







Facilitators and barriers for the inclusion of students with disabilities in Physical Education in Colombia, Chile, Spain and Peru

Fernando Ignacio Muñoz-Hinrichsen^{1*} , Diana Alexandra Camargo-Rojas² , Mauro Grassi-Roig³ , Luis Torres-Paz⁴ , Javier Pérez-Tejero³ , Alan Martínez-Aros⁵ , & Felipe Herrera-Miranda⁵ 

¹ Department of Kinesiology, Metropolitan University of Educational Sciences, Santiago (Chile).

² National University of Colombia. Bogotá (Colombia).

³ Chair "Sanitas Foundation" for Inclusive Sports Studies (CEDI in Spanish), Polytechnic University of Madrid (Spain).

⁴ César Vallejo University, Los Olivos (Peru).

⁵ Diego Portales University, Santiago (Chile).

⁶ Viña del Mar University, Viña del Mar (Chile).



Cite this article

Muñoz-Hinrichsen, F. I., Camargo-Rojas, D. A., Grassi-Roig, M., Torres-Paz, L., Pérez-Tejero, J., Martínez-Aros, A. & Herrera-Miranda, F. (2024). Facilitators and Barriers for the Inclusion of Students with Disabilities in Physical Education in Colombia, Chile, Spain and Peru. *Apunts Educación Física y Deportes*, 158, 34-43. [https://doi.org/10.5672/apunts.2014-0983.es.\(2024/4\).158.04](https://doi.org/10.5672/apunts.2014-0983.es.(2024/4).158.04)

Edited by:

© Generalitat de Catalunya
Departament de la Presidència
Institut Nacional d'Educació
Física de Catalunya (INEFC)

ISSN: 2014-0983

*Corresponding author:

Fernando Ignacio Muñoz-Hinrichsen
fernando.munoz_h@umce.cl

Section:

Physical Education

Original language:

Spanish

Received:

December 14, 2023

Accepted:

April 30, 2024

Published:

October 1, 2024

Front cover:

Rafa Nadal and Carlos Alcaraz of Spain in action against Tallon Griekspoor and Wesley Koolhof of Netherlands during their men's doubles second round tennis match at the Paris Olympic Games on July 30, 2024. (Photo by EFE/EPA/Ritchie B. Tongo)

Abstract

The objective of this study was to analyse the barriers and facilitators that students with disabilities encounter in Physical Education and sports in Chile, Colombia, Spain and Peru. An exploratory, correlational and cross-sectional study was designed, involving 362 children and adolescents with disabilities from Chile (41.1%), Colombia (14.6%), Spain (11.6%) and Peru (32.5%), who completed the questionnaire "Barriers and Facilitators of Sports in Children with Physical Disabilities" (BaFSCH) in its Spanish-translated version. Concerning the results, 72.7% practice physical activity at school, with a higher tendency in Colombia (88.7% $\chi^2 = 11.17$, $p = .02$), where 72.0% participate in Physical Education classes while 38% practice physical activity and sports workshops. The main facilitators of inclusion are parents and guardians, along with friends in the school environment, while barriers are associated with accidents or falls and/or their disability and/or impairment. Additionally, biological sex (OR = 1.893, IC = 1.19-3.00, $p = .007$) is associated with being a facilitator for physical activity, whereas having an intellectual disability (OR = .437, IC = .20 - .94, $p = .03$) and a physical disability (OR = .298, IC = .15-.58, $p = .0002$) are associated with barriers to inclusion. This research revealed that Physical Education classes are fundamental for engaging in physical activity within the educational setting for children and adolescents with disabilities, as well as the environment, which acts as a protective factor at the environmental level.

Keywords: barriers, facilitators, inclusive sport, physical education, sport at school.

Introduction

Physical activity in the school context for children and adolescents with disabilities (CAD) has become a topic of increasing importance for institutions that set international guidelines on the matter. The United Nations, through the International Charter of Physical Education, Physical Activity and Sport (2015), suggests inclusion as one of the fundamental pillars to be considered within the guidelines and processes developed at political levels for its implementation. This is further validated in the Kazan Action Plan (United Nations Educational, Scientific and Cultural Organisation, 2017), where ministers and senior officials responsible for physical education and sports in member countries explicitly state that “inclusive participation requires opportunities to be provided at all levels of participation, regardless of ability, potential disability, ethnicity, gender, language, religion, political or other opinion, national or social origin, property status, birth or other grounds.” In a synergistic manner, the Sustainable Development Goals Agenda highlights the importance of physical activity and sports as a strategy for inclusion (United Nations, 2015), consistently argued in Goal 4, “Quality Education,” which aims to generate processes that guarantee participation within the framework of diversity in school spaces, fostering equal access while eliminating any disparities that may exist.

This has transcended and deepened in the local policies of various countries, leading to a number of initiatives. In Chile, in terms of legislation, the School Inclusion Law No 20,845 (Ministry of Education, 2015a) establishes the right of all students to receive an inclusive education, which involves adapting curricula and infrastructure to meet the individual needs of each student, including CAD. Decree No 83 (Ministry of Education, 2015b) mandates that schools providing special education at the preschool and primary levels must use the standard curriculum and adapt it to the individual needs of students based on their disability. However, this decree does not extend to secondary education, meaning that educational institutions at this level are not required to use the conventional curriculum.

