### WOMEN'S ARTISTIC GYMNASTICS IN BRAZIL: PATHS TAKEN FROM 1966 TO 2021

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Original article

DOI: 10.52165/sgj.16.2.225-253

#### Abstract

Brazilian men's and women's Artistic Gymnastics (AG) has been in the spotlight due to the results of some outstanding athletes in the most important international competitions over the last 20 years. However, the development of this sport in the national context does not reflect these achievements. This article performs a critical analysis of Women's Artistic Gymnastics (WAG) in Brazil, reviewing the trajectory of the main gymnasts and their achievements in the World Championships and Olympic Games from 1966 to 2021, as well as relevant contextual facts during this historical period. Medals in major events have been won since 2001, with gradual and unstable growth, placing Brazil among the most prominent countries. Nevertheless, the data suggest that the achievements were based on concentrated investment in elite gymnasts, mainly in the Olympic team, with the support of already established clubs. The development is still centralized in a few clubs, without showing a sustainable increase in the number of clubs and gymnasts. In this scenario, there is a need for a long-term plan that can sustain the development of the national ecosystem (clubs, local competitions, provincial federations) across all age-group categories and in connection with the national teams.

**Keywords:** Artistic Gymnastics, Brazil, Women, History.

#### INTRODUCTION

The XXXII Summer Olympic Games (OG), held in Tokyo in 2021, marked a significant milestone in the history of Brazilian Women's Artistic Gymnastics (WAG). Millions of Brazilians watched as gymnast Rebeca Andrade won a silver medal in the all-around final and a gold medal in the vault final. This achievement came 20 years after the first medal was won

by a Brazilian gymnast at a World Championship.

Immediately after the Olympic medal became a reality, the mass media reported that Rebeca Andrade's medals were not merely an individual achievement but the culmination of efforts forged over many years by numerous gymnasts and their coaches. Rebeca Andrade's Olympic success represented, in many ways, a collective accomplishment. Daniele Hypolito, who won the first Brazilian medal at the World Championships in 2001, encapsulated this sense of collective effort by saying,

"We needed this medal so badly, especially to be sure that we had been doing the right thing all these years, although the results were hard to come. It takes time, it was hard, it was arduous, but all the work done in all these years, at that moment, we could see that it was worth it" (Mello, 2021, n.p).

So, since Claudia Magalhães who was the first Brazilian gymnast at the Olympic Games in Moscow 1980, to the memorable medals won by Rebeca Andrade in Tokyo 2020, Brazil has been represented by several talented gymnasts. These athletes have experienced tremendously different realities, especially with regard to training conditions and financial support. Recognizing the importance of its predecessors, Rebeca Andrade said,

"[...] I went through a lot and set these Olympic Games as a goal, but my goal here was to do my best, to shine, and I think I did: I got our first Olympic medal in WAG. [...] All the women who competed for Brazil in this sport sees themselves in this medal, they are very proud of me and feeling proud of this history (COB, 2021).

[...] I'm just taking this history one step further, and I hope our generation achieves that and much more. I'm very proud of myself and of all the people who helped me get here, since I could never have done it alone (CBG, 2021)."

After the euphoria and the well-deserved celebration of such an emblematic achievement, we returned to our studies regarding the national context of Women's Artistic Gymnastics (WAG). We immediately noticed how the Brazilian Gymnastics Federation (CBG) had achieved a new status nationally, placing itself on the

same level as the national federations of traditional sports such as judo, volleyball, and sailing. Gymnastics seemed to be transitioning from an emerging sport to a consolidated one on the national scene.

However, different studies showed that despite the medals that have been won at Worlds and Olympic Games, the national development of Women's Artistic Gymnastics (WAG) in Brazil revealed inconsistencies. These inconsistencies are characterized by a reduced number of athletes and clubs, which are concentrated in only a few states. Most training facilities lack adequate equipment multidisciplinary teams. Additionally, there is a scarcity of qualified coaches, with many migrating to other countries (Lima, 2016). Thus, contrary to the results achieved by Rebeca Andrade and the positive media discourse, Brazilian WAG has indicators that point to an incipient level of development, as suggested by Bortoleto and Schiavon (2018).

A similar situation was observed by Oliveira (2010) in Men's Artistic Gymnastics (MAG). According to this study, the international achievements were not aligned with the development of this gymnastics discipline nationally. In fact, "for a long time the talent and effort of our gymnasts and coaches have stood out in the face of adversity that marked the amateurism of this discipline" (Oliveira & Bortoleto, 2009, p. 308).

[...] the recent and significant international results obtained by Brazilian gymnasts do not match the sport reality, i.e., they are not the result of excellent conditions gained by federation, infrastructure, number clubs, among others, but rather of excellent performance of individual talent (Oliveira, 2010, 38).

Based on these preliminary arguments, this study aimed to conduct a critical analysis of the development of Brazilian Women's Artistic Gymnastics (WAG) from 1966 to 2021. The analysis involved reviewing the results obtained in World Championships (WC) and Summer Olympic Games (OG) and discussing the contexts in which these results were achieved. These events were chosen due their representativeness and importance in the context of Artistic Gymnastics (AG), especially as they include the most prominent countries and gymnasts, and establish benchmarks for national teams (Oliveira & Bortoleto, 2009).

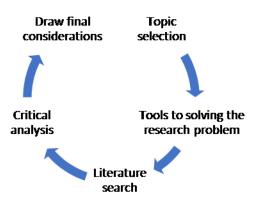


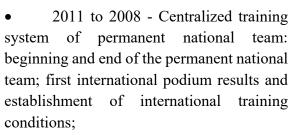
Figure 1. Research process.

Considering the time frame and the amount of data, the analysis was distributed into four periods based on Schiavon's proposal (2009):

- 1966 to 1992 Pioneer period in international competitive scene: first participation in world championships and Olympic Games, precarious training and support conditions for Brazilian gymnasts;
- 1993 to 2000 Organizational structuring period: period of development of the Brazilian Gymnastics Confederation (CBG first headquarters), training structure and funding for the sport in Brazil;

#### **METHODS**

This study analyzes the participation of Brazilian Women's Artistic Gymnastics (WAG) in World Championships (WC) and Olympic Games (OG) from 1966 to 2021 through a qualitative approach. For this purpose, a narrative literature review was employed. Narrative literature reviews describe and discuss specific topics from theoretical and contextual perspectives (Allen, 2017). According to Allen (2017), "A narrative literature review provides a synthesis or examination of the literature by considering issues and the development of the research over time" (p. 1075).



• 2009 to 2021 - Decentralization and establishment of training camps: end of the Brazilian permanent national team; hosting of mega-events in Brazil (Pan American Games, Summer Olympic Games, etc), consolidating international achievements. First Olympic medals in Brazilian WAG.

The data were obtained from records of WAG participation and results in WC and OG, combining information from online sources (newsletters, magazines, minutes) and other hard copy documentary sources (books, scientific articles, etc.). competition results were collected from the International Gymnastics Federation (FIG) official web in combination to Nestor Soares Publio's books (Publio, 2002; 2006). Additional data, as suggested by Molinari et al. (2018), obtained at the Brazilian Gymnastics Federation (CBG) and the Brazilian Olympic Committee (COB) webs were used.

Data were analyzed descriptively, creating a logical and critical timeline with the main facts, events, precursors, similarities, differences and results obtained in each analyzed period. The quantitative data were treated using descriptive statistics (Appolinário, 2006).

#### RESULTS AND DISCUSSION

### 1966-1992 – Pioneer period in international competitive scene

During this period, Brazilian Women's Artistic Gymnastics (WAG) relied primarily on the efforts of gymnasts, coaches, and their families, with minimal support from sports institutions, including clubs and **Gymnastics** Brazilian Federation. It's important to note that, until 1978, Artistic Gymnastics was subordinated to Brazilian Sports Federation and coordinated by the Council of Gymnastics Advisors. This Gymnastics was Artistic meant that affiliated with an eclectic federation of sports and had to share the spotlight with disciplines that received greater government and public interest, such as soccer.

Schiavon (2009) refers to the gymnasts of this period as "pioneers" because they

were the first representatives of Brazil in World Championships (WC) and Olympic Games (OG). The author highlights that these gymnasts regularly faced "situations of low training support regarding financial, material, and human resources" (Schiavon, 2009, p. 176).

The gymnast Marion Faedrich Dullius was the first Brazilian gymnast to compete at the World Championships, particularly at the 16th World Championship held in Dortmund, Germany, in 1966. Publio (2002) explains that Marion Faedrich Dullius competed alongside her husband, José Fabiano Dullius, who was the delegate and coach of Brazil at this event. Marion Dullius finished the competition in 148th place out of 156 participants.

