

THE FORMATION OF BRAZILIAN FEMALE GYMNASTS TAKING PART IN THE OLYMPIC GAMES (1980-2004)

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Original research article

Abstract

The results of Brazilian women athletes in international level artistic gymnastics competitions have taken evolutionary strides in the last ten years. In search of scientific information to understand this evolution we focused long-term development of Brazilian women artistic gymnasts who participated in the Olympic Games from 1980 to 2004. In order to do so, the qualitative research method of oral history was used. Testimonials were gathered from the ten ranked Brazilian athletes from the Olympic Games in this period of time, to obtain an account of their sporting life. From the field research and testimonials 14 themes emerged and were analyzed: Sport initiation in artistic gymnastics, participation in other sports, the athlete's idols, training facilities, designing training programs, nutritional aspects, psychological aspects, injuries, participation in the Olympic Games, the coach-athlete relationship, parental support, financial situation, important influences and retirement from artistic gymnastics. As a result of this analysis educational guidelines are proposed for long-term athlete development in women's artistic gymnastics.

Keywords: *women artistic gymnastics, Brazil, history, olympic games, long-term development.*

INTRODUCTION

Artistic gymnastics (AG) has experienced an improvement in international results over the last 10 years in Brazil and consequently has received a large amount of media exposure. This has generated an unprecedented growth in gymnastics audiences. AG has therefore become the subject of current discussions, especially among spectators. However, these discussions have not been carried out to the same degree among academic researchers, and the enthusiasm shown by the general population has not been shared by the academic community.

This situation may be due to several factors, such as the lack of studies in this

area, lack of interest in the subject, or the absence of links between university studies and the agencies responsible for the organization of sports. This situation is not only observed in the Brazilian Gymnastics Confederation - CBG (Confederação Brasileira de Ginástica), but also in other sports in Brazil.

Another point which raises discussion on the subject of Brazilian AG is the lack of a preparatory program aimed at coaches. During the period of nine years in which the Ukrainian coaches stayed in Brazil (1999-2008), who clearly helped such fast evolvement of the Brazilian results, there was no training program for Brazilian

coaches in order to prepare them to carry on their work. Therefore, it is possible that without their support our international results may not have been as good as the ones recently obtained, since there was no preparation of national coaches or communication of our training of sports gymnasts formation to continue with future generations.

The lack of communication of this information about the training process of gymnasts in Brazil is corroborated by the lack of national scientific publications on this topic. In other countries, the increase in publications follows the evolution of results.

From the perception of this problem came the doctoral studies of Schiavon (2009). This was entitled "Women's Artistic Gymnastics and Oral History: the Sport formation of Brazilian gymnasts taking part in Olympic Games (1980-2004)". Schiavon's work is summarized in the present article, which aims to search original information from Brazilian researchers and coaches. This is not restricted to quantitative matters of training, but also to qualitative aspects of the preparation of young athletes, which especially in this sport, requires specialization at an early age (around the age of eight), due to the specificities of AG, which are discussed in the course of this study.

The general goal of the research was to understand and report the formation process of the Brazilian women gymnasts who participated in the Olympic Games (OG). The specific goals were to: analyze the sporting life history of the Brazilian women gymnasts who participated in the OG; and provide guidelines that will enable the development of artistic gymnastic athletes in the long-term.

When organizing the research theoretical mark, among other possibilities, references related to sports formation were used and based mainly on authors from countries with tradition in gymnastics (Arkaev & Suchilin, 2004; Platonov, 2004; Smoleuskiy & Gaverdouskiy, 1996; Zakharov & Gomes, 2003). The topics

related to sports formation were organized into 14 themes: identification and sports initiation in gymnastics, participation in other sports, role models, infrastructure on gymnastics training sections, structure and organization of the training; nutritional aspects related to the gymnast career, psychological aspects related to the gymnast career, injuries throughout the sports career, participation in the Olympic Games, coach-athlete relationship, family support and gymnastics, financial conditions in their career, determining influences in their careers and end of their career in gymnastics.

METHODS

For this piece of qualitative research the oral history method was used (Meihy, 2005; Simson, 1988; Simson, 2006; Thompson, 1992). This method collects information from individuals who participated in the important periods of women's artistic gymnastics in Brazil, establishing the formation process of the athletes.

