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Abstract:	The present study focuses on the demographic and labor characteristics of coaches in Spain. Kanter's theory (1977) on occupational sex segregation will be used as a guiding framework. The study was conducted with 1685 coaches (82.3% men and 17.7% women) from different sports and performance domains. The results show that there is an under-representation of women as coaches in Spain and data highlights that coaches' gender is related to three structural factors: opportunity, power, and proportion. The present data reveal that women are younger, less likely to be in a marriage-like relationship, less likely to have children, and more likely to have competed at a high level as an athlete when compared to their male counterparts. However, fewer women than men access and participate in coach education in Catalonia and the working status of women was different to that of men. To expand, women worked less hours, were more likely to be assistant coaches, and had less years of coaching experience. Understanding of how gender influences women's access, progression, and retention in coaching in Spain illustrates the need for gender sport policies and practices in sport organisations. This approach can benefit not only women, but the diversity and enrichment of the coaching system.

Understanding the gendered coaching workforce in Spanish sport

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Introduction

Since the 1980s, numerous authors have examined the under-representation of women in high-level coaching positions, in different countries such as USA, New Zealand, UK, Canada, Australia, Germany, Norway and Czech Republic.¹⁻⁷ As an example in the UK, a report by Sports Coach UK in 2011,⁸ reported that 69% of practicing coaches were men. In the USA, Acosta and Carpenter have studied the under-representation of female coaches in the US collegiate sports during the last four decades. In 2014,¹ they reported that only one out of 4.5 teams (male and female) were coached by a woman. In Canada, a country known for its gender equality policies and that is on the UN inequality index ranked as number nine,⁹ unexpectedly men represent 80% of all collegiate coaches.² However, there is little research about the situation of women as coaches in Spain.¹⁰

In the Spanish context, women's participation in recreational and top-level sport has increased considerably as part of wider social and political change within the country, principally since the transition to democracy that began in 1975, and it has been largely socially accepted.¹¹ Nevertheless, despite this trend, albeit slow in its growth, from 26% of women participating in sport in 1990 to 31% in 2014, as well as the extension of specific broader policies to promote equality between women and men in the country, gender inequalities remain today in most areas of Spanish sport.¹² Gender inequality is particularly

acute when examining the scarce presence of women in leading roles in Spanish sport organizations. During the last years, several studies have shown and analysed the under-representation of women in decision-making positions in the country.^{13,14} Nevertheless, there is a lack of knowledge about the shortage of females in coaching in this specific context.

The purpose of this study is to explore why females continue to be underrepresented in sports coaching in Spain. This article aims to expand the existing literature by addressing the issue of gender inequality from a southern European country and to contribute to a larger, cross-cultural view of the under-representation of female coaches. In doing so, we seek to produce a knowledge base that can serve as a foundation for future policy making in Spain, and to evidence the need for policy plans and specific actions to address this situation in the different organizations of the Spanish sport system. Such analysis may broaden insights that can increase the diversity of the coaching system.

Understanding the context: gender policies and coaching in Spain

Since the beginning of the 21st century, the state, regional and local governments in Spain have designed several strategic plans to promote women's participation in sports, with different aims.^{15,16} This political will is especially reflected in the 2007 Equality Act,¹⁷ which includes a specific article to promote women's participation in organized and

unorganized sports at various ages, levels, and roles. But translation of a written policy into practice is not always easy or straightforward, and not all policy implementation achieves the expected outcomes.¹⁸⁻²¹

In sports coaching, data shows the need to focus also on progressing women as coaches. In the Rio 2016 Olympic and Paralympic Games, Spanish women athletes made up 46.6% of the competitive Spanish cohort.²² However, this data does not correspond with women's presence in elite coaching. Only ten of the 79 Olympic Spanish coaches (12.7%)²³ and four out of 46 Paralympic Spanish coaches (8.7%) were women.²⁴ Aside to the Olympic level, in the region of Catalonia where this study is focused, there is also a lower presence of women as coaches (11.7%)²⁵ who are registered in the Catalan sports federations. Considering that men represent 76.3% and women 23.7% of participation in federated sports, it is evident that there is a significant under-representation of women coaches in the Catalan sport system but little is known about why this is the case.