It is worth mentioning that Publio (2002) suggested that Brazil could have already participated with women gymnasts at World Championships, specifically in 1954 in the city of Rome, Italy. The author describes a regrettable situation where Nilda Rosa did not travel because Brazilian delegates did not agree to change someone in the team so that Nilda's coach could accompany her, especially because she was a minor and could not travel without a companion. "It was known in advance that the men's team, even individually, would have no chance, and if Nilda went on that opportunity, she could have left a great impression, such was her high technical level" (Publio, 2002, p. 143).

These situations prompt reflection on gender issues in Brazil and how female gymnasts were affected in their development by them. Brazilian women did not have the full right to come and go, to own property, to divorce, and many other things until 1962 when the Married Women's Statute granted them full civil capacity (Htun & Welson, 2018). In the sports context, there was an

implicit order inhibiting the presence of women. Although gymnastics has come to be understood as a practice suitable for women (Oliveira et al., 2023; Oliveira, Souza & Nunomura, 2021), women gymnasts were impacted by the prevailing machismo at the time.

It is worth mentioning the translation of the Code of Points (CoP) by the Brazilian Sports Federation in 1972, which, according to Publio (2006), was one of the main factors that boosted the development of Artistic Gymnastics (AG) in Brazil during that period.

In 1973, some judging update courses were organized, and it is important to highlight the first participation of Brazilian women in a FIG Judges Course (Publio, 2002). Also, in the same year, Publio (2006) mentions a gymnastics tour featuring the best world-class gymnasts in Brazil. Coordinated the FIG. besides by encouraging the practice of the sport, the organizers brought eight complete sets of official equipment. These equipment sets remained in Brazil and were a fundamental resource for the development of the sport at that time. Until now, Brazil does not have a FIG-approved apparatus manufacturing company.

Subsequently, Brazil would only compete again at the World Championships two editions later, in 1974, when the competition took place in the city of Varna, Bulgaria, with the gymnasts Gisele Radomsky, Silvia Pinent, and Eneida Flecha representing the country.

According to Publio (2006), the first signs of progress in AG in Brazil began to be seen with invitations for Brazilian gymnasts to participate in international events, such as the American Cup in 1976. The "I Intercontinental Course" for FIG judges, held in Rio de Janeiro in 1976, certainly

contributed to the development of AG judging in Brazil (Publio, 2006).

In 1978, the year that marked the foundation of the Brazilian Gymnastics Federation, Brazil competed for the first time at the World Championships with a full team of six gymnasts, finishing the competition in 19th place in Strasbourg, France. The team was composed of Lilian Carrascozza, Maria Cristina Coutinho, Silvia R. P. Anjos, Cláudia Magalhães, Marian Fernandes, and Gisele Radomsky. It important to highlight that Lilian Carrascozza received Brazil's first worldclass gymnast brevet, awarded by the FIG to gymnasts with an average of nine points in all events when the highest score was 10 points (Publio, 2002).

Brazil has made great progress since its first participation in 1966 to 1978. In fact, according to Publio (2006, p. 224) the period from 1950 to 1978

[...] was a productive period, both in organization and participation in championships, as well in educational courses. The encouragement to organize events for young gymnasts was key to AG development. [...] All the work done in those years resulted in relevant technical development, which led to an increase in the number of gymnasts who had significant participation in international events.

More specifically, during this period, the state federations of São Paulo and Rio Grande do Sul invited national and foreign coaches to develop gymnasts and coaches. Georges Chautemps (France), Takehisa Ishihara (Japan), Hideaki Kurihara (Japan), Enrique Rapesta (Argentina), and Sigfried Fischer (Brazil) are examples of this initiative. It's important to highlight that the Brazilian Ministry of Education and the Brazilian Sports Federation also supported national courses aimed at instructing

coaches about compulsory exercises and teaching processes in all apparatuses (Publio, 2002).

The foundation of the Brazilian Gymnastics Federation in 1978 undoubtedly boosted the development of Artistic Gymnastics in Brazil. According to Hugo Coelho de Almeida, former vice-president of this entity, the history of Brazilian gymnastics started at that moment (Publio, 2002). It's a strong statement because we know that the sport has already been on a path of development, but it's understandable given the step taken with the foundation of the federation.

In 1979, at the pre-Olympic World Championships held in Fort Worth, USA, Brazil was represented by a full team composed of six athletes. Brazil finished the competition in 23rd place among 27 teams. Publio (2002) points out that Cláudia Magalhães qualified for the 1980 Olympic Games in Moscow, which was unprecedented (Publio, 2002).

With the US boycotting the Moscow Olympic Games, Cláudia Magalhães qualified for the individual all-around final (CII), which gathers the best gymnasts in the sum of the four apparatuses, and finished 31<sup>st</sup> (Carvalho, 2007; Oliveira, 2014).

In 1980, the "Gold Medal Project" was launched in Rio de Janeiro, sponsored by a private school named Colégio Impacto and by Brazilian **Gymnastics** supported Federation, presided over by Mr. Siegfried Fischer. For the first time ever, a specific AG training center was set up in Brazil, including a multidisciplinary team of professionals and some Russian coaches in order to provide high quality training for a selected group of gymnasts. We did not have access to the participating gymnasts' names, and "although the project was not successful, it served as a benchmark for future national

projects" (Publio, 2006, p. 224). Schiavon (2009), based on Tatiana Figueiredo's testimony, a gymnast that took part in this project, reported that the best gymnasts in the country were gathered to join the project. Coaches, psychologists and physicians were hired, and the project lasted around a year and a half. Short-term projects like this one cannot produce significant changes in the sport's development, but this was certainly an initiative that influenced its development, as we will see later.

In the following World Championships held in Moscow in 1981, Brazil finished the team competition in last place out of 19 competitors. In the 1983 edition in Budapest, the team finished in 22nd place among 28 teams. Gymnast Tatiana Figueiredo qualified for the Los Angeles Olympic Games in 1984 and was awarded the FIG brevet together with Jacqueline Pires.

Placar Magazine (1984) mentioned that Tatiana Figueiredo had no expectations of achieving a great result in Los Angeles, especially since she had finished 95th at the World Championships in Budapest. She was confident only in her vault score but feared the balance beam and the political judgment of judges. During the 1984 Olympic Games, boycotted by the Soviet Union, Tatiana Figueiredo didn't advance to finals and ended the competition in 56th place out of 62 participants.

In the following World Championships in 1985, the best Brazilian gymnast was Tatiana Figueiredo, who finished the event in 66th place in the individual all-around. The Brazilian team finished in 20th place among 23 nations entered in the competition. At the pre-Olympic World Championships in 1987, another gymnast from Rio de Janeiro, Luisa Parente, obtained FIG brevet and finished the competition in 82nd place. The team finished the qualification round in

21st place among 31 teams. In this competition, Luisa Parente also earned qualification to represent Brazil in the Olympic Games in Seoul (1988).

In Seoul, Luisa Parente qualified for the all-around final in 33rd place. Publio (2002) considers that Luisa Parente deserves credit for achieving this feat in an Olympic competition without boycotts. However, she ended the final in 34th place.

The 1989 World Championships took place in Stuttgart, Germany, where Brazil was represented by a full team that finished in 21st place. The best Brazilian gymnast ended the qualification round in 106th place. Notably, Luisa Parente, the top gymnast in Brazil at that time, did not compete in the floor exercise optional routine, which contributed to these less favorable results.

In Indianapolis, United States, where the 1991 World Championships were held, the Brazilian team finished the competition in last place among 28 participating teams. Once again, Luisa Parente secured an Olympic berth. However, in Barcelona, she failed to qualify for finals and finished the competition in 57th place out of 92 gymnasts entered.

Table 1 Brazilian gymnasts attending OG and WC from 1966 to 1992 and the state they represented.

EVENT	GYMNASTS REPRESENTING BRAZIL
1966 WC	Marion Faedrich Dullius (RS)
1974 WC	Eneida Flecha (RS), Gisele Radomsky (RS), Silvia Pinent (RS)
1978 WC	Cláudia Magalhães (RJ), Gisele Rodomsky (RS), Lilian Carrascozza (RJ), Maria Cristina Coutinho (RJ), Marian Fernandes (RJ), Silvia dos Anjos (RJ)
1979 WC	Altair Prado (RJ), Cláudia Magalhães (RJ), Jacqueline Pires (RJ), Lilian Carrascozza (RJ), Marian Fernandes (RJ), Silvia dos Anjos (RJ)
1980 OG	Cláudia Magalhães (RJ)
1981 WC	Altair Prado (RJ), Carine Leão (RS), Cláudia Magalhães (RJ), Denilce Campos (RJ), Jacqueline Pires (RJ), Lilian Carrascozza (RJ)
1983 WC	Altair Prado (RJ), Cláudia Magalhães (RJ), Denilce Campos (RJ), Jacqueline Pires (RJ), Marian Fernandes (RJ), Tatiana Figueiredo (RJ)
1984 OG	Tatiana Figueiredo (RJ)
1985 WC	Altair Prado (RJ), Elena Fornogerakis (SP), Jacqueline Pires (RJ), Marian Fernandes (RJ), Tatiana Figueiredo (RJ), Vanda Cristina Oliveira (SP)
1987 WC	Luisa Parente (RJ), Margaret Yada (RS), Marian Fernandes (RS), Priscilla Steimberger (RJ), Tatiana Figueiredo (RJ), Vanda Cristina Oliveira (SP)
1988 OG	Luisa Parente (RJ)
1989 WC	Adriana Andrade (RJ), Ana Paula Luck (RJ), Anne Fernandes (RJ), Daniela Mesquita (RJ), Luisa Parente (RJ), Margareth Yada (RS)
1991 WC	Luisa Parente (RJ), Débora Biffe (SP), Marina Fagundes (SP), Anne Fernandes (RJ), Viviane Cardoso (RJ) (did not compete), Adriana Andrade (RJ) (did not compete).
1992 WC	Luisa Parente (RJ), Débora Biffe (SP), Viviane Cardoso (RJ)
1992 OG	Luisa Parente (RJ)

Source: Adapted from Publio (2002). \*Rio Grande do Sul (RS), Rio de Janeiro (RJ) and São Paulo (SP).