Regarding Colombia, it is important to first mention that the practice of physical activity and sports is addressed in Article 52 of the Colombian Constitution of 1991 (Superior Council of the Judiciary, 2015), and that Articles 13, 47, 54, 68 and 93 recognise and highlight the importance of providing access and guaranteeing all rights to people with disabilities. Subsequently, Law 181 (Colombian Congress, 1995), which defines the National Sports System, outlines the different types of sport from formative sports to high-performance sports, and Articles 3, 11 and 42 emphasise the need to implement physical education, sports and recreation

programmes for people with disabilities, as well as to create an inclusive curriculum and increase accessibility to sports facilities, ensuring the participation of this population. These initiatives proposed by the National Sports System are revisited in Law 361 of 1997, amended by Law 1316 of 2009, and later in Law 1346 of 2009 (Colombian Congress, 2009), which ratifies the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2006) in Colombia. Additionally, over the years, from 2011 to the present, development plans in the health and sports sectors mention the promotion of physical education, physical activity, school sports and community social sports as part of the policies, and they develop actions with inclusion criteria (Ministry of Health and Social Protection, 2022). On the other hand, in the education sector, it is important to highlight Law 115 of 1994, which reaffirms education as a right for all individuals regardless. Thus, in the field of physical education, the 20th century saw the beginning of the implementation of actions developed through adapted physical education, which includes a series of content transformations with a universal and differential approach aimed at the population with disabilities, including those with learning, movement, communication and behavioural deficiencies, providing theoretical, technical and human resources that favour teaching-learning process (López & Pardo, 2012; López & Villamizar, 2018).

In Spain, the current Organic Law 3/2020, of 29 December, which amends Organic Law 2/2006, of 3 May, on Education (Ministry of Education and Vocational Training, 2020), highlights two main objectives concerning the promotion of the participation of students with special educational needs in regular educational settings. First, it aims to avoid the segregation of students, and second, to strengthen the system’s inclusive capacity. With regards to Physical Education, the application of this new law is directly reflected in all components of the new curriculum, especially in primary education, although to a lesser extent in secondary education. In the first case, Specific Competence 3 appears: “Develop self-regulation and interaction processes within the framework of motor practice, with an empathetic and inclusive attitude [...]” which is further detailed in various evaluation criteria and basic knowledge.

In Peru, through the Ministry of Education, in the Directorate of Initial Teacher Training, it was proposed in 2020 to include the course of Inclusive Physical Education in the curriculum of higher pedagogical education; however, there is still a gap in the inclusion and integration of CAD in Physical Education programmes, which only some universities address. It is also worth noting the total absence of the Physical Education course in special basic education

centres (Ministry of Education of Peru, 2020). On the other hand, the Peruvian Sports Institute, the National Paralympic Association of Peru, the Peruvian Sports Federation of People with Intellectual Disabilities and the National Sports Federation of People with Physical Disabilities promote training courses, awareness and competitions for CAD, but with limited impact due to the financial constraints of the entities and the country.

These initiatives and modifications developed by the states and their governments serve as facilitators from the perspective of and under the social model of disability, which understands people and their relationship with the environment as the primary interaction mediating the process of social inclusion (United Nations, 2001). This allows us to attempt to understand how these adjustments may have generated changes in the population and whether they have had any impact.

Based on the above, the objective of this research is to analyse the barriers and facilitators that students with disabilities themselves report in Physical Education in particular and sports in general in the four indicated countries.

Method

Participants

A total of 362 children and adolescents with disabilities participated, with an average age of 14 ± 1.8 years. The gender distribution was 37.6% girls, 61.3% boys, and 1.1% others. Of the participants, 57.7% had a disability from birth or earlier, while 42.3% developed a disability after birth or in later stages. The details of the sample are included in Table 1.

Design

A cross-sectional exploratory study with correlational characteristics was conducted.

Tools

The “Barriers and Facilitators of Sports in Children with Physical Disabilities” (BaFSCH) questionnaire (Muñoz Hinrichsen et al., 2021) was used, which was designed by

Table 1

Description of the general characteristics of the participants.

Variables	Chile 149 (41.1%)	Colombia 53 (14.6%)	Spain 42 (11.6%)	Peru 118 (32.5%)	Total N = 362
Age	14 ± 5.3	15 ± 3.7	15 ± 2.8	13 ± 4.1	14 ± 1.8
Biological sex					
Boy	57.7%	52.8%	69.0%	66.9%	61.3%
Girl	41.6%	47.2%	26.2%	32.2%	37.6%
Other	0.7%	0%	4.8%	0.8%	1.1%
When did your condition start?					
When I was born or before	56.4%	79.2%	52.4%	51.7%	57.7%
After birth/as a grown-up	43.6%	20.8%	47.6%	48.3%	42.3%
How do you travel to school?					
I walk or I use my wheelchair	17.4%	20.8%	47.6%	16.9%	21.3%
In a means of transport adapted for me	12.1%	11.3%	14.3%	10.2%	11.6%
In a means of transport that is not adapted for me	70.5%	67.9%	38.1%	72.9%	67.1%
What is your condition?					
I'm missing a body part	0.7%	0.0%	4.8%	11.9%	4.7%
I have difficulty understanding instructions	13.4%	11.3%	11.9%	18.6%	14.6%
I can't hear well	8.1%	0.0%	16.7%	11.0%	8.8%
I have trouble moving	10.1%	3.8%	7.1%	17.8%	11.3%
I can barely see or can't see at all	18.1%	60.4%	4.8%	10.2%	20.2%
I lack strength to move	4.0%	0.0%	4.8%	7.6%	4.7%
Other condition	42.3%	24.5%	35.7%	16.9%	30.7%
I have spasticity	3.4%	0%	14.3%	5.9%	5.0%

NB: Data expressed in percentages

Jaarsma et al. (2015) and adapted from a self-constructed questionnaire for Paralympic athletes previously published (Jaarsma et al., 2014). The items on barriers and facilitators were divided into personal and environmental factors according to the International Classification of Functioning (World Health Organisation, 2001). The elements related to sports participation and disabilities were grouped according to the components of the Theory of Planned Behaviour (Ajzen, 1991): those corresponding to “Attitude,” which is an individual’s personal evaluation of a behaviour; “Subjective Norms,” which are related to the normative expectations of others; and “Perceived Behavioural Control,” which relates to the presence of factors that may hinder performance.

