

## Martial Arts and Combat Sports For People With Disabilities: Scientific Production In The Brazilian Graduate Program

Marcelo Moreira Antunes<sup>1</sup>, Alba Iara Cae Rodrigues<sup>2</sup>, José Júlio Gavião de Almeida<sup>3</sup>.

<sup>1</sup>PhD in Physical Education from State University of Campinas. Professor of the Federal Fluminense University

<sup>2</sup>Master in Physical Education from State University of Campinas.

<sup>3</sup>PhD in Physical Education from State University of Campinas. Professor of the State University of Campinas.

Corresponding Author: Marcelo Moreira Antunes

---

**Abstract:** In the last decade, Brazil has shown great improvement in the Paralympic sports. This has increased the number of studies and researches in Para-sports, with growing number of people with disability beginning sport practice in different contexts and places. There are many different types of Para-sports, Olympic and not, and martial arts are included in this universe of possibilities. This literature review aims to present the studies in the graduate programs in Brazil by analyzing the thesis and dissertations about martial arts and combat sports for people with disabilities, available in the Coordination for the Improvement of Higher Education Personnel (CAPES) from 2007 to 2017. A total 402 masters and doctorate studies were found, corresponding to the selection criteria proposed for this study. There were eight studies (1.99%) on martial arts and combat sports for people with disabilities, six of which were from masters programs and two from doctorate programs. These studies were divided into the following themes: Fencing in wheelchairs (2); Wushu (2); Judo (2); Capoeira (1); and Taekwondo (1). Based on the results presented in this research, we understand that there is a predominant concern about the pedagogical dimension. We also found a concern focused on the description of the Para-sport scenario and assessment to create conditions for the development of different modalities for different people with disabilities. There were also studies that explored the subjective aspects of practitioners, and the understanding of health through the practice of combat sports. The disabilities studied were mostly related to physical and visual impairment.

**Keywords:** Adapted Physical Activity. Martial arts. Combat sports. Scientific production.

---

Date of Submission: 17-11-2018

Date of acceptance: 02-12-2018

---

### I. Introduction

Para-sports, or sports for people with disabilities, currently have significant growth in different sectors of global society<sup>1</sup>. In Brazil, these sports, whether Paralympic or not, have been widespread in the last decade. Since the 2007 Paralympic Games in Rio de Janeiro, the great potential of these modalities has been perceived for a public that is still under-attended. The Brazilian results in international competitions have revealed this great potential. As an effect of this significant outcome, there has been an important increase in the number of studies and researches in sports for people with disabilities. Likewise, there has been a growth of graduate programs with emphasis in Para-sports research. In this diverse universe of para-sports, we find martial arts and combat sports, which present a growing interest and importance in modern society.

When considering this new scenario, that highlights martial arts and combat sports as a possible practice for people with disabilities, and modern sport as a significant social phenomenon, the present study aims to evaluate how these practices are studied in the Brazilian graduate programs in physical education.

### II. Material and Method

The present literature review represents a type of research that aims to map the state of the art for a certain topic<sup>2</sup>. The data comprised the thesis and dissertations exclusively about martial arts and combat sports for people with disabilities from all Brazilian graduate programs available in the Coordination for the Improvement of Higher Education Personnel (CAPES) at the electronic link <http://catalogodeteses.capes.gov.br/catalogo-teses/#/> (access during 10/2018).

The time limit of the research considered ten years of studies, from 2007 to 2017. This timeline was defined because 2007 was an important year for Brazil in the Paralympic sport scenario, with successful results at the Paralympic games and for hosting the edition of the games that year.

The keywords used for the search of the thesis and dissertations were: fighting activities, martial arts, combat sports, sports combat modalities, fighting games, fencing, judo, karate, taekwondo, jiu-jitsu, capoeira, kung-fu, wushu, wrestling, muay thai and boxing, all in Portuguese. The term fighting activities was suggested by Pérez-Gutiérrez, Gutiérrez-García and Escobar-Molina<sup>3</sup>, and is commonly considered in Brazil as an umbrella-term, which is applied when researching martial arts in schools and corporal combat practices with a pedagogical view.

