



Oh, great Seville! Rome triumphant in spirit and nobility (Miguel de Cervantes, 1547-1616)

The city of Seville (Spain) hosted the 17th edition of the European Congress of Adapted Physical Activity (EUCAPA) during June 11 – 14th, 2024. This scientific and academic event is a true reference in the area of physical activity and sport for people with disabilities in Europe but also in the world. More than 200 professionals, academics, researchers, teachers, educators, coaches, therapists, rehabilitation professionals and students in the field participate in this event, together with sports entities, disability service providers and associative movement.

EUCAPA 2024 is organized by the European Federation of Adapted Physical Activity (EUFAPA) and Events GB, hosted by the University “Pablo Olavide” of Sevilla in collaboration of the “Fundación Sanitas” Chair for Inclusive Sport Studies (Universidad Politécnica de Madrid) and the Spanish Paralympic Committee.

Adapted physical activity (APA) is currently a fundamental part of vocational and university studies related to Physical Activity and Sports Sciences in Europe, where other academic and professional fields are also welcome. EUCAPA is a showcase for updated research and innovation in APA and a unique meeting point to learn, to contribute and to network in the field.

EUCAPA 2024 is held just a few weeks before the opening of the Paris 2024 Olympic and Paralympic Games. That’s why its theme is “Participation and Inclusion in Sport for Quality of Life: Paris 2024”. Without a doubt, this occasion makes the congress a very pertinent and a current room to discuss about the research and application of APA in its different manifestations. This European Journal of Adapted Physical Activity (EUIJAPA) special issue contains all peer-reviewed contributions to the congress. We truly appreciate the dedication of all Scientific Committee members in this process.

This EUIJAPA special issue is structured following the four subthemes of EUCAPA 2024: Disability sport: focus in Paris 2024 Paralympic Games, Physical education and inclusive sports, Physical activity and exercise for a healthy life and rehabilitation & Leisure, recreation and social values in APA. It contains the contributions from four top references keynotes at the congress: Andrew Parsons, president of the International Paralympic Committee (BRA), Hayley Fitzgerald, from Leeds Beckett University (UK), Adolfo Cangas, from University of Almería (ESP) and Kirstie Simpson from University of Chester (UK). Also, contributions from the four invited speakers are included: Javier Pinilla from Comillas University (ESP), Alba Romero from Miguel Hernández University (ESP), Kwok Ng from Lithuanian Sports University (LTU) and Caroline van Lindert from Mulier Institute (NED). Abstracts from selected oral presentations, workshops and posters are also included.

What is worth highlighting in the program is a specific session dedicated to EUIJAPA, as presented by its editors. EUIJAPA is the official journal of EUFAPA. Also, during EUCAPA 2024, there is a pre-conference activity entitled, “Qualitative research in APA”. The tradition of an international volunteer programme continued in EUCAPA 2024, where four young academics interested in the field to present and interact with scholars at this international APA event. Participants could also contribute orally using Spanish (Cervantes’ language), and an “Spanish room” was included along sessions. In this way, EUCAPA 2024 in Sevilla is open to the participation of Spanish and Latin American researchers and academics in the APA field.

The capital of Andalucia was cozy with EUCAPA 2024, and Seville allowed the congress to shine presenting the most current reality of APA in this Olympic and Paralympic 2024 year.

Javier Pérez-Tejero & Hernán Ariel Villagra Astudillo
EUCAPA 2024 Scientific Committee chairs

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Subtheme: Disability sport: Focus in Paris 2024 Paralympics

Keynote: Paralympic Games – the ambition to be the most transformational event of the planet, and what is the role of science and research to achieve that

Andrew Parsons

International Paralympic Committee, Bonn, Germany

The Paralympic Movement was created after World War II by Sir Ludwig Guttmann. By using sport to support the rehabilitation process of injured military personnel, his vision was for every disabled person to become a taxpayer.

Seventy years ago, Guttmann saw sport's potential to empower persons with disabilities and integrate them into society.

There are 1.3 billion persons with disabilities in the world. They cannot be ignored; they cannot be forgotten. They have rights as anyone else. They don't need favours; they need opportunities.

Today, the Paralympic Games is one of the world's biggest sporting events, showcasing to global audiences what persons with disabilities can achieve, when given an opportunity to succeed at the highest level. We want sport to be an example, but certainly not the only area where persons with disabilities are given the opportunity to shine.

To be transformational, the Paralympic Games need to inspire and excite the world. The future of sport lies exactly in the intersection between entertainment and purpose.

From understanding how to train athletes and improving classification systems, to new trends such as safeguarding, mental health and concussion, science and research have always supported the Paralympic Movement's growth.

Now we want science and research to take the Paralympic Movement to the next level by developing methodologies and metrics that truly prove the Paralympic Games is the most transformational event on earth.

We want to scientifically measure the impact the Paralympic Games has worldwide, turning empirical observations into verifiable data that highlights return on investment and impact on society.

This is the next chapter on the collaboration between the scientific community and the Paralympic Movement. To convince governments, private sector, and civil society that investing in Para sport makes for a more inclusive and better world for all.

Invited Speaker: How science can help in Disability sport development: applications from basketball as sport for people with intellectual impairment

Javier Pinilla-Arbex

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Research in sports for athletes with intellectual impairment (II) has increased in the last decade with the aim of exploring how II impacts sport performance. It is a relevant step to develop sport-specific eligibility systems for athletes with II that ensure only athletes with significant limitations in performing a sport participate in specific competitions for athletes with II.

In basketball, specific research began in 2013, examining the impact of II from various perspectives: game observation, basketball-specific tests, and the opinions of coaches and referees.

Game observation through statistical analysis found that athletes with II have lower values in crucial basketball statistics compared to athletes without II. These athletes showed lower individual shooting effectiveness, more rebounds, and more turnovers than their counterparts without II.

Three basketball-specific tests were used to analyse how athletes with II process game information: a field test involving standardized game situations of increasing complexity; a computer decision-making test where athletes decided whether the player with the ball should pass, dribble, or shoot based on 20 pictures; and a sequence test where athletes ordered pictures representing a game situation. Athletes with II displayed slightly less accuracy but took significantly more time to process information compared with athletes without II.

Coaches and referees familiar with basketball athletes with II noted that the tactical component is the most negatively affected by II.

These studies reveal that decision-making capacity, critical for tactical development and basketball success, is impaired in players with II. According to the Sport-Specific Classification Model for Para-Athletes, these findings can help develop eligibility systems in basketball for athletes with II.

Subtheme: Physical education and inclusive sports

Keynote: The promise and perils of ‘intersectionality’: Considerations for APA research and practice

Hayley Fitzgerald

Leeds Beckett University, Leeds, United Kingdom

It has long been recognised that the young people in our schools and physical education (PE) classes are not all the same. Yet, the processes of ‘schooling’ do not always recognise this. As a result, less favourable and equitable experiences can be encountered. Whilst the experiences of those students marginalised within PE have been explored, a single-issue approach dominates, wherein disability, ethnicity or gender have often been researched in isolation. Like others, I recognise there is much value in focusing on individual identities, and undoubtedly, a strong APA tradition has been instrumental in foregrounding and championing issues of disability in policy and practice. Whilst the advances made within APA should not be understated, there is a need to consider more fully how the notion of intersectionality can enable a better understanding of the experiences of different disabled people.

Intersectionality emphasises that ‘different dimensions of social life cannot be separated out into discrete and pure strands’ (Brah and Phoenix, 2004, p.76). It recognises the interplay between individual categories of identity on a micro level and social structures at a macro level. In this way, intersectionality acknowledges how identity categories are enmeshed and experienced simultaneously, conflicting at times, and on other occasions complementing each other. In this keynote, I highlight how intersectionality can offer an invaluable lens to explore how power, privilege, inequalities and difference are (re-)produced and maintained for groups marginalised and excluded within PE and APA research and practice. In doing this, I will offer a number of vignettes to illustrate intersectionality as a lived experience. By adopting an intersectional approach, we can establish a more intimate and nuanced understanding of different people’s experiences of PE and APA. Thinking through and using intersectionality is not without its challenges, and I explore some of these in relation to APA research and practice.

Invited Speaker: Physical activity as a potential tool to enhance employability in individuals with intellectual disabilities.

Alba Roldán Romero

Sport Research Center, Miguel Hernández University (Spain)

Despite the International Convention on the Rights of Persons with Disabilities, individuals with intellectual disabilities (ID) exhibit significantly higher unemployment rates compared to other disability groups. This can be explained from two perspectives: on one hand, social barriers, such as the lack of opportunities for adequate vocational training, social stigma, and the lack of environments adapted to their needs; on the other hand, personal barriers internal to the individual, such as a lack of motivation towards employment, communication limitations, lack of social skills, insufficient tools to adapt to changes, or poor physical condition to maintain the minimum legal working hours.

The International Labour Organisation indicates that a person is employable when they develop both technical and soft skills. Technical skills relate to the theoretical knowledge of how to perform a job, while soft skills encompass a combination of social skills, communication skills, personality traits, attitudes, professional attributes, and social and emotional intelligence. These skills enable individuals to navigate their environment, work well with others, perform adequately, and, along with hard skills, achieve their goals.

Physical activity plays an interesting role in enhancing aspects directly and indirectly related to employment. Practicing physical activity allows a person with ID to improve not only their physical condition, enhancing gross motor skills, tolerance to fatigue, and improving their cardiorespiratory and muscular systems, as well as work pace. It also has a positive impact on emotional well-being and cognitive functions such as working memory and problem-solving. Lastly, physical activity plays a fundamental role in social relationships, improving communication and interactive skills.

This presentation aims to highlight these aspects and propose a working model to emphasize the role of physical activity beyond sports or recreational practice for health or competitive purposes.

Subtheme: Physical activity and exercise for a healthy life and rehabilitation

Keynote: Mental health, physical activity, and sport: An area to discover

Adolfo J. Cangas

University of Almería, Spain

In recent years, there has been an increase in scientific evidence indicating that the treatment of mental disorders cannot be reduced solely to pharmacological intervention, but rather that psychosocial programs, such as physical activity, are equally relevant. In particular, in the case of severe mental disorders (people diagnosed with schizophrenia, bipolar disorder or severe personality disorders), regular physical activity can not only improve aspects related to capacity and body composition, but also variables related to the mental well-being, clinical symptoms and quality of life of these people. Furthermore, playing sports inclusively in normalized environments facilitates the reduction of one of the most important current barriers in this field, which is social stigma and the internalized stigma of the participants. The presentation will show the results of research recently carried out in Andalusia (Spain), with a sample of 311 people with severe mental disorders, where the experimental group participated in a physical activity program adapted for this population for 9 months. The results obtained showed a 42% improvement in the aerobic capacity of the participants and a significant reduction in visceral fat. Significant improvements were also found in the mental well-being and quality of life of these people. On the other hand, the program managed to reduce the health expenditure in this population (which is usually high) by more than 100 euros per month per participant (through a reduction in the consumption of medication and fewer hospital admissions). All these results indicate the need to promote physical activity programs adapted to this population.

Invited Speaker: The Para in the Para Report Cards? Potential and applications

Kwok Ng 1,2,3

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2 Faculty of Education, University of Turku, Finland

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For much of the world, report cards are commonly used in schools to provide overall assessment of student's academic performance. This translation of knowledge was converted as a set of physical activity (PA) report cards on the nation's children and adolescents. In this way, the public, policy makers and researchers can quickly see how well a country or region is doing in terms of overall PA, broken down into children and adolescents' behaviour, sources of influence and policy. In the early PA report cards (2012 to 2018), grades were seldom reported on children and adolescents with disabilities, producing data gaps. Open calls were made to encourage countries to report data on disabilities, and a special series of publications would be made that would be parallel to the PA report cards, thus creating the Para Report Cards.

The Para Report Cards made the first attempt to create an international comparison of PA data on disabilities, and one that could be compared to the general population data. In 2023, with support of Adapted Physical Activity Quarterly, a special issue on "Global Matrix of 2022 Para Report Cards on PA of Children and Adolescents with Disabilities" was released, with 14 countries and regions data included. Although this may be seen as a progress to report on PA of children and adolescents with disabilities, large data gaps also emerged.

As such, leaders of the Para Report Card teams were asked to evaluate the Para Report Card process and report ways the Para Report Cards were used to promote PA amongst children and adolescents with disabilities. One of the issues raised was the lack of data available on metrics outlined in the report cards where important indicators were missing. Through advocacy work that came from the Para Report Cards, there is now a benchmark for countries to take seriously to addressing the need for PA data on disabilities, with the hope that more resources can be put into adapted PA and education.

Subtheme: Leisure, recreation and social values in APA.

Keynote: Inclusive employment and workforce development

Kirstie Simpson,

University of Chester (UK).

The European Observatoire for Sport and Employment (EOSE) is an international civil society organisation that supports the development of the sport and physical activity sector by bringing education and employment together. This work ensures that people working and volunteering have the appropriate skills and competences to enable the sector to fulfil its potential. EOSE recognises the potential of sport as a social and economic driver, as well as the increasing level of expectation from national governments for the sector to become a powerful tool, linked to mainstream policy in education, health and the economy. The sport sector is recognised as having the potential:

- to improve health;
- to contribute substantially to economic growth and regeneration;
- to support community development, social cohesion and the integration of migrants;
- to support the education and personal and social development of young people;
- to create jobs, careers and improve employability, particularly engaging with unemployed youth.

These rising expectations are placing pressure on the sport sector to modernise and update its services at a time when it is expanding, evolving and moving away from its historic dependence on the now diminishing resource of public financing and on small voluntary sector organisations. EOSE operates in this changing landscape but believes that if the sector is to meet its challenges and impact positively on these wider agendas, it is imperative that it has a flexible and inclusive labour market, a clear career structure and pathways with concrete job opportunities, and that those working and volunteering in sport are equipped with the necessary skills and knowledge to perform in their positions through fit for purpose education. With these overarching factors in mind, Kirstie will outline the benefits and challenges of creating an inclusive and diverse workforce in sport.

Invited Speaker: Disability sport in Europe: participation, policies and opportunities

Caroline van Lindert

Mulier Institute, Utrecht, The Netherlands

In this presentation the key findings of The Palgrave Handbook of Disability Sport in Europe: policies, structures and participation (Van Lindert et al., 2023) are presented. Caroline highlights the various ways in which disability sport is governed and organised across Europe, as well as the extent to which persons with a disability (PwD) participate in sport at the grassroots level. Results come from a cross-national comparison of 19 country-specific cases.

Results show that the adoption of policies to promote inclusion in sport does not ensure systematic monitoring of disability sport indicators in the respective countries. The case studies exposed data gaps, especially in regard to sport participation data. The collection and interpretation of data on sport participation levels among PwD is hampered by various shortcomings and barriers. As a result, comparing the extent to which PwD participate in sport across Europe is challenging.

In all countries, disability sport is closely interconnected with the sport system in general. Varying degrees of cooperation between 'disability-based' and 'sport-based' sport agents are observed. Furthermore, the steering of disability sport in Europe is characterised more by fragmentation and negotiation than by central coordination and alignment of goals and interests of all parties involved. The main policy approaches in the countries observed resemble more that of a strategy of mainstreaming and integration than that of inclusion, although inclusion as a concept is widely used in legislation and policy documents. And it seems that countries still have to make further steps in the process of striving for (more) inclusion.

As a potential positive outcome, the willingness to adopt inclusion policies may contribute to increasing the opportunities to participate in sport for PwD. For that to happen, collaboration between policymakers, practitioners and researchers within Europe should be more encouraged. With a focus on collecting data to base policy on.

Oral Presentations

Effects of a cardiorespiratory rehabilitation program in exercise tolerance in an adult with pycnodysostosis: a case study

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Keywords: Skeletal, dysplasia, Modified Borg scale, 6MWT

Pycnodysostosis, a rare skeletal dysplasia, has a prevalence of 5:1.000.000 births (Hald et al, 2023). It is characterized by disproportionate short stature, bone fragility, mild delay in neuromotor development. Low energy fractures, chronic pain and dyspnoea have been reported (Khirani et al, 2019). Study aim was assessing effects of a rehabilitation program (RP) on exercise tolerance.

A woman with pycnodysostosis (41y, 140cm) underwent a RP twice a week along 3 weeks after a tibial fracture. Cardiorespiratory assessments included heart (HR) and respiratory rates (RR), systolic (SBP), diastolic (DBP) blood pressure and oxygen saturation (SaO₂). These parameters were collected before and after a 6-minute walk test (6MWT), at baseline, and 3 treadmill (TM) and 3 Cycloergometer (CE) sessions (S). The Modified Borg scale (BorgM) was applied during and after sessions. The Patient Health Questionnaire-9 (PHQ-9), Hospital Anxiety and Depression Scale (HADS), 36-items Short Form Survey (SF-36), and International Physical activity questionnaire (IPAQ) were also applied. Descriptive analysis was conducted.

At baseline, participant scored below reference values (REF) in all SF-36 domains: -78% in Physical role, -74% in Mental Health, -68% in Pain. Moderate depression on PHQ-9 and borderline anxiety on HADS (score = 10) were observed. Participated score 594 MET-min/week, classified as 'inactive' and walked 183m (6MWT), 71% below REF S duration increased 50% in TM, 400% in CE from S1 to S3, +19% in HR after TM, 54% after CE and a 5% decrease in RR after TM. SaO₂ remained stable in all S with a decrease in BorgM during TM (5 to 3) and CE (3 to 1) and after CE (4 to 1). After 6MWT, TM and CE sessions, mean SBP reduced 2 mmHg.

Preliminary results of the RP give positive signs towards exercise tolerance improvement, with increased exercise duration and HR, reduced perceived exertion, and stable respiratory parameters.