Procedure

This study employed a quantitative, cross-sectional and exploratory methodology, with a non-probability convenience sampling approach to gather data from the research teams in Chile, Colombia, Spain and Peru. The study was approved by the Ethics Committee of Diego Portales University in Chile (code 12-2022) and the Polytechnic University of Madrid in Spain (issued on 12 January 2022). To begin, the research teams contacted educational institutions in their respective countries. Due to the high level of complexity and the challenge of achieving uniformity, the sample was selected based on the research teams’ access to institutions, facilitated by the support of each country’s Ministry of Education, which helped in establishing contact with the administrators or managers of the institutions. For this reason, and to maximise the number of participants, all eligible individuals from integrated or inclusive schools were included, excluding only those from special schools to ensure a context with diversity in physical education and/or sports activities.

Subsequently, each institution was asked for permission to administer the questionnaires to students with disabilities. Finally, with the consent of the parents, guardians and/or caregivers of the participants, and the consent of the participants themselves, the data collection process was carried out between October 2022 and March 2023.

Statistical Analysis

In the first part, a comparative analysis of the participants was conducted based on their country of residence (Chile, Colombia, Spain, Peru) using the responses obtained from the tool. The data are presented with descriptive statistics for the study variables, where the number of participants

is shown as frequency (n) and percentage (%), and age is presented as means (m) and standard deviation (\pm). All responses related to the questionnaire items are presented as percentages (%). The chi-square (χ^2) hypothesis test was used to establish the difference between the expected and observed frequencies.

Subsequently, upon observing homogeneous behaviour in the sample, participants were grouped by biological sex, onset of their condition, use of assistive devices, type of disability and mode of transportation to school. The Odds Ratio test was used to analyse the association of two variables related to the practice of physical activity at school.

GraphPad version 8 (San Diego, CA, USA) and the Statistical Package for the Social Sciences (SPSS Inc., version 25.0, Chicago, IL, USA) were used for the statistical analysis. The significance level was set at $p < .05$, with a 95% confidence interval.

Results

In the first part of the analysis by country of origin, regarding the question “Do you practice physical activity at school?”, 72.7% of the total participants did, while 27.3% did not ($\chi^2 = 11.17$, $p = .02$). The lowest participation was observed in Peru, with 66.9%, and the highest in Colombia, with 88.7% (Figure 1A). The most common activity was Physical Education class, with 72%, followed by sports workshops (activities occurring two or more times a week where sports are practiced), with 16%, and physical activity workshops (activities occurring two or more times a week based on play or controlled physical exercise), with 12% (Figure 1).

Participation in clubs or workshops outside of school was lower, at 67.7%, while those who do participate made up 32.3% of the total. It is also noteworthy that 47.5% of participants started participating in physical activity and/or sports less than a year ago (83% in Colombia), except in Spain, where 50% have been participating for more than three years (Table 2).

The main facilitators for inclusion and participation in physical activity and/or sports at school were identified as parents and guardians, friends of CAD and developmental actions in educational settings. Physical Education teachers and personal initiatives were not considered significant facilitators (Figure 2A).

When exploring the main motivations for participating in physical activity or sports, the primary factors highlighted were the personal benefits for CAD, a general enjoyment of sports and family encouragement (Figure 2B).

Figure 1
Data expressed in percentages by country of residence.

