



GYMNASTICS FOR ALL: A TOOL FOR SOCIAL INCLUSION

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Abstract:

Gymnastics for all (GFA) is categorized as an inclusive practice due to the diversity of participants, their age, gender, ability, the use of music, choreography, and materials, as well as the number of participants. The fact that this form of sport is non-competitive, and, therefore, is not based on performance, makes it possible for people with disabilities to fully participate in it. The scientific literature has cited many advantages of this practice, including social cohesion, wellbeing, improved creativity, and health. The purpose of this paper is to explore the application of GFA to individuals with disabilities. An example of a group of individuals with Down syndrome is presented.

Keywords: inclusion; people with deficiency; sports practice

1. Introduction

In this paper, reflections are offered on sports practiced by people with disabilities, on so-called "gymnastics for all." In recognition of the inclusive nature of this modality, its main characteristics and advantages are highlighted throughout the text, culminating with a real-life example of its application to a group of individuals with Down syndrome.

1.1 Some reflections on the practice of sports by people with disabilities

The benefits of regular physical activity for health and well-being have been extensively studied by science (Menegaldo & Bortoleto, 2020). The need for health maintenance and social development has made sports participation a relevant research topic for researchers in the field (Bortoleto *et al.*, 2019). Recent decades have seen a significant shift in focus, with greater attention given to the participant, their development, and their acquisition of skills and competencies rather than just performance (Ferreira *et al.*, 2024). As a result of the main challenges faced when practicing sports, the theme of accessibility has been extensively discussed (Menegaldo & Bortoleto, 2020). There is, however, a certain delay in the implementation, accessibility, and consolidation of some sports

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practices for persons with disabilities (Silva *et al.*, 2024). Even though working with people with disabilities is not novel in physical education, there is still a lot of resistance on the part of many professionals (Corrêa *et al.*, 2021). There are a variety of reasons for this, including a lack of training, insufficient materials, and insufficient facilities, with "*a multitude of excuses preventing people with disabilities from knowing and developing their full potential*" (p. 54). Silva *et al.* (2021) express a similar concern, stating that, while advances have been made, important gaps continue to exist, which hinder access, adaptation, and implementation of proposals for this audience:

"not only in practical scenarios, but also in the field's own specialized literature. These gaps include, for instance, the practice of gymnastics by people with disabilities at the level of academic-scientific production or even materials/guidelines for the development of gymnastic activities with this public" (p. 268)

Despite this, Aguiar and Duarte (2005) believe that physical education cannot remain indifferent or neutral in the face of the inclusive education movement (p. 223). Since physical education is an integral part of basic education and is a mandatory component, it cannot be excluded from this movement. This is especially given its ability to contribute to the school inclusion process due to its flexibility (Pereira *et al.*, 2021). The authors of the study claim that it "*has the potential to promote socialization, integration, and cooperation among students, as well as promoting autonomy and a better understanding of each student's potential*" (p. 2).

It is also worth noting that Brazilian and international legal documents provide that people with disabilities can access education, leisure, and sport (Salerno & Miyashiro, 2021). To achieve this, professionals must remove physical, communicational, and attitudinal barriers to maximize their potential, while lessening the emphasis placed on the difficulties and commitments they must fulfill. The authors say that practices can include sports, dance, leisure, and art-related activities. "*Persons with disabilities will undergo the same process of initiation, improvement, and high performance if they desire*" (p. 43).

According to Corrêa *et al.* (2021), the importance of looking at people with disabilities' potential is greater than simply focusing on their disability. We must know what they can do and under what conditions, what they like, and what they know, and develop actions to facilitate their development based on this information. In this sense, is important for professionals to be aware that people will have different physical abilities and skills because of biological differences, lifestyle, how they handle their bodies, opportunities throughout life, physical activity, personality characteristics, and access to spaces and professionals who recognize their abilities and skills (Almeida & Bomfim, 2021).

In this context, gymnastics has been investigated as one of the inclusive practices to be included in school physical education classes. It has been proven that practicing gymnastics contributes to students' integral development in several areas, including physical, cognitive, social, and psychological (Ramos & Viana, 2008). Among the benefits, we can mention improvement in physical capacity, body awareness, control and mastery

of the body, enhancing development, well-being, creativity, communication, sense of belonging, and stress reduction, which have been verified in several age groups (Oliveira *et al.*, 2018).