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What kind of factors impact physical activity among persons with disabilities

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Keywords: physical activity, diversity, adapted sport services

The Finnish Society of Sport Sciences and the Finnish Paralympic Committee conducted two surveys in 2020 and 2023, examining physical activity among individuals with special needs. The primary aim was to understand the perspective of this demographic regarding sport services diverging from previous studies that primarily relied on data from municipal service providers. Respondents were recruited through various networks in the field of adapted physical activities.

The 2020 survey received 1213 responses, while the 2023 survey received 2047 responses. Despite the high number of respondents, both surveys acknowledged potential biases, such as overrepresentation of women and potential exclusion of individuals with severe disabilities or challenges related to old age who may have been unable to participate in the web-based survey.

The research focused on identifying the demographic characteristics of individuals with special needs, their level of physical activity, and their utilization of sport services. Due to the overrepresentation of women, genders (male, female, non-binary) were analysed separately.

Additionally, the study compared physically inactive respondents with others. Both surveys highlighted the diverse nature of the special needs community, illustrating how factors such as illness or disability, gender, age, living situation, and influence of environment in the use of sport services. Findings indicated a higher proportion of inactive individuals among respondents living in sparsely populated areas. Additionally, those aged 30-64 years showed higher levels of inactivity compared to younger and older age groups. Furthermore, individuals with mental health issues, those with multiple limitations, and those identifying with a non-binary gender also exhibited higher rates of inactivity.

The surveys reveal that the level of physical activity has increased between 2020 and 2023; suggesting a rebound from the restrictions imposed during the Covid-19 era. However, there are still people with special needs that are inactive due to reasons stated above.

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Relationships between body composition measures and exercise types among adults with achondroplasia.

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Keywords: Skeletal dysplasia, Fat mass, Physical activity

Achondroplasia is a rare skeletal dysplasia characterised by short disproportionate stature and tendency to obesity (Hoover-Fong et al, 2021). Adults with achondroplasia (AwACH) face unique barriers to participating in physical activity (PA) (Jacinto et al, 2022). How body measures and composition parameters relate to exercise types is unknown.

Seventeen adults with achondroplasia (37.9 SD = 13.4 years) underwent anthropometric measures as waist to hip ratio (W/H) and body composition via bioimpedance analysis as fat mass (FM%), lean mass (LM%), and bone mass (BM%). PA was assessed using the International Physical Activity Questionnaire reported in metabolic equivalent (MET). Total MET-min/week (PAS), vigorous (V_MET), moderate (M_MET) were analysed. Through an interview, participants informed about type of exercise or sports they do, frequency and duration. Three groups were created: No exercise (Go, N = 6), including walking, low MET exercises (G1, n=3), as swimming or cycling, and higher MET exercises (G2, N = 8), as gym workouts and martial arts. Descriptive and variance analysis, as Spearman correlations were analysed.

G2 presented lower W/H (0.80 SD = 0.09) vs Go (0.82 SD = 0.08) and G1 (0.87 SD = 0.11) and FM% (21.90 SD = 8.10) vs Go (30.50 SD = 10.30) and G1 (33.00 SD = 12.00). G2 showed higher LM% (74.50 SD = 8.70) vs Go (63.80 SD = 11.30) and G1 (63.50 SD = 11.30) and BM% (4.08 SD = 0.45) vs with Go (3.58 SD = 0.52) and G1 (3.47 SD = 0.73) ($p < .05$, 95%CI). Significant differences ($p < .01$) were found between groups for V_MET for exercise frequency ($F = 11.7$) and duration ($F = 8.34$) with G2 showing frequency (1.88/week) and duration (30 min) vs zero values for Go and G1. Strong correlations (ρ , $p < .001$) were found between M_MET frequency and FM% (-0.738), LM% (0.752) and BM% (0.746) as between PAS and FM% (-0.845), LM% (0.837) and BM% (0.791).

Among AwACH, higher adiposity was associated with lower MET exercises and PA participation, while greater lean and bone mass was associated with higher MET exercises. These preliminary findings suggest that improving body composition may facilitate PA in this population.

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Para Report Cards on physical activity in children and adolescents with disabilities in European countries: A comparative analysis

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Keywords: youth, surveillance, sedentary behaviour, physical fitness, public policy

In 2023, a set of Report Cards on physical activity in children and adolescents with disabilities (6-19 years old) was launched (Ng et al., 2023). As Europe is the region with most of the countries of this set of Report Cards, the current study aims to compare grades among European participating countries.

Ten indicators were used for the Para Report Cards in children and adolescents living with disabilities (Ng et al., 2023). These indicators were graded using the best available data in Finland (Asunta et al., 2023), France (Aubert et al., 2022), Ireland (Carlin et al., 2022), Israel (Hutzler et al., 2022), Lithuania (Pozeriene et al., 2023), and Spain (López-Gil et al., 2023). They included five individual behavioural indicators (Overall PA, Organized Sport Participation, Active Play, Active Transportation, and Sedentary Behaviours), four sources of social and environmental influence indicators (Family & Peers, School, Community & Environment, and Government), and a health-related characteristic.

It was found that most of the participating countries do not have sufficient data on this population. The variables with more available data were overall PA, organised sport participation, sedentary behaviour, school, and government. The indicator with the highest average grade was government (B-). The indicator with the lowest average grade was physical fitness with incomplete data (INC). The sources of influence were above C-, while behavioural indicators showed lower grades (between C- and C-).

Information on physical activity-related indicators in European children and adolescents is scarce, principally in physical fitness. Grades in the sources of influence did not reflect grades in behavioural indicators.

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Theory-based correlates of physical activity in people with spinal cord injury: differences between aerobic activity and strength training

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Keywords: action control, intention-behaviour gap

Although people with spinal cord injury (SCI) might greatly benefit from engaging in regular physical activity (PA), they usually report higher inactivity levels compared to the general population. Understanding theory-based correlates of PA is crucial for the design and implementation of effective interventions aimed at encouraging physically active lifestyles in people with SCI. However, most research addressing this topic has been based on social cognitive theories, which do not consider the intention-behaviour gap. This study explored the factors associated with aerobic activity and strength training in a sample of adults with SCI through the multi-process action control (M-PAC) framework, an action control theory which includes post-intentional constructs.

Spanish adults with SCI (N = 76) completed M-PAC measures of reflective, regulatory and reflexive processes as well as intention to engage in aerobic activity and strength training at baseline, while those behaviours were measured one week later.

Three intention-behaviour profiles emerged: 1) inactive non-intenders (22.2% for aerobic activity and 34.4% for strength training); 2) inactive intenders (29.3% for aerobic activity and 31.3% for strength training); and 3) active intenders (48.5% for aerobic activity and 34.3% for strength training). Multinomial logistic regressions showed that the translation of intention into behaviour was associated with higher affective attitudes, higher behavioural regulation and stronger habit for aerobic activity, and with higher perceived opportunity and identity for strength training ($p < .05$).

Interventions aimed at increasing PA levels of people with SCI should not only target reflective constructs, but regulatory and reflexive ones as well, in order to bridge the intention-behaviour gap. These interventions would also benefit from distinguishing between aerobic activity and strength training, since the factors associated with being an active intender vary across these two behaviours.

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Adventure and power: A self-study of practice (SS-P) teaching APA in the outdoors.

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Keywords: APA, Critical Pedagogy

Engaging with the more-than-human world through adventurous learning experiences is widely acknowledged to benefit the physical, social and psychological well-being of individuals. Those benefits accrue to Persons with a Disability (PwD) just as much to other humans. However, including PwD in Adventure Education (AE) programmes is often considered a specialisation that is not included in core Physical Education Initial Teacher Education (ITE); outdoor instructor ITE programmes or APA practitioner programmes. Facilitating undergraduate students' learning on how to include PwD in Adapted AE raises questions about the positions of power of the learners and those that facilitate their learning.

This research seeks to improve the quality of my teaching as a lecturer on a bachelor's degree programme (Brownell et al., 2020) through the use of a Self-Study of Practice (SS-P) approach (Pinnegar and Hamilton, 2020). It explored the nuances of outdoor pedagogy (Legge, 2022; French, 2023) in the context of Critical Pedagogy. Group interviews with one cohort of students was conducted over one semester.

This resultant data was triangulated with my reflective journals and with critical friendship dialogues with an expert third party. Findings from this study indicate that there was a high degree of congruence between my philosophy and practice and strong evidence of the students' perception of Critical Pedagogy in the teaching experienced.

As experiencing modelled teaching practice is a key element of ITE programmes, this is significant for the future roles of my students who will be working with PwD in positions where advocacy, compassion and social justice will be important to their practice.

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The legacy of 2024 Paris Paralympic Games: The contribution of ‘Terre de Jeux’ label

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Keywords: Paralympic movement, social inclusion, sport participation, France

The organization of the Paralympic Games implies the development of a legacy plan with goals in four main areas, namely: 1) accessible infrastructure in sport facilities and general urban development, 2) development of sport structures for people with disability (PwD), 3) attitudinal change about the capabilities of PwD, and 4) opportunities for PwD to become fully included on social living and to reach their full potential beyond sports (IPC, 2020). France will be hosting its first-ever Paralympic Games. Legacy Paris 2024 planned a seven-years preparation for a greater participation and social inclusion. Also, Paris 2024 launched the ‘Terre de Jeux’ label which is a distinction awarded to communities, sport organizations, and municipalities striving to involve the highest amount of sport people in the Games journey (Organization of the 2024 Olympic and Paralympic Games, 2021). Therefore, the goal of the study is to identify the ‘Terre de Jeux’ communities aligned with the IPC social-cultural legacy fields. Moreover, we intend to explore the potential long-term impact of the Paralympic Games in ‘Terre de Jeux’ communities.

This is an ongoing research project comprising two phases: 1) on-line interview with the responsible of the ‘Terre de Jeux’ program, and 2) on-line surveys through Qualtrics using multiple choice questions about different organizational domains.

Projects, events and activities implemented by ‘Terre de Jeux’ communities will be identified in order to explore the educational, social and environmental impact of the Paralympic Games. The main focus will be given to programmes aiming to improve the physical activity levels of PwD, to increase of sport opportunities and community awareness in both schools and club settings.

It is expected a serious commitment of Paris 2024 on organizing truly inclusive Games. It is also expected that the ambitious Legacy Plan will promote real-world changes for PwD with ‘Terre de Jeux’ communities playing a pivotal role.

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Men's wheelchair basketball at the Tokyo 2020 paralympic games: A lineup types and outcome analysis

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Keywords: disability sport, team performance, game statistics, adapted sport

Team performance analysis in wheelchair basketball (WB) during competition was mostly focused on studying player efficiency through game-related statistics, considering influencing factors as opponent quality, functional classification of players or game outcome. However, there is scarce evidence that focuses on the performance of the lineups used by teams. Therefore, this study aimed to analyse the efficiency of the men's WB lineups used during the Tokyo 2020 Paralympic Games (PG) and to identify the variables most determining in lineups performances according to game outcome.

The sample was composed of 589 lineups categorized in 70 different lineup types used by national teams in the 42 matches played in the preliminary phases, quarterfinals, semifinal and final. A discriminant analysis was performed to differentiate the lineups with a positive and negative points result outcome.

It was found that LTs 10 (1.5-2.5-3-3-4), 58 (1-2-3-3-4.5), 56 (1-2-3-3.5-4.5), and 51 (1-2-2.5-4-4.5) had the best means of field goal efficiency. The variables most determining in game outcome to differentiate between 'winner' and 'loser' lineups were field goal efficiency, assists, opponent assists, and opponent defensive rebounds. No differences were found between balanced and unbalanced games. Lineup teams with high rates of field goal efficiency, number of assists that avoid the opponent's assists, and losing possession on defensive rebounds are more likely to obtain a positive result between points scored and receive.

These results could be useful for WB coaches in making decisions regarding team composition on the field based on game statistics that appear to be decisive in the teams' performance. Additionally, it provides information on the most efficient lineup types utilized during a top-level competition.

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Disability awareness programmes in physical education: a systematic review

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Keywords: physical education, awareness, disability, inclusion, systematic review

Interventions in school Physical Education (PE) aimed to increase students' awareness about disability and to improve teacher training on the topic (especially in pre-service settings) have increased significantly in recent years, thanks to legislative advances on inclusion. For this, a systematic review of those interventions is needed in order to know the characteristics and features of the most effective and successful ones.

A systematic review was developed according to the PRISMA guidelines. ERIC, SCOPUS, and Web of Science was the selected data bases. No year of publication restriction was introduced, with the oldest article being from 1996 and the most recent from 2023. The analysis categories used were year of publication (1), country of intervention (2), study methodology (3), data collection instruments (4), typology and number of participants (5), content of the intervention (6), duration (7), aims (8) and results (9) of the interventions. 2789 articles were assessed to determine eligibility, while 46 studies met the inclusion criteria and were subjected to detailed analysis and assessment of their methodological quality.

Results showed an increase in the number of publications in recent years, mainly in countries such as the United States and Spain. There were both quantitative and qualitative research. While the former use questionnaires, tests or scales to collect data, the latter are based on interviews with participants, focus groups and observation diaries. The participants range from primary school students to undergraduate students, with the sample size being very heterogeneous. Regarding the duration of the intervention, there are one-day (Paralympic School Day Program, for example), several weeks and even an entire school year intervention.

Most part of the studies improved awareness and attitudes towards people with disabilities, also with focus on pre-service teachers' self-efficacy, the feeling of perceived competence or the effectiveness/validity of the implemented programs.

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Relationship between the Incremental Shuttle Walk Test and an incremental cycle ergometer test in people with Severe Mental Illness. The PsychiActive Project.

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Keywords: Cardiorespiratory fitness

People with Severe Mental Illness (SMI) have poor cardiopulmonary fitness. Cardiorespiratory fitness is a good predictor of health and functioning. The aim of this research is to present the Incremental Shuttle Walking Test (ISWT) as a reliable and affordable alternative to assess cardiorespiratory fitness in people with SMI.

63 people aged 18-65 years ($SD = 45.4$ $SD = 8.6$) participated in the study, 45 men (71.4%) and 18 women (28.6%). All were diagnosed with SMI and were in a stable phase of the disorder. All underwent first the ISWT and second the incremental cycle ergometer test (CPET) on the same day with sufficient time between tests to perform them under optimal conditions. The ISWT test consists of 2 cones separated by 9 metres and a loudspeaker that marks the pace with acoustic marks, every minute the pace increases until the participant does not pass through the cones in time 2 times in a row. On the other hand, the CPET used a ramped protocol starting at 6 watts increasing by 10 watts every 1 minute to the point of exhaustion. Blood pressure, heart rate, distance travelled, and watts achieved, and RPE were recorded. Statistical analyses were performed using SPSS software. Multiple linear regression was used to generalise a model, and we determined which variables were the strongest predictors of CPET performance using a variable selection algorithm. Forward stepwise linear regression was performed to test the effects of the different variables collected.

The predictive ability of the above variables for both sexes was of moderate strength ($R^2 = .56$), explaining 56% of the variance, (adjusted $R^2 = .45$; $p < .001$). The formula for estimating the test result through the ISWT will be presented in the contribution.

The ISWT can be used when resources are not available to assess cardiorespiratory fitness as a replacement for an CPET in people with SMI.

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A systematic review on the determinants of physical activity and sedentary behaviour among children and adolescents with disabilities: the DE-PASS Best Evidence Statement (BEST)

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Keywords: Exercise, Health Services for People with Disabilities, Youth Sport

Currently, we know little about the impact of determinants of physical activity (PA) and sedentary behaviour (SB) in children and adolescents with disabilities (Ng et al., 2023; Tremblay et al., 2024). This systematic review aims to summarise the existing evidence concerning determinants of PA and SB in this population.

The systematic review was based on the DE-PASS Best Evidence Statement (BEST) pre-published protocol (Khudair et al., 2022). We considered randomized controlled trials (RCTs) and prospective cohort studies (PCSs) published between 2010–2023. Studies written in English were searched in MEDLINE (Ovid), PsycINFO (EBSCO), Web of Science, Sport Discus and Cochrane Central Register of Controlled Trials (CENTRAL).

Eight RCTs and two PCSs were included. The determinants associated with PA were identified and classified into three primary domains: physical functioning, psychological, and social. Device-based tools to assess PA were present in most of the included studies. Only three studies measured SB as the study outcome. Physical fitness was the most prevalent determinant associated with physical functioning. Within the psychological domain, three studies examined attitudes toward physical exercise, while two determinants in the social domain were linked to peer and family support. Various settings were identified, including four at home, three in community-based settings, two at school, and one in a laboratory.

The determinants related to physical functioning demonstrated the most pronounced influence, whereas psychological and social determinants exhibited no significant impact on PA. Device-based instruments have been employed to investigate the daily PA levels of children and adolescents with disabilities. This systematic review provides information on multiple factors that should be considered in planning and implementing PA programs for children and adolescents with disabilities.

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How to prioritize successful treatments in people with severe mental disorder (the PsychiActive project)

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Keywords: health risk, physical fitness, cardiorespiratory fitness, strength, flexibility, balance.

Serious mental disorders, such as schizophrenia, depression, anxiety, and bipolar disorder, are a leading cause of illness, disability, and premature death from all causes worldwide. In 2010, the global economic burden of serious mental disorders was comparable to that of cardiovascular diseases and higher than that of cancer, chronic respiratory diseases, and diabetes, and is expected to double by 2030. Therefore, reducing the growing burden of serious mental disorders is a global priority. One factor that could help is to improve the detection of people with serious mental disorders who are at risk for health to prioritize the application of specific interventions. The objective of this work was to provide reference values for physical fitness levels in people with serious mental disorders.

In total, 305 people with serious mental disorders and aged between 20 and 82 years were evaluated on a set of physical fitness components (aerobic fitness, strength, flexibility and balance) using The Senior Fitness Test Battery that require few resources.