Analyzing this period, we observe that gymnastics was already a much more structured sport by the time the Brazilian Gymnastics Federation was founded. Vieira and Freitas (2007) note that exchanges with

other countries for the acquisition of equipment and technical expertise were already a reality. We concur with these authors that "all these factors combined led to more frequent participation by Brazilian gymnastics in international tournaments, and in 1980, they were finally able to make their debut at the Olympic Games" (Vieira & Freitas, 2007, p. 30).

Throughout the 1980s, only a few organizations developed AG projects, and those that did often provided inadequate training conditions for high-performance athletes. Inadequate infrastructure and facilities were prominent aspects of this moment, historic making long-term development slower and more challenging (Oliveira & Bortoleto, 2009; Lima, 2020). It is important to remember that Brazilian gymnasts faced significant difficulty adapting to the equipment used in international tournaments, as they trained inferior and often inadequate equipment in Brazil (Oliveira & Bortoleto, 2009). Irregular and insufficient funding persisted throughout the 1980s and early 1990s.

[...] they also had limited exchanges and participation in international events, which is of paramount importance in high-level sports. With the restricted possibility of participating in exchange programs and competing abroad, the gymnasts had lower chances of winning medals due to the lack of experience and being unknown to judges (Oliveira & Bortoleto, 2009, p. 305).

This situation certainly influenced the performance of Brazilian gymnasts in international championships. However, the participation of "pioneers" gymnasts was extremely important to boost the development of this sport discipline in Brazil (Schiavon, 2009; Costa, 2018). In that regard,

The initiatives and support of the São Paulo Gymnastics Federation, Brazilian Gymnastics Federation and Education Ministry led to better qualifications of coaches who had the possibility to gain experience in the best gymnastics centers in the world and update their knowledge, which certainly had an impact on the following generations and boosted AG in Brazil (Schiavon et al., 2013, p. 425).

Despite all the difficulties faced during the period of 1966 to 1992, Brazilian coaches improved their skills mainly through international exchange programs and courses given by foreign coaches in Brazil (Oliveira & Bortoleto, 2009). The arrival of foreign coaches was also important for the development of coaches and, consequently, gymnasts. Oliveira et al. (2023) affirm that since the introduction of AG in Brazil until today, foreign coaches contributed to the development gymnasts, especially those who achieved historic results for the country.

In the period of 1978 to 1992, AG in Brazil had amateur features that prevented its full development. Nuzman (1985) mentions that projects lacking sequence and continuity, marked by improvisation and a lack of financial resources, were characteristics of Brazilian sport amateurism back then, relying on volunteer work.

In fact, the Brazilian Gymnastics Federation survived this period without its own headquarters and with scarce funding (Oliveira, 2010). From its foundation in 1978 until 1991, it had three elected presidents: Siegfried Fischer (1979 – 1985), Fernando Brochado (1985 - 1988), and Mário César Cheberle Pardini (1988 -1991). The headquarters moved respectively to the states of Rio Grande do Sul, São Paulo and Minas Gerais (Bortoleto & Schiavon. 2018), looking for improvements although still with amateur management and centralized in the south and southeast of Brazil.

### 1993-2000 – Organizational structuring period

During this period, Brazilian WAG also suffered from overall lack of funding, structure (facilities, equipment, etc.) and institutional support (Schiavon, 2009). Schiavon (2009, p. 176) calls the athletes of this period "transitional gymnasts" as they went through a phase " with poor support and structure, at a given moment, similar to what was experienced by the pioneer gymnasts; however, later they had the opportunity to experience a phase of greater support".

In this scenario, Luisa Parente continued to be the highlight of Brazil on the international stage. At the WC in Paris in 1992, Luisa Parente managed to reach two semi-finals, placing 12<sup>th</sup> on the uneven bars and 14<sup>th</sup> on the balance beam (Publio, 2002).

One of the protagonists of the period from 1993-2000 was Soraya Carvalho, who was the only representative of Brazil at the 1993 individual WC in Birmingham (England), where she ended the competition in 38th place. In the following year, 1994, Brazil didn't compete at the team WC held in Dortmund (Germany). Public (2002) mentions that this absence ended a period of continuous attendance of Brazil with complete teams at WC, which started in 1978. The Brazilian women represented by the judge Yumi Sawasato, who was invited by FIG to act as an expert in the vault event.

Also in 1994, FIG organized the individual WC in Brisbane (Australia). Following the individual apparatus competition, the best gymnast from Brazil was Letícia Iishi, who finished in 34th place on floor exercise and balance beam. In the AA, the best-ranked Brazilian was Adriana

Silami, who ended in 53rd place (Publio, 2002).

In Japan, more precisely in the city of Sabae, the Brazilian women finished 21st in the team competition at the 1995 World Championships out of 26 participating teams. The gymnast Soraya Carvalho earned the FIG brevet of world-class gymnast and qualified for the 1996 Atlanta Olympics (Publio, 2002). Soraya Carvalho qualified for the AA final in Sabae and finished in 35th place (USA Gymnastics, 2023). With this result, Soraya Carvalho became the first Brazilian gymnast to compete in the AA final in WCs.

In the Olympic year of 1996, FIG organized a WC with a format similar to that of 1992, with medals being awarded only in apparatus competitions. In San Juan (Puerto Rico), Brazilian gymnast Soraya Carvalho advanced to the balance beam semi-final and narrowly missed a spot in the final by 0.087 points, finishing the competition in 9th place on this apparatus.

Unfortunately, despite the good results obtained in San Juan, she was unable to compete in the 1996 OG in Atlanta (USA) due to an injury days before the competition started, leaving Brazil with no representatives in this Olympic edition (Carvalho, 2007; Schiavon, 2009). It's important to highlight that the result achieved at the Puerto Rico WC ranked Soraya among the favorites on the balance beam in Atlanta.

In 1997, only two gymnasts represented Brazil at the WC in Lausanne (Switzerland), where Mariana Gonçalves finished in 48th place and Patrícia Aoki in 84th. This event only had individual competitions. Two years later, in Tianjin (China), an unprecedented event in Brazilian WAG occurred: the qualification of two Brazilian gymnasts to compete in the

2000 Sydney Olympics (Oliveira & Bortoleto, 2009).

Daniele Hypolito and Camila Comin were selected to represent Brazil in Sydney. Schiavon (2009) considers this the beginning of a rise that would be

consolidated in the following period. The gymnast Daniele Hypolito qualified for AA and finished in 20th place, the best result by a Brazilian female gymnast in the Olympic Games until then (Schiavon, 2009)..

Table 2 Gymnasts who represented Brazil in OG and WC from 1993 to 2000, and the state they represented.

EVENT	GYMNASTS REPRESENTING BRAZIL
1993 WC*	Soraya Carvalho (RJ)**
1994 WC	Adriana Silami (RJ), Letícia Ishii (SP), Silvia Mendes (RJ), Soraya Carvalho (RJ) (did not compete)
1995 WC	Soraya Carvalho (RJ), Liliane Koreyasu (RJ), Beatrice Martins (RJ), Letícia Ishii (SP), Mariana Gonçalves (SP), Beatriz Degani (SP), Melissa Sugimote (SP)
1996 WC	Beatrice Martins (RJ), Letícia Ishii (SP), Mariana Gonçalves (SP), Soraya Carvalho (RJ)
1996 OG	Soraya Carvalho (RJ) (did not compete)
1997 WC	Mariana Gonçalves (SP), Patrícia Aoki (SP)
1999 WC	Camila Comin (PR), Daiane dos Santos (RS), Daniele Hypolito (RJ), Heine Araújo (RJ), Marília Gomes (SP), Stefani Salani (SP)
2000 OG	Camila Comin (PR), Daniele Hypolito (RJ)

Source: Adapted from Publio (2002). \*CII (individual all-around) and CIII (individual apparatus) only. \*\* Rio Grande do Sul (RS), Rio de Janeiro (RJ), São Paulo (SP) and Paraná (PR).