Although gymnastics has long been associated with high performance, an important change occurred in 1970 with the introduction of gymnastics for all (Leite *et al.*, 2021). It is evident from the authors that this change led to the eradication of ableist attitudes, the facilitation of interactions that respect differing perspectives, the explanation of the potential of people with disabilities, and the exploration of the capabilities of everyone.

1.2 The inclusive nature of gymnastics for all

In this context, gymnastics for all (GFA) has a vital role to play in meeting this demand, with its practice being integrated into school contexts, non-governmental organizations, social projects, university extension projects, and extracurricular activities. As a result, gymnastics has been viewed as a practice accessible to people and bodies that do not meet the specific criteria for high-performance sports, including disabled athletes (Salerno & Miyashiro, 2021).

Since GFA is a plural practice and is available to everyone, Mota and Patrício (2021) conclude that it should also be available to people with disabilities as well. Similarly, Salerno and Carbinatto (2022) state that it has gained traction in actions aimed at people with different disabilities, largely due to its non-competitive nature and, therefore, not based on performance, to make it possible for these people to participate fully in the content of the program. Therefore, GFA is designed to help promote interpersonal relationships that promote integration and inclusion (Oliveira *et al.*, 2018).

Providing an idea of the scope of gymnastics for all, Wichmann (2015) reports that in 2011, more than 20 thousand gymnasts from 55 countries participated in a four-year festival in Switzerland. An analysis of the 2019 edition by Bortoleto *et al.* (2023) concluded that more than 18 thousand gymnasts from 65 countries participated in the competition. Based on the analysis of the participants' motivations, the authors concluded that social affiliation is the most significant motivation, followed by skill development and maintaining health.

In Brazil, gymnastics for all emerged around 1980, first in undergraduate Physical Education courses and then spreading to schools and sports clubs as a tool for social and educational development, facilitating inclusive sports activities (Menegaldo & Bortoleto, 2020a). The literature review conducted by Menegaldo and Bortoleto (2020b) revealed that Brazil has demonstrated a strong presence in GFA research, although there has been a limited amount of action aimed at body practices for individuals with disabilities, despite Brazil's prominence in Paralympic sports internationally (Silva *et al.*, 2021).

Despite the growing interest in the topic, Silva *et al.* (2021) highlight the gaps in gymnastics research, indicating that there is a lack of specialized literature on gymnastics practiced by individuals with disabilities, as well as a lack of materials and guidelines for developing activities for this audience, including limited academic-scientific production.

These circumstances make it difficult to access, adapt, and implement proposals in practice, according to the authors.

People with disabilities benefit greatly from physical education, especially in relation to their motor, intellectual, social, and affective development (Strapasson & Carniel, 2007). However, a review of national literature on GFA by Andrade and Macias (2020) indicated that only 8.8% of the studies covered the issue from the perspective of inclusion.

People of all ethnicities and body types, including the elderly, people with disabilities, women and men, and those with or without gymnastics experience, are welcome at GFA (Patricio & Carbinatto, 2022). Given the goal of promoting inclusion in physical education and sport programs, physical education and sport for the disabled can be a viable method for changing people's attitudes towards disability and assisting people with disabilities in successfully integrating into schools and communities (Mak & Cheung, 2018).

With GFA activities, students with special needs are cared for while respecting their individual differences to enable them to develop globally, recognize their potential and integrate and participate in a safe and secure manner, based on their functional capacities (Strapasson & Carniel, 2007). Since gymnastics is a freer form of exercise, it can accommodate all students without discrimination (Pérez Gallardo *et al.*, 2016). Thus, it is based on an inclusive perspective which involves the participation of a variety of individuals, each contributing in accordance with their capacities (Silva *et al.*, 2021). It encourages individuals to accept the individual characteristics of each participant (Soares & Schiavon, 2022).

As part of its philosophy, GFA adheres to a 4F model: fun (having fun as a motivation to maintain practice), fitness (promoting physical fitness), fundamentals (teaching gymnastics fundamentals) and friendship (fostering a sense of friendship and encouraging interpersonal relationships) (Bento-Soares & Shiavon, 2020). The application of all these principles can be beneficial to people with disabilities. As part of their activities, GFA contribute to the improvement of health, physical fitness, emotional and psychological well-being through gymnastics that is accessible to all (Meckbach & Wanneberg, 2011).