All the studies found which were from other areas of knowledge were excluded from this research. This means that we strictly considered studies from physical education, martial arts and combat sports for people with disabilities.

### III. Results

In Brazil, graduate programs in physical education began to emerge during the 1990s. During the period from the first courses to 2016 there was a significant growth of new programs and lines of research in the area. Among the 4177 postgraduate programs in all topics distributed throughout the Brazilian territory, according to CAPES 2016 data<sup>4</sup>, 63 programs are in the Physical Education area, 37 of which are masters and doctorate, and 26 are masters only programs. Within these programs, there are different lines of research, with few designated for physical activities for people with disabilities or Para-sports, and even fewer studies dedicated to martial arts and combat sports<sup>5</sup>.

The results from the literature search is presented in TABLE 1, showing the number of studies from graduation programs found for each keyword 'in general' or when we selected specifically the area of health sciences and physical education.

**TABLE 1:** Number of studies with keywords related with martial arts and combat sports obtained in a literature search from all graduate programs associated with the Coordination for the Improvement of Higher Education Personnel (CAPES) in Brazil, in the period 2007-2017.

Keywords	In general	Physical education
Martial arts	42270	90
Combat sports	686620	6099
Wrestling	7954	103
Judo	129	72
Box	61	15
Karate	63	15
Capoeira	554	41
Taekwondo	48	24
Kung-fu	524	15
Fencing	21	9
Wushu	5	3
Muay-thai	28	3
Kendo	2	1
Jiu-jitsu	3	2

Source: This study

After this search, we selected exclusively the studies related to martial arts and combat sports, as a result we found 402 studies, already with the exclusion of the repeated combined terms. In TABLE 2 we present the most studied martial arts and combat sports modalities.

**TABLE 2:** Studies in martial arts and combat sports indexed in the graduate programs associated with the Coordination for the Improvement of Higher Education Personnel (CAPES) in the period from 2007 to 2017.

Combat sport	Number of studies (%)
Wrestling	91 (22,63)
Judo	87 (21,64)
Boxing	78 (19,4)
Karate	56 (13,93)
Capoeira	37 (9,2)
Taekwondo	22 (5,47)
Kung-Fu	14 (3,48)
Fencing	7 (1,74)
Wushu	4 (0,99)
Muay Thai	3 (0,74)
Jiu-jitsu	2 (0,49)
Kendo	1 (0,24)
<b>Total</b>	<b>402 (100)</b>

Source: This study

From the 402 studies found, there were only eight (1.99%) specifically related with martial arts and combat sports for people with disabilities. Among these, six were from masters programs and two from doctorate programs. Within the selected timeline, we found one doctorate study in 2009 and one in 2013, studies from masters program were one in 2012, one in 2013, one in 2014 and three in 2016. In TABLE 3 we present the martial arts and combat sports modalities from each study.

**TABLE 3:** Martial arts and combat sports modalities related to the graduate studies on combat sports for people with disabilities from 2007 to 2017.

Combat sport modality	2009	2012	2013	2014	2016	Total
Fencing	D	-	-	-	M	D(1); M(1)
Taekwondo	-	M	-	-	-	M(1)
Wushu	-	-	D	-	M	D(1); M(1)
Capoeira	-	-	M	-	-	M(1)
Judo	-	-	-	M	M	M(2)
<b>Total</b>	D(1)	M(1)	D(1); M(1)	M(1)	M(3)	D(2); M(6)

Subtitle: D = doctorate program studies; M = masters program studies

Source: this study.

#### IV. Discussion

The theme martial arts and combat sports for people with disabilities has gained special relevance under the new scenarios of inclusion and popularization which are being established for sports practice nowadays<sup>6,7</sup>. We consider, however, that this field of study has not yet received the deserved attention from researchers, in line with its relevance in contemporary society, as evidenced by the paucity of researches in graduate programs that consider this content. The studies that we found from 2007 to 2017 are divided into the following themes: Fencing in wheelchairs (2); Wushu (2); Judo (2); Capoeira (1); and Taekwondo (1).

