






Sports Coaching

Gender inequality in table tennis: an analysis of women coaches in certification courses

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Abstract - Aim: This study aimed to investigate the presence of women coaches in table tennis certification courses carried out by national and international federations. **Methods:** We carried out an analysis on documents extracted from the official websites of the Brazilian Table Tennis Confederation (CBTM) and the International Table Tennis Federation (ITTF). Those documents presented the certificated coaches by each organization. We also collected information about the location of the coach according to the five macro-regions of Brazil. **Results:** We found a greater frequency of men (89.3%) compared to women (10.7%) in ITTF courses and, in Brazil, we also found a higher rate of men (83.7%) compared to women (16.3%) certified by CBTM. We found no increase in women's participation in ITTF courses over the years. In both national and international courses, most of the women coaches (international = 36%; national = 46.4%) were from the Southeast, while few women coaches were found in the Northeast and North. **Conclusion:** The findings of our study reveal that the training process of table tennis coaches is still mostly occupied by men. We also found a discrepancy between the macro-regions of the country where most women coaches are from the Southeast. CBTM managed to almost double the women's representation among coaches (from 10.7% to 16%) due to the policy that has been adopted in an attempt to increase the number of women in the sport. We highlight the importance of gender equality policies to improve women coaches' participation in table tennis.

Keywords: sport, empowerment, education, sports organization, coaching.

Introduction

The participation of women in sports coaching has received increasing attention from the scientific literature and sports organizations¹. If the number of girls as sports practitioners has increased in recent decades, even though they still face several challenges and segregation, women continue to be underrepresented in coaching positions^{2,3}. Recent studies have shown the participation of approximately 15% of women as coaches of women's football teams⁴, basketball teams⁵, and sports in general⁶ in Brazil. With men dominating leadership positions, girls do not identify sport as a possible professional career and boys do not recognize the possibility of women participating in this environment⁷. Women coaches are role models for young practitioners and play an important role in influencing girls in their career choices as children can identify with this profession and gain confidence in their abilities as future coaches in sport⁸⁻¹⁰. Furthermore, the presence of women in decision-making positions is fundamental for the proposal for more equitable sports policies.

After an extensive literature review and using Bronfenbrenner's ecological systems theory, LaVoi and Dutove¹⁰ organized the barriers and supports experienced by women coaches into four interdependent levels: individual, interpersonal, organizational, and sociocultural. The individual is the first and most proximal level representing the personal, biological, and psychological characteristics (i.e. emotions, beliefs, and personality) that can facilitate or hinder her progression as a coach. The second level represents the interpersonal influence of colleagues, family, and friends on her development. The organizational is the third level representing the sports policies, professional practices, and (lack of) opportunities for women coaches. The fourth and most distal level is the socio-cultural representing the norms and cultural systems that affect the coaches' trajectory. Thus, increasing the participation of women coaches in sports is a challenge characterized by a complex interaction between individual characteristics, organizational aspects, and cultural systems.

One of the most investigated aspects that difficult the entrance, maintenance, and progression of women as coaches is the lack of self-efficacy^{11,12}. It is well-reported in the scientific literature that women have low perceived confidence and competence compared to men, even when they are highly qualified for the position¹³. For instance, Cunningham et al.¹¹ investigated assistant coaches who represented different sports within an university league and showed that women had lower self-efficacy and were more fearful about their progression as head coaches compared to men. Similarly, Greenhill et al.¹² found that, on the one hand, women coaches would not apply for higher coaching positions if they did not meet all the required qualifications, even with extensive professional experience. On the other hand, men coaches would not hesitate to apply for higher positions based on their previous experiences.