In China, Cheung (2020) describes the expansion of GFA to generally unreached groups, citing people with disabilities as an example. Since 2000, more than 100 outreach programs have been established in community centers that serve this population, such as centers for people with intellectual disabilities and hospitals. An initiative designed to facilitate social integration between young people with and without disabilities and encourage them to participate in physical activities together was carried out with 97 regular students and 106 children from special schools. Through this project, students had the opportunity to perform basic gymnastics movements together while also socializing, understanding individual differences, and experiencing inclusion in their community. The project also provided an opportunity for coaches and university students to learn how to lead inclusive activities. Additionally, regular students were

given the opportunity to learn the basics of individual differences before interacting with students with special needs.

It is also argued by Mak and Cheung (2018) that participation in such joint projects resulted in improved self-esteem and self-confidence among athletes with intellectual disabilities (ID) as well as increased awareness among peers after participating in unified sports programs. In addition, the results indicated that children with mild ID had similar levels of physical fitness to children without this condition. In this regard, Chow *et al.* (2005) demonstrate that physical activity improves psychosocial quality of life, emotional control, and self-control in children with ID, and that activities of this nature can be used to improve children's social interaction and physical activity practice.

It has been demonstrated that the proposed activities can stimulate the physical abilities (resistance, strength, speed, agility, balance, flexibility, and coordination of global and fine motor movements) and psychological abilities (psychological health and social well-being) of the participants (Acacio & Venditti Junior, 2016). Through a variety of activities that include music, timekeeping, games, nursery rhymes, dance, among others, rhythm, time, musicality, and playful elements are explored. Through GFA, the authors illustrate the possibility of bodily manifestation:

"Karate practices, folk dances, gymnastics in academies, as well as classrooms exploring the possibilities and performances of jumps, formation of collective figures, acrobatics, movements, the formation of pyramids, static and dynamic balance, the creation and manipulation of alternative materials and objects, such as rope, balls in other sports, bows, etc." (Acacio & Venditti Junior, 2016, p. 61)

Taking this context into account, Strapasson and Carniel (2007) recommend that physical education be used to promote the global development of children with disabilities, respecting their limitations and disabilities based on their needs and capabilities, so that they are encouraged to become independent and autonomous, as well as to become members of society. Specifically, Sá *et al.* (2023) explain that, according to national curricular parameters, gymnastics in school physical education aims to enable students to develop the ability to adapt rules, materials, and spaces to achieve inclusion (p. 8). Consequently, *"gymnastics instruction must take into account the different voices that make up a class, transforming the classroom into a place for experimentation, sharing and differences"* (p. 15).

According to Acacio and Venditti Junior (2016), when reporting on a project that was developed at a school, there were two students with disabilities: a student with physical disabilities in eighth grade elementary school and a student with severe deafness in second grade. As stated by the authors, GFA made it possible to conduct inclusive activities that included students with and without disabilities, within the same group, through physical experiences that were neither exclusionary nor segregationist regarding any limitation or restriction that would prevent these students from participating. With the assistance of the entire group, everyone was encouraged to demonstrate their potential and overcome their limitations. After a literature review on gymnastics for all

applied to students with autism spectrum disorder, Silva and Almeida (2021) reported a similar perception. Results indicate that GFA has several benefits for autistic students, mainly in socio-affective development.

“Gymnastics, and specifically GFA, emphasizes the non-exclusionary methodological perspective, emphasizing that everyone has the right to move and participate. This modality offers unlimited possibilities, with an emphasis on inclusive practices and the interaction of those present, regardless of differences” (Oliveira et al., 2021, p. 9)

To make this inclusion effective, Strapasson and Carniel (2007) suggest the use of some facilitating strategies adapted to the specific disability presented. A summary of these suggestions can be found in the following Table.

Table 1: Adaptations to accommodate different types of disabilities

Type of disability	Adaptations suggested
Intellectual disability	Demonstrate the exercise or activity after explaining it to students, thereby providing students with two sources of information; begin with easy exercises and gradually increase the difficulty level, favoring successful situations; encourage students to participate as monitors and class assistants to promote independence, autonomy and cooperation.
Visual disability	A safe place must be provided, guidelines and descriptions of the environment must be provided, the environment should be as quiet as possible, verbal and sensory demonstrations must be provided, and opportunities for participation must be provided to the extent that participants can overcome their weaknesses.
Hearing impairment	Provide practical demonstrations of the activities; Teachers should be familiar with deaf sign language; Students should always face their teachers and speak slowly so that they can lip-read; Flags or visual signals should be used instead of whistles

Source: Strapasson and Carniel (2007), p. 13-14.

