

Perception of rugby athletes on wheelchairs on supports received for an adapted sport practice

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Abstract: Introduction: The literature has demonstrated the relevance and positive influence of social support for the promotion and protection of human development in its different dimensions. Objective: To identify the perception of wheelchair rugby athletes on the support received for the practice of adapted sports. Method: Participants were 10 disabled athletes who practice Rugby in wheelchairs. This is a qualitative approach. The interviews were conducted individually through a semi-structured script, recorded and transcribed in full. Results: It was observed that the first contact with the adapted sport occurred through friends, players, and coaches. The most frequently mentioned support for the practice of adapted sports refers to the family context. In the sporting context, there is the support coming from clubs, teams, staffs, coach, team, with an appreciation of space for training. The motivation for the practice of the sport was due to personal desires as a search for a better quality of life, physical independence and the desire to rehabilitate as well as the possibility to develop in the personal, social and educational field. Obstacles to the practice of adapted sports focus on the lack of financial support and accessibility. Conclusion: It was identified as a set of distinct and complementary supports fundamental to the practice of Rugby, which if articulated constitute points of a support network. It is suggested to invest in cross-sectional actions to increase the national policy for people with disabilities.

Keywords: *Self-Help Groups, Disabled Persons, Rugby, Sport.*

Percepção de atletas do rugby em cadeira de rodas sobre os apoios recebidos para a prática do esporte adaptado

Resumo: Introdução: A literatura tem atestado a relevância e influência positiva dos apoios sociais para a promoção e proteção do desenvolvimento humano em suas distintas dimensões. Objetivo: Identificar a percepção de atletas do rugby em cadeira de rodas sobre os apoios recebidos para a prática do esporte adaptado. Método: Os participantes foram 10 atletas com deficiência física que praticam o rugby em cadeiras de rodas. Trata-se de um estudo de abordagem qualitativa. As entrevistas foram realizadas individualmente por meio de um roteiro semiestruturado, gravadas e transcritas na íntegra. Resultados: Observou-se que o primeiro contato com o esporte adaptado ocorreu por meio de amigos, jogadores e treinadores. O apoio mencionado com maior frequência para a prática do esporte adaptado refere-se ao contexto familiar. No contexto esportivo, encontram-se os apoios advindos dos clubes, equipes, staffs, treinador, time, com valorização do espaço para o treino. A motivação para a prática do esporte deu-se por desejos pessoais como busca por melhor qualidade de vida, independência física e desejo de reabilitar-se, bem como possibilidade de se desenvolver no campo pessoal, social e educativo. Os obstáculos para a prática do esporte adaptado centram-se na falta de apoio financeiro e na acessibilidade. Conclusão: Identificou-se um conjunto de apoios distintos e complementares fundamentais para a prática do rugby, os quais se articulados constituem-se em pontos de uma rede de apoio. Sugerem-se investimentos em ações intersectoriais para incremento da política nacional para a pessoa com deficiência.

Palavras-chave: *Apoio Social, Pessoas com Deficiência, Futebol Americano, Esporte.*

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1 Introduction

Paralympic sport is characterized by the inclusion of appropriate sports modalities for people with disabilities, since there are adaptations and/or modifications to facilitate this practice (REINA; MENAYO; SANZ, 2011). The International Paralympic Committee has approved 23 modalities for Paralympic summer games: wheelchair fencing, athletics, five-a-side soccer, seven-a-side soccer, weightlifting, wheelchair basketball, bocce, judo, canoeing, table tennis, road cycling, archery, track cycling, goalball, sports shooting, hipism, swimming, wheelchair tennis, rowing, triathlon, sailing, sitting volleyball and wheelchair rugby (INTERNATIONAL..., 2015).

Wheelchair Rugby (WCR) is a Paralympic sport practiced by athletes with spinal cord injury (cervical level) or with neurological injury characterized by a clinical picture of tetraplegia or tetra-equivalence. Some example is the cerebral palsy, the amputations, and deformities in the four limbs (INTERNATIONAL..., 2011).

Research has shown that sports practice and physical activity can bring physical, motor, social, psychological and cognitive benefits (GREGUOL, 2017), decreased atherosclerosis caused by spinal cord injury (MATOS-SOUZA et al., 2013), improvement of cardiovascular conditioning (FAGHER; LEXELL, 2014) and rehabilitation and social inclusion (SILVA et al., 2013).