The use of this method is justified mainly due to the fact that there is no documentation of the formation of the gymnasts by means of documents or other published research..

Portelli (1997) stresses that the use of this method highlights the "subjectivity of the speaker" and comments that "oral sources tells us not only what people did, but what they meant to do, what they believed they were doing and what they now think they have done" (p.31).

Of the several techniques available in the oral history method, "oral testimonials" were used for this research. In the oral testimonial, the researcher proposes a theme for organizing the life story of the people under analysis. The study is focused on a given theme, in this case, the "sports life history" of these gymnasts (Queiroz, 1988, p.21).

The criterion established to determine the scope of the study was Brazilian gymnasts who participated (or that were

ranked) for the Olympic Games, in women's artistic gymnastics until 2004.

A total of ten gymnasts took part in the study, and are listed below in chronological order of participation in the Olympic Games: Cláudia Magalhães (1980), Tatiana Figueiredo (1984), Luisa Parente (1988 and 1992), Soraya Carvalho (1996), Daniele Hypólito (2000, 2004 and 2008), Camila Comin (2000 and 2004), Ana Paula Rodrigues (2004), Caroline Molinari (2004), Daiane dos Santos (2004 and 2008) and Laís Souza (2004 and 2008).

The present study was approved by the research Ethical Committee of the Campinas State University Medical School on March 27, 2007, under opinion number: 136/2007.

RESULTS

Analysis was carried out on the data collected during the testimonials given by the participants. Later, gymnast's information was crossed with other gymnasts in order to make it possible to establish relationships between them and, from this point, compare them, considering and paying special attention to the differences and similarities found in the gymnasts' sports formation.

Each of the categories studied was sorted into different files, called topics of analysis, and for which there are testimonials of the gymnasts on the same theme. Each "excerpt" on the gymnast's testimonial was identified with their names and the page from where it was extracted. From this point, analysis and discussions were carried out on the data from the testimonials, based on the information gathered from literature, disagreeing, confirming, or even offering collaboration with new approaches.

The topics for analysis were organized into 14 themes; each of them supplied information for developing the analysis of the testimonials, trying to unveil the key-elements for the sports formation process:

1. identification and Sports Initiation in Gymnastics,
2. participation in other sports,
3. role models,
4. infrastructure on Gymnastics training sections,
5. structure and organization of the training,
6. nutritional aspects related to the gymnast career,
7. psychological aspects related to the gymnast career,
8. injuries throughout the sports career,
9. participation in the Olympic Games,
10. coach-Athlete Relationship,
11. family support and Gymnastics,
12. financial conditions in their career,
13. determining influences in their careers,
14. end of their career in Gymnastics.

Later, in each topic of analysis was performed a grouping of testimonials that were then sorted into three groups:

Group of pioneer gymnasts: This group comprises testimonials from Cláudia Magalhães, Tatiana Figueiredo and Luisa Parente. They were the first gymnasts to represent Brazil in the OG. These gymnasts, compared to the other participants, had less training support in terms of financial, material, and human resources. There was a lack of support in these aspects from both the sports clubs and the Brazilian national team. At that time the Brazilian Gymnastic Confederation (CBG) was not yet adequately structured. These gymnasts were looking to participate in the OG, however had little chance of achieving medals, or even reaching the finals.

Transition group: The gymnasts in this group lived initially without support and structure. Then, at a given moment, similar to what had happened to the pioneer gymnasts, they experienced a second phase with more support. The athletes from this group also participated in the first Brazilian international competitions. This group was comprised of Soraya Carvalho, Daniele

Hypólito, Camila Comin and Daiane dos Santos.

New generation group: Gymnasts in this group joined the sport when there was structure and support in place, and were met with conditions similar to those countries winning medals on the international stage. This group is comprised of: Laís Souza, Caroline Molinari e Ana Paula Rodrigues.

DICSUSION

After the presentation and discussion of the data from these 14 topics of analysis carried out during the doctoral thesis, it was possible to have an overall view of the formation of Brazilian women's gymnasts in the Olympic Games and trigger some reflections about this formation. Some topics could be discussed in depth due to the existing literature, while others, due to poor references, can be discussed for the first time and may be used in future discussions.