In order to delve into this situation, it needs to be understood how coach education and sport organizations are structured in Spain, as they are key elements in coaches' career development. The coaching curriculum consists of a regulated system of consecutive courses providing coach certification from level 1 (the minimum) to level 3 (maximum). This regulated system of coach education is important from a gender perspective because

according a recent study conducted in Spain,²⁶ women coaches prioritised formal education more than men.

Moreover, the types of organizations in which a coach can develop a professional career in Spain are sport clubs, sport federations, schools, and commercial organizations.²⁷ According to a recent study regarding the sport labor market in Catalonia,²⁸ only 12% of coaches had full-time jobs while the majority in this profession work minimal weekly hours and in the voluntary sector, especially in sport clubs. These organisations belong to the third sector and are characterized by a significant amount of voluntary work from its members.²⁷ When taken together, these factors contribute to the casualization of coaching work and the need for coaches to engage with additional roles alongside their coaching commitments. Such conditions make the coaching labor market unstable.²⁸

Theoretical framework

To address the aim of the present study we use Kanter's (1977) theory of occupational sex segregation as a basis for discussion.²⁹ This theory has been utilised to study the business sector and occupations in general, and was first applied to the field of coaching in 1987 by Knoppers.³⁰ More recently, other researchers within the subject area have subsequently used this theory.^{2,3} Kanter's theory focuses on three interacting and closely related structural factors in the workplace that may explain the scarcity of women

coaches. These three key concepts are opportunity, power, and proportions.

According to Knoppers, opportunity in the coaching context is defined as “the shape of one’s career ladder, perceived obstacles and satisfaction, access to training and availability and type of feedback”.³⁰ Previous studies have indicated gendered differences in the career ladder of men and women coaches.^{1,2} Opportunity is often gender-related and there are many obstacles that diminish opportunities for women coaches in their career development, such as work-family conflict and limited access to coaching male athletes. Moreover, men’s sports have often more financial opportunities (e.g., budgets, sponsors, professionalization) than women’s sports. The lack of opportunities for women coaches may affect their entrance, progression and premature retirement in the coaching profession.

Knoppers,³⁰ described power as “one’s capacity to mobilize resources”. In the coaching field, the mobilization of resources refers to coaches’ ability to access full-time administrative support, have real influence on budgets and on hiring assistant coaches. The coaching profession has been historically a male dominated domain leading to a proliferation of the “old boys” network. This impacts gender imbalanced hiring patterns and practices which in turn contributes to homologous reproduction.^{31,32} As a result, women occupy less powerful positions which will have an impact on the level of control they have over their own career as well as influence over others within decision making

positions.

Proportion, described by Knoppers³⁰ as “the ratio of women to men”, is related to opportunity and power as structural concepts of the workplace. The smaller this ratio, the greater the possibility that women are treated as tokens.²⁹ The low presence of women in coaching roles and powerful leadership positions within sport organizations can perpetuate the ongoing issue of the under-representation of women in coaching. The following sections outline the methodological approach and the findings and discussion of the study.

Method

Participants

The participants were 1685 Catalan coaches of whom 1386 were men (82.3%) and 299 were women (17.7%). The coaches were aged between 18 and 74 years ($M=32.9$, $SD=11.66$) and were coaching 31 different individual (e.g., gymnastics, cycling, golf, horse riding, tennis) and team (e.g., soccer, basketball, handball, volleyball) sports at the time of data collection. The majority of the sample (95.4%) was born in Spain while the rest were born in different 29 countries (e.g., Argentina, Morocco, Colombia, Ecuador). Coaches occupied different positions such as technical director (12.5%), head coach (73.1%), assistant coach (12.3%) and athletic trainer (2.1%). Further demographic details of the sample are included in table 1.

[Insert Table 1.]

Measures

Following ethical approval from the Research Ethics Committee of the Sport Administration of Catalonia, participants were asked to complete an 18-item questionnaire, which was designed for the purpose of the study using relevant published research.^{6,33,34} The questionnaire was designed to collect descriptive demographic data about the participants and consisted of three sections: individual characteristics, professional characteristics, and labor market characteristics, that each consisted of seven, eight, and three items respectively.