The main contribution of the study was to provide reference values of people with serious mental disorders in tests to evaluate a set of physical fitness components. Men performed better than women in the aerobic fitness test called "6-minute walking test" (591.2 m for men and 568.5 m for women; $p < .001$, Hedges' $g = 0.83 [0.54 - 1.12]$) and women in the lower limb flexibility test called "sit and reach test" (-4.1 cm for women and 2.8 cm for men; $p < .001$, Hedges' $g = -0.55 [-0.83 - -0.26]$). Finally, performance in all physical fitness tests was lower as age increased (standardized regression coefficients ranged from -0.10 to -0.40).

These findings could facilitate the detection of people with serious mental disorders with potential health risks and, therefore, priority needs to start therapeutic interventions.

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Does contact influence students' attitudes toward including peers with disabilities?

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Keywords: awareness intervention; Inclusive Physical Education; perceptions; disability

The effectiveness of inclusive education depends significantly on students' perceptions, the quality of their interactions, and relationships with peers with disabilities. Despite numerous studies on this subject, there is considerable variability in awareness programs, particularly in terms of structure and duration. Thus, this study implemented an awareness Physical Education (PE) class with a participant with physical disability, with the objective of examining the impact on students' attitudes towards the inclusion of colleagues with disabilities in their PE classes.

Participants were 90 students, between 15 and 18 years old ($M = 15.45$, $SD = 0.65$), 49 girls and 41 boys. Participants were divided into two groups, experimental group ($N = 44$) and control group ($N = 50$). The Portuguese version (Campos, Ferreira & Block, 2013) of the instrument 'The Children's Attitudes Towards Inclusion in Physical Education - Revised' (CAIPE-R) (Block, 1995) was used, in two moments, before and after the PE awareness class. The awareness PE class, lasting 90 minutes, involved the participation of a young boccia athlete.

Findings revealed that the experimental group showed differences in terms of attitudes after the awareness PE class. Gender and level of competitiveness were also analysed. The study concludes that intervention programs positively impact awareness about disability, fostering favourable attitudinal changes among peers.

While longer awareness interventions tend to yield better results in attitudinal change, the present study highlights that the development of positive attitudes is also influenced to the quality of contact.

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Empowering parents of autistic children: Insights from a physical activity intervention program

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Keywords: Community Resources, Parental Support, Physical Activity, Physical Activity Support, Qualitative study

While physical activity (PA) offers numerous benefits, parents of autistic children tend to encounter obstacles in providing PA opportunities for children (Columna et al., 2020). Addressing this gap and guided by the Theory of Planned Behaviour (TPB; Ajzen, 1991), this study explored factors influencing parents' ability to engage their children in PA post-intervention.

Participants were parents (N = 21; 18 females, 3 males) of autistic children ages 4 to 11 years (7.83 SD = 2.13). Participants were randomized into one of three conditions: 1) Workshop, 2) Home, or 3) Waitlist control. Semi-structured interviews were conducted, and data were transcribed and analysed using thematic line-by-line analysis (Clarke, Braun, Terry, & Hayfield, 2019) with the assistance of NVivo 20 software.

Parents faced challenges due to limited awareness of suitable PA programs, but increased awareness, effective scheduling, and adaptation to COVID-related changes facilitated PA participation. Creating schedules and utilizing community resources were emphasized by parents as crucial for addressing their children's physical well-being. There was a highlighted need for instructional spaces and expert support to facilitate PA for autistic children. Participants expressed a strong demand for ongoing learning opportunities and PA resources, emphasizing the importance of structured guidance and programs to enhance the PA experiences for both parents and their autistic children.

This study brought to the forefront the challenges faced by parents of autistic children in providing suitable PA opportunities, highlighting the critical need for more comprehensive PA programs, and emphasizing instructional space and expert support for autistic children. Implications include extended interventions, ongoing support, and further exploration of experiences and preferences for both autistic children and their parents regarding PA programs.

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Women's football with cerebral palsy: Current situation and gender differences applied to classification.

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Keywords: Female athlete, brain injury, para-football, soccer.

Football for people with cerebral palsy (CP) has received increased attention, particularly regarding female participation during the inaugural competitive events of 2022. However, a notable knowledge gap exists, specifically, in understanding their distinct physical proficiency, when compared to their male counterparts. The purpose of this study was to describe the physical proficiency of international women with CP attending the sport class (FT1-FT3) and comparing their physical performance by sex.

Ninety (female = 45; male = 45) football players with CP who competed in the 2022 World Cup in Spain participated in this study. They were categorised into three sports classes based on their international classification and sex: FT1 = 14, FT2=20 and FT3 = 5. Participants underwent two trials of the 10-m sprint test and the 505 test, followed by vertical and horizontal jumps. A one-way analysis of variance and Tukey's post-hoc comparison was utilized to examine differences between players' sports classes. Additionally, an unpaired t-test was used to compare the physical performance of male and female para-footballers.

Female FT1 players exhibited lower performance in both the 505 test and standing broad jump when compared to FT3 players. FT1 players also showed shorter vertical jump heights and required more time for a 10-m sprint compared to both FT2 and FT3 players. Overall, when compared to men, women showed lower performance in all the tests ($p < .01$).

The findings offer novel insights into the physical performance and current physical profiles of female football players with CP at the international level. As in male players, the differences between classes underline the relevance of the use of these measurements during the classification process. Future research should explore gender-specific considerations for the classification and coaching of female footballers with CP.

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Stakeholder perceptions of developments in a para-sport: the experience in Modern Pentathlon's Para-LaserRun

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Keywords: Para-Sport, socioecological framework

Whilst development of competitive opportunities has grown, challenges persist for para-athletes (Sales & Misener, 2021), including transforming existing knowledge and attitudes (Pullen et al., 2020). The greatest progress in the family of sports within Modern Pentathlon is in the two-discipline sport of Para-LaserRun. To explore developments, this study focused on the Union Internationale de Pentathlon Moderne's (UIPM) World LaserRun Championships held in August 2023 in Bath, UK.

The aim was to conduct a socio-ecological analysis (Cunningham et al., 2023) of participant's experiences and perceptions during the preparation and delivery of the event. Online qualitative surveys were implemented with adult individuals who participated in or watched the event live. Two surveys were run, pre- and post-event, across three sample populations: (1) athletes (N = 28/9), (2) event facilitators (N = 12/8), and (3) event spectators (N = 41/32). Post the World Championships, 7 semi-structured interviews were also conducted with survey respondents.

Every group identified that positive change is possible when the right resources and training are made available to both competitors and event facilitators. All groups shifted their perception of the sport from elitism to an activity accessible to different backgrounds. Each group emphasised a need for increased promotion and further integration with non-disabled events. The centrality of the athlete voice in a co-creation process was favoured by athletes and event stakeholders. Individuals were able to identify multiple benefits, such as increased belonging, challenge, and opportunity for self-development.

As innovation within the Modern Pentathlon family continues, this research informs the development of safe and fair competition and how to engage para-communities in the co-creation of new activities. Practical application is already evident in revised international competition policy guidelines, development of new equipment for specific classifications, and the implementation of "Discover Para-LaserSport" to increase inclusivity within multi-sports.

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The happy fit: Exploring the link between enjoyment and long-term fitness

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Keywords: aging, exercise, lifestyle, SuperAging

There is strong evidence that physically active seniors have higher levels of functional health. Aim of presentation is to describe functional physical fitness of very old women in relation to attitude to former (physical activity) PA.

157 women ($M = 82.9$ $SD = 2.9$ years) who declared regular PA in middle age (at least 3 times a week, at least 2.5 hours/week) were included in the cross-sectional study. They filled in questionnaire (IPAQ-E) and underwent Senior Fitness Test - Chair Stand Test (CST), Arm Curl Test (ACT), 8-Foot Up and Go Test (UGT), 2-min Step in Place Test (SPT).

Functional fitness was above average with respect to age norm in 63% of the group in the ACT, 47% in SPT and 41% in CST and UGT, respectively. According to the IPAQ-E, the tested women spent on average 161.1 ($SD = 91$) min/day moderate PA (5 days a week), and 46.2 ($SD = 82.2$) min/day vigorous PA (on 1 day a week). 94% of them met the current World Health Organization (WHO) recommendations for PA. When dividing the group according to the attitude to PA into a subset of “women who are clearly sports-oriented, PA-seeking and sport club members” (A), “women who enjoyed exercise and played sports for fun” (B), and “women who did not exercise for a significant reason, but they fulfilled the required subsidy” (C), a statistically significant difference in CST, ACT and SPT tests ($p < .05$) was shown between the subsets in favour of the women of subset A. At the same time, current level of PA did not differ among these subsets.

Despite similar level of PA in old age, women with previously highly positive attitude to PA maintain a higher functional fitness.

Data were obtained from ‘Cognitive superaging in physically active women’ project (GA 22-24846S).

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The effect of a content knowledge workshop in dance on teachers' specialized content knowledge in teaching children with disabilities

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Keywords: task development, content maps, physical education, dance

Knowledge of instructional task progression and in how to recognize and correct common errors (i.e., specialized content knowledge, SCK) is a critical knowledge domain for teachers. Research shows physical education teachers often have limited SCK, hindering teaching effectiveness (Kim et al., 2018). Content knowledge workshops have shown to increase SCK. This study aims to assess the effect of a professional development workshop on teachers' SCK for teaching dance to children with disabilities.

This study was conducted with three teachers of students having moderate to severe intellectual disabilities. We created a workshop with four evidence-based building blocks of dance (Lund & Kirk, 2019) that focused on task development and adaptations, which are important aspects of SCK. A content map (graphic organizer of task progressions) was used as a validated tool to measure teachers' SCK before and after the workshop (Ward et al., 2017). Additionally, teachers' SCK were analysed through lesson observations prior to (3) and following (4) the workshop. SCK indices for content maps and observations were calculated by dividing the number of non-informing tasks by the number of informing tasks.

Comparing SCK indices of the content maps before and after the workshop showed an increase after the workshop ($M_{\text{before}} = 1.13$; $M_{\text{after}} = 5.20$). All teachers exceeded the benchmark of 2.0, indicating sufficient depth of SCK. Furthermore, SCK indices of the observations before and after the workshop were compared. These results showed no significant differences in SCK, with only one teacher exceeding the benchmark ($M_{\text{before}} = 1.15$; $M_{\text{after}} = 1.53$).

The findings suggest that teachers do have an increased SCK, but struggle translating this knowledge into practice. The results should be explored further in larger samples.

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Cardiovascular risk, muscle strength and functional capacity in people with intellectual disabilities: An associative analysis between parents and children-LUDOINCLUSIÓN Project-CHILE.

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Keywords: intellectual disability, handgrip strength, obesity, risk factors, physical condition, functional capacity

Interactions between genetic factors, diseases, and physical activity play a crucial role in physical fitness (Charlier et al, 2017). However, the relationships between the different components of the physical condition and functionality of parents and children with intellectual disabilities are not completely clarified. This study aimed to analyse the association between anthropometric indicators of cardiovascular risk, muscle strength and functional capacity in parents of adolescent and adult children with intellectual disabilities.

The sample included 36 parents and 36 children from three special educational centres in Santiago, Chile. Anthropometric measurements of cardiovascular risk, upper and lower extremity muscle strength tests, as well as functional evaluations were carried out. To establish associations between the aforementioned variables, correlation tests and simple linear regression were applied as a predictive model.

Significant associations ($p < 0.05$) were found between the highest body weight of the parents and the neck ($r = .39$), abdomen ($r = .33$), and calf ($r = .42$) perimeters of children. The greater absolute and relative handgrip strength of the parents were associated with a greater countermovement jump in the children ($r = 0.38$; $\hat{I}^2 = 0.27$; 95% CI = 1.79 - 0.08) and ($r = 0.51$; $\hat{I}^2 = 24.24$; 95% CI = 6.67 - 41.81), respectively. Furthermore, the parents' counter-movement jump was related to a greater children's counter-movement jump ($r = .61$). Parents who presented better performance in the jump with counter movement, their children showed better functional performance in the timed up and go tests ($r = -0.36$) and in 5 times sit to stand test ($r = -.44$).

These associations between anthropometric measures of cardiovascular risk, muscle strength, and functional capacity between parents and children with ID highlight the importance of implementing comprehensive programs that involve the entire family in the care of people with intellectual disabilities.

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The effect of a content knowledge workshop in dance on teachers' quality of instruction in teaching children with disabilities

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Keywords: quality of instruction, dance, professionalization, PE teachers, special education

Explicit instruction (containing a behaviour, criterion, and condition) with appropriate demonstrations improves student performance (Lund & Shanklin, 2011). This study aims to assess the effects of a professional development workshop in dance on teachers' quality of instruction in teaching children with disabilities.

This study was conducted with three teachers of 34 students having moderate to severe intellectual disabilities. We created a workshop with 4 evidence-based building blocks of dance (i.e., use of space, musicality, improvisation, technique practice; Lund & Kirk, 2019), which focused on giving explicit instructions to reduce errors in student performance. Teachers' instructions were analysed through lesson observations before (3) and after (4) the workshop. Instructions were coded as explicit or partial and the presence of a demonstration. An "explicit" instruction described the behaviour, a criterion for correct performance, and the conditions in which the behaviour should be performed. A partial instruction lacks at least one element. For instructions with a criterion, student performance was evaluated using the criterion as a benchmark by trained observers.

Teachers gave more explicit instructions after the workshop (57.6%) compared to before (37.6%) ($\chi^2 = 16.63$, $df = 1$, $p < .001$) and gave more demonstrations (93.8% before, 98.4% after; $OR = 4.18$). For the instructions that included a criterion, student performance did not change statistically significantly after the workshop ($\chi^2 = 3.18$, $df = 2$, $p > .05$), nor did students get more practice time after instructions were given in the post lessons ($M_{time_in_seconds_before} = 35.35$; $M_{time_in_seconds_after} = 29.93$).

Although more instructions were explicit and included demonstrations after the workshop, student performance did not benefit from these changes. This could possibly be due to similar practice times in pre and post lessons. Future research should include larger samples.

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Exploring the inter-limb asymmetries of football players with coordination impairments: A practical approach for evidence-based classification

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Keywords: soccer, para-football, Paralympics

Classification is an essential component that tries to minimize the impact of the eligible impairment on the outcome of the competition by grouping athletes into specific classes based on sport-specific activity limitations. Cerebral palsy (CP) football is a team sport designed for individuals with eligible coordination impairments (i.e., hypertonia, ataxia, athetosis) affecting motor skills and resulting in abnormal patterns, including asymmetries. Notable inter-limb asymmetries have been a popular research topic that can have practical implications for the classification of footballers with CP. This study aims to 1) quantify interlimb asymmetries using change of direction and unilateral jump tests, and 2) examine the relationship between asymmetry variables and physical test performance outcomes.

International male football players (N = 142) with eligible impairments participated. Participants completed two trials of the 10-m sprint, dribbling speed test, and the 505 change of direction test for both dominant and non-dominant legs, followed by single-leg vertical and horizontal jumps.

Paired t-test analysis highlighted significant differences between dominant and non-dominant legs in 505 ($p < .01$), and horizontal jump ($p < .01$), but not in the countermovement jump ($p > .05$). Significant associations were found between horizontal jump asymmetries and sprint capacity ($p < .01$), dribbling with the ball ($p < .05$), and vertical jump ($p < .01$). Additionally, higher vertical jump asymmetry was associated with reduced dribbling speed ($p < .05$) and unilateral horizontal jump ($p < .05$). No significant associations were found between change of direction asymmetry and physical test performance outcomes.

Larger asymmetries are associated with slower sprints, decreased dribbling speed, and reduced jump performance. Asymmetry variables can bring valuable data for classifiers employing these tests to assess the impact of impairments on specific activity limitation tests. Further studies should consider classes or impairment profiles of players with CP.

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Effects of 24-week exercise program on functional capacity, dementia, and quality of life in individuals with Intellectual Developmental Disabilities

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Keywords: Cardiorespiratory training; Indoor training; Outdoor training; Resistance training; Well-being.

The term ‘developmental disabilities’ refers to a broader category of lifelong challenges that can be intellectual, physical or both. The present study aimed to investigate the effects of two physical exercise intervention programs on the functional capacity and quality of life of adults with IDD.

Twenty-one adults with IDD (M age = 43.04; SD = 11.18 years) were convenience assigned to an indoor training group (IG; N = 7; intervention with machines), an outdoor training group (OG; N = 7; intervention with low-cost materials), and a control group (CG; N = 7). Interventions were based on a 24-weeks combined exercise program offered twice a week for 45 min per session, conducted by an exercise expert following the guidelines of the ACSM (Bayles, 2023). Participants showed an attendance average of 78% and 76% for the IG and OG, respectively. The CG participants were encouraged to continue their usual lifestyle throughout 24 weeks.

The functional capacity was assessed using three standardized tests (Rikli & Jones, 1999): 30 s-chair test; timed up and go test, and the 6-min walking test. The Portuguese version of the Personal Outcomes Scale (Simões, Santos, & Biscaia, 2016) was used to assess quality of life perception. Shapiro-Wilk ($n < 50$) and Levene tests were used to verify data normality and homoscedasticity. Kruskal-Wallis test was performed to verify differences between groups. For comparison and identification of differences in each group, Wilcoxon signed-rank test was used. The significance level was set at 5%.

After 24-weeks of physical exercise the Physical Well-being domain in both intervention groups improved, although non-significantly. There were no significant changes for CG over time. However, OG significantly improved the Physical Well-being domain, when compared to CG ($p = .017$; $\eta^2 = 0.545$).

The study provided evidence for the importance of outdoor low-cost exercise programs to improve health and quality of life perceptions in adults with IDD.

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Exploring effects of a 12-week adapted baseball program on physical self-efficacy and self-determination of adults with developmental disabilities

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Keywords: developmental disability, self-determination, physical self-efficacy, behavioural change, adapted baseball program

Participation in exercise programs for people with developmental disabilities is valuable, not only because it improves individual abilities such as hobby opportunities, physical fitness, and changes in habitual behaviour, but also because it helps people with disabilities socialize. The purpose of this study was to explore and identify the positive changes in self-determination and physical self-efficacy among adults with developmental disabilities after a 12-week adapted baseball program.