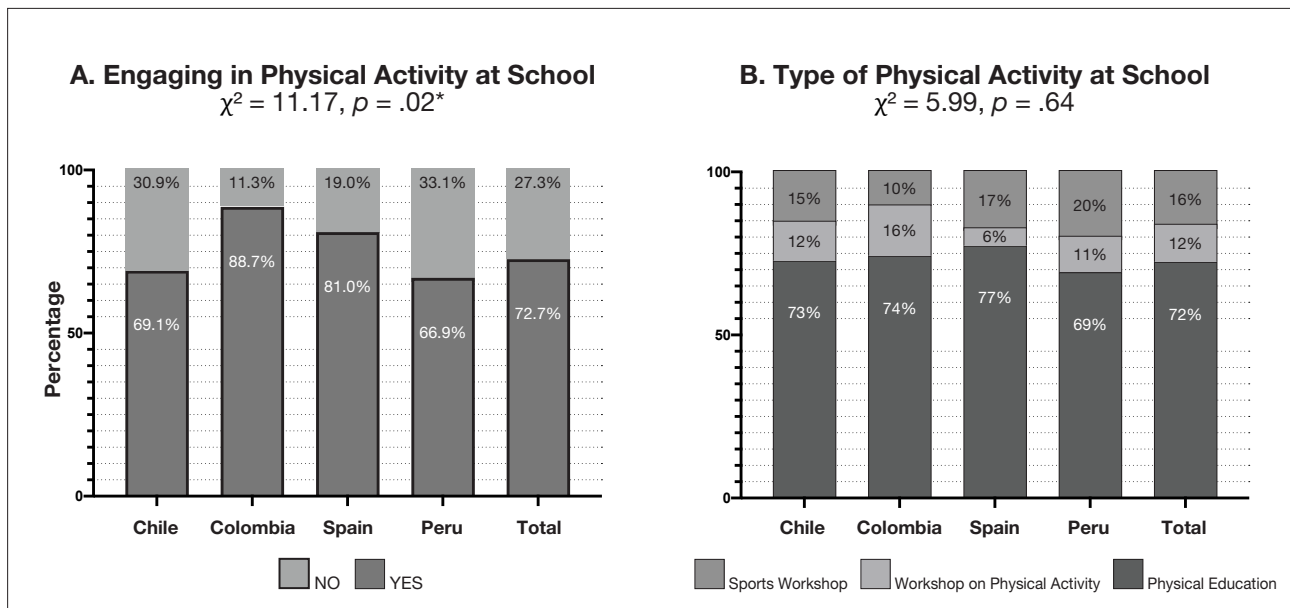
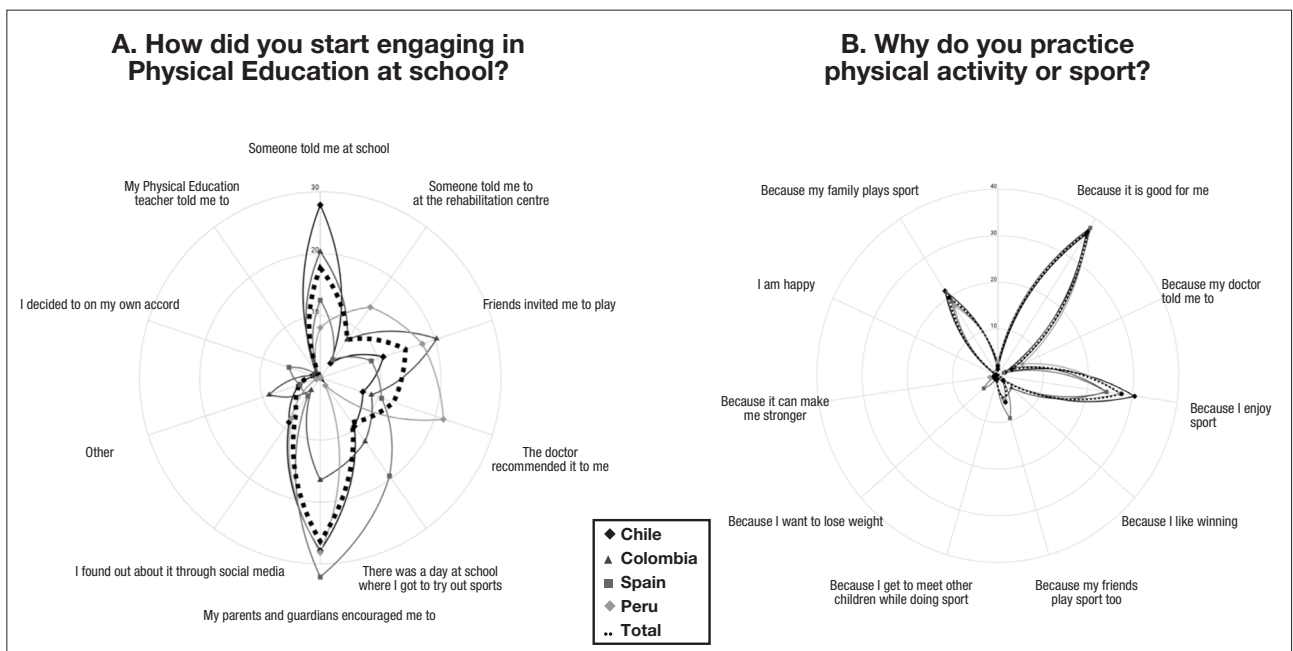


Figure 2
Data expressed in percentages by country of residence.



When asked, “What do you not like about sports?”, 44.1% of participants indicated, “I like everything about sports,” with Chile showing the highest percentage at 51.5%. The most common difficulties mentioned were “I have problems due to my disability,” affecting 19.8% of participants, notably higher in Spain at 23.5%, and “I am afraid of falling,” cited by 14.8% (Table 2).

For the group of participants who do not practice physical activity, the most common responses to “Why do you not

practice physical activity at school?” were “I am afraid of falling and getting hurt,” with 27.3%, particularly noted by participants from Peru at 41%; “I have problems due to my disability,” with 21.2%, especially noted in Chile at 28.3% and “I do not like sports,” with 21.2%, notably in Colombia at 33.3% (Table 2). Most participants who do not practice physical activity/sports at school also do not participate outside of school, with 81.8%, and Chile (87%) and Peru (87.2%) showing the lowest participation (Table 2).

In the second analysis of the study, it was observed that having an intellectual disability (OR = .437, CI = .20-0.94, $p = .03$) or a physical disability (OR = .298, CI = .15-.58, $p = .0002$) was significantly associated with a reduced likelihood of practicing physical activity and/or sports in the school context, thus considered a barrier (Figure 3).

In contrast, biological sex (OR = 1.893, CI = 1.19-3.00, $p = .007$) was associated with an increased likelihood of practicing physical activity and/or sports in the school context (Figure 3), specifically among “Boys,” who had a higher participation rate of 77.48% compared to “Girls,” at 64.49%, indicating it as a facilitator.