Individual characteristics: The items within this section of the questionnaire related to coaches' background and family situation. Specifically, the items collected information about the coaches' gender, age, country of birth, educational background, marriage-like relationship, number of children, and highest level competed as an athlete.

Professional characteristics: In this section of the questionnaire, coaches were asked about their coach qualification, the sport they coach, their experience as a coach (in years), their workload per week, their current coaching level, their current role as coach, and the age and gender of the athletes with whom they work all in order to glean information about professional characteristics.

Labor market characteristics: This section focused on information about the coaches' employing organization, their coaching employment basis (voluntary, remunerate [paid]), and any additional employment alongside sports coaching.

Procedure

Potential participants were sent a link to the online version of the questionnaire via an e-mail. Distribution of the questionnaire was facilitated by *Escola Catalana de l'Esport*, which is the organization in charge of regulating and standardizing the training and education of sports coaches in the region of Catalonia. Catalan Sports Federations also assisted with participant recruitment by disseminating a link to the online questionnaire via e-mail to active coaches. Informed consent was obtained from each participant at the start of the online survey. Data was collected between May and July 2016.

Data Analysis

Data was entered into and analysed using SPSS (version 18). Descriptive statistics were used to summarize the demographic and coaching practice-related information. Chi-square tests and t-tests were conducted to determine whether gender differences were statistically significant.

Results

The relationship between the coaches' gender was examined in relation to

individual, professional, and labor characteristics in the coaching context.

Individual characteristics

The women in this sample were significantly younger than the men ($t_{(550.19)} = 12.23$, $p < .0001$). No significant differences were observed in educational level between male and female coaches. In terms of **marriage-like relationship**, there was a significant difference between men and women, such that women were less likely to be married or cohabiting than men. There was also a significant difference between men and women in the number of children they had since there were 84.6% of women coaches without children, compared to 61.8% of men. Turning to the levels of competitive experience, there was a significant **gendered** difference in that there were more women with **high performance experience** as an athlete at international (11.0%) and national level (26.4%).

[Insert Table 2.]

Professional characteristics

The professional characteristics of the sample are presented in table 3. Several meaningful differences in the distribution of men and women coaches were observed. For example, a higher percentage of men (42.5%) had higher coach certifications (levels 2 and 3) than women (23.7%). In addition, there were significant differences in current coaching level with more women coaching at the community level (without competition) and more

men coaching at regional (33.8%) and local (48.1%) levels. The results also show that there are slightly more women coaching at international (5.0%) and national level (12.0%) when compared to men in our sample.

[Insert Table 3.]

With reference to the type of sports **that the participants coached**, significant gender differences were observed. Specifically, more women were coaching individual sports (28.4%) than men (8.3%) with the majority of men were coaching team sports (91.7%). Of the 31 sports represented by the sample of coaches, only one had a majority of women coaches: gymnastics (n=43, 93%). **Two** sports in our sample had almost equal numbers of men and women coaches: volleyball (n=85, 45.9% women) **and** tennis (n=28, 42.6% women). The remaining sports that were represented by the sample had a majority of men coaches. In addition, in the sample there were two sports (cycling, n=21 and water polo, n=22) in which there were no female coaches. In the sports with more federated licenses in Catalonia: football and basketball, 95.5% and 78.7% respectively of our sample of coaches were men.

Turning to the type of coaching job, significant differences were found in that women were less likely to be a head coach or an athletic trainer and were more likely to be an assistant coach. There was also a significant difference between the hours of coaching

per week that men and women engaged with, such that a greater proportion of men (88%) worked more than five hours per week while 20.7% of women worked less than five hours per week. There was a significant difference in the years of experience as a coach between men and women: men had more years of experience than women. The gender proportion of coaches with more than 10 years of experience was 477 men (89.7%) and 55 women (10.3%). The results, therefore, highlight that women are not accruing ten years worth of coaching experience.

As shown in table 4, there was a significant association between **gender and age of the athletes with whom the coaches worked**. Only 4.8% of women in the study coached male athletes. Taking into account that the proportion of female coaches in this study was 17.7%, there is an under-representation of women who are coaching male athletes in Catalonia. Indeed, this means that there is also an overrepresentation of women and men coaching athletes of their same gender. Due to the lack of women coaches in the Catalan coaching population, the percentage of female athletes coached by a man remains higher (54.4%) than female athletes who are coached by a woman (45.6%). In terms of the ages of the athletes, there were significant differences between men and women, with women coaching proportionally younger athletes (aged under 12 years old) than men. The proportion of women who coached senior teams was lower than those coaching the rest of

playing standards in that only 6.9% of male and female senior athletes (+18 years old) were coached by a woman.