Between 1993 and 2000, Brazilian athletes, clubs, and the Brazilian Gymnastics Federation itself still showed amateur management and a lack of regular investment in the sport (Oliveira & Bortoleto, 2009): "Such was the sport's amateurism that in the early 1990s, CBG documents were kept in the trunk of the car of then president Vicélia Florenzano, who took office in her first term in 1991" (Vicelli, 2008, apud Oliveira & Bortoleto, 2009, p. 305).

In 1995, while Vicélia Florenzano was still president, the Brazilian Gymnastics Federation succeeded in setting up its first official headquarters in Curitiba, state of Paraná, with support from the COB and the state government (Bortoleto, 2000; Nunomura & Oliveira, 2012). Later, in a

new facility, in addition to the administrative offices, there was also a training center (TC) for high-performance gymnasts from 1997 (Nunomura & Oliveira, 2012). In 1999, the Center for Excellence in Gymnastics was installed at the CBG headquarters (Schiavon & Paes, 2012), enhancing the relevance of this project for national gymnastics:

The headquarters of the Brazilian Gymnastics Federation house the Center for Excellence in Gymnastics, with a highly developed infrastructure. It boasts official and auxiliary equipment distributed in two gymnasiums measuring sixty by thirty-six meters each, and a multidisciplinary team comprising Brazilian and foreign specialist coaches, physicians, physical therapists, psychologists, nutritionists,

choreographers, and coordinators who manage the demands of the permanent Brazilian teams of artistic (men and women), rhythmic and trampoline gymnastics (Carvalho, 2007, p. 25).

Therefore, from the early 1990s, a notable improvement in AG infrastructure was noted in Brazil (Schiavon & Paes, 2012). Nevertheless, "even with this better infrastructure, the Brazilian Gymnastics Federation's budget was still limited, and few athletes had personal sponsors. This situation lasted until the early 21st century" (Oliveira & Bortoleto, 2009, p. 306). Thus, we observe that the achievements in that period were based on talented gymnasts, well-prepared coaches, and better training conditions (Nunomura, 2004).

It is relevant to mention the arrival of the Ukrainian coach Iryna Ilyashenko in 1999, hired by the Brazilian Gymnastics Federation with the support of the Brazilian Olympic Committee and the International Olympic Committee (funds from the Olympic Solidarity Program) to be part of the coaching staff of the Brazilian national team from 1999 to 2001. She was responsible for preparing and introducing in Brazil a centralized training program at the Curitiba center for excellence from 2001, having important consequences at national and international level Brazilian WAG (Nunomura & Oliveira, 2012; Schiavon et al., 2013).

## 2001-2008 – Centralized training system of permanent national team

The period 2001-2008 brought major changes to Brazilian WAG based, for the first time on a national plan and on policies aimed to develop the national team. Despite having experienced a phase of poor support and structure, a few remaining gymnasts from the previous period took part in this

one (Schiavon, 2009). In addition, we already observe the rise of new gymnasts who participated in the centralized training system: [...] since their arrival at the national team, they found outstanding conditions for adequate preparation, equivalent with those of world powers in gymnastics that compete for medals at WC and OG (Schiavon, 2009, p. 177).

In this period, Vicélia Florenzano (1991 – 2009) remained the Brazilian Gymnastics Federation president, and it was under her administration that Brazil achieved important international results (Oliveira, 2007), including three of the six medals won at WAG WC until 2021.

In 2001, two years after the arrival of the aforementioned Ukrainian coach Iryna Ilyashenko, two other coaches from Ukraine, Oleg and Nádia Ostapenko, arrived in Brazil to complete the coaching staff of the now "permanent" Brazilian WAG national team, inaugurating a training system similar to sports boarding schools of the former Soviet Union, which lasted for two Olympic cycles at the Curitiba TC (Nunomura & Oliveira, 2012). Therefore, from 2001 the best gymnasts in the country started training together on a full-time basis, radically modifying the organization of the sport nationwide (Nunomura & Oliveira, 2012). Thus, even private clubs, started to cede their best gymnasts to the national teams based in Curitiba, a situation that afforded many benefits but also caused damage to the sport, as we will analyze later (Nunomura & Oliveira, 2012; Schiavon, 2009).

The positive development of Brazilian WAG in subsequent years was attributed to the infrastructure of the training center and the centralization of the national team in Curitiba: "[...] it brought uniformity to the team and contributed to the rapid rise of AG

in Brazil" (Nunomura & Oliveira, 2012, p. 380). The improvements made by the Brazilian Gymnastics Federation included the beginning of the professionalization of the administration carried out in its new headquarters and access to more public and private funding. The role of the training center established in Curitiba was crucial, and it happened thanks to the approval of the Agnelo/Piva Act in 2001, allocating lottery revenue funds to Olympic sports (Oliveira, 2010).

Maintenance of the physical infrastructure of the training center, periods of adaptation and exchange abroad, remuneration of the training staff consisting of Brazilian and foreign coaches, maintenance of the athletes and payment of the multidisciplinary staff to support the team were funded with resources from the Agnelo/Piva Act and the official sponsor of Brazilian Gymnastics Federation (Oliveira, 2010, p.160).

In addition to this support, the Brazilian Gymnastics Federation had resources from the Olympic Solidarity Program of the International Olympic Committee (IOC) which, according to the COB (2006b), paid the salaries of the head coach during the period of his stay in Brazil (Nunomura & Oliveira, 2012, p. 380).

The first WC of this period, the 35th World Championship in Ghent, Belgium (2001), already pointed to what would be a leap for Brazilian WAG. At that event, the gymnast Daniele Hypólito finished 4th in the individual all-around event, the country's best classification so far in WC. In addition, Daniele Hypolito and Daiane dos Santos qualified for the floor exercise finals, finishing 2nd and 5th, respectively (FIG, 2019). So, we have the first WAG WC medal for Brazil, silver in the floor exercise event, won by Daniele Hypólito.

Oliveira and Bortoleto (2009) draw attention to the fact that even with improved infrastructure, the Brazilian Gymnastics Federation continued to have a limited budget and few athletes had personal sponsors. The author mentions that Daniele Hypólito traveled to Ghent with financial support given by soccer player Ronaldo because she didn't have the resources to support herself during the competition.

Daniele Hypólito remained among the best in the world in the 2002 WC in Debrecen, Hungary. This event only had individual competitions. Daniele Hypólito qualified for the floor exercise semifinals in third place. In the semifinals, Daniele Hypólito got the second-best score but ended in 5th place in the finals. She also advanced to the semifinal on vault and ranked 14th. A gymnast from the new generation, Caroline Molinari, advanced to the semifinal on uneven bars in 11th place, finishing the competition in 14th. These results showed that the success of Brazil in the previous WC was a product of consolidated work.

In 2003, at the pre-Olympic WC in Anaheim, USA, two Brazilians competed in the individual all-around final: Camila Comin finished 19th, and Daniele Hypolito finished 24th. At the same tournament, two achievements marked the history Brazilian WAG: Daiane dos Santos won the first WC gold medal in the floor exercise, and Brazil finished 8th in the team final. For the first time ever, Brazil qualified a WAG team to compete in Olympic Games. As mentioned before, previously, Brazil had only been represented by individual gymnasts (FIG, 2019). In a way, these achievements point to the consolidation of the long-term work introduced intensified in previous years (Oliveira & Bortoleto, 2009).

At the Athens Olympic Games in 2004, Camila Comin and Daniele Hypolito made it to the individual all-around final, finishing 26th and 12th respectively. Daiane dos Santos advanced to the floor exercise final as a favorite to win the gold medal but finished in 5th place, the best placement of a Brazilian in OG in this event so far. The Brazilian team finished in 9th place, not taking part in the CIV (team finals), in which only the best eight teams compete for medals (FIG, 2019). Regarding this period, Carvalho (2007, p. 25) points out that:

With the large investment in the Center for Excellence in Gymnastics, artistic gymnastics as a high-performance sport enjoys a particularly privileged moment, which was expressed by two unprecedented qualifications at the 2003 pre-Olympic World Championships (one of the most prestigious competitions in the sport for qualifying for the Olympic Games) in the city of Anaheim in the United States. The world history of the sport was marked there by the gold medal won by Brazilian gymnast Daiane dos Santos, and the remarkable qualification of the Brazilian women's artistic gymnastics team for the 2004 Athens Olympic Games.

During the 2005 WC in Melbourne, Australia, three gymnasts competed for Brazil. Daniele Hypolito earned a place among the top 10 gymnasts in the world by finishing the AA in 9th place. On the floor exercise, Daiane dos Santos ended the competition in 7th place. The format of this WC only included individual competitions.