The program was conducted for 90 minutes, twice a week, over 12 weeks, for a group of 20 adults with developmental disabilities (10 in the experimental group and 10 in the control group) at 1) Center for Independent Living, and 2) Welfare Center in S City in South Korea. This is a mixed-method study that includes both quantitative and qualitative research for quantitative analysis. The Physical Self-Efficacy Questionnaire was utilized, and statistical analysis including independent sample t-tests and two-way ANOVA, were performed using SPSS ver. 26.0 with a significance level set at $\alpha = .05$. For qualitative analysis, in-depth interviews were conducted with five members of the Center for Independent Living who were the closest observers of the 10 participants in the baseball program.

As a result of analysing physical self-efficacy, as described above, there was an interaction effect of group and time period on perceived physical ability ($F = 68.916$, $p < .000$) and self-confidence in physical self-expression ($F = 89.541$, $p < .001$), which are subcomponents of physical self-efficacy. It was also found to have a positive effect on overall physical self-efficacy ($F = 101.185$, $p < .000$). The findings from the qualitative analysis also indicated that the adapted baseball program also had a very positive effect on the self-determination of adults with developmental disabilities.

The adapted baseball program was not just a simple physical activity, but it was also an exercise that provided sufficient psychological benefits for participants.

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Barriers of physical activity of Hungarian students with blindness or visual impairment

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Children with disabilities are proportionately less physically active than their typically developing peers (Augestad & Jiang, 2015), and from the second decade of life, the number of children leading a sedentary lifestyle is increasing. As a consequence, they are at increased risk of health damage, and their mortality and morbidity indices are worse (Kälbli & Gombás, 2016). Physical activity (PA) not only plays an important role in disease prevention, but also has a positive effect on mental health, socialisation and quality of life.

The aim of our research was to investigate participation in physical education (PE) lessons, perceptions of PE among Hungarian students with blindness or visual impairment (BVI), and to identify barriers that prevent them from participating in PA.

203 Hungarian students (grade 1-13) with BVI participated in the research, with varying degrees of VI (blindness: 45, severe VI: 30, moderate VI: 128 participants). 73.4% attend mainstream schools and 26.6% (N=54) special schools. Barriers were measured with The Physical Activity Barriers Questionnaire for Children and Youth with Visual Impairments short version.

Most of the sample (58.79%) took part in general PE, 26.63% in 'easy' or adapted PE, and 26.63% are excused from PE. The proportion of excused students increases by growing grades. On a 5-point Likert scale, students rated their preference for PE at 3.74 on average. There was no significant difference between students in mainstream and special schools (3.87 vs 3.69). The preference for PE decreases with growing grade level. Environmental barriers (average score: 3.53) are the main barriers to activity, followed by social (average score: 3.81) and personal (average score: 4.03) barriers, with statistically significant differences between subscales. Elementary school students feel fewer perceived barriers than high school students in all dimensions, and globally as well (average scores are: 11.98 and 10.67).

The results highlight the importance of overcoming environmental and social barriers, as young people with BVI are more willing to participate in activities and feel less constrained by personal factors.

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FALLA profile form - selecting the most appropriate device-based method for monitoring physical activity in children and adolescents with disabilities

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Children and adolescents with disabilities (CAwD) accumulate less physical activity (PA) and more sedentary time than their peers. The amount of daily habitual PA for this population has often been determined using subjective evaluation. The existing device-based monitoring systems can potentially be applied to assess daily habitual PA among this population. However, CAwD have wide functional and mobility profiles that need to be taken into consideration. This study presents a FALLA profile form for selecting the most appropriate device and mounting location in CAwD.

Existing literature for using device-based monitoring systems among the target population was reviewed. The first version of the form was tested and modified by observing the functioning of CAwD during a school day. The reliability of the ready form was evaluated with selected group of CAwD, where the researcher, guardians, and teachers filled the form simultaneously, and then results were compared to each other.

FALLA form includes four main themes followed by 16 questions leading to six different options of the most appropriate device and mounting locations. Guardians' knowledge was the most reliable, when selecting the appropriate device and mounting location in CAwD.

The information regarding performed locomotion, limited use of body parts or restricted range of movement, the use of assistive aids, as well as the preferred type of daily PA and sports is crucial when selecting the appropriate monitor and mounting location. Among this population, the simplicity and convenience of monitoring device is highlighted, especially when the functional limitation is cognitive, psychological, or social. To provide reliable information and to promote PA in CAwD, appropriate methods for monitoring daily habitual PA are needed. FALLA profile form provides an individually tailored decision tree for selecting the most appropriate device and mounting location in CAwD.

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Evaluating physical activity promotion intervention for community-dwelling manual wheelchair users

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To increase physical activity (PA) among community-dwelling manual wheelchair users (MWU), evidence-based interventions are required. The Adapted Physical Activity Program (APAP) is a community-based lifestyle PA intervention model that has been shown to effectively increase free-living PA adoption in people with brain impairment. The aim of this single case experimental (SCE) study was to evaluate if the APAP intervention model could be adapted and applied to increase habitual PA in community-dwelling MWU with spinal cord injury (SCI).

Multiple-baseline design (A-B-maintenance) with replication was used to evaluate the intervention effect. Six community-dwelling MWU with SCI who were insufficiently active were randomised into two groups. Group 1 participants (N = 3) were randomised to complete either a 5, 7 or 9-week baseline monitoring period, prior to completing a 16-week intervention and a 16-week maintenance phase. Systematic replication was conducted with Group 2 (N = 3). Target behaviour was daily habitual PA, which was assessed in three ways: 1) daily upper body acceleration, 2) daily manual wheelchair self-propulsion time, and 3) daily manual wheelchair movement distance.

Kruskal-Wallis test indicated significant ($p < .05$) increases for five out of six participants in at least one of the three outcomes of daily habitual PA across the duration of the intervention program. For upper body acceleration, the increase was significant ($p \leq .05$) in five out of six participants for daily self-propulsion time in two out of six participants, and for daily wheelchair movement distance in two out of six participants.

Community-based lifestyle PA intervention approach can increase the adoption and maintenance of PA among community-dwelling adults with SCI.

Future studies should use SCE designs to evaluate the APAP model of intervention using outcome measures tailored to individual mobility profiles and preferred to their PA modes.

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The reliability of field based static and dynamic balance tests in primary school aged autistic children

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Keywords: Autism, balance, static balance, dynamic balance, reliability

There has been inadequate research that has examined the reliability of static and dynamic balance assessments in autistic children, despite previous research indicating that their balance is poor. Hence, the objective of this study was to examine the between session reliability of field based static and dynamic balance tests in autistic children.

The balance of eighteen autistic children (9.22 years SD = 1.59 years) were assessed three times per week over a five-week period. Static balance was assessed using the flamingo balance test and a modified balance error scoring system (BESS), whilst dynamic balance was evaluated using the low beam walking test (LBWT) and the heel to toe walking test (HTWT). Reliability criteria included the intraclass correlation coefficient (ICC > .75) and coefficient of variation percentage (HTWT (CV ≤ 33%), BESS (CV ≤ 56%), Flamingo (CV ≤ 85%), LBWT (CV ≤ 42%).

The LBWT (session 8), and HTWT (session 12) had one reliable session each, the mean CV% were 44.12% and 29.43% respectively, and the mean ICCs were .48 (LBWT) and .45 (HTWT). The flamingo balance test had five reliable sessions (sessions 2,3,4,8,14) and the mean CV% was 81.11% with a mean ICC of 0.72. The BESS had 6 reliable sessions (sessions 5,7,8,9,10,13) and the mean CV% was 52.96% with a mean ICC of 0.73.

Between session, reliability varied across the four balance tests. Dynamic balance tests had a greater number of reliable testing sessions, but it had high CV%. Future studies examining the effects of balance programmes in this cohort need to be aware of the high CV%, particularly of dynamic balance tests, when establishing if a meaningful change in balance occurred due to the intervention.

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Coaches' perspectives on including and training athletes with intellectual disability or autism in mainstream and elite coaching.

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Keywords: coaching experience, inclusion, intellectual disability

Adapted coaching methods are mentioned as one of the facilitators of physical activity (PA) participation in people with intellectual disability (ID) or autism (Arkesteyn et al., 2023). Few studies have focused on examining coaches' experiences of including and coaching individuals with ID. Challenges related to communication, motivation and parent management are common themes reported in these studies (Burns & Jonhson, n.d.). Furthermore, the need for specialized coaching resources is emphasized. However, individuals with autism were not included. This qualitative study aims to explore experiences and challenges of coaches and physical education (PE) teachers who work with athletes with ID or autism in their mainstream or elite sports practice. Additionally, the coaches' needs in terms of knowledge and skills required for successful inclusion of this population is examined.

Semi-structured interviews and focus groups were conducted with 41 coaches and PE teachers from 10 different countries. Thematic analyses were conducted using a systematic six-step method. Themes and sub-themes were derived with a combined inductive and deductive approach.

Coaches experienced challenges at the athlete's individual level (e.g., behavioural and emotional issues, motor skills, motivation, self-perception), interpersonal level (e.g., communication, parent involvement), sport-specific level (e.g., pacing, teaching technical/tactical components), and environmental level (e.g., lack of staff, accessibility). Depending on their background and coach situation, coaches mentioned a need for knowledge about the disabilities, psychological/pedagogical knowledge, and sport-specific adaptations. However, getting in touch with the population and having supervision of an experienced coach are equally important.

These results provide insight and understanding in coaches' experiences and needs regarding coach resources and will give direction to develop tailor-made educational tools for coaches to improve inclusion and participation in PA for individuals with ID or autism.

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The perspectives of multi-professional teachers and support assistants on their role and collaboration in school-based inclusive physical activity offers

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Keywords: inclusion, physical education, teacher education, sport

In order to meet the individual needs of all students and ensure that everyone can participate in school-based physical activity (PA) programs, not only design issues need to be considered, but also the fact that different professional groups work together. In addition to physical education (PE) and inclusive education (IE) teachers, other assistants with a special educational background may also be required to meet the claim of inclusive PE offerings for all children. This becomes even clearer when we look beyond PE to other PA programs in schools, such as field trips or school sports events. However, little is known about how the various teachers and assistants envision their roles and tasks in these extracurricular activities.

Therefore, we investigated the perspectives of teachers and assistances using semi-structured interviews for 11 teachers (63.6% female; $M = 44.1$; $SD = 11.11$) and a questionnaire for 83 assistants (79.5% female; $M = 40.2$; $SD = 10.2$) with similar content on their roles and perspectives of inclusion of students with and without disabilities in school-based physical activity programs.

The results show a multi-layered picture of participation opportunities, a different understanding of roles and tasks, resource issues and agreements in the preparation, and implementation of these extracurricular PA programs.

With the results we would like to give recommendations for the collaboration of different actors in school-based PA programs. It can be important to practice these collaborations already within the educational process. For this reason, a joint seminar concept for both PE as well as IE teachers is currently being implemented, which we will also provide initial insights into.

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The Spanish Paralympic sponsorship model: rising the visibility and promoting the legacy of the Paralympic movement in Spain

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Keywords: Paralympic Games, Paris 2024, Spanish Paralympic Committee

In the last decades, the Paralympic Games have steadily become a global platform of media visibility and social impact of athletes with disabilities. The 2024 Paris edition is expected to achieve the largest media coverage ever (Hardin & Billings, 2023).

The increasing influence of the Paralympic Games can be attributed to the growing attention to the Paralympic movement by national and global brands, actively engaging in communication support of Paralympic teams and athletes through sponsorship agreements. Paralympic sponsorship agreements feature different approaches, with particularly well-established models in Germany, Canada, the United Kingdom, and Brazil. However, knowledge gap remains regarding the effective models of the Paralympic Sponsorship in other countries (Legg & Dottori, 2017).

The purpose of this research is to explore the framework of the Paralympic Sponsorship model in Spain (Plan ADOP), coordinated by the Spanish Paralympic Committee and aimed at providing tax incentives, corporate image, and reputation related benefits for sponsoring brands.

Through a case study approach, this research will contribute to the Paralympic sponsorship knowledge by revealing: (1) the pillars and the salient features of the Spanish Paralympic Sponsorship model, and (2) the role of the Spanish Paralympic Committee in fostering the visibility, enhancing the understanding and promoting the legacy of the Paralympic movement in Spain. Data is being collected using qualitative research method, through personal interviews with sponsorship managers of global and local brands engaged in the Spanish plan ADOP.

Preliminary results of the research reveal that sponsoring brands obtain enormous benefits in terms of the way they are perceived by society, taking advantage of the union of their brand with the image of the Paralympic athletes. In turn, these companies contribute to generating a profound social impact and establishing a long-term shared value with the Spanish Paralympic Committee through enhanced social visibility of the Paralympic movement.

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Act 39/2022 on Sport in Spain: a tool to promote sport for people with disabilities

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Keywords: Sport legislation, inclusion, disability

A new sports law was presented in Spain at the end of 2022, after 32 years since the first law on democracy in Spain, which dated back to 1990. This new law has as its second axis of action the sport of people with disabilities, serving as a legislative response to the group's exclusion from current sports participation with respect to the general population, and especially, women and girls with disabilities. The objective of this contribution is to analyse the new law, its possibilities and its importance in the promotion of sport among people with disabilities, as well as the role of the different intervening agents.

The two authors of this work, experts on the subject, have contributed from their areas of action, both by analysing the situation prior to the law and developing its concepts. This work exposed and analysed how the law recognizes the disability group and its possibilities of making it a lever for positive action. The articles and headings that serve this group are specifically detailed, reflecting on the new possibilities they offer.

The importance and value that the new law gives to sports for people with disabilities is historic, especially in an inclusive format. Of special relevance is the role of sports federations and the commitment to integration at this level is defined by the new law. Even according to public assessments carried out by the Spanish Paralympic Committee (CPE) and the Spanish Committee of Representatives of People with Disabilities (CERMI), this new Sports Law represents a great advance in the matter.

The new law appears as a powerful tool in Favor of promoting sports for people with disabilities respecting their right. This law requires the different administrations and agents, especially the sports federations.

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Assessment muscle strength in people with severe mental disorders: Validity of the 5-sit-to-stand test. The psychiatric project.

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Keywords: Fitness, isometric knee extension, field test, physical health, recovery

Routine assessment of muscle strength could contribute to reducing the increasing burden associated with severe mental disorders (SMD) by identifying situations of vulnerability that require priority interventions. However, a lack of resources and training for healthcare staff prevents its implementation in clinical settings. The 5 sit-to-stand test (5-STST) has been widely utilized as a practical and accessible alternative to other sit-to-stand tests for evaluating muscle strength. Although numerous studies have examined the validity of the test, none of these studies have assessed agreement between the methods, only focusing on the strength of the linear association. This oversight could potentially compromise their criterion validity and interchangeability. Therefore, this study aimed to analyse the criterion validity of the 5-STST for assessing muscle strength in individuals with SMD, while also exploring potential influences of age, sex, and body mass index.

A cross-sectional study was conducted in 82 adults with SMD (males = 24, 18 – 65y old). Participants performed the 5-STST test and isometric leg strength (KES). Concordance and correlation between the two methods were analysed using the intraclass correlation coefficient (ICC), Pearson's correlation coefficient (r), and Bland-Altman plots.

The results showed a Pearson correlation coefficient, $r = -.58$ and an ICC, $r = -.58$ for the whole sample, with higher agreement observed in the female group (ICC: $-.70$). Bland-Altman and heteroscedasticity plot analyses indicated that the differences between methods do not increase, regardless of the magnitude of the strength assessed by the 5-STST test.

In conclusion, the 5-STST test appears to be a valid tool in people with SMD to assess muscle strength in clinical settings, potentially improving the health and recovery of this population.

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Evaluating the feasibility of a multicomponent physical exercise programme implemented within a university centre for people with severe mental illness. The PsychiActive project.

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People with Severe Mental Disorders have significantly reduced life expectancy due to, among other factors, unhealthy lifestyles that result in impaired health variables, such as lung function, cardiorespiratory fitness, and muscle strength. Although physical exercise interventions in this population have been shown to be beneficial, they are not implemented. The aim of this study was to assess the feasibility of implementing a novel health programme to meet the needs of this population within a university setting, using adherence as the main asset to evaluate it.

Fifty-six people were evaluated of whom 49 started the programme. The intervention lasted 12 weeks and was carried out at the Universidad Pablo de Olavide, Seville. It consisted of a multicomponent training based on improving, mainly, the three health variables deteriorated in this clinical population. Two 50-minute supervised sessions were carried out per week. Physical, mental, and social effects of the intervention were evaluated, as well as the viability of the programme through recruitment, retention and participation rates, reasons for dropping out, amount of exercise performed, opinions and qualitative interviews with participants, among others.

The results showed positively how this programme had a high level of acceptance by the participants. High participation and retention rates were observed. Furthermore, significant positive effects were observed on lung function, cardiorespiratory fitness, muscle strength, and body composition, as well as on improvement of disease symptomatology and quality of life. Participants expressed in interviews their enjoyment and 100% of them wanted to repeat the experience.

The implementation of a multicomponent health programme carried out in a university centre has been shown to be feasible and therefore replicable, taking into account the context. Although there is room for improvement, the programme has proved to be a success in the field of mental health.

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Tailored injury prevention in adapted sports; A one-season randomized controlled trial

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Keywords: Para sports, Epidemiology, Athletic Injuries/prevention & control, Intervention Studies

Participation in sports increases the risk of sport-related health problems, particularly for individuals engaged in adapted sports. The prevention and reduction of such health problems are crucial to reduce their impact on daily activities. This study aims to evaluate the TIPAS intervention that is designed to deliver tailored injury prevention for athletes with physical impairments.