In order to increase their confidence and do not have their competence questioned based on gender stereotypes, women usually undergo an extensive qualification process¹³. The formal coaching education courses represent one of the main possibilities to develop technical, tactical, and pedagogical skills and improve coaching knowledge and abilities¹⁴. These certification courses are commonly offered by sports federations and confederations that play an important role in developing sports professionals and improving gender equality in sports. Although the certification courses are disseminated by sports organizations and present a potential for transforming the gender issues in sports, they have been recently questioned by several scholars. Women coaches reveal that the quality and quantity of the coach education were scathing, receiving little structural support for their development¹⁵. In addition, women coaches reported facing several constraints during the courses once the tutors perpetuate gender stereotypes and create uncomfortable environments for them¹⁶⁻¹⁸.

Although a great advance has been promoted by these studies, there are still some gaps in the scientific literature. First, most studies are conducted in North American and European countries presenting different cultural, political, and economic aspects from those in the southern hemisphere, such as Brazil. Second, although the presence of Brazilian women coaches is known in some sports^{4,6,19}, their participation in certification courses is still unknown. Third, most studies were conducted with team sports that traditionally presented more barriers to the presence of girls and women. It is possible that in individual and non-contact sports, such as table tennis, women face fewer challenges to participate as practitioners and coaches.

The International Table Tennis Federation (ITTF) is the international governing body of the sport, promoting certifications courses all around the world. Their first level course is called ITTF-1 which is followed by the ITTF-2 and these courses were offered exclusively by a few Bra-

zilian members selected by the Brazilian Table Tennis Confederation. At the beginning of 2020, the Brazilian Table Tennis Confederation (CBTM) has elaborated a development program for the national coaches and started offering the “Beginners Course”. The course is focused on the development of competencies to train youth athletes, as well as to be prepared for the demands of different competitions. The promotion of a course in a country with such an extension as Brazil is a challenge requiring cooperation between different organizations. Therefore, at the national level, sports organizations affiliated with CBTM manage table tennis at the regional level (i.e. regional federations) and promote the courses in a decentralized way. In 2021, nine courses were promoted by six regional federations and CBTM and, as an internal policy, in each course, the presence of at least one woman at the organization team was prioritized.

Therefore, this study aimed to investigate the presence of women coaches in table tennis certification courses carried out by national and international federations. Although this study does not promote the debate about the challenges faced during the certification courses, it presents the (non) possibilities for women to access these courses. This is an important initial investigation on the presence or absence of women coaches in table tennis.

Methods

We carried out an analysis on documents extracted from the official websites of the Table Tennis University (UniTM) of the Brazilian Table Tennis Confederation (CBTM) and the International Table Tennis Federation (ITTF). Those documents presented the certificated coaches by each organization.

To collect data on Brazilian coaches who have ITTF licenses, we used the document ITTF Coach Registry (2020) available on the ITTF website, in the category “High Performance and Development Databases”. To identify women coaches certified by the CBTM courses, we accessed the UniTM-CBTM website, in the category “Certification Record and Enrollment” and used the document “Register of Certified Coaches by the Table Tennis University of the Brazilian Table Tennis Confederation (UniTM-CBTM)”.

The coaches’ classification in the ITTF document followed ITTF-1 and ITTF-2, and to take the level 2 course it was necessary to already be qualified as level 1. In the ITTF document, for duplicate coaches, we consider his/her highest level of classification. In the UniTM-CBTM document, all coaches have attended the Beginners Course. We also collected information about the location of the coach according to the five macro-regions of Brazil (Southeast, Central-West, South, North, and Northeast). The information for each certified coach in the national

and international licenses was collected in the CBTM internal system database.

All data were tabulated in a Microsoft Excel® spreadsheet and analyzed using descriptive statistics (absolute and relative frequencies).

Results

Figure 1 shows the number of Brazilian coaches on the International Table Tennis Federation Coach Education Courses Register, revealing the greater frequency of men (89.3%) compared to women (10.7%). We also found that, in both levels of certification, there are fewer women. Only 12.4% of men were able to achieve ITTF-2, while just 8% of women did the same.

Figure 2 shows the number of men and women certified over the years in the ITTF-1 and ITTF-2. A higher number of certifications occurred in 2017 for both men

and women. The majority of women's certifications (76%) were achieved in the last 5 years.