In the subsequent pre-Olympic WC in Stuttgart, Germany, in 2007, Brazil stood out once again with a bronze medal in the individual all-around event won by Jade Barbosa. She also qualified for the finals in the vault (5th) and balance beam (7th) events. This was also the first and only individual WC all-round medal won by Brazil to date. In addition, Brazil finished the team final in an unprecedented 5th position, and for the second time qualified as a full team for the OG (FIG, 2019).

At the Beijing 2008 Olympic Games, Jade Barbosa and Ana Cláudia Silva qualified for the AA final and ranked 10th and 22nd respectively. Jade Barbosa also took part in the vault final, where she finished 7th. And Daiane dos Santos ended in 6th place in the floor exercise final. It is worth highlighting that Brazil competed for the first time in an Olympic team final, finishing in 8th place (FIG, 2019).

Table 3 Brazilian gymnasts in OG and WC from 2001 to 2008, and the states they represented.

EVENT	GYMNASTS REPRESENTING BRAZIL
2001 WC	Camila Comin (PR), Coral Borba (RJ), Daiane dos Santos (RS), Daniele
	Hypolito (RJ), Heine Araújo (RJ), Stefani Salani (SP)**
2002 WC *	Caroline Molinari (PR), Daiane dos Santos (RS) (did not compete), Daniele
	Hypolito (RJ)
2003 WC	Ana Paula Rodrigues (PR), Camila Comin (PR), Caroline Molinari (PR),
2003 WC	Daiane dos Santos (RS), Daniele Hypolito (RJ), Laís Souza (PR)
2004 OG	Ana Paula Rodrigues (PR), Camila Comin (PR), Caroline Molinari (PR),
2004 OG	Daiane dos Santos (RS), Daniele Hypolito (RJ), Laís Souza (PR)
2005 WC *	Daiane dos Santos (RS), Daniele Hypolito (RJ)
2006 WC	Bruna Costa (SP), Camila Comin (PR), Daiane dos Santos (RS), Daniele
	Hypolito (RJ), Juliana Santos (RS), Laís Souza (PR)
2007 WC	Ana Cláudia Silva (PR), Daiane dos Santos (RS), Daniele Hypolito (RJ), Jade
	Barbosa (RJ), Kiuani Dias (PR), Laís Souza (PR)
2008 OG	Ana Cláudia Silva (PR), Ethiene Franco (PR), Daiane dos Santos (SP), Daniele
	Hypolito (RJ), Jade Barbosa (RJ), Laís Souza (SP)

Source: Adapted from Schiavon (2009) and FIG (2019). \*Apparatus events only (specialists). \*\*Rio Grande do Sul (RS), Rio de Janeiro (RJ), São Paulo (SP) and Paraná (PR).

The end of 2008 also marked the conclusion of the centralized training system of the permanent national team and the departure of coaches Oleg and Nádia Ostapenko. According to Mrs. Alice Tanabe, chair of the Brazilian Gymnastics Federation WAG Technical Committee at the time, "the permanent team may be restored in the future. Whoever takes over Federation Brazilian Gymnastics administration can present a new project. But there are people who are against it" (Pombo & Ohata, 2008). Among the reasons for opposing the centralized permanent team, we can mention the negative aspects of this system as perceived by AG coaches, such as rigorous training, monopolization of athletes, loss of talented gymnasts who did not adapt to join the system, devaluation of Brazilian coaches, among others. This suggests that the Soviet model was not adequately adapted to the reality of WAG in Brazil (Nunomura & Oliveira, 2012). In this sense, Bortoleto and

Schiavon (2018, p. 92) point out that:

Nevertheless, criticisms of this model were later intensified, since many clubs that "ceded" their main gymnasts to the permanent team were unable to maintain the same level of performance, as those athletes who were their references ("mirrors") were no longer present in their gyms. Added to this dissatisfaction was the lack of a policy to "democratize" the knowledge of foreign specialists, i.e., to set up a continuous process to optimize the exchange between Brazilian and foreign coaches. It is also clear that the discontent due to the "devaluation" of Brazilian coaches aggravated the problem, culminating in the difficulty to renew club teams and, later, the national team.

Under the management of Mrs. Vicélia Florenzano, WAG undoubtedly experienced a period of growth and development in Brazil, characterized by the construction of its own headquarters, the structuring of a training center according to

international standards, the introduction of centralized training system of the national permanent team, the arrival of three foreign coaches to work with the team in Curitiba, and ultimately, more significant results in the main international competitions (Oliveira, 2007). Different studies confirm that the most significant changes occurred in this period, contributing to the major development of Brazilian WAG and better international results. Despite this, it was still problems possible see the administration and general infrastructure of this sport nationally (Nunomura & Oliveira, 2012; Schiavon et al., 2013; Costa, 2018).

This period was marked by an increase in public and private investment in sports in Brazil with the implementation of the Agnelo/Piva Act in 2001, the Sports Incentive Act in 2006, and the Athlete Grant Program in 2005, among others (Oliveira, 2010). If Brazilian WAG started this period with Daniele Hypólito receiving financial support from soccer player Ronaldo in 2001, the following years were impacted by the laws and programs mentioned above.

This sum of investments brought significant advances to a country with no previous tradition in the sport and which did not imagine featuring so quickly among the best in the world. Team Finals (CIV) and Individual Apparatus Finals (CIII) were reached and medals were won in World Championships by Daniele Hypolito (CIII), Daiane dos Santos (CIII) and Jade Barbosa (Individual All-Around/CII) (Schiavon & Paes, 2012, p. 768).

Regarding the Agnelo/Piva Act, Oliveira (2010, p. 158) points out that "The security afforded to the Brazilian Gymnastics Confederation by Agnelo/Piva Act resources enabled the organization to carry out long-term planning, an unconceivable condition in the period prior to the implementation of this act in 2001". Moreover, such resources made it possible Brazilian Gymnastics Federation introduce several initiatives that contributed decisively to the technical improvement of WAG, such as hiring foreign coaches and a multidisciplinary team, obtaining imported equipment, opportunities for training abroad, participation in international competitions, maintenance of Curitiba training center, among others (Oliveira, 2010). In short, funds from the Agnelo/Piva Act were extremely important for the development of high-performance WAG in Brazil, and it was later complemented by the Sports Incentive Act (Oliveira, 2010).

The Athlete Grant Program, the first federal policy for directly subsidize athletes (Corrêa et al., 2014), was introduced in 2005. By the end of 2009, it assisted 27 WAG gymnasts in all age group categories (student, national, international, Olympic athletes). It is important to mention that no gymnast benefiting from this grant took part in WC or OG until 2008 (Lima, 2016). This is due to the program criteria, which until 2012 did not allow athletes to have sponsorships and/or receive salaries (Oliveira & Bortoleto, 2012; Corrêa et al., 2014). The national team gymnasts didn't benefit from this program because they received a salary from the Brazilian Gymnastics Federation and its official sponsor.

All these important advances in Brazilian WAG, especially the results at international competitions, impacted the history of this sport nationally. However, they did not have the same satisfactory impact at the national level. In fact, "[...] gymnasts, clubs and state federations did not follow this evolution, continuing to suffer from the typical problems of Brazilian amateur sport" (Oliveira, 2010,

p.175), as follows.

### 2009-2021 – Decentralization and establishment of training camps

The year 2009 marked significant changes in Brazilian gymnastics. Following the dissolution of the permanent national team in 2008, the WAG team entered a phase of adjustment to a new format introduced by the incoming administration of the Brazilian Gymnastics Federation. This new approach saw a departure from the centralization of gymnasts, who now convened for training only in the periods closer to competitions (Poffo, 2009).

With the conclusion of the 2005-2008 Olympic cycle and the subsequent Brazilian Gymnastics Federation elections in 2009, Mrs. Maria Luciene Cacho Resende from the state of Sergipe assumed the presidency. Consequently, after 18 years headquartered in Curitiba under the management of Mrs. Vicélia Florenzano from Paraná, the Brazilian Gymnastics Federation relocated its headquarters to Aracajú in Sergipe. This marked the first time the office was situated outside the South or Southeast regions of Brazil (Império, 2009).

The training center in Curitiba, which had been utilized by the Brazilian national team for years, was repurposed for gymnasts competing under the Paraná Gymnastics Federation (Império, 2009). On occasion, prior to international competitions, the Brazilian national team would convene there for training (Poffo, 2009).

In the first competition of the 2009-2012 Olympic cycle, characterized by an adaptation to the newly decentralized training system, four newcomer gymnasts represented Brazil at the 2009 WC in London, England. Bruna Leal achieved the highest ranking among Brazilians in this

competition, securing 14th place in the AA (FIG, 2009).