Although the literature is extensive when showing the benefits of adaptive sports practice, Fagher and Lexell (2014) state that the participation in sports also increases the risk of injuries such as acute trauma or overuse injury. The authors highlight that for a disabled athlete, the injury can also have more serious consequences compared to a physically fit athlete. Through a prospective cohort study, Willick et al. (2013) characterized the incidence and nature of injuries during the 2012 Summer Paralympics in London and concluded that the highest rates of injury were found in Five-a-side soccer, followed by the weightlifting, goalball, wheelchair fencing, wheelchair rugby, athletics, and judo.

For the practice and permanence of adapted sports, effective actions of a support network are necessary. Research has been developed to identify how the "support networks" of people with disabilities are constituted and how they can contribute to facilitating access to health services, rehabilitation, social inclusion and implementation of public policies (RIBEIRO, 2010; BITTENCOURT et al., 2011; AOKI; OLIVER; NICOLAU, 2011; HOLANDA et al., 2015; BRIGNOL, 2015; FREIRE et al., 2019).

Olivieri (2003, p. 1) states that the word "network" has new meanings over time used in different situations:

Networks are organizational systems capable of bringing together individuals and institutions, in a democratic and participatory way, around related causes. As flexible and horizontally established structures, the work dynamics of networks assume collaborative actions and are sustained by the will and affinity of its members, characterized as a significant organizational resource for social structuring.

In this sense, for, social, material, affective and emotional support is necessary for the practice of adapted sport for its success. Social support is defined as

[...] any information, whether spoken or not and/or material assistance offered by groups and/or people who know each other and which result in positive emotional effects and/or behaviors (VALLA, 1999, p. 10).

Material support is individuals' access to services and material resources. Affective support involves expressions of love and affection. Emotional support is related to empathy, affection, love, trust, esteem, care, listening and interest (MINKLER, 1985). For Holanda et al. (2015, p. 176), "[...] the set of support exchanged by people inserted in a particular social context is a social support network".

A national study of an experience report based on an extension project at the State University of Campinas on "wheelchair rugby" showed support in the university context for the practice of this sport. Therefore, the supports were performed by planned training, evaluations, and games specific to each functional class. From the support offered, a new team was created in response to the increased demand and the increased technical level, and to increase the quality of the support, there was the support of the work of a multidisciplinary team, partnerships with sports associations and the creation of an adapted sport association (PENA et al., 2014).

Although this national study was found, a prevalence of research developed on the wheelchair rugby in the organic, physiological and performance perspective is observed, for example: the evaluation of the influence of wheelchair rugby training in the long-term on the functional abilities of people with tetraplegia during a 2-year period after spinal cord injury (FURMANIUK; CYWIŃSKA-WASILEWSKA; KACZMAREK, 2010); description of the technical and tactical aspects

of Wheelchair Rugby and offer of indications of how to work them for a better performance of the team (CAMPANA et al., 2011); the determination of the physiological basis of associations between the autonomic function, the International Wheelchair Rugby Federation Classification (IWRF) and the exercise performance indices in highly trained athletes (WEST; ROMER; KRASSIOUKOV, 2013); provision of the training of wheelchair rugby (WCR), based on physiological, neuromuscular and biochemical changes, characteristics of athletes with spinal cord injuries (CAMPOS et al., 2013), and the investigation of the longitudinal effects of the training of wheelchair rugby (WCR) in the body composition of individuals with tetraplegia (GORLA et al., 2016). From these findings, few studies have been done on the support offered for the practice, access, and permanence of WCR.

In this sense, this study seeks to identify the perception of wheelchair rugby athletes on the phenomenon related to the supports that constitute or constituted the support network for WCR practice. Also, from the athletes' own report, it seeks to know aspects that have impacted the access and permanence to the adapted sport.

2 Method

2.1 Research characteristics

It is descriptive and exploratory research characterized by the use of the qualitative approach (GIL, 2008).

When we are dealing with little known problems and the research is exploratory, this type of research seems to be the most appropriate. When the study is of a descriptive nature and it is sought the understanding of the phenomenon as a whole, in its complexity, it is possible that qualitative analysis is the most indicated. Even when our concern is the understanding of the web of social and cultural relationships that are established within the organizations, the qualitative work can offer interesting and relevant data. In this sense, the option for the qualitative methodology is done after the definition of the problem and the establishment of the objectives of the research (GODOY, 1995, p. 63).