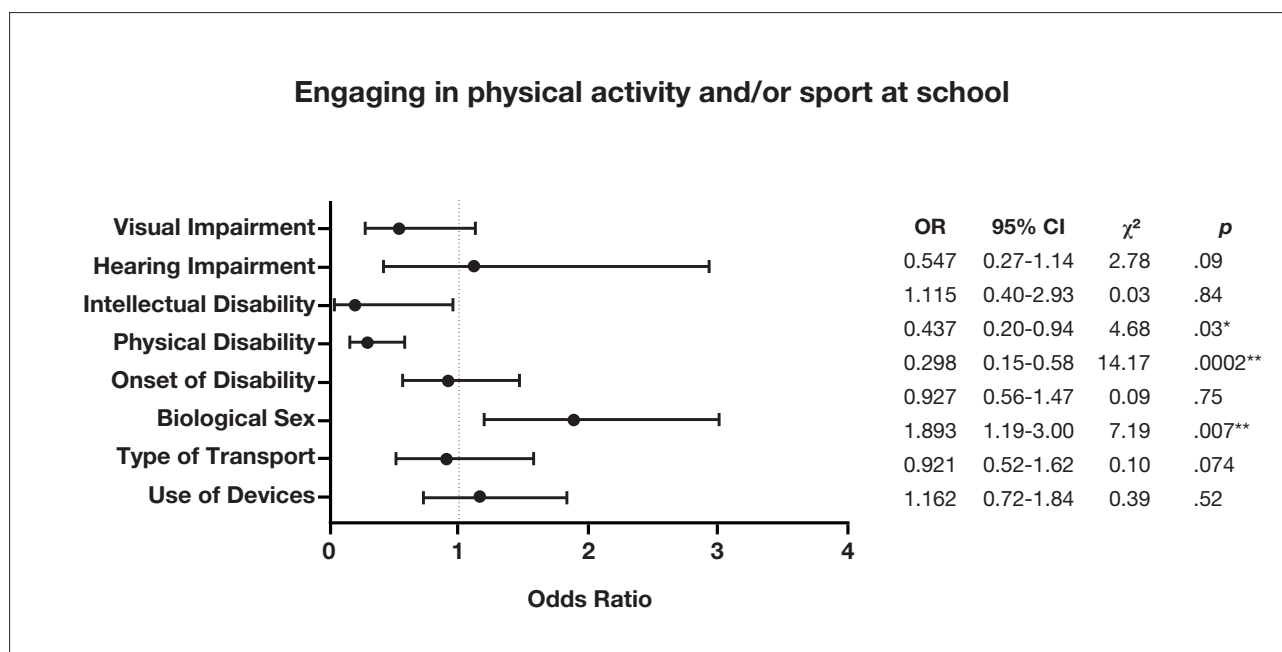
Table 2

Analysis of facilitators and barriers to physical activity and physical education at school by country of residence.

Questions for those who practice physical activity/sport at school					
Question	Chile <i>n</i> = 103	Colombia <i>n</i> = 47	Spain <i>n</i> = 34	Peru <i>n</i> = 79	Total <i>n</i> = 263
Are you a member of any sports clubs or workshops outside school?					
No	77.7%	68.1%	50.0%	62.0%	67.7%
Yes	22.3%	31.9%	50.0%	38.0%	32.3%
How long have you been engaging in physical activity/sport?					
Between 1 and 3 years	31.1%	6.4%	26.5%	38.0%	28.1%
More than 3 years	25.2%	10.6%	50.0%	20.3%	24.3%
Less than one year	43.7%	83.0%	23.5%	41.8%	47.5%
What don't you like about sports?					
It is difficult for my parents to take me	0.0%	2.1%	0.0%	1.3%	0.8%
I am too busy with other activities	6.8%	0.0%	5.9%	2.5%	4.2%
I like everything about sports	51.5%	40.4%	38.2%	39.2%	44.1%
There are no children my age to play sport with	3.9%	0.0%	2.9%	3.8%	3.0%
I don't like it when others have to help me	1.9%	4.3%	2.9%	6.3%	3.8%
Other people think I am strange	3.9%	6.4%	0.0%	2.5%	3.4%
I get tired	0.0%	2.1%	0.0%	3.8%	1.5%
Playing sports is expensive	4.9%	0.0%	2.9%	2.5%	3.0%
I'm afraid of falling and hurting myself	9.7%	19.1%	23.5%	15.2%	14.8%
I have problems because of my disability	16.5%	21.3%	23.5%	21.5%	19.8%
I have to travel far to get to a sports club	1.0%	4.3%	0.0%	1.3%	1.5%
Questions to those who do not practice physical activity/sport at school					
Question	Chile <i>n</i> = 46	Colombia <i>n</i> = 6	Spain <i>n</i> = 8	Peru <i>n</i> = 39	Total <i>n</i> = 99
Why don't you practice physical activity at school?					
My school excludes me	0.0%	16.7%	50.0%	23.1%	14.1%
There are no children my age	6.5%	0.0%	12.5%	0.0%	4.0%
I don't like to be helped	4.3%	0.0%	0.0%	0.0%	2.0%
I don't like sports	32.6%	33.3%	12.5%	7.7%	21.2%
I can't find a sport	10.9%	16.7%	0.0%	10.3%	10.1%
I'm afraid of falling and hurting myself	17.4%	33.3%	12.5%	41.0%	27.3%
I have problems because of my disability	28.3%	0.0%	12.5%	17.9%	21.2%
Do you practice physical activity or sport outside school?					
No	87.0%	66.7%	37.5%	87.2%	81.8%
Yes	13.0%	33.3%	62.5%	12.8%	18.2%

NB: Data expressed in percentages

Figure 3
Engaging in physical activity and/or sport in the school context.



NB: OR = Odds Ratio, CI = Confidence Interval, χ^2 = Chi Square, $p < .05^*$, $p < .01^{**}$

Discussion

The aim of this research is to analyse the barriers and facilitators for students with disabilities in Physical Education. The results of the study are significant, with 72.7% of the students surveyed reporting active participation in PE lessons. Moreover, the experiences of these students appear to be positive (see Table 2), and the main barriers to participation are intrinsic to the participants themselves (19.8% express dislike for physical activity due to issues related to their disability, and 14.8% fear injury). This aligns with Jaarsma's (2014) study, which identifies disability as a frequently mentioned barrier, especially for those with greater severity. Conversely, the results contrast with recent reviews that explored the experiences of students with disabilities in PE (Haegele & Sutherland, 2015; Holland & Haegele, 2021), which concluded that these students still face discrimination and exclusion, primarily from teachers and non-disabled peers. Additionally, only 32.3% practice extracurricular physical activities or sports, highlighting the need to continue promoting inclusive PE through programmes that encourage sports participation among people with disabilities, such as the "Inclusive Sport in School" programme (Ocete et al., 2016). Furthermore, ongoing teacher training remains a significant barrier to promoting inclusion in PE (Wilhelmsen & Sørensen, 2017), as reflected in our research where the teacher is not mentioned as a facilitator.