[Insert Table 4.]

Labor characteristics in the coaching context

As shown in table 5, there were significant differences in the types of organizations that men and women were employed in the Catalan coaching field. Specifically, the proportion of women who were coaching in schools and sport federations was slightly higher than the proportion of men in the same roles, while men had a more substantial presence in sport clubs and sport associations. In terms of remunerate and voluntary sector roles, there was a significant difference between men and women in that a higher proportion of women were working in the remunerate sector (73.2%), while the proportion of men in this sector is only 65.2%. In the voluntary sector, the percentage of male coaches is higher (34.8%) than female coaches (26.8%). There was a significant difference between men and woman regarding additional jobs alongside the coaching role with men more frequently having another job (69.5%) when compared to women (55.9%).

To summarize, the results highlight the under-representation and distribution of women in the coaching field and recognize that women who currently work in this profession in Spain are in different circumstances to their male counterparts regarding their

individual, professional, and labor characteristics.

[Insert Table 5.]

The differences in the individual, professional and labor market characteristics of male and female coaches highlight the impact on their opportunities, power and proportion in the coaching profession, as we develop in the next section.

Discussion

The findings of the present study provide an evidence of the differences between male and female coaches. For understanding this different and unequal situation, the results will be discussed using Kanter's theory of occupational sex segregation structured within the three key concepts: opportunity, power, and proportions. By using this theory, the need for policy plans and specific actions will be emphasised in order to address this situation within the different organizations of the Spanish sport system.

In relation to opportunity, the study shows that women coaches had higher competitive levels as athletes than men. These results are similar to those presented by Knoppers.³⁰ She suggested that men with lower competitive experience as athletes may easily enter the profession, while women with lower competitive experience can often experience the first obstacle to coach at entry point in the profession. In the present study, even though women had higher competitive levels as athletes, this appeared to yield no

benefit in their career development. Another obstacle inhibiting opportunity for women in coaching is that this profession may be seen as being incompatible with marriage and having a family.³⁰ The results of this study reflect the family-work conflict because women in our sample were younger, less likely to be married or cohabiting, and most **did not have** children. Other studies have also reported that few women coaches are engaged in a marriage or marriage-like relationship, which suggests a conflict between a career in the coaching profession and the family situation.^{2,35} In a study also conducted in Spain with the general population,³⁶ it was found that gender inequalities at work were related to combining family life with a job. In Spain, household labor is **still mainly carried out** by women, while the contribution of men to domestic work is very low.³⁷ Our findings illustrate that this **gendered** division of work also affects the representation and progression of men and woman in the coaching system, as it make it difficult for women to pursue and develop their career as coaches.

Turning to the opportunity of access, the data is in line with previous research,³⁸ and show that although women may have the opportunity to be enrolled in coaching courses; their attendance is limited, especially at higher levels of coach education. This data is evidence of the existence of the “bottle neck” in the coach education in Spain as described also in the United Kingdom and in Germany.³⁹ Another aspect to take into account is the

limited access of women to coaching men's sports, narrowing the field of employment and thus, reducing the incentive to undertake higher coaching qualifications. The sports that have traditionally been regarded as masculine and consequently have been masculinised (e.g., cycling, soccer, rugby) are mostly occupied by men coaches in the Spanish context.²⁵ Meanwhile, within the sports with more female athletes, such as gymnastics and volleyball, women were in the majority as coaches. Nevertheless, taking in account that the percentage of women with volleyball federated licenses is one of the highest in Spain, women coaches in this sport are still under-represented. Given that female athletes that are coached by women are more likely to pursue a career as coaches,⁴⁰ the absence of role models may contribute to the reproduction of inequality. The results suggest that there is a majority of sports where there is an under-representation of women coaches, so the transition from competing to coaching may be less common for women than for men.