Two studies were found about fencing in wheelchair. Nazareth<sup>8</sup> developed a qualitative research, which described and characterized this Para-sport, proposing indicators to help in pedagogical intervention. The research also presented a historical review of fencing, stressing the development of its characteristics. At the end of the study there is the presentation of pedagogical guidelines for teaching fencing in wheelchairs for the initiation of students with physical disabilities.

Garlipp<sup>9</sup> describes the scenario of fencing practices in wheelchairs in Brazil with a literature review and by interviewing three elite coaches (a national coaching coordinator, a national coach and a national team athlete). As a result of this study, he identified the need for professional qualification for coaches in order to promote the development of this Para-sport, as well as the importance of a relationship between the institutions that organize this modality with the universities, to favor the evolution of this sport modality.

With the martial art wushu we also found two studies. Antunes<sup>10</sup> had three objectives in his doctorate: a) to diagnose the wushu scenario for people with disabilities in Brazil; b) to describe the understanding of this practice by teachers and managers of this modality in Brazil; and c) to propose a model of wushu content organization relating to the type of disability and its characteristics. He interviewed 21 informants (teachers, masters and sports managers) in Brazil and included a literature review to justify his discussion about his pedagogical proposals. From the perception of the interviewed and the literature review, he concludes that all people, disregarding the types of impairments, can practice wushu, while the adaptation of the teaching contents, the methods, and finally the competence of the teacher involved depend on the degree of disability.

Ortega<sup>11</sup> studied in his masters the application of wushu for children with attention deficit hyperactivity disorder (ADHD). The author's main objective was to investigate if practicing wushu could positively influence these children, considering their disabilities. This qualitative research consisted of a case study, with semi-structured questionnaire with 12 questions (ten closed and two open questions), which were answered by seven adults responsible for children who were diagnosed with ADHD. Content analysis<sup>12</sup> was used for the interpretation of results, which suggested that practicing wushu, guided by professionals who have knowledge about ADHD and who have appropriate pedagogical training, can positively influence aspects of discipline and concentration for children with these characteristics.

There were two masters studies found about Judo for people with visual impairment<sup>13,14</sup>. Harnisch<sup>13</sup> aimed to understand the pedagogical practices used by teachers in the process of teaching and learning judo for people with visual impairment. The author used a survey as instrument to collect data, which was answered by 14 teachers. The author's results showed that the majority of the interviewed were concerned with the overall development of their students with disabilities, without focusing on any specific aspect, using teaching methods that provide greater stimulation, based on existing knowledge and motor experiences familiar to the students.

The study of Cardoso<sup>14</sup> aimed to reflect and understand the meaning of being a Paralympic judo athlete. This case study used the life history method with a Paralympic athlete who revealed that, for him, it

seemed that when practicing judo, he finds himself at a place that elicits feelings, experiences and senses that are unimaginable in other places and moments.

Patatas<sup>15</sup> aimed at his masters study to organize the knowledge about Para-Taekwondo for physical education professionals, with contents about the history of this sport and its evolution until modern days and aspects still to be development. The study presents concepts and characteristics of this modality, also addressing aspects of professional training and high performance development. The research was characterized as an exploratory qualitative study with semi-structured interviews, answered by seventeen Physical Education teachers, and Taekwondo coaches who work in Brazil. The author also interviewed Para-Taekwondo coaches from Mexico, Venezuela, Canada and Guatemala. Content analysis procedures<sup>12</sup> were used to analyze the data. The author concluded that Para-Taekwondo in the American continent is not yet fully structured and that its development is still in the early stages. For the modality to appear in the Paralympic scenario, it is necessary to invest in professional training, infrastructure and implementation of varied spaces of practice.