In the Brazilian scenario, we also found a higher rate of men (n = 144; 83.7%) compared to women (n = 28; 16.3%) certified by the CBTM.

Figure 3 shows the number of women coaches certified by ITTF and CBTM in Brazil's macro-regions. In both national and international courses, most of the women coaches (international = 36%; national = 46.4%) were from the Southeast, while few women coaches were found in the Northeast and North.

Discussion

In the present study, we investigated the presence of women coaches in table tennis certification courses. We found a predominance of men in both national and international courses and no increase in women's participation over time. The year 2017 is an exception showing the

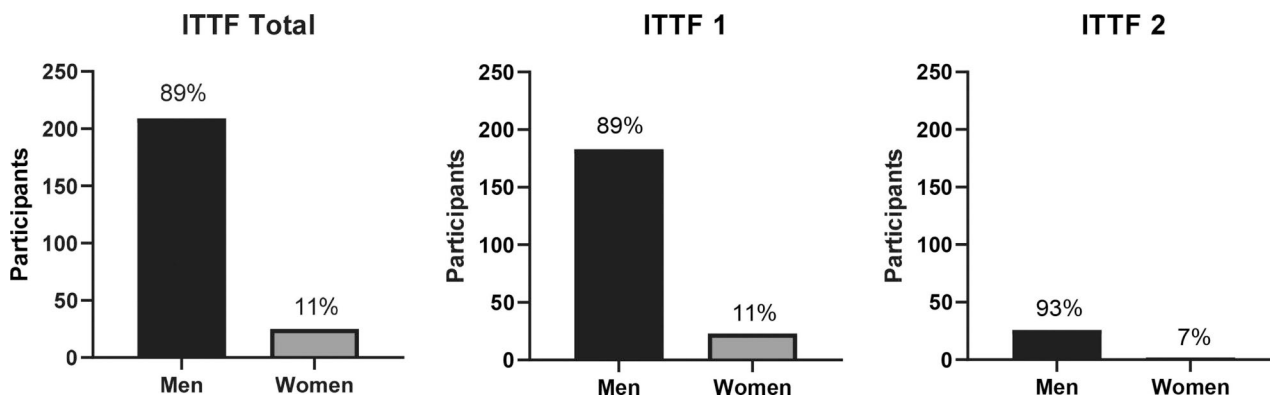


Figure 1 - Brazilian coaches are certified by ITTF.

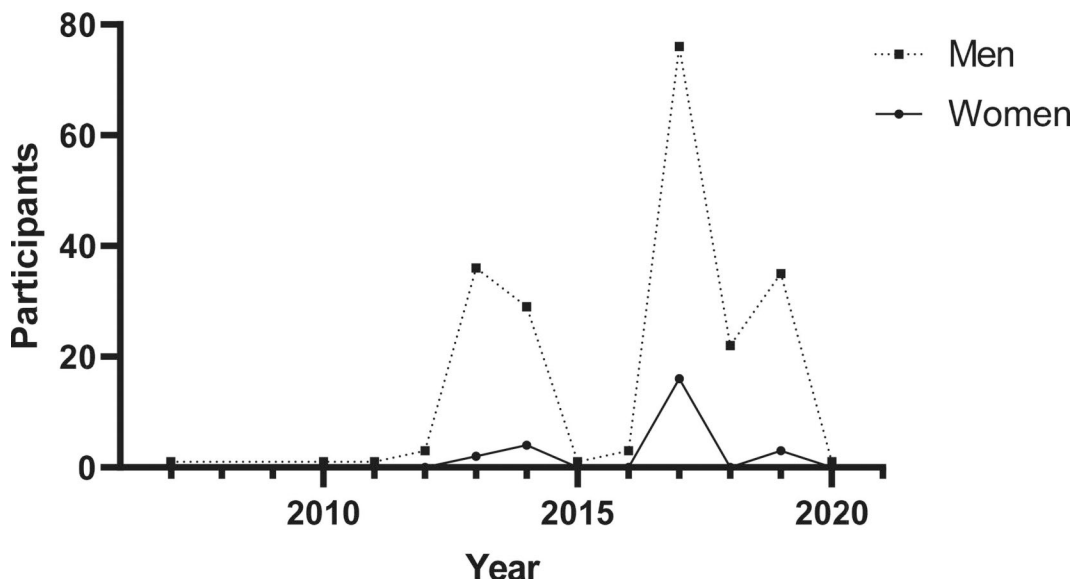


Figure 2 - Brazilian coaches certified by ITTF over the years.