Another example of marginalisation, taking into account opportunities and access to coaching, is the weekly workload because men tend to work more hours than women. As the findings show, more men are employed in coaching than women in a variety of sports and across men and women's sports. Women's opportunities are narrower and the circumstances of women's sport (not as well-resourced with low-job stability and security) mean that there are less stable, full-time jobs for coaches in the women's game.^{11,12} In this

sense, to have a part-time job can mean less salary and often the need for a second job, or can imply a situation of economic dependency. In contrast, male coaches tend to have full-time jobs or another job besides coaching, as described in previous studies.²⁸

Related to the years of experience of coaches in the current study, the findings show that men had more experience as coaches than women, which could be explained as a result of a premature career retirement by women coaches. This data again reflects the impact of occupational sex segregation described by Kanter and consequently, the possibilities of development for women coaches may be diminished.

According to Kanter's theory²⁹, the gender differences are remarkable when analysing power relations in the coaching field. In 2008, it was stated that the coaching system in the United Kingdom was contributing to the inferior status of female coaches.³⁹ Linking this statement to the results of the present study, the Spanish coaching system may also contribute to this inferior status of women coaches. In a German study,⁴ it was found that high performance sport coaching positions meant working overtime and at unorthodox hours as a rule, which may make it difficult to reconcile the job and a family. According to the coaching position, our findings demonstrate that the majority of women occupy assistant coach roles, while men mainly develop their role as head coach or technical director. In the Spanish context, technical directors develop multiple tasks inside their

organizations such as coaching athletes, recruiting coaches, providing work guidelines for the different teams and supervising training sessions and matches. Technical directors are a point of connection between managers and coaches. These positions are seen as responsibility roles with more power in decision-making, better labor conditions, more social recognition, and more influence in hiring process. Consequently, it was found that hierarchies continue to exist.⁴¹ Then, because most women are excluded from positions of power, the findings suggest that the possibilities of development for women coaches may be diminished due to the hiring practices as a consequence of the homo-social reproduction.³² In addition, the results also show that the presence of women compared to men is higher in coaching roles working with participants at a recreational level or with children, rather than with teams who are in regular and formal competitions. As the recreational teams are not a priority in most of the sport organizations,⁴² it also perpetuates and reinforces the ideas of less powerful positions occupied by women coaches.

Furthermore, although the results show that the proportion of women coaches coaching at national and international levels of performance is marginally higher, to better understand this data it is necessary to take into account the gender and age of the athletes they coach. Women coaching at the international level coach mixed groups and female athletes and at the national level women mainly coach female athletes. So, as previous

studies have also showed,^{2,43} there is a lack of women coaching men. According to the gender and age of the athletes, women mainly coach female athletes and children as described in previous studies that have been conducted in other contexts.⁴⁴ This could be explained by the gendered attribution of women to take care of children,⁴¹ while men mainly coach men and also the majority of women athletes, especially senior teams with more social recognition. By increasing the number of women coaching male athletes, those athletes can benefit from experiencing a (gendered) diversity of role models.⁴³

Regarding proportion as the third key construct of organisational context as Kanter proposed,²⁹ in the present study it was found that one out of 4.6 coaches was a woman. Despite the different cultural context, gender policies and sport system, the proportion of coaches in Spain is very similar to other countries as in the United States.¹ This result reveals how coaching is a male dominated profession where women are the exception.⁴ This predominance may contribute to the segregation and marginalisation of women within the structures and relationships in the organisations.⁴⁵ As a result of this structural segregation and taking into consideration the types of organizations in which Spanish coaches' work, women tend to work more in organisations related to school sports (with children or without competition) or sport federations (where there are female national teams). In Spain, these organisations mostly belong to the paid employment sector of sport,

which could be one of the reasons why a higher proportion of women work in this sector.

Through this study it has been shown how the situation in the cultural context of a Southern Europe country is similar to the situation in other countries.^{1,2,4,39} The social-structural conditions of coaching such as opportunity, power, and proportion defined by Kanter,²⁹ have been identified in the Spanish context, and these conditions contribute to the under-representation and marginalization of women.

