	86.0	87.7	86.3	86.3	90.4	100	87.0	86.1
	Yes	84	13.3	14.0	12.3	13.7	13.7	9.6	0	13.0	13.9
Conducting unofficial postgraduate studies	No	621	98.4	97.9	99.2	98.9	98.1	98.1	100	98.8	97.8
	Yes	10	1.6	2.1	0.8	1.1	1.9	1.9	0	2.1	0.8
Conducting master's degrees	No	625	99.0	98.9	99.2	99.2	99.0	98.1	100	99.5	98.2
	Yes	6	1.0	1.1	0.8	0.8	1.0	1.9	0	0.5	1.8
Performing work groups	No	625	99.0	99.2	98.8	99.6	98.4	100	100	99.5	98.2
	Yes	6	1.0	0.8	1.2	0.4	1.6	0	0	0.5	1.8

Continuing learning situations that fitness instructors have done during the last 3 years and regard it to age, gender and work experience



Table 3

Training		University graduate	Vocational training	Secondary school	Primary school or less
Attend courses (with a diploma o certificate)	No	35.5	32.2	29.4	35.0
	Yes	64.5	67.8	70.6	65.0
Attendance at conferences	No	74.5	80.5	84.4	95.0
	Yes	25.5	19.5	15.6	5.0
Attendance at congresses	No	83.3	91.3	86.3	100
	Yes	16.7	8.7	13.7	0
Conducting unofficial postgraduate studies	No	96.8	99.3	99.5	100
	Yes	3.2	0.7	0.5	0
Conducting master´s degrees	No	98.0	100	99.5	100
	Yes	2.0	0	0.5	0
Performing work groups	No	97.6	100	100	100
	Yes	2.4	0	0	0

Continuing learning situations that fitness instructors have done during the last 3 years regarding the higher degree of studies.

Training activities organized by organizations

Analyzing the training activities provided by the organizations (Table 4) where fitness instructors were working, 28.7% organized lifelong learning situations in the past 12 months. In this analysis there is a moderate and statistically significant relationship [$p < .005$; $\Phi = .300 - .485$].

Table 4. Training activities arranged by organizations in the last 12 months where fitness instructors where working

Organization of training activities	N	%
No	443	70,2
Some organization yes and others no	7	1,1
Yes	181	28,7

DISCUSSION

The results of this study indicated that 39.8% of the respondents had studied a university degree and 60.2% had less than a bachelor´s degree (23.6% had finished vocational training, 33.4% had studied secondary school and 3.2% had studied primary school or less). Although



having a bachelor's degree or even completing vocational training is necessary for fitness instructors (Abbott, 2009; Malek et al., 2002; Whaley, 2003b) and it is a predictor of fitness trainers' knowledge (Sullivan, et al., 2012), in Spain (see Table 1) we can see that only a little more than half of those who work as fitness instructors have the necessary degree. These findings lend some support the study examining current knowledge of 115 health fitness professionals performed by Malek et al. (2002), who said that most respondents had no college degree. These results were also in connection with McInnis et al. study (1997) carried out in 110 health clubs, where in only 34% of the health clubs did each instructor have a bachelor's degree. Inadequate initial training has increased in recent decades (Campos-Izquierdo, 2016), which prevents the quality and efficiency of this profession from being guaranteed, and may be causing harm and risks to health, safety and education of citizens (Campos-Izquierdo, 2010). This situation also occurs in other European countries such as Italy (Madella, 2002) or Portugal (Almeida, 2007) and in Latin American countries (Hoyos, Gutiérrez and Pérez, 2012). If we analyze the variables under study, more male fitness instructors had bachelor's degrees than female fitness instructors. Referring to age, 50% of fitness instructors aged 60 to 70 studied a bachelor's degree, which was the highest percentage, followed by those aged 30 to 44. Regarding work experience, more fitness instructors with 10 or more years of experience studied bachelor's degrees than those who had less than 10 years of experience.