Furthermore, there is also a clear view of the difficulties and barriers related to Brazilian gymnasts in different regions of the country, which does not depict nor resemble the organization and support experienced by the Brazilian gymnast team. Such problems, which show a concentration of this sports development in a single location and restricted to certain people, became evident when the data is exposed, not only in Brazil but in other countries and their sports agencies when compared to the Brazil. Some reflections will be highlighted in order to contribute to discussions on the development and improvement of gymnastics in Brazil.

The number of Brazilian adult gymnasts is almost the same as the number of gymnasts required for the national team, which gives the national coaches few options. There are few quality gymnasts developing in the sport, so the same gymnasts remain in the national team for several Olympic cycles. Although sometimes carrying injuries, these gymnasts will compete for their country until other gymnasts are able to replace them. Data

from the American Gymnastics Federation shows that there are two main teams in the United States, composed of 24 gymnasts each (one junior team and one senior team). In addition to this there are 400 gymnasts who participate in Junior national championships in order to be selected for the junior national team. In Brazil, in 2008, combining all categories (ages 9-10, 11-12, 13-15 and >16) the total was 146 gymnasts participating in Brazilian championships, which represents 36.5% of one of the North-American categories.

Concentration of gymnasts in the South and Southeast regions of Brazil: after 30 years of the Brazilian Gymnast Confederation (CBG), the federal states comprising these regions are still the ones that stand out and the only ones represented in competitions. Moreover, considering the maximum possible number of 27 state federations (26 States plus the Federal District) and that there are only 18 gymnastics federations in Brazil, we observe that some States not only have no representatives in the main championships but do not even have entities affiliated to CBG despite sometimes having a Gymnastics State Federation. It is interesting to note that these federations have existed for certain years and, nevertheless, they have not yet been able to mobilize state entities in order to promote gymnastics or to affiliate themselves to the federation. They do not have gymnasts with the technical ability to participate in major championships. Logically, this kind of problem also involves each State regional policy; however, State Federations could promote and foster sports organizations. Therefore, it can be observed that these regions need incentives for gymnastics development, with coach education for the development of good sports initiation in these States.

Grigoryants (2004), while citing current problems in Russian gymnastics, shows that some regions in Russia have been totally forgotten after the country had concentrated all their gymnasts in a single location and under the supervision of one

person. Grigoryants points out that it is necessary to start the development of gymnastics in small cities, and allow coaches to practice freely.

The same has happened in Brazil with the centralization of gymnasts in Curitiba-PR (a State in the Southern region of Brazil). Knowledge was concentrated and the only people who benefited were the professionals at the Excellence Center (*Centro de Excelência*).

Training of coaches: considering the results obtained by gymnasts coached by Ukrainian coaches, and the testimonials of the gymnasts on the differences between them and the Brazilian coaches, and the lack of experience of the latter, it is possible to point out the lack of coach development. The 10-year period of the Ukrainian coaches in Brazil did not contribute to improved preparation of the Brazilian coaches. Since Brazil is a young country with regards to Gymnastics, it was necessary for experienced coaches from other countries to coach the national team. However, only athletes and coaches involved with the national team set-up benefited from these visiting coaches, and their knowledge was not imparted to general gymnastics coaches across the country.

In testimonies given by the gymnasts (Schiavon, 2009), it is possible to identify a lack of organization in the Brazilian gymnastics institutions, which relies on luck in order to identify talented athletes, and then expects these athletes to achieve a good technical level at the adult Brazilian Championship, which will allow them to represent the national team in World Championships. This method was adopted for years, during the generation of the pioneer and transition gymnasts, and was not successful at producing world-class gymnasts. During the past decade, the Ukrainian system of coaching has been imported to Brazil and has developed many Olympic champions. This has served to highlight the current poor standard of coach preparation in comparison to the Ukrainian system.

Since their arrival in Brazil, the Ukrainian coaches have complained about technical gaps identified in the Brazilian gymnasts. These were mentioned in *Folha de São Paulo* newspaper (2007), that quotes the coach Oleg Ostapenko: "I coach the national team, however I have to correct basic mistakes. Correcting is more difficult than creating new moves. It is a waste of time. There are not many coaches who really know gymnastics in depth and who make the gymnasts practice until they do not present basic mistakes". Based on this article, it is possible to observe that he approaches the consequences of the lack of preparation of the Brazilian coaches, which consequently leads to gymnasts often spending years to correct these problems. Nevertheless, without adequate and continuous preparation, gymnasts will continue to reach the national team with the same technical mistakes, since the coaches will continue to work in the same way, without any significant improvement.