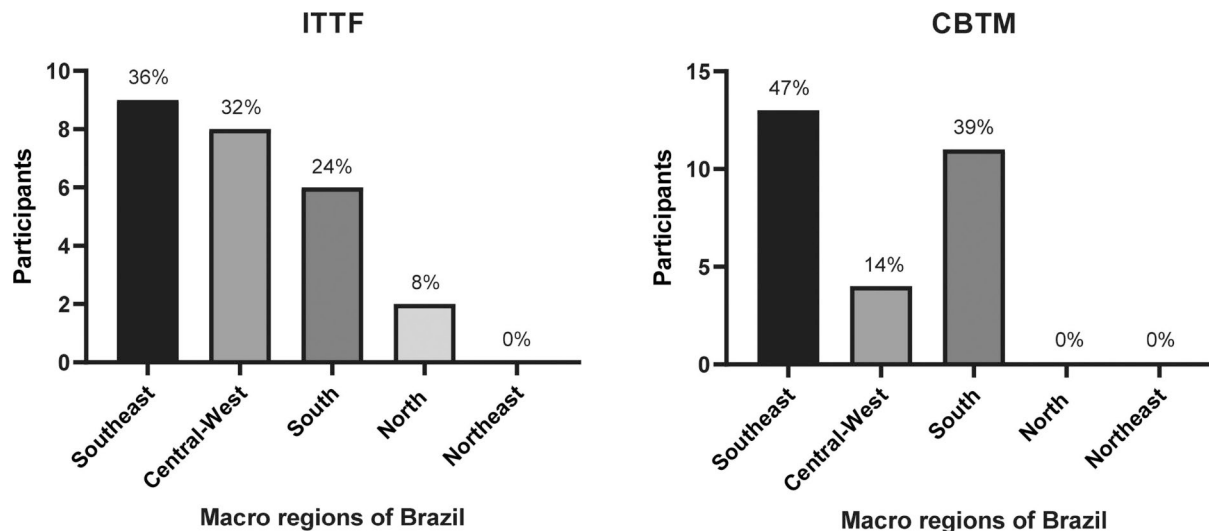


Figure 3 - Macro regions of Brazilian women coaches in table tennis.

highest participation of men and women. Most of the women coaches are from the Southeast region of Brazil.

We found that women represent only 11% of the participants in the Table Tennis Federation Coach Education Courses Register corroborating the difficulty that women face to access coach education in different sports¹⁵. In Brazil, similar participation was found in tennis in which women coaches represents only 7% of the members of the Paraná Tennis Federation in 2019¹⁹. However, these rates are lower than those found in Brazilian team sports, such as women's football (17%) and basketball (23%)^{4,5}. These results indicate that even in individual and non-contact sports, Brazilian women coaches still face barriers to their qualification, entrance, and maintenance in the sport.

Women coaches' participation becomes even more restricted when we compare the different levels of certification (Figure 1). We found a small number of women who did the ITTF-1 certification and continued to the ITTF-2 (8%) corroborating that progression through the coaching levels is usually more difficult for women¹⁵. It is well-known that women coaches face several constraints to progress in their career given that the higher the position, the greater the visibility and interest of men to be part of it²⁰. Further, in general, Brazilian women coaches are encouraged to work with the youth categories and children's schools, but not at the elite level⁶.