2.2 Ethical considerations

This research respected and fulfilled the prerogatives of resolution nº 466/2012 (BRASIL, 2012), ensuring secrecy and anonymity to the participants, approved by the research ethics committee in human beings

under nº 1,888,237. Participants received and signed the informed consent form with all information about the research.

2.3 Location and participants

Ten athletes practicing rugby in wheelchair participated in the research. The research was conducted within the premises of an event that hosted a Wheelchair Rugby Cup in a city located in the interior of the state of São Paulo¹.

2.4 Data collection instrument

To meet the research objective, a semi-structured interview script with open questions was used. This script aimed to collect information about the perception of the athletes who practice the WCR on the supports received to practice the adapted sport. The power and pertinence of the script were previously tested and analyzed in a preliminary stage of data collection (LUDKE; ANDRÉ, 1986; MINAYO, 1996).

The itinerary was prepared by Becerra (2018) and composed of 3 thematic blocks. Block 1 contains questions related to the characterization of the participants regarding gender, age, educational level and time practicing the WCR. Block 2 contemplated themes directed to the experiences with the adapted sport, highlighting the first contact with the WCR and the motivation for sports. Block 3 included subjects related to the support received (family, political, governmental) to start the practice of adapted sport, supports received along the sporting trajectory and obstacles faced for the practice of the sport.

There were sessions to prepare the application of the script and for the training and familiarization of the researcher with the script. In these opportunities, it was reflected on the adequacy, structure, and sequence of the questions and the improvement of the registration, adaptation, and training of the Portuguese language² to control the possible intervening variables in the collection phase.

2.5 Data collection and analysis procedure

Data were collected from individual interviews. First, there was an initial contact with the clubs that would participate in the cup. The clubs that agreed to participate in the survey informed the scheduling of interviews with athletes who agreed to be interviewed. The interviews had an average duration of 15 minutes and were performed in two

days of the competition. All interviews were recorded and transcribed in full. The transcripts were fully supported by a research assistant with Portuguese language skills to resolve doubts.

The systematization of the data was carried out from a qualitative perspective (LUDKE; ANDRÉ, 1986; MINAYO, 1996) and the data analysis was based on the steps indicated by Alves and Silva (1992, p. 66): a) “Impregnation by data” during readings; b) Making notes “so nothing is lost”; c) “Sharing the data” with different researchers to “check” the ways of understanding, explaining and interpreting the answers from the participants; d) Establishment of relationships between the content expressed in the speeches, the researcher’s experience, and the recorded thinking; e) Investigation of “regularities and differences in the answers”: different answers can have “the same basis” and equal answers can mean “different foundations”; f) “Deepening of the data” regarding the structure, theme and deepening of the topics.

For a better understanding of the data, the results section was divided into 4 topics. The first topic shows the first contact with the adapted sport. The second topic shows the motivation to perform an adapted sport. The third topic shows the perception of the athletes about the most important supports for the practice of the adapted sport. The fourth topic shows data on the existing obstacles to the practice of the adapted sport.

3 Results

Athletes who practice rugby in wheelchairs in three different clubs³ participated in the study and their characterization on school level, age and sports time is described below. Table 1 shows the characterization of the participants.

The sample has 10 male athletes, with a physical disability, in the age group between 25 and 39 years old who practiced an adapted sport for at least 1 year and at the most 8 years ago. All the participants are members of public clubs/associations and, at the time of the research, they were inserted in three clubs, in the Wheelchair Rugby Cup. The educational level of the participants ranged from no school level (n = 1) to Higher Education (n = 5).

3.1 First contact with Wheelchair Rugby

Table 2 shows information about how the participants’ first contact with WCR occurred, facilitating elements and contexts that allowed access to the sport. Illustrations are presented through excerpts from the transcribed interviews.

The data in Table 2 show that in four participants, the first contact with the adapted sport was promoted by contacts established through friends (P4, P7, P8, P10). In this research, this variable was presented as a facilitator for joining an association/club.

Health facilities such as hospitals and rehabilitation clinics were in 02 cases (P5 and P3) as a source of access to adapted sports. Videos and movies were other facilitators that impacted two athletes (P6 and P2). The club was the equipment that allowed P9 to have access to the sport. Another factor that allowed a participant (P1) to have access to an adapted sport was a municipal program entitled called “Programa Superar”.

There is a diversity of sources of access to Wheelchair Rugby, which can be interpreted as something positive. These sources broaden the possibilities of referral of people with physical disabilities to sport and, on the other hand, they illustrate that there is a clear policy that defines the “door” that gives access to adapted sport.