A 40-week trial was conducted, involving 107 athletes with physical impairments, randomly divided into an intervention group (N = 59) and a control group (N = 48). Weekly self-reports, utilizing the Dutch-translated OSTRC Questionnaire on Health Problems (Clarsen et al, 2020; Pluim et al, 2016), were collected. The intervention group received personalized preventive measures based on reported sport-related health problems, physical impairments, and their sport. Data analysis included injury and illness prevalence, incidence, cumulative severity scores, weekly time lost, and total burden. A multinomial logistic mixed model analysis was conducted to assess the intervention's impact over time.

The study included 53 females and 54 males, with an average age of approximately 45 years. Participants reported 450 health problems, comprising 163 illnesses and 287 injuries. The overall prevalence of sport-related health problems was 25% in the intervention group and 20% in the control group. A significant positive intervention effect was observed over time, specifically, in the prevalence of illnesses, while no such effect was noted for injuries. Moreover, a substantial positive intervention effect was identified regarding the severity of all health complaints, including injuries and illnesses, throughout the study.

The TIPAS intervention demonstrates a positive effect on reducing the prevalence of illnesses and mitigating the severity of health problems (injuries and illnesses) over time. This individually tailored online preventative approach offers athletes convenient access to care reducing the burden of sport-related health problems, thus facilitating a healthy, active lifestyle and enabling long-term involvement in sports for individuals with a physical impairment.

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The coaches' efficacy expectations for U19 international players as a factor in understanding the talent identification in cerebral palsy football

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Keywords: Self-Efficacy, Para-sport, Paralympic.

Talent identification is crucial for elite sports development and involves selecting promising young athletes for specialized training programs (Baker et al., 2020). In football, this process often relies on coaches' subjective judgments, reported as the Coaches' Efficacy Expectations (CEEs), which include the coaches' perceptions about their players' abilities (Leo et al., 2013). Despite the extensive literature on talent identification in able-bodied football, limited evidence exists for identifying critical indicators of high-performance in players with disabilities, particularly footballers with cerebral palsy (CP) (Peña-González et al., 2021). This work aimed to investigate the CEEs regarding physical, technical, and tactical abilities, enhancing understanding of expert considerations in selecting future international talents in CP football.

Twenty-one U19 international male players with CP participated in this study. Players' physical performance was assessed by the 5 and 30-m sprint, the modified agility T-test and a dribbling test. CEEs about player's performance in the physical tests were assessed (PP EXP), as well as the CEEs about the players' technical (TEC EXP) and tactical (TAC EXP) abilities, and about the players' general ability to play football (GEN EXP) and to be selected in the future for the absolute national team (SEL EXP).

A confirmatory-factor analysis confirmed the validity of the CEEs' questionnaire in this study. Pearson's analysis revealed that players' actual physical performance did not correlate with the PP EXP ($r < .30$) and did not correlate with GEN EXP and SEL EXP ($r < 0.30$). PP EXP and TEC EXP (but not TAC EXP) correlated with GEN EXP and SEL EXP ($r > .50$; $p < .05$).

Physical performance according to coaches' perceptions are not aligned to the players' actual physical performance. However, coaches perceive the players' physical and technical performance as important parameters, while tactical performance seems to be less important to succeed in CP football.

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Cultural translation and psychometric evaluation: Adapting the restq-sport for deaflympic athletes

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Keywords: Deaflympics, psychological skills training, Deaf culture, diagnostic, RESTQ-Sport

Sport psychology training has become integral in high-performance sports, extending its reach to Paralympic sports (Hanrahan, 2015). Despite this, athletes with hearing impairments remain underrepresented in both physical activity (PA) and sport psychology research (Clark & Mesch, 2018). The paucity of studies exploring diagnostic methodologies for this population highlights a crucial research gap. Given the proven inadequacy of standardized written questionnaires (Glazer & Schliermann, 2020), there is a pressing need for adapted diagnostic measures. Our study addresses this gap by culturally translating and psychometrically evaluating the Recovery-Stress Questionnaire for Athletes (RESTQ-sport, Kellmann & Kallus, 2016) into German Sign Language, contributing to the development of adapted psychology diagnostic tools.

In 2023, the RESTQ-sport underwent standardized cultural adaptation into German Sign Language in accordance with established protocols. Employing a cross-sectional study design, we aim to recruit 120 Deaflympic athletes aged 18 to 45. The questionnaire will be administered during April and May 2024 in both spoken and sign language, aligning with participants' linguistic preferences. Data collection will additionally include socio-biographical and sport-related information, along with feedback on the understandability of sign language videos.

Reliability assessment (Cronbach's Alpha) and item analyses will be conducted, guided by values from the original RESTQ-sport. In addition, construct validity will be evaluated through exploratory factor analysis, accompanied by Pearson correlations between subtests. These analyses will provide a comprehensive understanding of the psychometric properties of the adapted RESTQ-sport.

This validation study addresses the dearth of research on psychological assessment tools for athletes with hearing impairments, contributing to the field of adapted PA. The research validates the cultural adaptation of a widely used questionnaire in sport psychology, with implications for tailored interventions benefiting the overall well-being of athletes in high-performance sports.

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Evaluating the impact of a human rights-based training on PE teachers in Mauritius: A Pre/Post pilot study

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Keywords: education, evaluation, training, physical education

The Global Citizenship Education (GCE) paradigm stands on the role of education in understanding and resolving global issues, such as social inequality (UNESCO, 2015). The Inclusive Physical Education, Physical Activity and Sport (iPEPAS) training course is an initiative that is delivered in a blended mode and explicitly designed to address the main challenges to inclusive physical education (PE) and sport worldwide. Additionally, it aims to bridge the policy-practice gap in human rights and PEPA.

This study evaluated the impact of iPEPAS in PE teachers in Mauritius (N = 28), exploring their understanding of human rights in and through sport and their self-efficacy to implement iPEPAS interventions in their communities. Employing a pre/post study design, the research used a questionnaire comprising standardized tools such as the RITES-SE, RITES-Q and RITES-PANEL (Masdeu Yélamos, et al., 2023). The Wilcoxon signed-rank test was used to compare means before and after implementing the iPEPAS training.

The iPEPAS training course significantly enhanced the understanding of human rights through sport ($W = 87$, $p < .001$). Furthermore, while there was an improvement in levels of self-efficacy and the application of principles associated with a human rights-based approach, the changes were not statistically significant.

The results obtained underscore the effectiveness of the iPEPAS training course in enhancing PE teachers' understanding of human rights through sport. This study emphasizes the significance of providing ongoing professional development opportunities for PE teachers, especially in the domain of human rights-based approaches to PE and sport.

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Exploring the profile of women wheelchair rugby athletes: Insights from the XV Brazilian wheelchair rugby championship

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Keywords: disability sports, female;

Since the beginning of the 1990s, women and sports have become the subject of numerous discussions growing worldwide. In May 1994, the First World Conference on Women and Sport, Brighton, England, became a historical milestone and has since been unfolding to this day. Thus, on August 21, 2023, we witnessed the debut of the women's team in the Brazilian Wheelchair Rugby XV Championship, in which 115 athletes took part. This study aimed to analyse the profile of women wheelchair rugby athletes in this event.

This is qualitative and cross-sectional research. The research population consisted of 7 female Wheelchair Rugby (WR) athletes, age $M = 36.14$ $SD = 12.23$. The questionnaire was structured sequentially with objective and subjective questions with 5 focus groups: the origin of the disability and rehabilitation time, women's health in sport, practicing and competing in WR and the facilitators, barriers and meaning of WR for these women athletes.

Majority of the athletes (85.7%) have an acquired disability, and their rehabilitation time is 6.00 ($SD = 8.52$) years. In addition, 42.9% of the athletes had been seen by a gynaecologist in the last 3 months, 57.2% menstruate, 28.6% do not menstruate, and 14.3% are menopausal. During wheelchair rugby practice, 71.4% experienced urine leakage. The time spent practicing and the first competition in the sport occurred 7.14 ($SD = 3.43$) and 5.71 ($SD = 4.11$) years ago, respectively. Regarding the facilitators, the athletes improve their health and socialization. The barriers are lack of accessibility and expensive equipment. Finally, the meaning of sport is life and overcoming.

The profile of the women who played in the XV Brazilian Wheelchair Rugby Championship is that of women over 36 who play the sport to improve their health and increase socialization.

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Coaches' perspectives on developing employability skills in individuals with intellectual disabilities

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Keywords: sport technicians, work, soft skills, physical activity

People with disabilities have the right to equitable employment opportunities; however, individuals with intellectual disabilities (ID) face high unemployment rates, exacerbating social exclusion. The International Labour Organization emphasizes both soft and hard skills being crucial for employability. Nevertheless, individuals with ID often face challenges in acquiring these essential soft skills. Research suggests that sport and physical activity can serve as a tool to develop these crucial skills. Thus, this research aims to shed light on whether coaches consider these skills during training sessions, their awareness of the term 'soft skills', and potential strategies for soft skill development through the training sessions.

This ongoing research involved 20 semi-structured interviews with coaches from several countries (Spain, Australia, Belgium, among others) working with athletes within working age. Interviews, lasting between 25 and 60 minutes, were transcribed verbatim, and data analysis was undertaken through inductive reasoning in NVIVO software, identifying key themes. The study also examined differences between individual and team sports and contrasts between athletes competing for VIRTUS (or similar national federations) and Special Olympics at national and international level.

Preliminary findings highlight a consensus among coaches regarding the importance of soft skills development for the employability of individuals with ID. Most coaches unintentionally develop these skills without it being their main goal. While the term "soft skills" remains unfamiliar to many, initial observations suggest potential distinctions in skill development between individual and team sports, as well as differences between VIRTUS and Special Olympics athletes. Coaches have highlighted skills, such as, communication, teamwork, decision making, and autonomy. Coaches intuitively recognize the significance of soft skills, yet a lack of awareness and explicit integration is evident.

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Community spinal cord injury exercise guidelines: a Spanish co-designed infographic

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Keywords: Knowledge translation, co-design, physical impairment, Spain, health promotion

The international scientific spinal cord injury exercise guidelines have not yet been translated to community and clinical practice guidelines that can be adopted in the Spanish context. Our oral presentation showcases a new study that fills this knowledge translation gap. The study is part of a wider nationwide project, called “Muévete con Lesión Medular” and developed in partnership between the Universitat de València and the Institut Guttman. A co-designed knowledge translation study was carried out throughout 2023. Dozens of people with SCI and healthcare professionals participated in it. Three qualitative methods animated the co-design process: data-prompted focus groups, qualitative questionnaires, and member reflections. We engaged in dialogical thinking to ensure that the voices of the participants were recognised, valued, and blended in the content. A graphic design team contributed to formatting the guidelines. The guidelines offer essential evidence-based information on physical activity in ways that resonate with the concerns, needs, and desires of their end users, including Spaniards with SCI and those who may help them to become and stay active. At the request of participants involved in the study, the guidelines have been made available in both Spanish and Valencian/Catalan. The guidelines are supplemented by a co-designed booklet and co-designed home workout videos. This work will contribute to the promotion of physical activity for people with spinal cord injury in Spain by offering a population specific and culturally appropriate translation of the international scientific spinal cord injury exercise guidelines. The community guidelines will be shortly disseminated across the country .

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Can information and communication technology be used in physical education classes in an inclusive setting? - A pilot qualitative study

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Keywords: *ICT, inclusion, APE, SEN*

In the European Union teachers are encouraged to use information and communication technologies (ICT) in the educational process, when preparing, teaching and assessing, including physical education (PE) classes. The aim was to explore opinions of teachers conducting PE in grades I-III of primary school in inclusion setting on the use of ICT in their school practice.

As part of the SENDIteach project, 5 focused group interviews (FGI) were conducted according to the FGI scenario of Krueger and Casey (2001) in four countries: Finland, Latvia, Lithuania and Poland among 29 teachers of PE and early childhood education (ECE), who had experience of at least 7 years of teaching PE pupils with special educational needs (SEN) in an inclusive setting. Teachers were asked to share their experiences of using ICT before and after the COVID-19 pandemic at various stages of the process of teaching PE children with SEN; what challenges they face when teaching PE in a group that also includes students with SEN; what support do they need?

Due to the restrictions resulting from the COVID-19 pandemic, teachers used significantly more ICT than ever before. The most frequently used ICT in PE included: YOUTUBE, Facebook groups, QUIZY, Kahoot, Wordwall, JustDance and others. Most of the teachers reported advantages in the use of ICT in the phase of preparation PE classes and communication; after the pandemic, few use ICT in the implementation and assessment of pupils during PE classes.

Although PE and ECE teachers use different ICT, they express the need to improve digital skills to ensure they choose the best solution available for students. The need to introduce additional human resources in PE classes was emphasized to ensure conditions for inclusion, especially when use of ICT.

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Self-efficacy of physical education teachers in Chile for the inclusion of children and adolescents with disabilities in the school context.

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Keywords: Disability, Mainstreaming Education, Physical Education and Training, Self-Efficacy

In Chile, in the last 8 years, progress has been made on public policies on the inclusion of Children with Disabilities (CwD) at the educational level, aligned with the objectives of sustainable development by 2030, and the agreement of 'Education for Everyone' from Kazan 2015, which for physical education are mainly based on the proposal that considers all the benefits of its practice at a social, cognitive and educational level of the Baku agreement of the year 2023 'Quality Physical Education'. As a product, it is necessary to generate training processes for physical education teachers (PET) to facilitate the inclusion process. The objectives of the study were to identify the levels of self-efficacy of PET in Chile to include children with disabilities in the school and analyse the variables of training in inclusion (PT) and previous contact (PC) in the modification of the perception of self-efficacy.

A total of 559 teachers of the Chile participated with an average age of 35.61 (SD = 9.65) years, and with a percentage of women of 39.89%, and men of 60.10%, and the Self-Efficacy Scale for Physical Education Teachers towards Students with Disabilities was applied.

The results for self-efficacy were median and high confidence, indicating differences in favour of PC in Women $p < .001$, $\hat{I}^2 = .06$, Men $p < .001$, $\hat{I}^2 = .02$, and Overall $p < .001$, $\hat{I}^2 = .03$ and PT in Women $p < .001$, $\hat{I}^2 = .05$, Men $p < .001$, $\hat{I}^2 = .05$, and Overall $p < .001$, $\hat{I}^2 = .05$. It is also observed that there is better self-efficacy for those who had PC and PT $p < .001$, $\hat{I}^2 = .12$ in Overall.

It can be concluded that PT and PC influence the self-efficacy perception of physical education teachers in Chile.

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Attitudes of experienced and non-experienced teachers towards inclusion of students with autism spectrum disorders in physical education lessons

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The objective of the study was to analyse and compare the attitudes towards the inclusion of students with autism spectrum disorders (ASD) in teachers with and without experience in physical education (PE) lessons.

A total of 143 PE teachers ($M_{\text{age}} = 41.0$ years, $SD = 10.1$) participated in the study where 71 teachers had experience with the inclusion of students with ASD in their PE classes (experienced teachers), and 72 teachers were not experienced (non-experienced teachers). To collect research data, we used the ATIPDPE-R questionnaire (Kudláček et al., 2002; Cyran et al., 2017) modified for the inclusion of students with ASD. We processed statements reflecting positive outcomes for students ($\hat{I}SD = .88$) and negative outcomes for teachers ($\hat{I}SD = .87$).

In the positive outcomes for students, both experienced and non-experienced teachers declared positive attitudes through statements claiming that the inclusion of students with ASD will teach students to help others, be more tolerant, cooperate better, and increase their knowledge about people with ASD. Regarding negative outcomes for teachers, both groups of teachers declared disagreeable attitudes toward reducing the quality of their inclusive PE lessons. Teachers with experience declared more positive attitudes than teachers without experience as they believed that it would not make it much more difficult for them to plan and prepare inclusive lessons ($U = 1801$, $p = .002$), nor would it reduce the quality of inclusive teaching ($U = 1960$, $p = 0.014^*$).

Experienced and non-experienced PE teachers believe that the inclusion of students with ASD in PE lessons will teach other students to be more tolerant, help others, cooperate better, and increase their knowledge about people with ASD. For experienced teachers, inclusion will not reduce the quality of PE lessons, nor make their planning and preparation much more difficult compared to non-experienced teachers.

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Development of physical characteristics and cognitive functions of children with mild intellectual disabilities through interactive physical activities

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Keywords: interactive floor projection,

Children with intellectual disabilities (ID) often face challenges with health, physical activity (PA), and motor skill development (Strazdiene & et.al, 2020). Recently, there has been growing interest in using interactive technology to improve motor and cognitive skills in this population (Takahashi, Oki, Bourreau, Kitahara, & Suzuki, 2018). This study aims to investigate the effects of interactive PA on the physical characteristics and cognitive abilities of children with mild ID.

Ten children with mild ID from special education classes were assessed using the Berg balance scale and Schmitz balance coordination test for physical evaluation. Cognitive functioning was evaluated using cognitive research tasks (Grigaite, 2004). After six weeks, the children participated in 45-minute interactive floor projection sessions twice a week. Changes in quantitative results were analysed using descriptive statistics, monitoring protocol, inferential test and effect size.

The balance indicators of four children improved significantly (up 6-8 points). Three children - two boys and one girl - achieved the highest possible score of 56 points for balance. For five of the participants, coordination improved greatly (by 5-9 points). One subject received the maximum coordination score of 60 points. Nine children demonstrated a notable increase in their ability to focus and pay attention. Three children made considerable progress in their memory indicators; from a low level they achieved a high level. Five children showed improvements in their visual perception; four went from average to high, and one student went from low to average.

In children with mild ID, floor projection enhanced physical (balance and coordination) and cognitive (attention, memory, and visual perception) abilities.

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Characterization of sport volunteering in Spain: The perspective of institutions

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Keywords: volunteers, sports, regulation, workforce, labour

In Spain, volunteer work is regulated by Law 45/2015 and has a substantial presence in universities and sports clubs. However, little is known about how sport volunteering manifests in other kinds of institutions. Thusly, as part of the V4V Project by the European Observatoire of Sports Employment (EOSE) in which the Chair ‘Fundación Sanitas’ for Studies for Inclusive Sports (CEDI) participated, a characterization of its general situation in Spain according to employers was drawn upon.