Laís Souza, in her testimony (Schiavon, 2009), stresses that she suffered very much in order to correct some basic mistakes when she started to practice with the Ukrainian coaches. This shows that even coaches with good national results, such as Laís' coaches, still present technical gaps in their preparation, which makes the development of these athletes even more difficult. This is the case with most Brazilian coaches. These coaches are aware of this situation, and are therefore willing to gain knowledge and receive guidance that may be acquired by attending courses or by contact with other foreign coaches in Brazil, or during exchanges with other countries. Caroline Molinari and Camila Comin expressed in their testimonials that their former coaches did not fully explore their potential. However, after only one year under Iryna Ilyashenko these two gymnasts achieved significant improvements in ability, both in technical execution and level of difficulty.

As previously mentioned, according to Públio (2005), the last record of a continuous training course for coaches

offered in Brazil was carried out in 1973. This was carried out in partnership with MEC (Brazilian Ministry of Education and Culture) and aimed to train coaches for the Brazilian School Games.

However, it is even more curious that the use of resources from the Law Agnelo/Piva, as per a report issued by CBG to the Brazilian Olympic Committee (COB), pertaining to the years 2006-2007, there is absolutely no record of investments in the area of human resources, which could develop training courses for Brazilian coaches as part of the CBG budget.

Recently, there was a technical course in Brazil, which was part of a training program run by the International Gymnastics Federation (FIG). Unfortunately this course was only offered to a few Brazilian coaches, who had been invited by CBG, and not open to all interested Brazilian coaches.

Nunomura (2001), in his doctoral dissertation on the formation of gymnastics coaches, suggests that a certificate should be demanded, such as in other countries, and also approaches the subject of lack of specific preparation in Brazil:

Considering the problems faced with professional formation, to this moment there has been no initiative by the Gymnastics Confederation or Federations towards the creation of preparatory courses for our coaches. Part of this responsibility must also be assigned to these entities that must look after the quality of the services rendered in this area.

Importing coaches from several parts of the world also did not solve the problem, since there was no willingness to spread their knowledge and experience, being these restricted to entities that could afford to support their stay in the country (p.45). (Loose translation).

The same author highlights that “importing coaches solves momentary and private problems of the entities because they are not prepared to work in the formation of new coaches” (p.153). Additionally, often they are not open to new ideas and are unwilling to change the way they practice.

In this case, a strengthening of relations between research centers and sports organisations is suggested in order to combine their efforts towards gymnastics coach preparation in Brazil, gathering professionals for the preparation of new coaches.

Another important point raised in this study, and that has been studied by different authors since the beginning of the contemporary system of sports preparation, is the matter of traditions being part of the training with a power, sometimes greater than studies and scientific production. According to gymnasts' interviews (Schiavon, 2009), it was possible to raise this discussion, since during the practice with the Ukrainian coaches, which follow the guidelines from their country of origin when it comes to athlete formation, some aspects were not considered based on scientific evidence, such as the prohibition of adequate water intake. This kind of procedure does not allow enough replacement of liquids in the body and may lead to kidney stones. This was the case with Caroline Molinari and Laís Souza. Currently there is enough scientific proof to condemn the practice of denying water intake, inexplicably adopted by the Ukrainian coaches, under the allegation that there would be an increase in the gymnasts body weight, as revealed during the testimonials.

It is interesting to observe that there is a commission of professionals from the health area, such as physicians, physiotherapists and nutritionists, who must guide the gymnasts according to scientific evidences. Nevertheless, tradition and the status of the coaches seem to make their will prevail, since these health professionals would certainly not prohibit adequate liquid replacement, as reported by several gymnasts.

Bortoleto (2004) also observes the predominance of traditions in Spanish gymnasts practices when he writes:

After several years of pure repetition, this formation style also blurs spontaneity and creative capacity from the part of the

gymnasts and their coaches, since the training dynamics does not undergo modifications. Most of the time, tradition seems to overpower innovation (p.390). (Loose translation).

Another point to be analyzed is the power and decision making always centralized in the same few people. Obviously, one or two people cannot deal with all the several levels of gymnastics in a country like Brazil, which makes the growth of gymnastics as a whole impossible. Grigoryants (2008) reports the same problem in Russia, where younger coaches, who were once great gymnasts, competent to take both technical and administrative positions, complain about few people in Russia accumulating several roles and about the Gymnastics development being centralized in only some regions of their country, where there is a concentration of athletes.