Table 1. Characterization of the participants.

Participants	Age	Time practicing Rugby	School level
P1	25 years old	2 years	Elementary school
P2	34 years old	6 years	High school
P3	26 years old	1 year	Higher Education – in progress
P4	35 years old	7 years	High school
P5	26 years old	4 years	Incomplete Higher Education
P6	29 years old	7 years	Higher Education
P7	25 years old	3 years and 5 months	None
P8	27 years old	8 years	Incomplete Higher Education
P9	39 years old	5 years	High school
P10	34 years old	2 years	Higher Education

Table 2. First contact with Wheelchair Rugby.

Participants	Facilitating elements for the access	Context	Illustration of how access to adapted sports occurred
P1	“Superar” Program	Sports	“The first contact was in the “Superar” program that I went to work out, swim ... then they saw that Rugby was going to be very well for me and they introduced me to Rugby”.
P2	Videos about topic	Social	“It was the videos, trip, I was thinking better the sport”.
P3	Rehabilitation clinic	Health	“Through a clinic where I was doing physiotherapy, he suggested me Rugby”.
P4	Friend	Social	“It was a friend who knew it... he went to the clinic to explain to us how it would be the sport there in (name of the city)”.
P5	Hospital	Health	“[...] the athletes of the team went there to the consultation, and the doctor introduced me to them because the doctor has a partnership sending patients to the team”.
P6	Movie	Social	“[...] with the movie “Murderball” that tells the story of Rugby in the United States, it was the first time I felt like playing some adapted sport”.
P7	Friend	Social	“So in my city, there was an association that worked with adapted sports, then a friend invited me to go and know it and from there, I got to know the adapted sport. And I never left”.
P8	Friend	Social	“I was at the rehabilitation hospital in Rio de Janeiro and I knew a friend called E. He introduced me to Rugby and we practiced inside the hospital one day. Then he called me to play in a team there in RJ. I started playing and since then I have not stopped playing”.
P9	Association/ club	Sports	“I met an association when I was 14 and I started there ... I went through a lot of sports. I played wheelchair soccer, I played wheelchair basketball, and then I found the swimming that was the sport that I identified at the time and then followed a swimming career. I’m in Rugby today”.
P10	Friend	Social	“[...] after I met Rugby through friends and started practicing there I fell in love with the sport”.

3.2 The motivation for the practice of Wheelchair Rugby

Table 3 shows data on the motivation of participants for the practice of adapted sport and the effects of motivation in daily life.

According to the data obtained in Table 3, the most reported motivations of the athletes are predominantly in the field of personal desire (n = 9), improving the health, physical condition, quality of life and desire to rehabilitate.

Other motivations related to personal life were also highlighted such as having the possibility of changing the lifestyle or even the possibility

of practicing physical activity or a sport. Other reports were having physical independence through the practice of adapted sport and the practice of high-performance sports. In the practice of the adapted sport also appears the development of the personal field of the socialization and education as a possibility, knowing new places, cities, and teams.

3.3 Perception of the important supports for WCR practice

The data below in Table 4 provide information about participants’ perceptions of the most important supports for the practice of an adapted sport.

The data in Table 4 shows that most of the athletes have identified more than one important support for the practice of adapted sports. In the family context (n = 5), the father and the mother were the

members of the family identified as most valued, so “family” and “family members” generically cited were also present. Family support was related to financial and emotional support (“*help*”).

Table 3. Motivation to practice Wheelchair Rugby.