Additionally, the authors make valuable contributions regarding the educational level and the type of practice that should be encouraged based on the practitioner's age. The following recommendations can be found in Table 2.

Table 2: Activity by age and education level

Level	Type of activity that is most suitable
I	Developing the global motor system by stimulating motor, sensory, and mental perceptions through the experience of global movement; development of fundamental movements
II	Developing basic skills, improving education, and increasing the ability to combine fundamental movements; establishing collective activities that promote cooperative and supportive attitudes without discriminating against colleagues based on performance or on social, physical, sexual, or cultural grounds
III	Initiation and stimulation of specific sports activities; learning and developing specific skills aimed at sports participation; training specific sports skills aimed at competition and participation in training and competitions

Source: Strapasson and Carniel (2007), p. 15.

In addition, Reina (2019, cited by Leite *et al.*, 2021, p. 136-137) made several important recommendations related to the presentation of activities for them to be completed by individuals with disabilities. Table 3 illustrates the three main possibilities.

Table 3: Recommendations about the form of presentation

Form of presentation	Overview
Verbal instructions	By describing the actions in objective and simple terms, the teacher will gradually introduce the specific terminology of gymnastics
Visual instructions	If verbal instruction is not fully understood, visual demonstrations should be used by the teacher; he or she can demonstrate it herself, ask another student to do so, or demonstrate it through photographs and videos
Instruction based on kinesthetic and physical contact	In the case that the two previous types are insufficient, the professional can assist the student in establishing their positioning and in making movements with their body

Silva *et al.* (2021), when analyzing international proposals aiming to include people with disabilities in sports, found that important regulations existed. Among them, several recommendations can be highlighted: (1) teachers should develop action plans to provide gymnastics with the same quality for students with and without disabilities, (2) the program should be flexible and adaptable, taking into consideration that the method used with a student with a disability may not always be suitable for another, even if they have the same type of disability, (3) classes should be inclusive of people with and without disabilities, (4) the accessibility of the facilities must be considered, in order to guarantee the autonomy of students, including ramps, handrails, widened access doors, and adapted changing rooms and gym equipment, (5) Activities should not be separated by age, but rather by the level of ability, skills, and functionality of each participant.

To illustrate the value of gymnastics for people with disabilities, a case study was selected to highlight its benefits to this population. The group consists of individuals with Down syndrome who practice gymnastics in Limeira, a city located in the interior of the state of Sao Paulo, Brazil. This study is part of the first author's postdoctoral research program (Sarôa, 2021).

1.3 A process of creation with gymnasts with Down syndrome

The group was founded on the assumption that these individuals were capable of devising choreographies, performing different types of movements, and exercising control over their bodies. Creative possibilities arise from the relationship that an individual has with the world and with their experiences with others, which is extremely important for individuals with disabilities. The creation process is always influenced by interaction between group members and the choreographer, through sharing, exchanging ideas, social interaction, experiencing movement exploration, and exchanging experiences. By combining these interactions, a variety of choreographies can be created, resulting in an endless network of connections.

Each practice and learning of gymnastics contributes to the development of this audience, but moments of creativity enable them to communicate physically with the

athletes and the audience. As part of this collective process, coaches communicate through their ideas and feelings, respecting the limitations and differences among their athletes with disabilities. From the coach's perspective,

"...it is a pleasant and rich moment, as they will build with their body, with their mind, searching for their experiences within the baggage they previously held. They bring a lot of their personal moments with them, and at such times I begin to notice the new movements they have learned being incorporated into their creativity, mixed with what they are saying with their bodies, expressing their emotions. It is a very exciting experience. There is no doubt that their evolution is clear and that it is dependent on their particular characteristics. Some gymnasts are very shy and introverted and end up just watching and repeating what their colleagues do, but there are others who are leaders on the team. In the group, three gymnasts are independent creators"

Using the association of gestures they are familiar with, rhythms they already know, and creativity, these gymnasts have achieved and conquered a deep understanding of this modality, understanding and associating their knowledge with the gymnastics movements that must be performed.