An international survey was conducted in Europe between May to July of 2022 to characterise volunteer work regarding type of respondent organization, perceptions, and opinions about sports volunteers, volunteering skills, and overall volunteers’ management.

Out of 2,723 valid European responses, 70 of them corresponded to Spain (2.6% of the sample). The main findings were: (1) A substantial gender bias regarding female participation, men being volunteers three times as much as women. (2) Mostly men and women, respectively, fulfilled directive and management roles. (3) Volunteers were highly valued socially and considered fundamental for implementing sports events. (4) The social composition of volunteers was considered to meet the diversity of people in society. (5) When compared to the European average, volunteer labour does not exceed 33% of replacement of professional workers. (6) Additionally, technical and specific knowledge and high motivation were deemed as crucial for volunteer work. (7) Lack of time and lack of recognition were considered the main obstacles to become a volunteer.

The Spanish sports volunteer situation is a complex phenomenon, with females tending to participate differently from males due to social impositions. The general specific Spanish volunteer numbers are influenced by national regulations, and volunteering as a whole has with a strong socially positive image, while facing structural challenges to expand and gain further acceptance at a quotidian and base level.

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The use of pick and roll in elite basketball for people with intellectual impairment

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Keywords: para sport, intellectual disability

Basketball is characterized as a team sport in which decision-making and cognition has a high implication. In basketball for people with intellectual impairment (II), previous studies found that offensive individual tactics are those game performance components more affected negatively by the impairment. This study investigates the application of the pick and roll (PNR) strategy in basketball played by individuals with II. It aims to validate an observational tool for analysing PNR in games, identifying how II affect the effectiveness of this strategy compared to conventional basketball.

The research analysed 16 basketball male games from various championships between 2017 and 2022, utilizing a validated observational tool to assess all PNRs performed. Five expert coaches validated the tool through an online questionnaire. Teams final ranking was recorded.

The analysis revealed that from the total number of games, only 44 PNR were performed, which means an average of 2.75 (SD = 3.3) PNR per game. From all PNR, 21 of them finalised with shot, 21 with pass and 2 with other actions. Only 25% of the plays finalised with success. In this sense, it is relevant to indicated that, during the final game of the VIRTUS Games in 2019, no PNR were found. These numbers seem to be low when comparing the use of PNR in basketball for athletes without II, as studies observed an average of 20 PNR per game. Also, there was no significant correlation between the effectiveness of PNRs and the teams' final ranking in the championships studied.

The study concludes that while PNR is a critical offensive strategy in conventional basketball, its application is significantly less in basketball for people with II. This discrepancy might be attributed to the cognitive challenges faced by these athletes during the game.

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Activate Bailando: Feasibility of a community-based dance program for latino/a older adults in Wisconsin

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Keywords: Healthy Aging, Socialization, Balance, Mobility

Latino/a older adults are more prone to age-related disabilities (Hayward et al., 2014) and exhibit lower levels of physical activity (PA) compared to older white adults in the United States (Crespo et al., 2000). While PA, including dance, is known to maintain balance, enhance quality of life, and mitigate social isolation with age, there's a scarcity of tailored community-based PA and dance programs for this population (Sherrington et al., 2020). This study aimed to evaluate the feasibility, acceptability, and preliminary effectiveness of Activate Bailando, a community-based dance program for Latino/a older adults.

Latino/a older adults (12 females, 1 male) ages 64 to 81 years ($M = 73.4$ $SD = 5.44$) underwent pre- and post-tests. Feasibility was assessed by tracking recruitment, attendance, and retention. Acceptability was evaluated via post-program, semi-structured interviews, that were analysed using thematic analysis (Braun & Clarke, 2021). Preliminary effectiveness of the program on mobility, balance, loneliness, and social engagement were evaluated pre and post.

During the 6-week program, the average attendance was 16 participants, and 72% of those who completed the pre-test ($N = 18$) also completed the post-test ($N = 13$). Reasons for absences included lack of transportation and illness. Preliminary analysis suggested potential improvements in socialization and PA engagement.

Preliminary evidence suggested that Activate Bailando was a feasible and acceptable program for Latino/a older adults.

While no significant effectiveness changes were observed, the data collection process was deemed acceptable, suggesting potential for further investigation. A larger pilot study is needed to determine effectiveness and explore its application for those aging into disability. Additionally, these findings emphasise the importance of tailored community-based interventions for Latino/a older adults to achieve a healthy and active life. Integrated dance programs within health promotion initiatives show promise in improving social well-being by addressing disparities in PA and health outcomes.

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Reverse Integration to teach students about inclusivity within Sport Science Higher Education

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Keywords: Inclusion

This study builds on prior research (Ramsden et al, 2023), which explored the effects of reverse integration in fostering inclusivity in wheelchair basketball (WB). We now aim to explore the potential impact of using reverse integration in higher education context to teach students about inclusivity and disability sports. We offered a WB session and qualitatively explored students' perceptions and understanding of inclusivity and disability sports after the session.

Fifty-two sport science students engaged in a practical WB session, in which they played with four national disabled athletes. A post-workshop focus group took place involving 8 students, facilitating in-depth discussions and reflections on their disability sport experiences, and understanding. Thematic analysis was employed to explore students' perceptions and experiences of reverse integration in WB.

Thematic analysis of the focus group discussions and feedback revealed four key outcomes: 1) Understanding through Active Participation: Active participation led to a shift in students' understanding of disability sports and inclusion; 2) Empathy: Direct interaction fostered a sense of empathy as students gained insight into the athletes' perspectives and daily struggles; 3) Athletic Perception; The recognition of athleticism required to play WB was highlighted after students experienced it firsthand; and 4) Understanding Challenges and Barriers: After engaging with the athletes, students appreciated the unique challenges and barriers faced by athletes living with a disability.

In essence, these findings underscore the potential of reverse integration in educating students about inclusivity within higher education. Active engagement in WB not only deepened their understanding and empathy but also heightened their awareness of the challenges inherent in disability sports. In summary, this approach supports our previous research on how reverse integration can promote inclusivity. Future implications may include reverse integration approaches into broader educational curricula to foster inclusivity across disciplines.

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The Spanish school age regional team championships (CESA): The basis of inclusive competition in Spain.

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Keywords: inclusion, disability, competition, sports development

The Spanish Championships by Autonomous Communities in School Age (CESA) is an initiative created by the Consejo Superior de Deportes and together with the Spanish sports federations, they aimed at athletes of lower categories to promote grassroots sport and sports development. Since 2018, the inclusive modality has been introduced in these championships and there are currently nine sports modalities that hold an Inclusive CESA, where athletes with and without disabilities compete in the same team in a joint and equal manner (Pérez-Tejero and Pérez-Rodríguez, 2021). The aim of this study was to know the opinion of the participants in these inclusive championships and to see if they are a beneficial tool in favour of sport inclusion.

The participants of this study were the 127 people who answered the online ad hoc questionnaire on inclusive CESA. In total, there were 68 athletes, 50 coaches, 2 referees, 5 federations/organizations and 2 family members from five different sports modalities (table tennis, swimming, badminton, rugby, and triathlon). The instrument was an online questionnaire in which there were nine questions with a Likert-type scale with five response options and a final open question.

Participants indicated great difficulty in including people with visual impairments in most of the sports modalities, while they considered it easier to include people with physical disabilities. All federations showed a high degree of agreement regarding adaptations in competition and how these facilitate the development and participation of all athletes.

To conclude, the participants, highlight the importance of these championships at school age, as they increase the number of competitions during the year, especially, in the case of people with disabilities, who usually have fewer opportunities to compete during the season. In addition, they mention the importance of maintaining these initiatives to include athletes with disabilities, favouring their visibility and socialisation.

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I Inclusive Games 2020: a tool to foster inclusion within Spanish sports federations from stakeholders' opinion.

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Inclusion is one of the most powerful social movements of the last 25 years. However, in the field of sport there are still many aspects to be addressed. In the case of Spanish sports federations, it is remarkable that they are currently struggling to move towards this inclusion, especially in the context of the new Sports Law (39/2022). A good example of inclusion in sport was the I Inclusive Games (held in October 2022), an event in which Olympic and Paralympic athletes competed together in nine sports modalities, in which 13 national sports federations participated. Therefore, the aim of this study was to analyse the opinion of the Spanish sports federations participating in the 1st Inclusive Games, assessing their (possible) influence on the inclusion perspective of the stakeholders of the sports federations (athletes, coaches and federation managers).

The participants were athletes (N = 42), coaches (N = 20) and federation managers (N = 13) and were asked about their opinion about the I Inclusive Games using an online open question right after the Games. The responses were analysed by triangulation following an inductive process, identifying emerging themes according to the relationship between the responses.

After the qualitative analysis and through the triangulation process, the categories emerging from the participants' responses were: 1) equal participation, which encompasses sport for all, equality, and a common goal; 2) awareness, which includes non-discrimination and barrier-free participation; 3) socio-affective valuation, involving emotional and social aspects; and 4) proposals for improvement, including organization, competition rules, and promotion and visibility.

Finally, the opinion of the participants in the 1st Inclusive Games has been analysed, who see this event as an opportunity to continue advancing towards inclusion and as a great showcase for people with and without disabilities.

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Effect of a hybrid format of training program for improving self-efficacy of personnel involved in inclusive physical education

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Keywords: Self-Competence, Inclusion, School

This study examines the effectiveness of the modified version of a teacher-designed program, *Incluye-T*, for enhancing self-efficacy (SE) of in-service physical educators towards including students with intellectual, physical, and visual disabilities. The original six-session program proved effective but revealed a deficiency in prior knowledge concerning these disabilities. A hybrid iteration of the program was developed to assess its impact on SE and its consistency across various demographic variables.

Three courses of the hybrid *Incluye-T* version were conducted in three locations in eastern Spain, involving a valid sample of 59 professionals characterized by the following demographics: (1) age [$M = 41.6$ $SD = 5.5$ years], (2) service experience [$M = 12.9$ $SD = 8.9$ years], (3) gender [47.5% male, 52.5% female], (4) educational roles [62.1% Physical Education (PE) teachers in primary school, 24.1% PE teachers in secondary school, 13.8% support personnel], (5) prior training in inclusive PE [42.4% yes, 57.6% no], and (6) previous experiences with students with disabilities [79.7% yes, 20.3% no]. SE was assessed with the Spanish version of the Scale of Physical Education Teachers' Self-Efficacy Toward Students with Disabilities (EA-PEF-AD-2), administered both before and after the courses. Interventions comprised two online sessions of 2 hours each (initial and concluding), along with four practical face-to-face sessions of 3 hours each. Additionally, self-directed instructional materials were accessible on a Moodle platform prior to each practical session.

A mixed-repeated measures ANOVA was conducted, revealing a significant effect of the intervention across all three SE subscales: $p < .001$, $\hat{I}^2 = 0.52 - 0.71$, large. Interaction effects were not observed for the demographic variables, except for the intervention*experience in the physical subscale ($p = .046$).

This study provides evidence that a condensed and hybrid iteration of the *Incluye-T* program effectively enhances SE not only of primary and secondary school PE teachers, but also of support personnel involved in integrating students with disabilities into PE classes.

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Motor difficulties in athletes with intellectual disabilities: possible associated factors and functional impact

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Keywords: tennis, MABC-2

The aim of this study was to describe non-motor factors that may affect movement in athletes belonging to the "Más Que Tennis" program of the Rafa Nadal Foundation.

The sample consisted of 51 participants (71% males) with intellectual disabilities, aged between 16 and 54 years (average 34.5). Intellectual quotient was assessed using the Kaufman Brief Intelligence Test, and motor skills were assessed using the Movement Assessment Battery-2, which also includes the Behavioural Observation Checklist completed by parents or primary caregivers.

According to the normative scores of the Movement Assessment Battery-2 for their mental age, they present difficulties as a group in Manual Dexterity and Balance (ANOVA, $p < .01$); these challenges vary based depending on the degree of disability (better performance in the group with mild intellectual disability), but there are no differences by sex or age.

With the data obtained from the Behavioural Observation Checklist, possible behavioural factors contributing to this low motor performance were analysed. Most of our cases did not exhibit disorganization, passivity, anxiety, impulsivity, or hyperactivity; they did not show low frustration tolerance and were capable of deriving satisfaction from success (Friedman, $p < .001$). On the other hand, the families of the athlete's reported that movement difficulties did not have functional impact in any of the analysed areas, with no differences between them; school/work, recreational, social, and self-esteem (Friedman, $p = .125$). These results are similar (Mann-Whitney U test) when grouping participants by gender, age, or intellectual quotient.

The motor difficulties of our athletes with intellectual disabilities likely form part of their cognitive-behavioural phenotype and do not functionally interfere with the performance of their activities or in the socio-emotional area.

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Study of motor skills in athletes with intellectual disabilities using the Behavioural observation checklist of the Movement assessment battery-2

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The aim of this study was to describe the motor skills of a group of athletes belonging to the "Más Que Tennis" program of the Rafa Nadal Foundation.

The sample consists of 51 participants (71% males) with intellectual disabilities (ID), aged 16 to 54 years ($M = 34.5$). Intellectual quotient (IQ) was evaluated using the K-BIT (Kaufman, 2011), and motor skills were assessed using the Behavioural Observation Checklist (BOC) of the Movement assessment battery-2 (Henderson et al., 2012). A factorial analysis of BOC items was performed, and descriptive statistics and comparative results were provided.

The mean verbal IQ ($M = 59.78$; $SD = 18.14$) and non-verbal IQ ($M = 61.25$; $SD = 13.51$) correspond to mild ID, although 39% of the sample fell into the moderate ID. In the BOC, 70.6% of the studied sample exhibited mild motor difficulties. And, as a group, they showed better performance in a static/predictable environment than in a dynamic/unpredictable one (Wilcoxon: $p = .013$). After an exploratory factor analysis, BOC items were grouped into 4 factors (KMO: 0.746 and MSA: 0.56-0.93), explaining 70% of the total variance, related to the context in which motor behaviour occurs: Personal Autonomy, Playful-Sports, Balance with Objects, and Social. We observed better performance in motor activities related to Personal Autonomy, which significantly differed from the other dimensions (Wilcoxon: $p = .001$) and was better in those over 25 years old (Mann Whitney U: $p = .001$). Males achieved better performance in the Play-Sports field (Mann Whitney U: $p = .008$). However, results did not differ by degree of ID.

In our athletes with ID, motor skills related to a predictable environment and activities of personal autonomy in daily life are more preserved.

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Perception of inclusion in school education of students with diverse morphofunctional potential and the adaptation of physical education

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A modern school, implementing the idea of inclusive education, faces the challenge of “offering high-quality education for all students” [1]. Evaluation of the school's activities in this area should take into account students' opinions on whether they feel included. It may be a base for modifying the teaching process also in physical education (PE). The aim of the study was to assess students' perception of inclusion in school education in the context of the possibility of modifying the teaching process (adaptation of methods and forms) in PE lessons.

The study involved 43 students (17 girls and 26 boys, age $M = 15$, $SD = 1.1$) of a secondary school in Mysłowice, Poland. The assessment of morphofunctional parameters (body height (BH), body weight (BM), body composition) was carried out by direct observation in Laboratory of Densitometry and Diagnostics of Body Structure, Composition and Posture (PN-EN ISO 9001:2015) in Institute of Healthy Living (Jerzy Kukuczka Academy of Physical Education). The perception of inclusion in three aspects: emotional, social, and academic self-concept was assessed using the Perception of Inclusion Questionnaire (PIQ) - Polish version.

Overall, the $M_{BM} = 67.3$, $SD = 13.1$, $M_{BH} = 175.9$, $SD = 7.7$. Both girls and boys rated their sense of inclusion the highest in the social aspect and the lowest in the emotional aspect. Significant differences between genders were noted for the question of academic self-concept: boys more often than girls indicated that they could perform difficult tasks/exercises ($p < .03$). There was a significant correlation between the level of inclusion in the aspect of academic self-concept and the age of students ($R = .3$, $p < .03$).

Assessment of students' perception of inclusion in school education should be the base for modifying the teaching process, i.e. adapting methods and tasks, in line with students' needs.

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Reliability and association between different physical fitness field tests in wheelchair basketball players.

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Keywords: Change of Direction, sprint

We sought to evaluate the inter-session reliability of different field tests for assessing physical fitness in wheelchair basketball (WB) players including sprinting, change of direction (CoD), throwing and bench press. Additionally, we analysed the association between medicine ball throw (MBT) distance and the bench press mechanical outputs, and between sprint and CoD performance.

Ten WB players (27.8 SD = 9.8 years old and 82.96 SD = 17.25 kg counting the wheelchair) from the Spanish national league voluntarily participated in the study. Sprinting (3m, 6m and 12m), CoD (3L3R test) and strength (bench press and MBT) were evaluated. Statical analyses included calculation of the mean and standard deviation was conducted using standard statistical We assessed the distribution and variance of the data using the Shapiro-Wilk normality test. To evaluate the reproducibility (test-retest) of the Medicine Ball Throw (MBT), sprint, and 3L3R test, we employed the intraclass correlation coefficient (ICC). The best performance from each test was selected for further analysis, with statistical significance set at $p < 0.05$ in the correlation matrix.

All tests showed 'good-to-excellent' reliability. The MBT, in its three weights (3Kg, 5Kg and 8Kg) (ICC = .94 - 1.00); the sprint, in its three distances (3m, 6m and 12m) (ICC = .84 -.99); the CoD (3L3R) (ICC = .73 - .98). Additionally, significant statistical correlations were found between bench press mechanical outputs and MBT (r range = .68 -.77; p range: .009 -.030), and between sprinting and CoD (r range = .63-.86; p range: .001-.047). Therefore, the present results indicate that the sport-specific, ecological tests used in this study to characterize the physical fitness in national level wheelchair basketball players were reliable.