Participants	Motivation	Effect of motivation for sports practice	Interview excerpt
P1	Familiar	Seeking the father’s happiness (emotional)	<i>“The most motivation for me to continue is my father because he sometimes suffers from arrhythmia ... so, his happiness is ... me in Rugby and out of what I was before. My greatest motivation is my father”.</i>
P2	Pessoal	Continuing with the practice of sport (social)	<i>“Well before my accident, I was an athlete, so I had to look for something to do not stay still”.</i>
P3	Pessoal	Rehabilitate and have the quality of life (health)	<i>“Rehabilitation mainly. Then the quality of life”.</i>
P4	Pessoal	Knowing the possibility of practicing a sport adapted to tetraplegia (social)	<i>“At first, I did not know of any other quadriplegic sport, I only knew for paraplegic that it is basketball, tennis, but for the tetraplegic, I did not know it. From the moment I met and saw that I could, I played it”.</i>
P5	Pessoal	To improve health (Cheers)	<i>“I went to know it and I liked it. At the time, I was not doing anything because of the accident, I liked it, I always liked to play sports, and I stayed. It was because I really liked it ... it helped for my health, too”.</i>
P6	Pessoal	To have the possibility to change the style of life through practice of physical activity (Social)	<i>“Motivation, honestly, when I was young, even though I was not an athlete before my accident, I was ... I had activities, I participated in physical activity sometimes. So I had a will to do something, I was sedentary and obese and ... I had a lot of free time in my day, so I saw a possibility there”.</i>
P7	Pessoal	Seeking the quality of life and high income (social)	<i>“In the beginning, it was to maintain a better quality of life, for me is taking care of my body and when things were going I liked it and then I went for the high performance”.</i>
P8	Pessoal	To like to practice a sport (social)	<i>“I’ve always liked sports, I’ve always played sports since before my injury, after my injury I did not practice anything until I met Rugby, I’ve always been passionate about sports”.</i>
P9	Pessoal	To have the opportunity to perform an activity (Social)	<i>“The information I think is the first opportunity that the person can have ... it is to know that it exists, right? Something to do and found an association, so that’s what motivated me to do it”.</i>
P10	Pessoal	Independence (social)	<i>“Physical independence”.</i>

Table 4. Identification of the most important supports and contexts mentioned by athletes for WCR practice.

Participants	Most valued support	Type of Support	Context	Illustration
P1	Father	Financial	Family	<i>“The biggest support is from my father. He still helps me, I have no such financial support from other parties and if I need money to travel, he who helps me, he supports me in everything and everything I do is for him too. At the moment I have not yet, but I’m going to receive an athletic scholarship that will help a lot, by the government. I still do not get it, then I take from my benefit because I’m retired and my father helps a lot too”.</i>
P2	Team	Infrastructure	Social (club)	<i>“I had only support, even support from where I played, on my team. Talking like this ... I had to buy my material, so it was not enough, so the support I had was only from the club where I trained. It gave us the space to train, but the rest, the material, these things, this stuff, I bought everything”.</i>
P3	Relatives	Emotional	Family	<i>“Ah, the family, it’s the one who supports the most. Just the family”.</i>
P4	Friends and Family	Financial and Emotional	Family and Social	<i>“Dude, the friends, and the family. For the financial, they help a lot, but mainly friends and family, who are always there to support, they are always giving that little help”.</i>
P5	Mother and Team	Emotional	Family and Social (time)	<i>“My mother, the family, at the beginning and the team too, that we help each other a lot, so it was the two main supports”.</i>
P6	Specialized professionals	Instrumental	Sport	<i>“From professionalized people... From trained professionals this has been the most important because they are the ones who catalyze, any development will be much faster when you have people qualified to do that thing. It goes without saying that I have no training in physical education and no specialized knowledge in wheelchair Rugby trying to play a project. There has to be someone with some capacity and then I think all my process in those 7 years, I think the biggest influence has been of people able to help me”.</i>

Table 4. Continued...

Participants	Most valued support	Type of Support	Context	Illustration
P7	Sponsorships	Financial	Sport	<i>“I think there’s still a lot left for us to evolve. And so, the support of the club even without sponsorship I think is very important. Because if the club today does not call an athlete and not talk to him such ... and explain the situation he ends up leaving the Paralympic sport, the adapted sport because there is no way to keep in the adapted sport because most of the time we need money from our pocket”.</i>
P8	Scholarship	Financial	Governmental	<i>“I think Brazil has an athlete scholarship project that benefits athletes who were among the top three in the national competition”.</i>
P9	Specialized professionals	Instrumental and Infrastructure	Sport	<i>“I think the space of sports practice. In my case, I started swimming, I have a gym, I have a technician, it’s ... the disposition for training ... there were entities that worked with adapted sports, so for me, it was that to have space”.</i>
P10	Family and Specialized Professional staffs	Emotional and Instrumental	Family and sport	<i>“From the family. The staffs of the team, because if you do not have to put gloves and transfer to a chair if you do not have these staffs, you cannot do anything”.</i>

In the sports context (n = 3), there is support coming from clubs, teams, staffs, sponsors, coaches, and teams. Also, the enhancement of training space, past financial explanations between club and athletes, the offer of the club and coach for training were highlighted.