Most of the ITTF women coaches are from the Southeast region (36%), which is the most wealthy region of the country, while the Northeast region has no certified coaches, being one of the areas with lower financial resources. Regarding the CBTM courses, we also found that the Southeast is the region with more certified coaches by CBTM (50%), while no women coach was found in the North and Northeast regions (0%). This discrepancy

between regions may reflect the different financial conditions of the coaches, corroborating that women follow different paths in a labyrinth to become elite coaches, and their starting point, as well as the distance to the center of the labyrinth, are influenced by between gender, race, class, and sexual orientation^{2,21,22}. These findings are important for sports organizations in an attempt to propose actions that encourage the participation of women coaches considering the social and economic inequalities of the country.

A strategy that may promote greater dissemination of the certifications around the country is the use of online courses. In one year, CBTM courses have already surpassed the ITTF Brazilians' coaches certification and we believe that this raise was achieved by offering more editions and using the online format that may facilitate the presence of coaches from different regions of the country. In addition, previous studies suggested that women-only courses may promote a more comfortable environment for the coaches and a more fruitful experience^{17,23}.

Although the number of courses and certifications is increasing in Brazil, the majority of certified coaches are still men. The number of certified women by CBTM has increased compared to ITTF (16.3% women on CBTM and 10.7% on ITTF) which may reflect the demand for, at least, one woman per team to participate in the CBTM courses and the recommendation that all courses should have an inclusive quota policy for women coaches' developers. CBTM managed to almost double the women's representation among coaches (from 10.7% to 16%) due to the policy that has been adopted in an attempt to increase the number of women in the sport. These findings corroborate the importance of sports organizations in promoting gender equity policies and improving girls' and women's participation in sport²⁴.

Furthermore, the UniTM members participate in women empowerment campaigns such as events from the program “One Win Leads to Another”, by the United Nations (UN Women) in partnership with the International Olympic Committee, and the program “My Gender My Strength” developed by ITTF to increase girls and women's participation in Table Tennis. At the organizational level, the CBTM develops campaigns that strengthen women's participation in sport, such as the “Women who Inspire”, an event that addressed discussions on important topics related to gender equality, as well as spread the achievements of several women athletes and coaches in Brazil. The final event of the campaign was the World Table Tennis Day Forum which brought together athletes, practitioners, managers, referees, researchers, and other women involved with Table Tennis to share their trajectories and challenges faced along with their careers and practice. All these actions suggest strategic planning of the confederation to develop women's table tennis in Brazil in the next years.

Although this was the first study of our knowledge to present the scenario of the women coaches' participation in table tennis certification courses at the national and international levels, some limitations should be recognized. First, the CBTM courses are recent and offer a current overview of the small number of women in coaching certifications. A longitudinal data collection is needed to analyze the effects of the sports policies on the increasing participation of women coaches. Second, in this study, we used only quantitative data to analyze gender inequality in sports. We recognize the need to complement our findings with qualitative data investigating the experiences of the coaches during the certification courses.

Conclusions

In the past few years, sports organizations have developed sports policies to encourage and increase the number of girls and women in table tennis, among them we analyzed the CBTM and ITTF. Although sports participation has increased, women coaches are still a minority in certification courses. We found a greater frequency of men (89.3%) compared to women (10.7%) in ITTF courses and, in Brazil, we also found a higher rate of men (83.7%) compared to women (16.3%) certified by CBTM. These alarming results reveal that the training process of table tennis coaches is still mostly occupied by men.

The increasing rate of certificated women found in CBTM may be explained by i) the partnership with regional sports federations that promote the courses in a decentralized way; ii) the gender policies proposed by UniTM within the courses (such as the need for at least one women for participating team and the recommendation that all courses should have an inclusive quota policy for women coaches' developers); iii) the actions promoted by

CBTM for the external community improving gender equality in sport. However, the coaching license courses offered by CBTM reached women from three of the five Brazil's macro-regions, showing a lack of women in the North and Northeast regions. These same regions showed little representation in courses offered by ITTF, reinforcing the challenge of carrying out courses in a country as large as Brazil and the need for specific actions according to each region.

This study presents an initial scenario of the participation of women coaches in table tennis and indicates the need for further studies on gender equality and sport.

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