Regarding the participation of children with disabilities in extracurricular sports, the majority of the population in the study countries (50%-77.7%) do not belong to a sports club or attend workshops outside of school, which may be related to barriers to accessing government or non-governmental services and programmes. These barriers have been studied by various authors, such as Lagos et al. (2022), who conducted a literature review and found environmental and contextual barriers related to the lack of adapted and inclusive activities, as well as opportunities to access them, due to architectural and attitudinal barriers and inadequate professional training, which influences the design and implementation of programs and projects offered in different countries. This, in turn, aligns with Jaarsma's (2014) findings, which highlighted transportation, dependence on a helper and social acceptance as environmental barriers that limit participation.

The barriers identified by Lagos et al. (2022) were also found by Rincón et al. (2022), who concluded from their mixed-methods study that the main barriers to physical activity were related to personal conditions interconnected with the disability situation, as identified in the current study (e.g., "I have problems due to my disability" 16.5% to 23.5%), as well as social and contextual conditions related to a lack of understanding of concepts like cerebral palsy, disability and physical activity, inadequate professional

training, poor communication with government entities offering programmes, as well as inaccessible and unadapted environments.

Similarly, Camargo et al. (2023) conducted a narrative review of research in South American countries related to disability and physical activity, identifying that the main barriers for physical activity among children and adolescents in school and outside school were related to physical accessibility, attitudinal barriers and a lack of training for professionals in adapted physical activity and sports.

On the other hand, regarding participation in sports by CAD, schools, as mentioned by Simões et al. (2018) and Camargo et al. (2023), are recognised as promoters of inclusion in sports, which encourage participation in sports, fostering “processes of adaptation, social participation and skill development without restricting the participation of students with disabilities, demonstrating the realisation of inclusive work” (p. 965). This aligns with our findings, where most surveyed CAD, especially in countries like Chile and Colombia, express that they “like everything about sports” (38.2%-51.5%), which may be related to actions taken within schools that enable them to experience and engage in sports, generating motivation for participation.

Concerning the question “How did you start practicing physical activity?”, the main answers correspond to “Someone told me to at the rehabilitation centre”, together with “Someone told me to at school” or “The doctor recommended it”. This is consistent with what Muñoz-Hinrichsen and Martínez Aros (2022) suggest, that “Physical activity should be understood as a social determinant for the rehabilitation of people with disabilities, thus providing a basis for developing plans and programmes focused on international guidelines for community-based rehabilitation with an ecological model. In this sense, we question whether university curricula related to rehabilitation include courses on sports for CAD or adapted physical activity, given the very low recommendation indicator”. On the other hand, the item “My parents and guardians encouraged me to” received 26.4% of responses. Although many studies suggest addressing inclusion and awareness issues in sports and physical activity for children with disabilities at school, it is crucial to also consider social plans for parents, as they often influence decisions regarding their children and young people with disabilities. Paz-Maldonado (2021) notes: “Awareness and understanding within the community often allowed people with disabilities to participate in sports activities for the first time as part of outreach visits” (p. 7), indicating that there is still much to be done in terms of disability and inclusion, and that some awareness activities can create and enable better experiences for inclusion.

Regarding the question “Why do you practice physical activity or sports?” the item “Because it is good for me” stands out with 36.7%, indicating a positive and significant perception of physical activity and sports, which is encouraging for the continued promotion of sports and physical activity among CAD. This aspect is strongly related to motivation as a personal characteristic of the participants, which becomes an important facilitator in physical activity, emphasising the relevance of this variable and supporting students in this area (Jaarsma et al., 2014).

The item “Because my family does sports,” with 20% of responses, is also a good indicator for continuing to promote the importance of physical activity in CAD from the family level. As Lagos et al. (2022) highlight, family is a key actor, alongside their environment and early stimulation from a young age. The item “Because I like to win” has the lowest percentage, likely because participants view sports as beneficial through regular practice and from a health or recreational perspective, rather than a competitive one. It thus becomes a space for socialisation and inclusion in the community, since it is a secure environment that facilitates effective participation, increasing the opportunity for physical activity and sports within the educational setting (Carbone et al., 2021).

Regarding the characteristics of CAD who did not participate in physical activity and sports at school, these can be analysed in various ways. On one hand, given that Physical Education is considered to be a key setting for learning and practicing movement and sports during childhood, it is incongruent that instances of exclusion occur in these activities, which are likely due to insufficient teacher training (Tanure Alves et al., 2017).

Goodway and Robinson (2015) point out that the lack of resources, adaptations, materials and suitable spaces in schools impedes the participation of children with disabilities in motor activities, potentially leading to an inability to find a suitable sport. Block et al. (2013) note that children with disabilities require specific adaptations and individualised support for participation in physical activities. The lack of resources and adequate personnel can hinder the provision of these supports, leading to their exclusion from school physical activities.

The implementation of safety protocols and appropriate spaces can help address these concerns and enable safe participation (Rimmer et al., 2007). A child’s lack of interest in sports might be influenced by various factors, such as physical limitations, social barriers, lack of access to inclusive programmes, fear of failure or previous negative experiences. It is important not to assume that all children with disabilities dislike sports without considering their individual experiences (Ross et al., 2016).