In the social context, the support of friends (n = 1) is found. The importance of the support offered by specialized and qualified professionals to promote the adapted sport was mentioned. In the governmental context, there is the support of the “Athlete scholarship”.

Thus, the types of support mentioned are emotional, financial, infrastructure, instrumental, informational and social, with “emotional” and “financial” as the most frequently cited support.

3.4 More frequent obstacles to the practice of WCR

The following Table 5 shows the main obstacles to WCR practice described and identified by some participants.

The most frequently identified obstacles were a financial difficulty (n = 3) and lack of accessibility (n = 2). Other reports were about the situation of getting out of the house for the first time to get to know the sport (n = 1) and the distance to go to the training place (n = 1). Two participants reported that there are a variety of obstacles to WCR practice and two participants did not know or wanted to answer this question.

Table 5. Perception of the participants about the most frequent obstacles to the practice of WCR.

Participants	Obstacles	Illustration
P1	A set of obstacles	<i>"There are many things..."</i> .
P2	To start the first contact with the sport after disability	<i>"Going out for the first time to get to know the sport"</i> .
P3	Financial difficulty	<i>"Financial problem"</i> .
P4	Not reported	<i>"He could not answer"</i> .
P5	Financial difficulty and lack of accessibility	<i>"[...]financial is greater, but the second is accessibility"</i> .
P6	Not reported	<i>"He could not answer"</i> .
P7	The large geographical distance between the training place and the residence	<i>"The main obstacle is the distance from the city where I train"</i> .
P8	Lack of accessibility	<i>"Accessibility. The gym has to be adapted, with a good bathroom, a ramp, access, how will the handicapped get there?"</i> .
P9	The financial difficulty for maintenance in a high performance adapted sport	<i>"To maintain high income without financial support"</i> .
P10	A set of obstacles that in the view of the athlete are common to all people	<i>"They are the same for everyone"</i> .

4 Discussion

The theme of the present research is focused on identifying the perception of wheelchair rugby athletes on the support received for the access and permanence in this sport from the importance of collaboration networks. Therefore, the set of questions of the interviews, the access to the practice of adapted sport, the motivation, the perception of the participants of the main supports received and obstacles were explored. From the data obtained, the hypothesis of the study is confirmed, once the need for effective actions of a social, instrumental and emotional support network for the population was identified.

Holanda et al. (2015) pointed out that family members were strong support networks for people with physical disabilities. Also, they identified that people with physical disabilities have difficulties in expanding extra-family social relationships due to the difficulty of accessibility. These data is similar to this study, regarding the importance of establishing support networks for people with physical disabilities.

In this study, for both access and permanence, no formally agreed collaboration networks were identified, which indicates the absence of cross-sectional public policies in addressing the needs of adults with physical disabilities. This finding corroborates with Pancoto's (2016) study on sports in the public policies of social

inclusion for people with disabilities in Brazil and the study by Mauerberg de Castro et al. (2016, p. 25).

The problem in the context of adapted sport is that public institutions, non-governmental institutions, and the private sector are far from materializing a system of realistic and democratic public policies that result in practical solutions [...].

However, it is important to highlight the diversity of topics of the network of people access to WCR practice associated with the motivation to practice it. Thus, the results bring the strong presence of family/friends and health equipment together with the personal wish.

Regarding motivation, Dosil et al. (2004) in a special way emphasizes his relationship with sport and states that motivation is the motor of sport. The author establishes the relationship of the motivation with the entrance, permanence, and abandonment of the sports practice.

From the results obtained, the access to the support network is effective through three points is suggested: family/friends, health and sports sector. It is believed that the development of cross-sectional actions favors people's access to WCR practice by enabling connectivity.

The understanding of the dynamics of connectivity (the network dynamics) is also

examined by another characteristic of the curious dialectic point-and-line within the network. Each connection always represents a pair of points, since a connection can only be established in the measure of the existence of two elements to be connected. In this sense, a line is worth two points. Each point can maintain infinity of lines that protrude from it; can have as many rows as there are other points belonging to the network to which it is connected (WWF-BRASIL, 2003, p. 18).

Two sets of answers were fundamental to identify the points of the network that favor the permanence of the WCR athlete in this sport: one dealing with the supports cited as relevant to WCR practice and the other dealing with obstacles.