Concluding Comments

The findings of this study show that there is an under-representation and unequal distribution of women coaching in Spain and that the characteristics of men and women coaches are different. The reproduction of the gender order is evident when analysing the roles and status of male and female coaches. The present study contributes to the existing literature by showing similar patterns of the under-representation of women in Spain as the world-wide trend described by Hartmann-Tews and Pfister.⁴⁶

In conclusion, from a practical point of view, this study implicates that gender policies in Spain have to give further attention to the role of women as coaches. There is a need to devise policies to provide support for women coaches inside organizations that adjusts to the cultural values and the social environment in Spain. According to these findings, Spanish sport organizations and coach educational institutions need to transform

the gendered nature of the coaching system using a more sophisticated approach: free access is not enough, it is also necessary to increase opportunities and power for women from inside the organizations.

To improve women's access, progression, and retention as coaches, the organizations have to change the hidden obstacles to women along all points of the coaching pathway starting from the entry point. The findings from the study illustrates the low numbers of women undertaking education courses, especially at the higher levels. In order to raise awareness within sporting governing bodies, it is suggested to analyse the ways in which training courses are advertised. It seems logical to develop promotional campaigns to engage more women in coaching, but these campaigns will be futile if there is a lack of opportunities to progress beyond the course. In line with this, recommendations should be focused on improving coaching recruitment strategies with initiatives and practices that support a culture of diversity,⁴⁷ that encourage others to broaden their perspectives and promotes people-oriented leadership, proactive hiring, diversity training and teamwork.

The present study shows that the proportion of men is higher, they have more years of experience and they occupy more powerful positions. This difference denotes that they are more likely to establish the "old boys" network described in previous literature,³⁰ that

provides access and promotion in the coaching field. In order to empower women in coaching, mentoring programs have been described as **good practice**.⁴⁸ Such programs can help women coaches to broaden their network and can support them during their coaching career. Moreover, conventions associated with traditional family roles and house responsibilities needs to be challenged. Sport organizations could financially support childcare for men and women coaches and also ensure that women's coaching jobs are protected if they go on maternity leave.

To improve the progression of coaches, systemic and structural change is needed. As defined by Knoppers,³⁰ it means to empower women to make decisions without having to receive approval from others, having a network to support each other, coaching men and women teams at all levels, having access to knowledge about the organization, and have influence on the creation and implementation of coaching-related policies. Further research focused on women coaches or those women who have left the coaching profession, can further contribute to our understanding of how sporting governing bodies can facilitate or hinder the coaching careers of women.

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Table 1. Characteristics of the final sample

Variable	Sub-categories	Men (% within columns)		Women (% within columns)	
Age in years, M (SD)		34.2	(11.8)	26.8	(8.9)
Married or cohabiting	Yes	729	(52.6%)	71	(23.7%)
	No	657	(47.4%)	228	(76.3%)
Children	0	856	(61.8%)	253	(84.6%)
	1	166	(12.0%)	20	(6.7%)
	2	303	(21.9%)	23	(7.7%)
	3	47	(3.4%)	3	(1.0%)
	4 or more	14	(1.0%)	0	(0.0%)
Education	No studies	3	(0.2%)	0	(0.0%)
	Primary school diploma	42	(3.0%)	3	(1.0%)
	High school diploma	115	(8.3%)	24	(8.0%)
	Vocational training	680	(49.1%)	147	(49.2%)
	University degree	410	(29.6%)	95	(31.8%)
	Master's degree	130	(9.4%)	29	(9.7%)
	Doctoral degree	1	(0.3%)	1	(0.3%)
Highest level competed as an athlete	Never	87	(6.3%)	12	(4.0%)
	Local level	417	(30.1%)	63	(21.1%)
	Regional level	520	(37.5%)	112	(37.5%)
	National	276	(19.9%)	79	(26.4%)
	International	86	(6.2%)	33	(11.0%)

Table 2. Chi-square analysis of the individual characteristics of coaches

Variable	Chi-Square Tests	Interpretation
Education (academic)	χ^2 NS	Men and women have similar levels of education.
Married or cohabiting	$\chi^2(1)= 82.01, p<.0001$	More men were married or cohabiting when compared to women coaches.
Children	$\chi^2(4)= 59.02, p<.0001$	Less women coaches reported having children when compared to men coaches.
Highest level competed as athlete	$\chi^2(4)= 22.24, p<.0001$	More women with high competitive experience when compared to men coaches.