The main limitations of this research include the need for a larger number of participants to achieve population representativeness, opening avenues for new work with governmental institutions to explore various regions in greater depth. It would be interesting to gather parents' opinions to compare the information and identify additional variables that may not be included in the analysis. Collecting data in other countries in the region is necessary to broaden the analysis.

It is worth considering that, despite the fact that the various organisations propose physical activity, sport and physical education as one and the same, there are important differences, which is why it would be important to address them in an appropriate manner and under the nomenclature proposed at the international level with the aim of providing a contextualised approach to each of them.

Conclusions

The results obtained in this research highlight the positive impact that educational policies are having in countries on inclusion processes within physical activity contexts for CAD. Specifically, Physical Education at school appears to be the ideal environment for students with disabilities to share space, materials and activities with their non-disabled peers inclusively, thereby increasing their levels of physical activity. It can be concluded that being a boy versus a girl is associated with being a facilitator for engaging in physical activity and sports at school, whereas having physical and intellectual disabilities are barriers to optimal performance.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2). [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Block, M. E., Hutzler, Y., Barak, S., & Klavina, A. (2013). Creation and Validation of the Self-Efficacy Instrument for Physical Education Teacher Education Majors Toward Inclusion. *Adapted Physical Activity Quarterly*, 30(2), 184-205. <https://doi.org/10.1123/apaq.30.2.184>
- Camargo Rojas, D. A., Delgado Castrillon, J. V., Garcia Cabrera, V., Garcia Cabrera, V., Estupiñan Gonzalez, L. M., Medina Garzón, P. M., Muñoz-Hinrichsen, F., & Torres Paz, L. E. (2023). Estado del arte de la investigación en discapacidad y actividad física en Sudamérica. Una Revisión Narrativa (State of the art of research on disability and physical activity in South America A Narrative Review). *Retos*, 48, 945-968. <https://doi.org/10.47197/retos.v48.95286>
- Carbone, P. S., Smith, P. J., Lewis, C., & LeBlanc, C. (2021). Promoting the participation of children and adolescents with disabilities in sports, recreation, and physical activity. *Pediatrics*, 148(6), e2021054664. <https://doi.org/10.1542/peds.2021-054664>
- Congreso de Colombia (1995). Ley 181 de Enero 18 de 1995. https://www.mineducacion.gov.co/1621/articles-85919_archivo_pdf.pdf
- Congreso de Colombia (2009). Ley 1346 de Julio 31 de 2009. Por medio de la cual se aprueba la "Convención sobre los derechos de las personas con discapacidad", adoptada por la Asamblea General de la Naciones Unidas el 13 de diciembre de 2006. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DI/Ley%201346%20de%202009.pdf>
- Congreso de la República de Colombia (1991). Constitución Política de Colombia de 1991. Título II. De los derechos, las garantías y los deberes. Capítulo 2. Derechos sociales políticos y económicos. <https://www.corteconstitucional.gov.co/inicio/Constitucion%20politica%20de%20Colombia%20-%202015.pdf>
- Congreso de la República de Colombia (1994). Ley 115 de febrero 8 de 1994, general de educación. (Retrieved on August 20, 2024). https://www.mineducacion.gov.co/1621/articles-85906_archivo_pdf.pdf
- Goodway, J. D., & Robinson, L. E. (2015). Developmental Trajectories in Early Sport Specialization: A Case for Early Sampling from a Physical Growth and Motor Development Perspective. *Kinesiology Review*, 4(3), 267-278. <https://doi.org/10.1123/kr.2015-0028>
- Haeghele, J. A., & Sutherland, S. (2015). Perspectives of Students with Disabilities Toward Physical Education: A Qualitative Inquiry Review. *Quest*, 67(3), 255-273. <https://doi.org/10.1080/00336297.2015.1050118>
- Holland, K., & Haeghele, J. A. (2021). Perspectives of Students With Disabilities Toward Physical Education: A Review Update 2014-2019. *Kinesiology Review*, 10(1), 78-87. <https://doi.org/10.1123/kr.2020-0002>
- Jaarsma, E. A., Dijkstra, P. U., de Blécourt, A. C. E., Geertzen, J. H. B., & Dekker, R. (2015). Barriers and facilitators of sports in children with physical disabilities: A mixed-method study. *Disability and Rehabilitation*, 37(18), 1617-1625. <https://doi.org/10.3109/09638288.2014.972587>
- Jaarsma, E. A., Geertzen, J. H. B., de Jong, R., Dijkstra, P. U., & Dekker, R. (2014). Barriers and facilitators of sports in Dutch Paralympic athletes: An explorative study. *Scandinavian Journal of Medicine and Science in Sports*, 24(5). <https://doi.org/10.1111/sms.12071>
- Lagos Manríquez, G., Gallardo Riquelme, R., Campos-Campos, K., & Duarte-Rocha, C. (2022). Barreras y facilitadores para la práctica de actividad física en niños y jóvenes con parálisis cerebral: Una revisión sistemática. *Revista Ciencias de la Actividad Física*, 23(2), 1-14. <https://doi.org/10.29035/rcaf.23.2.9>
- López, J., & Pardo C. (2012). La educación física adaptada: una alternativa para el mejoramiento de la concentración en niños de 8 a 10 años de edad con TDA. Tesis de pregrado. Licenciatura en Educación Física y Deportes. Universidad del Valle. <https://bibliotecadigital.univalle.edu.co/bitstream/handle/10893/17906/CB-0522723.pdf?sequence=1>
- López, N., & Villamizar, A. (2018). Educación física adaptada a escolares con discapacidad física. *Revista Educación Física, Deporte y Salud*, 1(1). <https://doi.org/10.15648/redfids.1.2018.3143>
- Ministerio de Educación de Chile. (2015a). Decreto 83, Diversificación de la Enseñanza. <https://especial.mineduc.cl/wp-content/uploads/sites/31/2016/08/Decreto-83-2015.pdf>
- Ministerio de Educación de Chile. (2015b). Ley 20.845 De inclusión escolar que regula la admisión de los y las estudiantes, elimina el financiamiento compartido y prohíbe el lucro en establecimientos educacionales que reciben aportes del estado. <https://www.bcn.cl/leychile/navegar?idNorma=1078172>
- Ministerio de Educación de Perú. (2020). Diseño Curricular Básico Nacional de la Formación Inicial Docente – Programa de estudios de Educación Física. <http://www.minedu.gob.pe/superiorpedagogica/producto/dcbn-2020-educacion-fisica/>
- Ministerio de Educación y Formación Profesional del Gobierno de España. (2020). Ley Orgánica 3/2020, de 29 de diciembre, por la que se modifica la Ley Orgánica 2/2006, de 3 de mayo, de Educación. BOE núm. 340, de 30 de diciembre de 2020. <https://www.boe.es/eli/es/lo/2020/12/29/3>
- Ministerio de Salud y Protección Social de Colombia. (2022). Plan Decenal de salud pública 2022-2031. <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/PSP/documento-plan-decenal-salud-publica-2022-2031.pdf>