In the following year, the 2010 WC in Rotterdam, the Brazilian team that had previously been Olympic finalists finished in 10th place. Notably, Jade Barbosa, returning to training after a prolonged absence due to a wrist injury, secured 3rd place on vault. This marked her second medal in WC, Brazil's first in this apparatus, and the fourth WC medal won by Brazilian WAG.

Despite the promising start to this cycle for Brazilian WAG, subsequent championships in the 2009-2012 cycle did not indicate sustained development from the centralized training system era. At the 2011 pre-Olympic WC in Tokyo, despite Daniele Hypólito qualifying 13th in the AA and Jade Barbosa placing 4th in the vault event, the Brazilian team finished in 14th place, failing to secure a full team qualification for the London 2012 Olympic Games (FIG, 2019).

Brazil's qualification came only through the test event in London in early 2012 (FIG, 2019), where the team clinched the last spot by finishing in 4th place. However, at the 2012 OG, the Brazilian WAG team underperformed, failing to advance beyond the qualifying round and ultimately finishing last among twelve teams (FIG, 2019).

The period between 2009 and 2012 was marked by injuries, challenges in renewing the team due to a limited number of athletes, and a political issue involving one of the top gymnasts. Notable instances include Adrian Gomes, who missed the 2012 OG due to a spinal injury sustained during training; Ana Cláudia Silva, who retired from the sport after suffering an elbow injury and missing the 2009 WC; Laís Souza, who broke her finger before the

2012 OG; and Jade Barbosa, who, as mentioned earlier, missed the 2012 OG due to a dispute with the Brazilian Gymnastics Federation, among other injuries and retirements.

Nunomura and Oliveira (2012) point out that issues related to the rigidity of training, overtraining, and the uneven development of WAG in different regions of Brazil were some of the criticisms that emerged during and after the 2005-2008 Olympic cycle regarding the centralized training system. According to the authors, some of these problems stemmed from the lack of adaptation of this system, which was imported from the Soviet Union, to the specific characteristics of AG in Brazil. Among these characteristics was the crucial role of clubs in the detection, selection, and development of athletes.

By inviting the best gymnasts into the permanent national team, the institutions have been weakened, as they lost their references for future generations. Coaches were forced to send their athletes to the centralized training system, as keeping them in their clubs, would result in stagnation compared to those training under centralized system, which the supported by a multidisciplinary team and equipped with better facilities. [...] With the loss of these athletes, clubs and coaches felt demotivated to pursue high-performance goals in the sport (Nunomura & Oliveira, 2012, p. 384).

When Brazil secured the right to host the 2016 Olympic Games, several measures were initiated to enhance AG participation. Without a specific training center for the national team since 2009, and amid changes in the Brazilian Gymnastics Federation's administration and office location, the Team Brazil AG Training Center (TC) was inaugurated in 2012. This initiative was a

collaboration between the Brazilian Olympic Committee and the Brazilian Gymnastics Federation, utilizing the Barra da Tijuca velodrome in Rio de Janeiro, a legacy of the 2007 Pan American Games.

The AG gym was set up in the central area of the velodrome track and featured around 100 pieces of Spieth equipment, including a pit, tumble track, tumbling, and fitness and physiotherapy equipment (Ministério do Esporte, 2012). Besides AG, the TC was also used for cycling and speed skating. Consequently, the facility was not entirely suitable for AG, primarily due to the noise, but it was the best available option in Brazil at the time.

However, this project did not last more than a year; it was inaugurated in April 2012 and ended in February 2013 due to the demolition of the velodrome to make way for a new facility for the Rio 2016 Olympic Games. As a result, the national team gymnasts were once again left without a specific and adequate place to train that met international standards (Gismondi, 2013). As a temporary solution, the Brazilian Olympic Committee and Brazilian Gymnastics Federation relocated the WAG team to train in Três Rios, Rio de Janeiro, until a new TC could be constructed (Gismondi, 2013).

Another project developed with the 2016 Olympic Games in sight was the hiring of a new head coach. Since the departure of Ukrainian coach Oleg Ostapenko in 2008, the Brazilian WAG team had been without a head coach. In response, the Brazilian Olympic Committee hired Russian coach Alexander Alexandrov, facilitated by a partnership between the Brazilian Olympic Committee and the Brazilian Gymnastics Federation. This move aimed to improve development of AG in Brazil and was made possible through funds from the Agnelo/Piva Act (Ministério do Esporte, 2013).

In 2014, the Brazilian Gymnastics Federation (CBG), in partnership with the Brazilian Ministry of Sports (MS), purchased sets of FIG-approved equipment, which were distributed in 2015 to several Brazilian states (Ministério do Esporte, 2014; Lima, 2016). Specifically, seven states received WAG equipment: Aracaju (SE), Belém (PA), Brasília (DF), Curitiba (PR), Natal (RN), Porto Alegre (RS), and Rio de Janeiro (RJ) (Ministério do Esporte, 2014). According to the Ministry of Sports (2015), "The purchase is the largest import of AG equipment made by Brazil in the last 40 years [...]."

This investment in AG equipment was the largest ever made in Brazil. The president of the Brazilian Gymnastics Federation, Mrs. Luciene Resende, stated that "[...] it will contribute immensely to the further growth of Olympic sport. I am sure that the technical improvement will be extremely significant and that we will certainly achieve excellent results in the future [...]" (Ministério do Esporte, 2014). However, the criteria for distributing the equipment were not disclosed, leading to "speculation and criticism" (Bortoleto & Schiavon, 2018, p. 94).

Without an official training center for camps since 2013, following the demolition of the velodrome in Rio de Janeiro, the Brazilian Olympic Committee inaugurated the Team Brazil Training Center (TC) in Barra da Tijuca, Rio de Janeiro, in 2015. The former TC was relocated to the Artistic **Gymnastics** warm-up of the area gymnasium used for the 2016 Olympic Games and remains in use (Ministério do Esporte, 2015; COB, 2019). The facilities are fully equipped with temperature control, which is necessary given the location, and they have the support of medical and physiotherapy staff (COB, 2015).

In addition to modern sports and technology equipment, the COB will provide a cafeteria, study, medical and physiotherapy rooms, among others, for the Brazilian women's and men's national teams. [...] The interventions carried out on site involved the construction of the pit and support rooms, and the purchase, import and installation of equipment (sports and technology). [...] Measuring 2,500 square meters, the TC has separate rooms for women's and men's gymnastics, a meeting room, a room for consultation with the multidisciplinary teams, a medical room, an administration room, a common area for athletes, a cafeteria, a large physiotherapy room and a study room. The Artistic Gymnastics TC is the only one in Brazil with air conditioning. The facility will also have imagery analysis equipment, which is being imported from the United States, mainly for floor exercise and vault (COB, 2015).

The Rio de Janeiro National Training Center (TC) did not contribute significantly as anticipated the preparation for the 2016 Olympic Games, as athletes only gained access to the facility in 2015. Consequently, the national team utilized it for just about a year and a half. This facility has proven to be more beneficial as a legacy of the Olympic Games, serving the post-Rio 2016 generation more extensively.

Regarding the competitions of the 2013-2016 Olympic cycle, there were no noteworthy results except for the 2016 Olympic Games. At the 2013 World Championships in Antwerp, only two Brazilian gymnasts competed: Daniele Hypolito, who participated in two

apparatus, and Letícia Costa, who competed in the all-around (AA) and finished in 28th place (FIG, 2019). The best result for Brazil was Daniele Hypolito's 13th place on the balance beam.

In the 2014 World Championships in Nanning, China, Brazil finished in 16th place, with the best individual result being Daniele Hypolito's 34th place in the AA (FIG, 2019).

At the 2015 pre-Olympic World Championships in Glasgow, Scotland, the Brazilian team finished in 9th place, once again failing to qualify directly for the Olympic Games with a full team (FIG, 2019). Lorrane Oliveira achieved the 14th place in the AA and was the highest-ranked Brazilian woman at the competition. Flavia Saraiva also qualified for the AA final in 14th place but ended up in 24th place after several mistakes on the balance beam. Additionally, Jade Barbosa was returning from an injury, and Rebeca Andrade was unable to compete due to injury.

The qualification of a full Brazilian team to compete in the Rio 2016 Olympic Games was secured at the Olympic Test Event in 2016, where Brazil finished in first place, securing one of the four remaining spots (FIG, 2019). Rebeca Andrade's performance, particularly on two apparatus, was instrumental in helping the team secure this Olympic berth.

At the Olympic Games in Rio de Janeiro, Brazil achieved notable results. Highlights of the competition included Rebeca Andrade's 4th place in the allaround (AA) qualification and Flávia Saraiva's 3rd place on the balance beam. If Rebeca Andrade had maintained her qualifying score, she would have won the bronze medal, but after a few mistakes, she finished the AA competition in 11th place. In the balance beam final, Flávia Saraiva

ended in 5th place. The Brazilian team qualified in 5th place for the finals, a position they were unable to sustain, ultimately finishing in 8th place (FIG, 2019).