Sabino<sup>16</sup> aimed, at his master's study, to verify how people with disabilities understood health by practicing capoeira. Four people were interviewed answering one guiding question. Although there are no details in the study concerning the condition of the four interviewed, or about the kind of disability they had, the author described the participants as showing 'mild disabilities'. The interviews were analyzed with a phenomenological approach, using ideographic and nomothetic analyzes. The results pointed out that the participants highlighted four points in which capoeira is important to improve health: (i) physical activity, (ii) body movement, (iii) social solidarity and (iv) therapeutic activity. Capoeira was considered as a sporting, educational and cultural practice, with an effective aspect of inclusion and social protection for vulnerable groups in society, consequently contributing for a positive practice for a healthy lifestyle for different groups with different social conditions.

## V. Conclusion

The practice of martial arts and combat sports is being increasingly widespread in society and constitutes an important social phenomenon. The impact of this kind of practice reaches different groups in different ways, including people with disabilities. This scenario calls forth a need to increase studies that can improve the understanding of this phenomenon. In Brazil, the development of these practices is no different. Since the year 2000, studies in this area have intensified. Masters and doctorate programs in physical education began to develop research on this topic, resulting in important and pioneering studies.

Based on the results presented in this review, we understand that there is a predominant concern about the pedagogical dimension, specifically focused on how to teach martial arts and combat sports for people with disabilities<sup>10,11,13</sup>, as represented in studies from fencing in wheelchair, wushu and judo. We also found a directed interest on the description of the Para-sport scenario and assessment to create conditions for the development of different modalities for different people with disabilities. This issue was addressed by two studies<sup>9,15</sup> (fencing in wheelchairs and para-taekwondo), While two other studies explored the subjective aspects of practitioners, such as their perception of the relationship between judo practice and their performance as an athlete<sup>14</sup>, and another study presented an understanding of health through the practice of capoeira<sup>16</sup>, according to four practitioners.

The principal disabilities studied were physical<sup>8,9,15</sup> (fencing in wheelchairs and para-taekwondo) and visual<sup>13,14</sup> (judo). One study investigated physical, visual, auditory and intellectual deficits broadly<sup>10</sup>, contemplating wushu as exclusive modality. Another study on wushu dealt with intellectual disability<sup>11</sup>. There was one study with no specific disability focused<sup>16</sup>.

There is still a large gap for future studies comprising different disabilities and distinct martial arts and combat sports. In spite of this notorious growth, of the 63 graduate programs in physical education active in Brazil, only three presented the eight papers analyzed that deal exclusively with martial arts or combat sports related to people with disabilities. And this research production in the period studied was predominantly concentrated in a higher education institution, demonstrating that there is still little diffusion and interest in the subject. Studies are still mostly at master's level, with little representation in doctorate dissertations. This implies that most graduate programs have not yet opened space for this important area, a development opportunity and a challenge yet to be faced.

We understand that by improving and increasing studies in this area, the development of sport participation for people with disabilities could also increase, once it would bring new insights for professionals to offer experiences for these participants. Thinking about different possibilities for sport participation, maybe studies like these could support professionals of martial arts and combat sports to motivate people with disability to discover different options to engage in, this could keep them physically active, interacting with others, improving their autonomy, and to experience many other benefits that can be present in this kind of activity.