We continue by noticing that many authors consider lifelong training necessary (Vargas-Tonsing, 2007; Whaley, 2003a; Whaley 2003b). It is needed to ensure standards for qualified and well-equipped sport professionals (Misener & Danylchuk, 2009). This research has allowed us to prove that Spanish fitness instructors have done some continuous training during the last 3 years: courses with a diploma and certificate, attendance at conferences, attendance at congresses, conducting unofficial postgraduate studies, conducting master's degrees and performing work groups. The most common form of training attended was courses with a diploma or certificate. 68.5% of instructors had attended a course during the last 3 years. The attendance at courses is always highlighted, as shown by Campos-Izquierdo (2010). This result is in connection with Fuller et al. (1995) who said that courses were the most common source of lifelong learning, but they emphasize that no course had been taken by more than 60% of the health fitness professionals they interviewed. According to Misener and Danylchuk (2009), continuing education courses increase motivation, strategy, technique and character building. The next most common learning situations in our research were as follows: attendance at conferences with 20.1% and attendance at congresses with 13.3%. The other situations were practically nonexistent: conducting unofficial postgraduate studies with 1.6%, conducting master's degrees with 1.0% and performing work groups with 1.0%. These are minority situations because they are more specialized, sporadic and expensive; in addition, fitness instructors need high levels of knowledge to understand them. Regarding the variable of gender, male fitness instructors attended more continuing training than females. Misener and Danylchuk (2009) reported in their study on coaching that males are more likely to hold formal coaching certification than females. Regarding age and work experience, fitness instructors from 30 to 45 and with 10 years of experience or more attended continuing training the most. Perhaps the reason for the low turnout of young and less experienced fitness instructors to continuing training is because it is not effective for them. To be effective, continuing training should be continuous, coherent, and progressive, with reflective practice.

By linking the highest level of studies with ongoing training we notice that the more advanced the initial training, the more permanent and diverse the formation (Campos-Izquierdo, 2016). We observe that fitness instructors with a bachelor's degree participated in fewer courses with a diploma or certificate than the rest. However, they are the most involved in other continuing training activities, and these are much more demanding, concrete and specific. This



may be because the courses are not as useful for them as for the fitness instructors with less education. Fitness instructors with a university degree are better educated and have higher skills and they probably need activities that provide them with new knowledge. These results are supported by Stacey et al. (2010) who researched that fitness trainers holding higher levels of education participate in more specific types of continuing education.

Finally, the promotion and the realization of permanent internal formation by organizations are important. When we asked the instructors if their organization had arranged any activity of continuing education for them over the past three years, 70.2% said no, only 28.7% said yes and 1.1% said that sometimes. Spanish companies should take into account that training is the basis of a job well done and offer training according to instructors' needs (Campos-Izquierdo, 2010). Sport organizations should support the education of their sport workers through certified education programs because such programs appear to be an investment in efficacy (Sullivan, et al., 2012). However, according to our study, only a few sport organizations provide continuing education experience (Nash & Sproule, 2009; National Association for Sport and Physical Education, 2008).

CONCLUSIONS

The results obtained indicate that the profession of fitness instructor in Spain is being developed and performed by a majority of people who do not have the appropriate initial training. On the other hand, Spanish fitness instructors have completed some lifelong training during the last 3 years, with the most common being courses with a diploma and certificate.

Efforts should continue to develop relevant and useful learning situations for fitness instructors as well as extend their knowledge into new areas. Sport organizations should provide continuing education experiences for their fitness instructors. Such experiences appear to be a wise investment in terms of quality, effectiveness and health. In this sense, it is important that the continuous training of these professionals encourages constant reflection, constructive criticism, professional rigor and orientation towards excellence (González-Rivera & Campos-Izquierdo, 2014).

It is not enough to encourage organizations to organize and offer training to their employees, but fitness instructors must participate in the training and also meet the required initial training. After all, they are working with people's health.

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