According to Sarôa and Salles (2021), pace is crucial when working with this audience since people with intellectual or physical disabilities require more time to assimilate, memorize, and comprehend each stage of the process. This is the reason they are repeated many times over a long period of time and on a variety of fronts. Each choreography is performed at their own pace, requiring many repetitions to learn the sequence. The authors also emphasize the importance of taking other precautions. Among these are rehearsing with the athletes exactly what will occur on the day of the event/championship/presentation. They must be clear about where the public will be, the location of the arbitration table, where they will enter, how they will present themselves to the arbitration panel, and how and where they will leave. This is an excellent example of the importance of being thorough and careful when teaching persons with disabilities. From the motor base, walking, running, jumping, and other movements are being practiced, with the goal of improving movements with grace and lightness. Gradually, the elements of rhythmic gymnastics are being incorporated into movements as well. Materials are introduced in a playful manner, and gymnasts are encouraged to explore and handle them. Additionally, alternative materials are included, and they are encouraged to create choreographies and free themselves rhythmically.

It is developed according to the ideas brought by the athletes in order to contemplate a sequence of possibilities for creating a new choreography. The team's coach, Denise Guimaraes, highlights this characteristic:

"Each class concludes with a moment of creativity, so that the classes do not become exhausting, and they do not become discouraged or demotivated by the difficulties encountered. During this time, they create movements and dances individually, in pairs,

and in groups. They organize themselves freely, without compromising on technique.”
(Sarôa, 2021, p. 31)

Gymnastics routines, also called mandatory series, are learned gradually and in segments. In the beginning, the trainer teaches the most difficult exercise in isolation, practicing its execution several times. Once you have taught one, move on to the next, so that you can teach the choreography step by step. A critical element of the strategy, according to Sarôa and Salles (2021), is to treat this target audience naturally, with respect and consideration, without underestimating them. Through gestures and movements, they express their emotions with their bodies, with their deficiencies and peculiarities, connecting them to themselves, to others, and to the world around them.

2. Discussion

The fundamental principle of gymnastics for all is to promote diversity among people. In essence, this modality can be described as a form of practice capable of catalyzing unity between individuals, valuing diversity, and creating a group identity (Oliveira *et al.*, 2018). In its history, GFA has been characterized as an inclusive gymnastics practice that emphasizes artistic and aesthetic expression (Menegaldo & Bortoleto, 2020; Menegaldo *et al.*, 2023)

GFA offers a wide range of opportunities to everyone, establishing itself as a sports practice option that concentrates on health, recreation, human relations, innovation and creativity within the limits of an individual's ability (Issa, 2016). The reason for this is that it is not regarded as a sport aimed at high performance. Social cohesion, general well-being, and improved health are its primary objectives, so the primary reasons for choosing it are to enjoy physical activity, to feel active, to communicate, to meet people, and to escape daily stress (Corrêa *et al.*, 2021). Therefore, its practice contributes to human development through an inclusive, democratic and creative approach.

Using the fundamentals of biomechanical movement (support, suspension, rotation, swing, balance, landing), GFA encourages experimentation with movements and body expressions, as it is an exercise modality that can be enjoyed by everyone (Carbinatto & Furtado, 2019). Because it is not limited by restrictions and rules, such as gender, number of practitioners or specialization, it can promote personal and social growth, especially respecting the individual abilities of each practitioner, which is particularly important when it comes to individuals with disabilities.

3. Recommendations

Considering the numerous benefits that scientific literature has demonstrated because of sports practice for people with disabilities, greater efforts should be made to expand the opportunities available to them. Training physical education professionals, expanding projects and locations where these practices are offered, as well as developing public policies that can guarantee true inclusion of this population segment are essential. In

addition, to ensure its inclusion in the daily lives of people with disabilities, GFA should be extended to other contexts, beyond the realm of research and university extension.

4. Conclusions

Gymnastics for all is widely perceived as an inclusive practice, but is usually described as such, taking into consideration characteristics related to diversity of participants, age, gender, ability, use of music, choreography, and materials, in addition to the number of participants. "Inclusion" does not necessarily refer to the provision of services to people with disabilities. In this regard, greater attention should be paid to the diversity of profiles available, considering the breadth of existing deficiencies. In this manner, GFA will become a truly inclusive practice, expanding its reach and benefiting this important segment of the population.

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