Table 3. Professional characteristics

		Men (% within columns)		Women (% within columns)		Chi-Square Tests	Interpretation
Coach certification	Without qualification	45	(3.2%)	16	(5.4%)	$\chi^2(4) = 46.53, p < .0001$	More men with higher coach certification
	Sport instructor	338	(24.4%)	73	(24.4%)		
	Level 1	414	(29.9%)	139	(46.5%)		
	Level 2	362	(26.1%)	39	(13.0%)		
	Level 3 (National)	227	(16.4%)	32	(10.7%)		
Coaching level	Without competition	47	(3.4%)	33	(11.0%)	$\chi^2(4) = 35.90, p < .0001$	More women coaching at the community level (without competition). More men coaching at regional and local level.
	Local level	667	(48.1%)	135	(45.2%)		
	Regional level	469	(33.8%)	80	(26.8%)		
	National level	152	(11.0%)	36	(12.0%)		
	International level	51	(3.7%)	15	(5.0%)		
Team or Individual	Team	1271	(91.7%)	214	(71.6%)	$\chi^2(1) = 95.28, p < .0001$	More men coaching team sports. More women coaching individual.
	Individual	115	(8.3%)	85	(28.4%)		
Current role	Technical direction	178	(12.8%)	32	(10.7%)	$\chi^2(3) = 28.14, p < .0001$	More male head coaches. More women as assistant coaches.
	Head coach	1028	(74.2%)	204	(68.2%)		
	Assistant coach	146	(10.5%)	62	(20.7%)		
	Athletic trainer	34	(2.5%)	1	(0.3%)		
Hours of training per week	< 5 hours	166	(12.0%)	62	(20.7%)	$\chi^2(4) = 22.97, p < .0001$	More women coaching less than 5 hours per week. More men coaching more than 5 hours.
	5-10 hours	791	(57.1%)	145	(48.5%)		
	11-20 hours	345	(24.9%)	78	(26.1%)		
	21-34 hours	13	(0.9%)	6	(2.0%)		
	>35 hours	71	(5.1%)	8	(2.7%)		
Total years as coach	< 3 years	166	(12.0%)	79	(26.4%)	$\chi^2(5) = 61.89, p < .0001$	More men with more years of experience as coach.
	3-5 years	344	(24.8%)	91	(30.4%)		
	6-9 years	285	(20.6%)	54	(18.1%)		
	10-14 years	218	(15.7%)	37	(12.4%)		
	15-19 years	134	(9.7%)	17	(5.7%)		
	20 years or more	239	(17.2%)	21	(7.0%)		

Table 4. Characteristics of the athletes

		Men (% within row)		Women (% within row)		Chi-Square Tests
Sex of athletes	Male	981	(95.2%)	49	(4.8%)	$\chi^2(2) = 341.07, p < .0001$
	Female	209	(54.4%)	175	(45.6%)	
	Both	196	(72.3%)	75	(27.7%)	
Age of the athletes (years)	< 6	12	(40.0%)	18	(60.0%)	$\chi^2(7) = 118.51, p < .0001$
	6-8	70	(66.7%)	35	(33.3%)	
	9-10	124	(72.1%)	48	(27.9%)	
	11-12	226	(75.1%)	75	(24.9%)	
	13-14	223	(82.9%)	46	(17.1%)	
	15-17	352	(87.8%)	49	(12.2%)	
	18-20	72	(94.7%)	4	(5.3%)	
	> 20	307	(92.8%)	24	(7.2%)	

Table 5. Coaching labor characteristics according to sex

		Men (% within columns)		Women (% within columns)		Chi-Square Tests
Type of organisation	Club	1200	(86.6%)	233	(77.9%)	$\chi^2(3) = 25.31, p < .0001$
	Federation	46	(3.3%)	16	(5.4%)	
	School	71	(5.1%)	37	(12.4%)	
	Company	69	(5.0%)	13	(4.3%)	
Sector	Voluntary	482	(34.8%)	80	(26.8%)	$\chi^2(1) = 7.12, p < .01$
	Paid	904	(65.2%)	219	(73.2%)	
Alternative job beside coaching	Yes	964	(69.5%)	167	(55.9%)	$\chi^2(1) = 20.92, p < .0001$
	No	422	(30.5%)	132	(44.1%)	