## References

- [1]. Patatas JM, Bosscher V, Legg D, Understanding parasport: an analysis of the differences between able-bodied and parasport from a sport policy perspective. **Internacional Journal of Sport Policy and Politics**. 2018;10(2):235-254. Disponível em: <https://www.tandfonline.com/doi/pdf/10.1080/19406940.2017.1359649>
- [2]. Thomas RJ, Nelson JK, Silverman SJ. **Métodos de pesquisa em atividade física**. 6ed. Porto Alegre: Artmed, 2012.
- [3]. Pérez-Gutiérrez M, Gutiérrez-García C, Escobar-Molina R, Terminological recommendations for improving the visibility of scientific literature on martial arts and combat sports. **Archives of Budo**, 2010;7(3):159-166. Disponível em: [http://archbudo.com/view/abstracts/issue\\_id/377](http://archbudo.com/view/abstracts/issue_id/377).
- [4]. Brasil. Capes. **Distribuição de Programas de Pós-graduação no Brasil por Estado 2016**. Disponível em: <https://geocapes.capes.gov.br/geocapes/>.
- [5]. Brasil. Capes. **Cursos de pós-graduação em educação física avaliados e reconhecidos 2018**. Disponível em: <https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/quantitativos/quantitativoAreaConhecimento.jsf?areaAvaliacao=21>.
- [6]. Antunes MM, Almeida JGG, The Practice of Adapted Wushu in Brazil. **IOSR Journal of Sports and Physical Education**, 2016;3(4):21-24. Disponível em: <http://www.iosrjournals.org/iosr-jspe/pages/v3i4.html>.
- [7]. Antunes MM, Almeida JGG, Patatas JM, Waknin MPG, Harnisch GS, Storch JA, Ortega EM, lutas para as pessoas com deficiência: uma possibilidade de intervenção na educação física. **Corpoconsciência**, Cuiabá-MT, 2017;21(2):107-116. Disponível em: <http://periodicoscientificos.ufmt.br/ojs/index.php/corpoconsciencia/article/view/5149>.
- [8]. Nazareth VL, **Esgrima em cadeira de rodas: Repensando a pedagogia de ensino a partir das dimensões e contexto da modalidade**. Tese de Doutorado, Universidade Estadual de Campinas, 2009. Disponível em: <http://repositorio.unicamp.br/handle/REPOSIP/274767>.
- [9]. Garlipp CZD, **Esgrima em cadeira de rodas no Brasil: histórico e perspectivas da modalidade**. Tese de mestrado, Universidade Estadual de Campinas, 2016. Disponível em: <http://repositorio.unicamp.br/handle/REPOSIP/330773>.
- [10]. Antunes MM, **As artes marciais chinesas para pessoas com deficiência: contextos, dilemas e possibilidades**. Tese de Doutorado, Universidade Estadual de Campinas, 2013. Disponível em: <http://repositorio.unicamp.br/handle/REPOSIP/275009>.
- [11]. Ortega EM, **Os efeitos da prática do Wushu em crianças com déficit de atenção e hiperatividade**. Tese de mestrado, Universidade Estadual de Campinas, 2016. Disponível em: <http://repositorio.unicamp.br/handle/REPOSIP/321608>.
- [12]. Bardin L, **Análise de conteúdo**. 5ed. Lisboa: Edições 70, 2009.
- [13]. Harnisch GS, **O processo de ensino do judô para pessoas com deficiência visual**. Tese de mestrado, Universidade Estadual de Campinas, 2014. Disponível em: [https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id\\_trabalho=1332207](https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id_trabalho=1332207).
- [14]. Cardoso APS, **O significado do judô paralímpico: um estudo de caso da narrativa biográfica de um atleta com deficiência visual**. Tese de Mestrado, Universidade São Judas Tadeu, 2016. Disponível em: [https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id\\_trabalho=3717831](https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id_trabalho=3717831).
- [15]. Patatas JM, **O Taekwondo Como Modalidade Paradesportiva**. Tese de mestrado, Universidade Estadual de Campinas, 2012. Disponível em: <http://repositorio.unicamp.br/handle/REPOSIP/275026>.
- [16]. Sabino TFP, **Sentindo-se saudável com a capoeira: uma visão fenomenológica a partir de pessoas com deficiência**. 2013. Tese de Mestrado Universidade Estadual Paulista Júlio de Mesquita Filho, 2013. Disponível em: [https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id\\_trabalho=923857](https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/trabalhoConclusao/viewTrabalhoConclusao.jsf?popup=true&id_trabalho=923857).

Marcelo Moreira Antunes. " Martial Arts and Combat Sports For People With Disabilities: Scientific Production In The Brazilian Graduate Program." *IOSR Journal of Sports and Physical Education (IOSR-JSPE)* 5.6 (2018): 01-05.