- Muñoz Hinrichsen, F. I., Martínez Aros, A. F., & Herrera Miranda, F. (2021). Traducción y adaptación transcultural del cuestionario para niños “Barriers and facilitators of sports in children with physical disabilities (BaFSCH)” para su uso al español en Chile (Transcultural translation and adaptation of the questionnaire for chi. *Retos*, *44*, 695-701. <https://doi.org/10.47197/retos.v44i0.91377>
- Muñoz Hinrichsen, F., & Martínez Aros, A. (2022). Actividad física adaptada en el proceso de rehabilitación de personas con discapacidad: Una propuesta desde la perspectiva social. *Pensar en Movimiento: Revista de Ciencias del Ejercicio y la Salud*, *20*(1), e47007. <https://doi.org/10.15517/pensarmov.v20i1.47007>
- Ocete Calvo, C., Perez-Tejero, J., Coterón, J., & Sampedro, J. (2016). Deporte inclusivo en la escuela: Programa para promover la inclusión del alumnado con discapacidad en educación física. *Boletín de la Federación Española de Deportes de Personas con Discapacidad Física* *5*, 18-20.
- Paz-Maldonado, E. (2021). The educational inclusion of university students in situation of disability in Honduras. *Ensaio: Avaliação e Políticas Públicas em Educação*, *29*(112), 738-760. <https://doi.org/10.1590/s0104-403620210002902767>
- Rimmer, J. H., Rowland, J. L., & Yamaki, K. (2007). Obesity and Secondary Conditions in Adolescents with Disabilities: Addressing the Needs of an Underserved Population. *Journal of Adolescent Health*, *41*(3), 224-229. <https://doi.org/10.1016/j.jadohealth.2007.05.005>
- Rincon Ortíz, L.M., Camargo Rojas, D.A., & Nuñez Quintero, L.M. (2022). Factors associated with the practice of physical activity in population with cerebral palsy: a multilevel approach. In: Soto Franco, I. (Ed. científica). *Discapacidad e inclusión social: evolución, modelos y tendencias investigativas*. (pp. 93-124). Cali, Colombia: Editorial Universidad Santiago de Cali. <https://libros.usc.edu.co/index.php/usc/catalog/view/493/688/9148>
- Ross, S. M., Bogart, K. R., Logan, S. W., Case, L., Fine, J., & Thompson, H. (2016). Physical Activity Participation of Disabled Children: A Systematic Review of Conceptual and Methodological Approaches in Health Research. *Frontiers in Public Health*, *4*. <https://doi.org/10.3389/fpubh.2016.00187>
- Simões, A. S., Lorenzini, A. R., Gavioli, R., Caminha, I. D. O., Souza Júnior, M. B. M. D., & De Melo, M. S. T. (2018). A educação física e o trabalho educativo inclusivo. *Movimento* *24*(1), 35-38. <https://doi.org/10.22456/1982-8918.73009>
- Tanure Alves, M. L., Storch, J. A., Harnisch, G., Strapasson, A. M., Furtado, O. L. P. D. C., Lieberman, L., Almeida, J. J. G. D., & Duarte, E. (2017). Physical education classes and inclusion of children with disability: brazilian teachers' perspectives. *Movimento* *23*(4), 1229-1244. <https://doi.org/10.22456/1982-8918.66851>
- United Nations (UN) (2006). Convention on the Rights of Persons with Disabilities. <https://www.un.org/esa/socdev/enable/documents/tccconvs.pdf>
- United Nations (UN). (2015). Transforming our world: the 2030 Agenda for Sustainable Development. <https://sdgs.un.org/2030agenda>
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2015). International Charter of Physical Education, Physical Activity and Sport. https://unesdoc.unesco.org/ark:/48223/pf0000235409_spa
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2015). Quality Physical Education (QPE): guidelines for policy makers.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2017). Kazan Action Plan.
- Wilhelmsen, T., & Sørensen, M. (2017). Inclusion of Children With Disabilities in Physical Education: A Systematic Review of Literature From 2009 to 2015. *Adapted Physical Activity Quarterly*, *34*(3), 311-337. <https://doi.org/10.1123/apaq.2016-0017>
- World Health Organization (WHO) (2001). International Classification of Functioning, Disability and Health (ICF). <https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>

Conflict of interest: no conflict of interest was reported by the authors.



© Copyright Generalitat de Catalunya (INEFC). This article is available at the URL <https://www.revista-apunts.com/en/>. This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in the credit line; if the material is not included under the Creative Commons license, users will need to obtain permission from the license holder to reproduce the material. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/>