There are several studies completed and other ongoing studies in Brazilian universities on development of basic gymnastics, on certification of courses for coach preparation, among other subjects already discussed, pondered and compared with other countries but that cannot be put into practice due to the fact that the decisions always rely on the same people. Several projects are ready to be implemented, however, people waste time trying to reinvent what has already been studied at our universities. The gap between state federations and CBG, and universities does not contribute to the development of Brazilian Gymnastics.

Therefore, the approach of a relationship between research centers and sports entities is suggested in order to combine efforts towards the improvement of the Brazilian Gymnastics.

What can be noted after analyzing studies related to sports training, experiences published in other countries and testimonials of Brazilian gymnasts is that, regardless of what is proposed by science, several coaches work towards complying with demands imposed by the sports entities. Mainly when it comes to time for

recovery after practice because, if science was taken into account, there might be less injuries, however it is also possible that there would not be enough technical difficulties for the anticipated medals. What needs to be done in order to achieve their goals in terms of difficulty level, which is imposed by the scoring code prepared by FIG, is a tough training pace that has led to several injuries and overtraining faced inclusively by the great world powers in Gymnastics.

Former Soviet Union (URSS), China, Romania and the USA, in other words, countries that produced several champions in Gymnastics, have adopted training systems that generated several injuries but, since the number of gymnasts has always been high in these countries, some would "survive" the methods adopted. Currently, these systems were imported by countries that do not have the same number of athletes, such as Brazil, and thus facing problems with the excessive number of injuries in the few existing gymnasts, a fact that brings us back to the matter of the possibly inadequate balance between the training burden to which the gymnasts are submitted and the recovery period.

The Gymnastics own characteristic of having its movements based on alactic energy system does not match the number of repetitions and the number of continuous practicing hours. It is more difficult to reproduce the routines with maximal or with the necessary power after hours of exhausting training. According to Issurin (2007), since the 80s, several principles from the traditional periodization theory have been discussed, creating a new trend in worldwide sports. One of the main factors that affect such change is the increase in the number of competitions and sports performances, and the reduction of the total volume of training burden.

This reduction in the volume of training burden has been developed in different countries and in different sports. According to Bondarchuk (2007), mentioned by Issurin (2007), there is a similar trend observed in sports such as

hammer and discus throws, and weight-lifting, reduced from about 120 to 150 throws per session, to current 30 throws per session.

Gymnasts practice with landing forces (impact) and equipment routines every day, not having enough time to recover from the impact imposed to the body which, in medium term, produces injuries due to stress and other chronic injuries such as the ones mentioned in several testimonials given by the gymnasts

It is suggested that this aspect of the training be reviewed for assuring the physical integrity of the athletes.

It is necessary to ponder why science has sometimes been neglected. Maybe because it is not possible to have great gymnasts if we take into consideration the adequate theory about an athlete's good development? Maybe rules and demands imposed by FIG do not consider the studies published on incidence of injuries, for example. In this case, more in-depth studies are necessary in order to make the Gymnastics scoring code more adequate for solving this matter. In relation to this aspect, it seems that the media has had an important role on the development of Gymnastics, aiming at showbiz, and several times it gives more importance to this than to scientific information.

Currently, with knowledge spread throughout the world thanks to the coaches from the Soviet republic, there is the need to evolve stand out again, otherwise the medals will also be divided by the countries that acquired the knowledge on formation of champions.

It is interesting to note that even the great world Gymnastics powers are rethinking the developed methods (Grigoryants, 2004) that for years guaranteed their success, but that currently need updating, pondering and adapting, and that the home nation of these coaches (former URSS) has already been discussing.

After following and registering the formation process of the Brazilian athletes who participated in the Olympic Games, more specifically in Women Artistic

Gymnastics, and after achieving the specific goals set for the research, which was to analyze the sports history of these athletes, offering guidelines for reflections on the formation of Gymnasts, this article is concluded with the certainty that it has contributed, mainly due to its originality, to this sport in Brazil. It is expected that this will be the first of several studies to come, aiming at studying the formation of high level Brazilian gymnasts so that we can bring scientific production closer to the actual formation of gymnasts.

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