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Organised weekly physical activity and movement behaviour of children using wheelchairs - an explorative interview study

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Keywords: Physical disability, Youth, Physical exercise, Sports, Participation

Organised physical activity (OPA) has numerous health benefits for people with physical disabilities (Anderson & Heyne, 2010). Due to its regularity, it can make a great contribution to fulfil the physical activity (PA) recommendations. Nevertheless, less is known about OPA in children using wheelchairs. Therefore, the present study aimed to get a deeper understanding of OPA and possible influencing factors in children using wheelchairs.

In summary, seven boys and five girls aged 7-11 ($M = 9.67$; $SD = 1.49$) years participated in the present qualitative interview study. Using a semi-structured interview guideline, participants were asked about their habitual daily and weekly activities. The interviews analysed OPA type, duration, setting and intensity for each activity (Seale, 1999). Further, to identify influencing factors of participants' OPA behaviour, a qualitative content analysis with an inductive approach was performed (Kuckartz, 2018).

The following settings were identified across OPA: (club) sport programs, physical education, and therapy. Thereby, a lack of wheelchair-sport opportunities, as well as a lack of accessibility and a lack of competence of teachers and coaches regarding dealing with children using wheelchairs were identified as main barriers. The children revealed a mean duration of 88.3 minutes ($SD = 84$) of light PA and 166.9 minutes ($SD = 59.7$) of moderate to vigorous PA per week across OPA.

As conclusion, the participants cover only 39.7% of the PA recommendation with OPA. Therefore, coaches and teachers need more expertise in dealing with children using wheelchairs. Further, public buildings and schools have to be more accessible and offers of inclusive sports programmes for children using wheelchairs should be increased. The setting therapy is an additional source of PA which should be examined more closely in future studies.

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Slow Motion Soccer; an innovative approach to independent ball skill development

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Keywords: Accessible PE Consulting, LLC, USA

sensory soccer, Vygotsky, remains in play

Slow Motion Soccer Ball was created the fall of 2010, as an innovative approach to teaching independent ball skills for students with disabilities, students with coordination issues. The concept of slowing a ball which would enable students with disabilities, coordination issues, specifically, students on the autism spectrum to easily track the ball was the criterion. The slow motion of the weighted ball allowed the ball to remain in play creating opportunity for repetitive trials. Because of the nature of how the ball rolls, the ball also stays within the zone of proximity (Vygotsky) which affords children a great propensity to play.

Inserting 283 g of sand into a regular soccer ball created a unique feature which allowed the ball to move slower and remain in play. Experimenting with various weights over a three-month time period, 170 g, 226 g, and 283 g, demonstrated that 283 g of sand was a successful weight for independent ball skill activities. Children on the Autism Spectrum specifically gravitated to the ball with 283 g of steel bird shot.

Experimenting with various weights over a three-month time period, 170 g, 226 g, and 283 g, demonstrated that 283 g of sand was a successful weight for independent ball skill activities. Sensory Soccer with 283 g of steel bird shot demonstrated a successful strategy for students with visual impairment and students on the Autism Spectrum. The weight of the ball, slow motion of the ball, and sound of the ball were successful strategies for engaging children on the Autism Spectrum.

Research trials conducted by Ratsakatika (2012) demonstrated significant increase in soccer style dribbling for students with disabilities, specifically, students on the Autism Spectrum. Students with disabilities have the opportunity to practice, practice, practice, independently.

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Inclusion 2024: What can we learn from national investment in SEND inclusion in PE?

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Keywords: Education, Inclusion, National Programme, Young People

To deliver a hub and spoke continuous professional development (CPD) and support model to help school staff provide inclusive physical activity (PA).

Over 1.5 million young people in England have special educational needs and disabilities (SEND) (Department for Education, 2023). Disabled children are less likely to be active or fairly active (Activity Alliance, 2020). Children with disabilities are also less likely to enjoy physical education (PE) (Youth Sport Trust, 2023). Schools play a unique role in ensuring that all young people have access to high quality PA opportunities.

The Inclusion 2024 programme increases opportunities for SEND pupils to participate in PE and School Sport. It is funded by the UK Government Department for Education and works through a network of local Lead Inclusion Schools.

The Inclusion 2024 programme has been evaluated by ASK Research. A mixed methods approach was used. Data sources included monitoring data, surveys, in-depth interviews and case studies.

The first two years of the evaluation showed Lead Inclusion Schools have:

- Supported inclusive practice in PE and School Sport through over 34,000 interactions with individuals, giving advice, training and guidance
- Delivered over 10,000 CPD participation opportunities
- Shared information on inclusive practice to over 16,000 schools
- Modelled inclusive practice for over 4,000 individuals

Evaluation evidence demonstrates that the programme is increasing the awareness of the need for inclusive PE and School Sport. It highlights the important role that the Lead Inclusion Schools play, and key transferable learnings about the role of an individual embedded within the local context. The programme is beginning to show impacts at the pupil level with more pupils with SEND engaging in PA, and effects on staff include confidence in delivery and inspiration to tailor their provision. Effects are moderated by barriers at school and system level.

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A blow darts program for adults with spinal cord injuries: effects on psychological measures

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Keywords: Wheelchair sports, Psychological rehabilitation, Recreational therapy

Wheelchair blow darts could offer inclusive leisure for individuals with spinal cord injuries (SCI), aiming to boost psychological rehabilitation.

Eight SCI patients (7 males, 1 female) from a Spanish disability centre, average age 44.3 years (SD = 8.0), mostly with C4-T5 injuries (75%), and an average of 10.6 years post-injury, participated in a 17-week blow darts program as part of their comprehensive rehabilitation. The program, conducted by sports science graduates, including four weekly one-hour sessions. Psychological evaluations—using Rosenberg's Self-Esteem Scale, State-Trait Anxiety Inventory (SAI and TAI), SF-36, and the Identical Pictures Test (IPT)—were administered pre- and post-program in a one-group pre-test-post-test design. Data were analysed with paired-sample t-tests and effect sizes calculated according to Lakens (2013).

Self-esteem slightly declined from a mean of 26.38 (SD = 3.58) to 25.00 (SD = 2.14), $t(7) = 0.84$, $p = .43$, 95% CI [-2.47, 5.21], with a small effect size (Hedges's $g_{av} = 0.41$). Changes in SAI and TAI were statistically insignificant with negligible effect sizes (SAI: $t(7) = 0.59$, $p = .57$, 95% CI [-3.36, 5.60], Hedges's $g_{av} = 0.12$; TAI: $t(7) = 0.59$, $p = .58$, 95% CI [-7.22, 11.97], Hedges's $g_{av} = 0.22$). SF-36 scores slightly decreased from 81.63 (SD = 9.78) to 79.25 (SD = 5.47), $t(7) = 0.72$, $p = .50$, 95% CI [-5.43, 10.18], with a small effect size (Hedges's $g_{av} = 0.27$). No significant change was observed in IPT, with scores reducing from 28.50 (SD = 11.45) to 28.13 (SD = 12.12), $t(7) = 0.21$, $p = .84$, 95% CI [-3.93, 4.68], with a negligible effect size (Hedges's $g_{av} = 0.03$).

The intervention yielded no significant improvements in self-esteem, state anxiety, trait anxiety, quality of life, or interpersonal trust, with negligible to small effect sizes indicating minimal impact on outcomes.

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Exploring the Impact of a 17-Week Blow Darts Program on Shooting Proficiency in Individuals with Spinal Cord Injury

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Keywords: Wheelchair sports, Psychological rehabilitation, Recreational therapy

Blow darts present a novel rehabilitation avenue for individuals with spinal cord injury (SCI). This study examines the impact of a 17-week blow darts program on improving shooting strength and accuracy in people with SCI.

Eight individuals with SCI, 7 males, 1 female, mean age 44.3, mostly C4-T5 injuries (4 paraplegia, 4 tetraplegia), mean 10.6 years post-injury, 62.5% complete (AIS A), and 37.5% incomplete (AIS B, C, D), participated in the study. They engaged in 4 weekly hour-long sessions led by sports science graduates (Suárez-Iglesias et al., 2023). The strength test evaluated their dart-throwing proficiency across distances of 1 to 7 meters, recording the number of darts stuck in 2 trials of 3 attempts each, with a 90-second rest interval. The accuracy test assessed their precision in hitting specific sections of the dartboard, divided into 4 major sections (S1-4) with 5 areas each. Each participant shot 3 darts per area, earning scores ranging from 10 to 0 based on the accuracy of their throws.

Their shooting strength increased, with the accuracy of darts sticking to the board rising from 57.7% to 62.4%. The frequency of darts touching the board also grew from 17.3% to 21.2%, while darts not touching the board decreased from 25.0% to 16.4%. Second, in the shooting accuracy test, participants improved across all dartboard sections, with scores ascending from 64.4 to 81.9 in S1, 54.0 to 70.7 in S2, 66.1 to 69.9 in S3, and 62.1 to 72.3 in S4.

These results underscore a significant enhancement in participants' dart shooting capabilities. The increase in shooting strength and accuracy across all dartboard sections highlights the group's overall progress, showing they achieved more precise hits and reduced misses, indicating improved skill and consistency in their blow dart performance.

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The journey of Brazilian Paralympic women through the lens of Feminist Disability Studies

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Keywords: paralympic sport, disabled woman, paralympic athlete, life history

The invisibility of disabled women is accentuated in Paralympic sports, where these women encounter a complex intersection of gender and disability, among other oppressive forces, in a predominantly male and able-body environment. This study aimed to shed light on and comprehend the life stories of these women in sports.

Through a post-structuralist approach and emancipatory agenda, the research delved into the life history of 4 female paralympic athletes. As a purposeful initiative driven by dialogue among individuals, interviews were conducted, acknowledging their close connection to the current moment and dedication to memory recall. Through ongoing listening and inquiry, empirical data was curated by focusing on individual experiences and their associated meanings. Subsequently, life histories were analysed through the lens of Feminist Disability Studies, an interdisciplinary area committed to integrating and intersecting disability and gender, while actively reframing experiences.

The life history revealed the labyrinthine paths of disabled women in and towards sports. Firstly, they all grappled with the challenge of questioning the dominance of the medical model in defining disability. Secondly, their lives demonstrated persistent resilience during their immersion in sport, with a sporting initiation fraught with limitations and stigma - especially evident in the ableist setting of school physical education. Yet, all ascended to elite sporting careers, subsequently encountering the transformative journey of becoming Paralympic athletes.

As Paralympians, they reshape their perceptions of disability, scripting new narratives as women in sports. Despite confronting male hegemony and stereotypes of masculinity in elite Paralympic realms, a shift in their perception of their voices within sports is discerned — a manifestation we interpret as an exploration of the social model through the feminist lens of disability. The narratives disclose how disability has evolved dynamically, aspiring to be recognized alongside other social categories.

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Talent recruitment in paralympic sport: potentials and challenges of extracurricular cooperations in special needs education

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Keywords: physical impairments, physical education, qualitative methods

In Germany, recruiting young talents in paralympic sport is different from talent recruitment in other youth competitive sports. This is because students with moderate to severe impairments who attain special needs education face organizational challenges such as long and strenuous commutes to their schools. Compared to youth in non-paralympic sports they show lower participation rates in organized sport (Fessler, 2000). This study investigates the potential of extracurricular sports cooperations in special needs schools for an easier transition into paralympic sport, comparing it to recruitment strategies in non-paralympic youth sports.

The total population of all head-teachers at special needs schools for students with physical impairments in the province of Baden-Wuerttemberg/Germany (N = 50) were provided a digital questionnaire with open and closed items, covering questions with regards to extracurricular sports cooperations in their schools. These questionnaires were evaluated descriptively to determine the sample for the interviews: PE-teachers (N = 21) from schools which already have established extracurricular cooperations were surveyed with narrative interviews on development, goals, and outcomes of these cooperations. The interviews were evaluated with content-structuring qualitative content analysis.

Out of the N = 50 schools being covered, N = 13 schools in total have established extracurricular sports cooperations with external stakeholders. The diversity of disciplines varies greatly. Many sports being offered are not part of the paralympic program. While all schools deem cooperations with organized paralympic sports bodies as desirable, only N = 7 have succeeded in establishing such cooperations while some paralympic disciplines such as track and field are highly underrepresented.

A few special schools in Baden-Wuerttemberg have succeeded in establishing extracurricular sports cooperations with stakeholders from paralympic sports. However, when compared to general education, structural challenges for a transition into competitive sports remain.

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Class-wide peer tutoring as a strategy for participating sport in inclusive physical education

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Keywords: Down syndrome, primary school, qualitative research, natural supports

Class-wide peer tutoring (CWPT) is an effective teaching strategy to allow students with disabilities to participate in sports during inclusive PE classes. During CWPT, a student performs the motor skills, while another student gives feedback.

The aim of this study is to investigate the findings of typically developing (TD) students and those with Down syndrome (DS) when they are paired together during CWPT.

Five primary schools in Belgium. 20 students without disability, 5 students who acted as a peer tutor of the students with DS and 5 students with DS participated.

A mixed-methods design was used to obtain the experiences of students as a dyad in class-wide peer tutoring.

During the qualitative research 3 methods were used to collect the data, namely field observations, self-assessment, and focus groups of the students.

Some of the most important results included the following: Students with and without DS found it nicer to get feedback from a partner than from the PE teacher. They expected their partner to pay attention to themselves and correct well during peer tutoring. The TD students wanted to change partners more quickly in the future. On the other hand, the students with DS wanted to work even more with their assigned peer tutors, because they were their friends. The Students with DS were able to give feedback to their partner. The peer tutors of the students with DS connected with them well and involved them in a creative way during the practice moments.

All students and those with DS find that CWPT is a meaningful method to participate in sports during inclusive PE classes. TD students were natural supporters so that the students with DS could optimally engaged.

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A water-based intervention for a young adult with cerebral palsy: A case study

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Keywords: Hydrotherapy, adapted, sports club

Water-based interventions have the potential to increase the skills of people with cerebral palsy (CP) both in and outside of aquatic environments. In addition, they are considered highly enjoyable. However, to date research concerning exercise effectiveness and dosing adapted to age and Gross Motor Function Classification System (GMFCS) levels is scarce. The purpose of this study was to describe and evaluate a water-based intervention (Halliwick) for a young adult with CP.

A male (21 years) adult with CP participated in a series of 10 lessons (45 minutes) based on the Halliwick concept (hydrotherapy). Pretest, post-test and retention (after 19 weeks) measures were assessed for the Water Orientation Alyn 2 test (WOTA2) in the swimming pool and the Gross Motor Function Measure (GMFM) on the pool deck. The Cerebral Palsy Quality of life (CP-QOL) was taken at pre- and post-test.

From pre- to post-test, there were increases in 6 out of 14 items. The total WOTA2 (WTOT) increased from 29% to 44%. However, retention scores were below the baseline level with a WTOT of 25%. For the GMFM, only A (lie down and roll over), B (sitting) and C (crawling and kneeling) could be assessed. Increases from pre- to post-test could be found in dimension A (57% to 69%), dimension B (36% to 38%) and dimension C (33% to 56%). Retention scores were lower for A (48%) and C (42%), and higher for B (52%). The overall score on the CP-QOL was 95% at pretest and 98% at post-test.

Following the water-based intervention all parameters increased from pre- to post-test. However, at retention most scores decreased below the baseline level, while quality of life scores were considered good at both pre- and post-test. Future water-based interventions for children with CP are needed to assess their effect on skill development.

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Physical activity levels and contextual variables during physical education in special school in Flanders

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Keywords: health promotion, intellectual disability

Literature on physical activity (PA) during physical education (PE) in special schools is scarce (Sit et al., 2007). The purpose of this study was to investigate PA levels, lesson context, and teachers' PA promotion during PE in special schools for children with an intellectual disability.

Children (N = 52, 24 boys, 28 girls) from two elementary and two secondary classes in four different special education schools for children with intellectual disabilities in Flanders participated. The System for Observing Fitness Instruction Time (SOFIT) was used to code children's PA, teacher's lesson context, and PA promotion during PE. In total 24 physical education lessons of 50 minutes (4 teachers) were analysed by trained coders based on video recordings. Inter observer reliability was 85% for all dependent variables, while 88% of the dataset was coded by two independent coders.

Children spent on average 33% of lesson time in moderate-to-vigorous physical activity (MVPA). There were no significant differences for MVPA between elementary (33%) and secondary (32%) school children. Similarly, no significant differences were found for higher (32%), average (33%), and lower skilled children (32%). In contrast boys had higher MVPA levels compared to girls (36% vs 30%; $p < .05$). PE teachers spent most time in management (43%) and skill practice (35%), followed by knowledge (22%). There was no out-of-class PA promotion, while there was in-class PA promotion during 15% of observed intervals in PE lessons.

Children with intellectual disabilities do not meet the benchmark of 50% MVPA during PA. Future interventions might focus on how to increase MVPA levels of children, while simultaneously learning motor skills. One aspect of such interventions might be the decrease in the time PE teachers spent on management, while maximizing skill practice time.

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Accessibility of sports facilities

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Inaccessibility of facilities is a key factor hindering people with disabilities from participating in sports (Jaarsma et al. 2014). As accessibility is a complex, relational phenomenon (Mauerberg-de Castro, 2017), planning and developing sports facilities find it difficult to adequately consider the numerous, sometimes contradictory indicators of accessibility provided in practical guidelines and technical building standards (Wallrodt & Thieme 2021). The project presented aims to create a system that enables the needs-specific identification and prioritization of accessibility criteria for sports facilities.

Firstly, we conducted a scoping review (Arksey & O'Malley, 2005) of guidelines and technical norms on the accessibility of sports facilities in Germany (N = 16). Secondly, to find patterns of prioritization, expert interviews were conducted with stakeholders (N = 21) from different disability sports associations, sports facility construction, and planning offices.