The end of the 2013-2016 Olympic cycle marked significant changes for Brazilian Women's Artistic Gymnastics Alexander (WAG). Russian coach Alexandrov, who had been hired to improve the development of artistic gymnastics in Brazil, departed after his contract was not renewed. This period also saw the departure of several renowned Brazilian coaches. Keli Kitaura, who coached Rebeca Andrade, and Alexandre Carvalho, who coached Flávia Saraiva, moved to the USA in 2017. Ricardo Pereira, who coached Jade Barbosa and other prominent Brazilian gymnasts, relocated to Canada. In 2019, Roger Medina, Thais Fidelis's coach, moved to Argentina to work with the national team. These departures represented a significant loss for Brazilian WAG, impacting its development and continuity.

In 2016, Brazilian coaches Alexandre Carvalho, Keli Kitaura, and Ricardo Pereira proposed a project to the Brazilian Olympic Committee (COB) to develop Women's Artistic **Gymnastics** (WAG) across different regions of Brazil, outside the traditionally dominant South and Southeast areas. The project aimed to disseminate and develop WAG and discover new talent. Despite several meetings, the COB rejected project (Vecchioli, 2019). rejection, among other factors, led to experienced and qualified Brazilian coaches leaving the country, highlighting the inadequate support for professionals involved in the sport in Brazil. This situation was exacerbated by the lack of response and engagement from the state federations responsible for organizing the sport in Brazil, demonstrating a continued depreciation of Brazilian artistic gymnastics coaches.

In the 2017 World Championships (WC) held in Montreal, Canada, the only Brazilian gymnast to compete was Thais Fidelis, who finished 4th in the floor exercise event. A significant development in 2018 was the COB's hiring of Valeri Liukin, a former Soviet Union athlete and WAG Olympic champion coach in the US, as a consultant for WAG. Liukin attended his first WC as a consultant in Doha that same year. However, his work with the national team began only in the second half of 2018, leaving insufficient time to prepare adequately for the 2019 pre-Olympic World Championship.

At the 2018 WC in Doha, Qatar, Brazil participated with a full team and finished 7th. Gymnasts Flávia Saraiva and Jade Barbosa qualified for the individual allaround finals, finishing 8th and 15th, respectively. Flávia Saraiva also qualified for the floor exercise final, where she finished in 5th place. These results underscored the ongoing challenges and potential within Brazilian WAG, despite the systemic issues and lack of adequate support for coaches and athletes.

The year 2019 proved to be a turning point for the worse for the sport in Brazil. After four consecutive Olympic Games (OG) with a full team, Brazil did not qualify for the team event in Tokyo 2020. By 2019, only gymnast Flávia Saraiva had secured a spot for the competition. Recurring injuries in Brazilian Women's Artistic Gymnastics (WAG) once again caused gymnasts to miss important competitions in this cycle (2017-2020), and the consequent lack of gymnasts competing at the international level hindered any chances of other qualifications for the OG.

Only six Brazilian athletes were able to attend the World Championships (WC) in Stuttgart, Germany, in 2019: Jade Barbosa, Flávia Saraiva, Rebeca Andrade, Lorrane Oliveira, Thaís Fidelis, and Carolyne Pedro. Unfortunately, the injuries of four of these gymnasts near and during the WC greatly undermined the team's performance and overall prospects.

The team's star, Rebeca Andrade, suffered that year her third anterior cruciate ligament in the right knee in four years. Lorrane Oliveira did not recover from an ankle injury and went to Germany to compete in only one apparatus event. To make matters worse, Carolyne Pedro was injured in the week of the competition, and Jade Barbosa sprained her knee in the first event of the Brazilian apparatus presentation, the vault, and was unable to continue in the competition (Vecchioli, 2019, online).

Other than the aforementioned athletes, few were able to compete for the WAG national team. This caused a great gap in the sport in Brazil, i.e., there was no renewal. This is not an exclusive problem of this last cycle, as we see in the quote below from Schiavon *et al.* (2013), Looking the previous decade.

[...] The closeness between the number of high-performance gymnasts in the senior category and the number of gymnasts needed to make up the Brazilian team is a significant issue. There are no reserve gymnasts of the same technical level, leaving coaches with limited options for assembling national teams. Consequently, there is insufficient renewal within the team, with the same gymnasts remaining on the Brazilian team across multiple Olympic cycles (Schiavon *et al.*, 2013, p. 433).

For the 2019 World Championships, gymnasts who no longer trained full-time and had not participated in international competitions for years, or who were still inexperienced in the senior category and/or below the technical level, were called up. This included Letícia Costa, who had not competed at a high level for about four years, and Isabel Barbosa, who was just starting in the senior category. The team finished 14th overall; the best results came from gymnast Flávia Saraiva, who placed 7th in the individual all-around, 6th on the balance beam, and 4th in the floor exercise, making her the only Brazilian to qualify for the Olympic Games at this World Championship. The second and final Olympic spot was secured by gymnast Rebeca Andrade at the Pan American Games in 2021 in Rio de Janeiro.

With the postponement of the 2020 Olympic Games to 2021 due to the COVID-19 outbreak, Brazil was represented only by individual gymnasts Flávia Saraiva and Rebeca Andrade. Unfortunately, another injury on the eve of the competition caused Flávia Saraiva to compete while injured; she managed to qualify for the balance beam final and finished 7th.

The Tokyo Olympics were a milestone for Brazilian WAG. Previously, Brazil had never won an Olympic medal in women's artistic gymnastics, but Rebeca Andrade changed that by winning silver in the individual all-around and gold in the vault event. Despite several gymnasts being injured, Rebeca Andrade was the only representative at the World Championships Although year. Championships are typically not held in Olympic years, the postponement of the 2020 Olympics to 2021 resulted in both events occurring in the same year. Despite the strain of competing in the Olympics, Rebeca Andrade participated in only three apparatus events and achieved remarkable results, winning gold in the vault and silver in the uneven bars.

In a more specific analysis of the results obtained, focusing first on the performance of the Brazilian team as a whole, we observe (Figure 2) an improvement in the World Championships (WC) between 1995 and 2007. Regarding the Olympic Games (OG) in which Brazil participated with a full team, there was also an improvement in 2008 compared to the previous edition (Figure 3).

Table 4 Brazilian gymnasts in OG and WC from 2009 to 2021 and the states they represented.

EVENT	GYMNASTS
2009 WC	Bruna Leal (PR), Ethiene Franco (PR), Khiuani Dias (PR), Priscila Cobelo (PR)*
2010 WC	Adrian Gomes (RS), Bruna Leal (PR), Daniele Hypolito (RJ), Ethiene Franco, Jade Barbosa (RJ), Priscila Cobelo (PR)
2011 WC	Adrian Gomes (RS), Bruna Leal (PR), Daiane dos Santos (SP), Daniele Hypolito (RJ), Jade Barbosa (RJ), Priscila Cobelo (PR)
2012 OG	Bruna Leal (PR), Ethiene Franco (PR), Daiane dos Santos (SP), Daniele Hypolito (RJ), Harumy Freitas (PR)
2013 WC	Daniele Hypolito (PR), Letícia Costa (RJ)
2014 WC	Daniele Hypolito (PR), Isabelle Cruz (RJ), Julie Sinmon (RJ), Letícia Costa (RJ), Maria Cecília Cruz (RJ), Mariana Oliveira (PR)
2015 WC	Daniele Hypolito (PR), Flávia Saraiva (RJ), Jade Barbosa (RJ), Lorrane Oliveira (PR), Letícia Costa (RJ), Thauany Araújo (RJ)
2016 OG	Daniele Hypolito (PR), Flávia Saraiva (RJ), Jade Barbosa (RJ), Lorrane Oliveira (RJ), Rebeca Andrade (RJ)
2017 WC	Thais Fidelis (PR)
2018 WC	Flávia Saraiva (RJ), Jade Barbosa (RJ), Lorrane Oliveira (RJ), Rebeca Andrade (RJ), Thaís Fidelis (PR)
2019 WC	Flávia Saraiva (RJ), Jade Barbosa (RJ), Letícia Costa (RJ), Lorrane Oliveira (RJ), Thaís Fidelis (PR)
2021 OG	Flávia Saraiva (RJ), Rebeca Andrade (RJ)
2021 WC	Rebeca Andrade (RJ)

Source: Adapted and updated from Lima (2020). \* Rio Grande do Sul (RS), Rio de Janeiro (RJ), São Paulo (SP) and Paraná (PR).

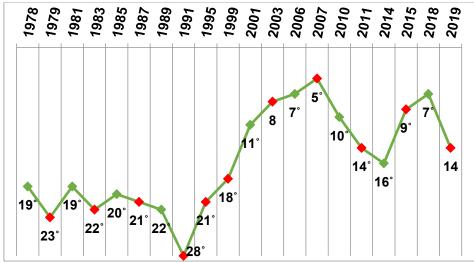


Figure 2. Brazilian WAG results in the team event in WC<sup>1</sup>. Key: Red squares indicate pre-Olympic WC.