Regarding the support, the “key people” that offered support to the participants of this research in the process to stay in the WCR were family members, personal friends, health professionals, technicians, teammates, and staffs. In the research by Fitzgerald and Kirk (2009), most of the families offered continuous support for the sports practice of young people with disabilities, understanding the benefits that sport brings for social development. Other benefits of sport for people with disabilities is the increasing social relationships favorable to integration and normalization, development of attitudes, value competition and occupation of free time (RODRÍGUEZ MARTIN, 2015).

In addition to expanding the occupations of the person with a physical disability, the practice of WCR expands their relationships to other development contexts such as family, clinical, social and sports, favoring the permanence in sports for allowing athletes access emotional, financial, infrastructure, instrumental, informational and social support. The athletes highlight the need for financial and emotional support. To account for the diversity of support needed to stay in the RCR, a set of points should be made up of the network to keep the motivation as reported by athletes: family, clubs, government programs, and specialized professionals.

The emergence of networks occurs when a common purpose can bring together different actors and summon them to action. The cohesive element of networks is an idea-force, a task, a goal. Something that seems fragile as an organizational principle, but when empowered by voluntary action, it is a powerful agent of transformation (WWF-BRASIL, 2003, p. 50).

Regarding the obstacles, the biggest barriers are to the financial ones and those of accessibility. The need to adapt physical space, such as ramps in the courts, offer of the gym, and absence of scholarships and lack of financial resources to stay in the sport were also highlighted. Cardoso (2011, p. 536) states that to start and stay in adapted sports modality still needs to be conquered:

[...] the professional training to work with people with disabilities is highlighted, which still lacks an increase in quality; improvements and achievements in favor of inclusion, and also the opportunities for sports practice, that it is perceived that individuals with disabilities still find many difficulties and face a lack of support, accessibility and prejudice to start and maintain a sporting modality adapted.

To eliminate such barriers, the development of actions in a network is also suggested, as already indicated in this study, for access to WCR practice. Also, the family/friends, the health and sports sector is another point to consider in the network is government support. In this way, cross-sectoral articulations are necessary with public health policies, sports policies and social policies of the country.

In this period of turning into the century and of the millennium, civil society potentiates its organization in initiatives, whose involved actors perceive the participatory collaboration as an effective means of carrying out social transformations. The third sector institutions have sought to develop joint actions, operating at local, regional, national and international levels, contributing to a more just and democratic society. Thus, from various causes, the civil society organizes networks for the exchange of information, institutional and political articulation and for the implementation of common projects. The experiences have demonstrated the advantages and the results of articulated actions and projects developed in partnerships and alliances (OLIVIERI, 2003, p. 56).

With the data obtained and the dialogue with the literature, the importance of the agreement between services and people for the construction and connection of the points needed for a support network for the practice of rugby in wheelchairs is highlighted.

5 Final Considerations

This study provided information on the fundamental supports for the practice of sport adapted from the perception of athletes who practice wheelchair rugby, allowing the identification of points for a possible network as an organizational system that favors the practice of this sport. In this sense, the contexts of the relationship of the athletes in the daily life, the actors who participate in them and the needs and obstacles to the WCR practice was observed.

Support from family, friends, health professionals and people from the sports environment was strategic, based on the perception of the athletes, for their development and engagement in WCR practice. The lack of accessibility and financial problems presented the greatest obstacles to the practice of WCR, demanding governmental actions.

From this perspective, it was possible to identify a set of distinct and complementary supports fundamental to the practice of WCR, which, if articulated, constitute points (nodes) of a support network. Thus, investments in cross-sectional actions to increase the national policy for people with disabilities are suggested, based on the strengthening of communication processes among the sectors identified in this research.

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Author's Contributions

Marco Antônio Guevara Becerra was responsible for collecting data and developing the research. Mariana Gurian Manzini was responsible for monitoring and contributing to the development of methodological procedures. Claudia Maria Simões Martinez supervised the entire research. All authors approved the final version of the paper.

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Notes

- ¹ Participants were athletes from three clubs. In general, the constitution of rugby teams ranges from 7 to 15 athletes. A convenience sample was composed based on the athletes' acceptance to participate in the interview (n = 10). Club names have been omitted for non-identification of participants.
- ² It is important to consider that the author of the present study performed postgraduate studies at UFSCar / PPGEES through the "OEA-GCUB 2015 Beca Program", and his native language is Spanish. It is noteworthy that, at the data collection stage if participants had difficulty understanding the questions, the researcher would show the written question in Portuguese to the participant.
- ³ For ethical reasons the names of clubs and associations were not disclosed.