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<sup>&</sup>lt;sup>1</sup> Brazil did not compete with a full team in the 2021 WC and the 2021 OG.

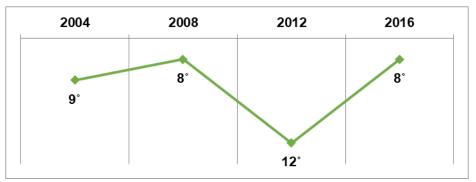


Figure 3. Brazilian WAG results at the OG Team event.

These improved results in the team event in both WC and OG can be linked to the "better" structure of the CBG with the establishment of its own headquarters in 1995 (the organization's first headquarters), the improved infrastructure available for training with the Curitiba TC, the formation of a permanent national team from 2001, the arrival of renowned foreign coaches, and the development of Brazilian coaches who were able to work closely with the Ukrainians. It is worth mentioning that such initiatives were only made possible and implemented with the increase in public and private investment in sports in Brazil during this period, especially with funding from the Agnelo/Piva Act.

However, a decrease in performance in the team event is observed in the period subsequent to 2008 until 2014, even though Brazil was chosen to host the Rio 2016 Olympic Games. This decline is observed in both WC and OG. The new non-centralized system, the end of the permanent national team and the departure of the Ukrainian coaches in 2008, the lack of a fixed TC for the national team until 2015, and the absence of a head coach from 2009 to 2013 possibly contributed to this situation. Additionally, the previously mentioned "aftereffects" of the negative aspects of the entire system implemented until 2008, which valued and focused on a national

team with a specific profile, ended up not developing the sport in the rest of the country and excluding gymnasts who did not fit that profile.

Although performance starts improving again from 2014 in both tournaments, this is likely the result of investments and strategies aimed at the Rio 2016 Olympic Games. These strategies and initiatives for that competition began to effectively influence the sport's results, continuing to show a growing trend in the years following the 2016 Olympic Games. This trend does not happen after other Olympic Games (Figure 4), when there is typically a drop at the beginning of a new Olympic cycle.

Nonetheless, from 2019 onwards, it has been more challenging to maintain good results, despite Brazil achieving its best results ever in 2021. Several factors contribute to this difficulty, similar to the previous period of decline, including a large number of injuries and a lack of gymnasts capable of representing the country internationally. This situation persisted up to 2021, even with the recent Olympic medals, and was exacerbated by the pandemic, which brought many problems, especially for a large country like Brazil, which faced numerous political and social obstacles during that period. As previously mentioned, currently, Brazil has only six

gymnasts at the international level, which is not the case for the top countries in the sport, where there is a steady replacement of athletes. In Brazil, when injuries occur, there are not enough gymnasts of the same level to replace them. Although these six gymnasts currently receive all necessary support in funding and infrastructure, support is also needed for developing new gymnasts and investing in training new coaches and valuing these professionals. Otherwise, the problems with replacing gymnasts will persist, as coaches will continue to leave for other countries.

Attempting to explain this situation, Vecchioli (2019) points out that "of the 24 athletes who competed in the Brazilian U-16 and U-14 Championships in 2015, only one was in the Brazilian Championship this

year: Carolyne Pedro, precisely the champion of that tournament and the only one to make it to the national team, as a reserve." The others ended up abandoning the sport due to lack of prospects and support.

Regarding the best results in the individual all-around event obtained by Brazilian women gymnasts in WC and OG, there is an unstable period of results from 1966 to 1985 and a decline from 1987 to 1992 (Figures 4 and 5). However, analyzing the chart as a whole, we observe significant improvement from 2001, when a process of striving for medals began, with Jade Barbosa obtaining the best result ever in 2007 in a pre-Olympic WC, considered the strongest of the Olympic cycles for being a qualifier for OG.

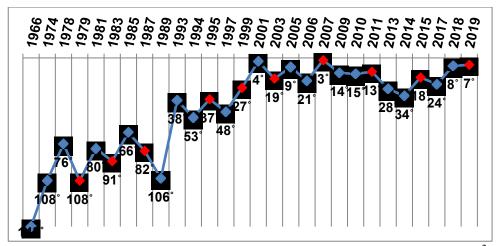


Figure 4. Best results by Brazilian gymnasts at WC in All Around event.<sup>2</sup> Key: Red squares indicate pre-Olympic WC.

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<sup>&</sup>lt;sup>2</sup> In the 2021 WC, Brazil did not compete in the individual all-around event, only in three apparatus events (vault, uneven bars and balance beam). In 2020 there was no WC.

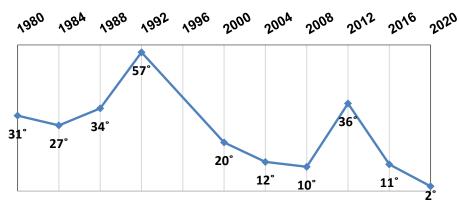


Figure 5. Best results by Brazilian WAG at Individual all-around event at OG.

These results can be attributed to a lack of support, financial difficulties, a reduced number of training sites, and inadequate infrastructure for high-performance artistic gymnastics (AG) in the 1980s and early 1990s, in addition to amateurism and a lack of structure, mainly within the CBG and the COB itself. The subsequent improvement in results starting in 1993 and the decline beginning in 2011 mirror the reasons mentioned above regarding the team event results, marking a trend in Brazilian WAG during this period as a whole. The results follow a growing trend, especially if we look at the main WC (pre-Olympics), and show that the gymnasts, despite facing all the difficulties within Brazilian WAG and competing against many countries with more robust structures and organization, have been achieving significant results for Brazil.

Lastly, it is worth stressing that the earliest participations of Brazilian women gymnasts in these international championships were key to the development and (re)structuring of Brazilian WAG. "It was a process in which the sport was gradually developed until the athletes were able to perform competently on the international stage and achieve a technical level that allowed them to compete against major world powers" (Costa, 2018, p. 30). The gymnasts from these early periods

opened doors and helped Brazil achieve not only technical competence but also recognition and experience for the judges and for the International Gymnastics Federation.

Finally, it seems that the WAG in Brazil can improve in terms of governance, infrastructure, coach education and recognition, media support, local and state-level club support, transparency in management, among other aspects. There has certainly been an improvement in international competition results, but the local reality across the country does not follow the same trend.

### CONCLUSION: PATH TO THE FUTURE

This overview of Brazilian WAG, based in the international competition achievements, clearly reveals major improvements of national team athletes. The trajectory of Brazilian gymnasts in Olympic Games and World Championships shows progressive results, culminating in the silver medal in the individual all-around event and the gold medal in the vault final, both won by Rebeca Andrade at the Tokyo 2020 OG, placing Brazil among the best countries in this sport today. For many years the achievements were based on personal initiatives, mainly by coaches, clubs and gymnast's parents (Schiavon, 2009). Looking at the Olympic champion, Rebeca Andrade, a similar path can be observed in her carrier before joining the Brazilian national team.

Over these 55 years of Brazilian participation in WAG WC and OG, the last two phases/periods mark a drastic change in the national reality. Despite the positive image that the recent results bring about the development of this sport, there is still much to improve with respect to countries considered world leaders.

It is important to point out that the process of collecting and systematizing the data that guide this study was not an easy task due to the lack of official archiving of the state federations and CBG. Understand the historical development process is crucial to grasp the gaps and issues remaining. It is possible to say, for example, that all the gymnasts representing Brazil in WC and OG come from and were trained in the Brazilian South and Southeast regions, with the exception of Ana Claudia Silva, who started in the Northeast region (Natal-Rio Grande do Norte) and moves south to develop while still in the begging of her sport carrier.

The hiring of foreign coaches certainly contributed to the international successes of Brazilian WAG, but their experience was not spread and shared accordingly in the national community. Some Brazilian coaches had the chance to work alongside those renowned foreign coaches or had their gymnasts co-coached by them for some time. It seems that the contracts signed with these world-class coaches did not allow for a systematic and intentional training of new Brazilian generations coaches. Considering that "the hiring was part of the planning of the COB and the CBG to improve the development of the sport in Brazil" (Ministério do Esporte, 2013), it seems we have not totally achieved this goal yet.

In order to develop the sport in the country, further long-term programs need to be implemented (Bortoleto & Schiavon, 2018; Lima, 2020), ensuring support for clubs that operate in the youth categories and developing programs that guarantee support for clubs and coaches that form the new generations of gymnasts. Some reforms in public policies and a broad training program for managers of state federations could help in this process. Finally, the recognition of Brazilian coaches on the same level as foreigners is urgent and necessary.

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Article received: 13.4.2023 Article accepted: 1.3.2024