In the document analysis, 1549 single indicators were extracted and coded systematically. The interviews revealed that all experts find it difficult to prioritize any group of criteria, because that might imply discrimination of specific groups and the validity of the construct of accessibility (for all) would be questionable.

Results indicate that previous approaches do not fully reflect the concept of accessibility, but certain groups of (disabled) people and sports facilities are, implicitly, given priority. Thus, unreflected prioritizations and exclusions of criteria lead to a lack of scientific validity and unfounded discrimination against specific groups of disabled people.

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Analyzing variables influencing goalball throwing speed: insights from elite athletes

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Keywords: Visual Impairment, Paralympic

The evolution of one of the Paralympic sports created exclusively for people with visual impairments has become more rooted in scientific analysis. Notably, the speed at which the goalball is thrown stands out as a crucial element in scoring goals in this sport (Morato et al., 2018). In this context, the study aimed to analyse variables associated with ball-throwing speed.

The study involved 16 athletes (10 men and 6 women), who are part of the Santos F.C. goalball teams, boasting a history of clinching national titles in both genders.

Various protocols were employed as part of these teams' routine assessments. These encompassed body measurements (height, wingspan, hand size), handgrip dynamometry (HG), jumping tests (SJ and CMJ), and ball speed measurements (stationary—Arm and free).

The collected data underwent a descriptive analysis, and linear regression was applied, treating ball speeds as the dependent variable and the results of the single and combined measurements as covariates. The tests were carried out in JASP statistical software package version 0.18.3 (JASP-Team, University of Amsterdam, Amsterdam, The Netherlands), and $p < .05$ was used.

Mean and SD of Goalball athletes

Hand M = 19.4 SD = 1.38, Wingspan M = 173.00 SD = 14.31 Height M = 168.75 SD = 10.90 Arm M = 8.02 SD = 2.14 Free M = 11.39 SD = 3.98 HG M = 41.14 SD = 14.91 SJ M = 33.12 SD = 9.02 CMJ M = 33.98 SD = 9.82

Results of Linear regression of Ball Speed and athlete characteristics

Free 0.503(Wingspan) 0.447(Hand) 0.407(Height) 0.714(HG) 0.581(SJ) 0.637(CMJ) 0.720(HG/SJ) 0.724(HG/CMJ) 0.795 (HG/Hand) 0.851(SJ/HG/Hand) 0.855(CMJ/HG/Hand)

Arm 0.496(Wingspan) 0.205(Hand) 0.441(Height) 0.621(HG) 0.525(SJ) 0.749(CMJ) 0.629(HG/SJ) 0.747(HG/CMJ) 0.648(HG/Hand) 0.683(SJ/HG/Hand) 0.870(CMJ/HG/Hand)

The results indicate the association between throwing speed and several variables. Combining factors such as CMJ, HG, and hand makes it possible to discern athlete training patterns and facilitate talent identification.

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Effects of rehabilitation exercise program on balance and mobility function for older adults with visual impairments in Korea

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Keywords: intervention

Vision plays a predominant role in human perception of external information, significantly impacting daily life and societal engagement. Older adults with visual impairments face dual risks due to impairment and aging, making them more vulnerable. Grounded in South Korea's Health and Welfare Law Article 15, this study explores the effects of a 12-week group-based rehabilitation exercise program designed for older adults with visual impairments. Fifteen participants each in intervention and control group (age M = 70.4 years) were recruited and participated in this study.

A 12-week intervention program (90 mins/session, twice a week) was designed for this study. Activities of the program included ball passing games, line dancing, strength exercises, and partner Pilates. Equipment, activities, and instructional strategies were adapted for the characteristics of older adults with visual impairments. The change of balance and mobility skills were measured.

Two-way repeated measures analysis of variance (ANOVA) revealed significant differences in balance functions, particularly in one-legged stance ($F = 39.03$, $p < .001$) and ankle mobility ($F = 23.066$, $p < .001$), whereas strength showed significant interaction effects, but no significance in post-hoc tests ($p = .655$). Among mobility abilities, there were no statistically significant differences in orientation test ($F = 2.455$, $p = .128$), while 10m straight walk test ($F = 11.838$, $p = .002$) and independent mobility questionnaire ($F = 37.489$, $p < .001$) exhibited significance.

The intervention program developed in the study appears to have positively impacted balance and mobility of the participants. Factors such as the group-based setting, active interactions, and weight shift activities seem to have contributed. As a discussion regarding variables that yielded statistically non-significant results, considerations may encompass the limitations of measurement tools, time-dependent maturation effects within the control group, and insufficient exercise duration. Still, this study pioneers a rehabilitation exercise program aligned with new laws, serving as crucial foundational material. The program has the potential to positively influence functional movement and community sports participation for older adults with visual impairments in Korea.

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The effect of physical activity on the functional capacity of adults with intellectual disabilities physical activity, functional capacity, adults, intellectual disability.

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Individuals with intellectual disability (ID) are less physically active, rarely reach the recommended daily level of physical activity (PA), and generally have a higher risk of hypertension and obesity-related cardiovascular diseases compared to individuals without ID. There is sufficient scientific evidence for the beneficial effects of exercise on the cardiovascular and muscular fitness of adults with mild/moderate ID.

The impact of different physical activity programs on the functional capacity of adults with mild and moderate intellectual disabilities were assessed.

All of the subjects were assessed using a 6-minute walk, lateral step, stand and go, stand-sit, and Tinetti balance test. Muscle-strengthening exercise in adults with ID was performed at moderate or above-moderate intensity, involving all large muscle groups. Additionally, training for at least 180 min/week moderate intensity was conducted. The reliability of the results was evaluated using the criteria of Student's t-test.

Participants: 21 persons with ID participated in the study; I group - nine subjects with mild ID (M= 32.14y, SD = 9.0) one time/week, II group - 12 subjects with moderate ID (M= 38.25y, SD = 13.39) 2 times/week for three months.

The frequency of cardiac contractions between groups did not differ statistically significantly ($p > 0.05$). The pre-exercise heart rate (HR) in group I was 89.14 ± 20.35 bpm, and after the study, it statistically significantly decreased to 69.71 bpm ($SD = 15.80$; $p < .05$). After the 6-minute walk test, the HR was 99.71 bpm ($SD = 23.13$), and after the exercise test, it decreased statistically significantly to 93.14 bpm ($SD = 13.40$). A statistically significant difference in group II was obtained when comparing the pre- and post-exercise HR at both baseline and retest ($p < .05$). The distance walked by subjects in the first group is statistically significantly higher before and after the study compared to the second group ($p < .05$). The difference of 3.11 s in the group I and 3.09 s in the group II, while Timed Up and Go test, was statistically significant ($p < .05$). The first group of subjects had statistically significantly better results both before and after the study, in functional muscle strength tests ($p < .05$).

Functional muscle strength improved significantly in both groups. Both static and dynamic balance tended to improve. Three months were sufficient to significantly improve the indicators of the cardiovascular system and exercise tolerance of all subjects.

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Workshops

Hiking and orienteering workshop on an all-terrain wheelchair

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Keywords: outdoor activities, adapted physical activity

The use of the mountain chair in outdoor activities has grown exponentially in the last decade. However, there is still a great lack of information about it. It is a tool that allows any person with a disability to hike with the help of at least two guides. The aim of this workshop will be for participants to learn and become familiar with the use of an all-terrain wheelchair.

The workshop will begin with an introduction of about 10 minutes in which the operation of the chair will be explained, and some videos will be shown where participants will be able to see its use in real activities in the natural environment. This model of wheelchair can be used for leisure or recreational activities, as well as for competitive events, making the right to enjoy the natural environment of people with physical disabilities a reality. Subsequently, a practice of about 40 minutes will be carried out with chairs in which participants will be able to experience the role of guide and passenger of the wheelchair. In this practice, in addition to moving with the chair, a O-Chair activity will be included. O-Chair is a new modality of orienteering using a mountain chair. In O-Chair the passenger gets a more active role. This modality consists of following an orienteering route marked on a map in which you must go through different control points to complete the route.

Finally, a brief evaluation and sharing will be carried out with the participants to evaluate the experience. It is hoped that this experience will serve to provide information and promotion of outdoor sports for people with disabilities.

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Professional content development workshop to increase the specialized content knowledge of teachers of dance

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Keywords: dance, adaptive physical education, physical education teachers

According to research in sports participation for people with disabilities in Flanders, dancing is in the top 5 of sports preferences with children and young people (Scheerder et al., 2018). Moreover, successful experiences with a certain movement skill can contribute to an active lifestyle later in life (Loprinzi et al., 2015).

This workshop will broaden your professional knowledge for teaching dance. The workshop content was developed and tested in the context of research with students with disabilities. We put following goals forward for this workshop:

- You will develop professional expertise in dance
- You will be able to adapt the curriculum in dance based on the needs of the students through appropriate task development
- You are able to distinguish correct and incorrect performances
- After recognizing incorrect executions, you are able to correct them appropriately.

Lund & Kirk (2019) describe three movement elements included in this workshop: 1) Where the body moves (use of space, directions, locomotor skills vs. object control); 2) How the body moves (force, flow and time with rhythm and cadence); and 3) With whom the body moves (relationship to material, to others, near, far). Additionally, Lund & Kirk (2019) describe the possibility of working inclusively on expressive skills through dance (working creatively and participating in a performance), in addition to working on cardio, strength and flexibility. Therefore, we chose to include improvisation.

In the workshop, we will also focus on task development. Instructions typically describe a basic task, i.e. informing task. However, teachers that go beyond this by adding more extension (easier or harder tasks), refinement (refinement of technique), and application (within a final form or game) tasks get more depth in their lessons, resulting in better student outcomes.

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Tchoukball inclusivo : aplicaciones desde el programa «Deporte inclusivo en la escuela»

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Keywords: Sport inclusion, disability, Physical Activity and Sport Sciences

El Tchoukball es un deporte de cancha compartida, mezcla de balonmano y voleibol, en el que dos equipos de siete jugadores cada uno, tienen que atacar (y defender el equipo contrario) pasándose un balón sin que éste pueda tocar el suelo y con ciertas limitaciones en el desplazamiento, hasta que uno de ellos lance al marco de rebote (o portería), pudiendo hacerlo en cualquiera de las dos porterías, intentando que en ese lanzamiento la pelota salga rebotada fuera del área y bote fuera de la misma, produciéndose así un gol. Por su parte, el equipo defensor, sin poder obstaculizar a los atacantes ni interceptar la pelota en los pases, tratará de atrapar esa pelota rebotada antes de que toque el suelo. Si lo consigue, se cambian los roles de juego y estos pasarán a ser equipo atacante. La duración de los partidos es de 3 tiempos de 15 minutos cada uno.

El Tchoukball no es un deporte específico de personas con discapacidad ni una modalidad paralímpica, pero cada es un deporte más popular desde que en 2001, fue abalado por la UNESCO como 'Deporte para el desarrollo, integración y la paz'. Debido a sus características lo hacen excelente para trabajar la inclusión de personas con algún tipo de discapacidad, siempre y cuando se realicen adaptaciones en el juego o en los materiales. Por todo lo anterior, el objetivo de este taller es abordar una iniciación práctica y vivenciada del Tchoukball practicado con personas con discapacidad física y/o discapacidad auditiva en contexto inclusivo, a través de tareas y ejercicios prácticos que combinan elementos técnicos, tácticos y estratégicos, así como conocer y aplicar los diferentes recursos didácticos de esta modalidad del programa educativo 'Deporte Inclusivo en la Escuela'. Todo ello con el fin de presentar este deporte como una opción real y práctica de deporte inclusivo con muchísimo potencial de desarrollo, especialmente en contextos educativos y de iniciación deportiva.

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Empowering graduate programs: Active methodologies in adapted physical education and sports

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Keywords: Active learning, Adapted Physical Education, Graduate programs

The adoption of active methodologies in undergraduate education is widely discussed as a means to transform classes into lively learning experiences that motivate students and make them more protagonist and creative. Understanding that the learning process is unique for each individual, breaking away from exclusively conventional teaching methods becomes necessary, especially considering the current society and the pervasive use of digital technologies. In undergraduate courses in Physical Education and related fields, the Adapted Physical Education (APA) discipline aims to qualify and empower future professionals in the field, whether in schools, rehabilitation, training, health and well-being, or other areas within Physical Education. Based on experience, teaching Adapted Physical Education and Adapted Sports at the Faculty of Physical Education in the State University of Campinas, this workshop aims to present strategies used and evidence of student protagonism, as well as how to work with APA in a more student-centred university environment. Participants will learn about tools and methodological approaches for discussing topics such as classification, adapted sports, Paralympic sports, sports management, and different disabilities. They will transform traditional teacher-centred theoretical classes into dynamic moments, discussing planning and evaluation in Adapted Physical Education. Elements like instructions, class pace, classroom management, curriculum, and assessment will be explored, allowing participants to share practices and adopt different ways of using active methodologies in their undergraduate APA classes.

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Fitness and outdoor strategies for individuals with visual impairment or deafblindness

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Keywords: Outdoor adventure, self-advocacy, blind

It is common for people of all ages with visual impairments to be excluded from outdoor fitness and adventure activities (Lieberman, 2022). It is also common for these individuals to face multiple levels of barriers (Linsenbigler et al., 2018). Outdoor adventure activities have the potential to improve many areas of independent living (Lieberman, 2022). There are a variety of ways to universally design outdoor adventure to ensure full participation of people with visual impairments or deafblindness. In this workshop participants will learn a variety of ways to guide runners who are visually impaired, blind, or deafblind. They will also be taught strategies to promote hiking, cross country skiing, rock climbing, biking, kayaking and stand-up paddle boarding. Strategies such as pre-teaching, whole-part-whole and a variety of tactile methods will be shared. Outdoor adventure is a natural environment to promote self-advocacy (Childs et al., 2022), and these strategies will also be embedded into this workshop.

Participants will also be provided with resources such as articles, tip sheets, videos, books, and web sites to bring back to their programs. Lastly, participants will learn about Camp Abilities, and educational sports camp for children and youth with visual impairments.

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Inclusive wheelchair dance: applications from the “inclusive sport at school” educational program

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Keywords: body expression, physical disabilities, creative movement

Although the range of physical-sports and leisure activities for people with disabilities is increasing, there are still disciplines that deserve to be known by physical activity and sports professionals when working with people with disabilities, and especially in inclusive contexts. We are referring to inclusive wheelchair dance, where people with and without disabilities can meet, share, express, and communicate through movement and dance. This is a discipline that is framed within the concept of “dance for all”, allowing people with and without physical disabilities access to dance together.

The objective of this workshop is to address a practical and experienced introduction to this discipline through tasks that combine technical and expressive elements, as well as to learn about the different resources of this modality from the educational program ‘Inclusive Sports at School’. Participants will practice the basic principles of inclusive dance (combi modality: a person in a wheelchair dances with a person standing) in order to raise awareness and experience the sensations that wheelchair dancing provides, experiencing the joy of dancing as a couple. In addition, the teaching resources of the indicated educational program will be used in a practical way.

Inclusive dance opens new perspectives for people with disabilities, promoting their physical, cognitive and social well-being. Its practice contributes to increasing self-esteem and benefits health at all levels. It allows the capabilities of people with disabilities to come to light and promotes communication, contact, complicity, sense of belonging, etc. On the other hand, it is a true pedagogical, therapeutic, and artistic tool for those Physical Education professionals who want to develop dance and body expression activities in an inclusive context. We are firmly committed to inclusive dance due to its originality, its innovative nature, as well as its importance in the well-being, quality of life, and inclusion of people with disabilities.

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A motor story to raise awareness of intellectual disability among Physical Education teachers

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Keywords: Teacher Education, Universal Design for Learning, inclusion

The purpose of the workshop is to present a motor story to raise awareness of intellectual disability in the field of Physical Education teacher training, through the indirect simulation. The activity begins with the narration of the story of a peculiar galaxy that faces a critical situation that could end it, for whose resolution the invaluable help of humans is required. Once the contextualization is done, the participants are involved in an interplanetary journey during which they will have to overcome different cooperative challenges, with the particularity that the instructions are transmitted using the way of communicating of each planet: lip movement, gestures, drawings, or written words in different languages. In other words, it is intended to hinder the understanding of the instructions by limiting the transmission of information to a single communication system in each case, with the aim of highlighting the importance of using different modes of representation in line with the Universal Design for Learning. The different applications that have been carried out show that the participants make mistakes due to the poor explanation of the tasks, which cause feelings of frustration that are counteracted with behaviours of cooperation and help. All this causes shared joy for success and general satisfaction with the activity, as well as the internalization of the importance of ensuring equal opportunities for participation through inclusive practices that meet the educational needs of all students. To conclude the workshop, alternatives for the evaluation of the activity will be offered within the framework of teacher training.

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Exercise prescription strategies for people with autism spectrum disorder at different stages of life

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Keywords: Physical activity, Intervention strategies, Intervention effectiveness.

In the workshop, we will explore practical strategies for prescribing physical exercises tailored to children, adolescents, and young adults with Autism Spectrum Disorder (ASD). This workshop aims to empower healthcare professionals, physical educators, and therapists to adapt their practices and foster active inclusion across all life stages. Through an interactive session utilizing active methodologies, focusing on three main axes: case studies, practical demonstrations, and group discussions, participants will have the opportunity to apply the information in simulated scenarios, promoting a practical understanding of the presented strategies. The topics covered will include early intervention in early childhood - emphasizing the significance of early diagnosis and intervention, outlining the role of psychomotricity in promoting development. Prescription recommendations for children and adolescents - specific programs for physical activities, strategies for application to create inclusive environments, considerations for different age groups. Exercise prescription for young adults - recommendations for aerobic and resistance training, movement-based intervention, and sports training, holistic approach, and lifestyle modification. Practical application strategies - adapting environments and equipment, using visual supports and tips for transitions, monitoring progress, and making necessary adjustments. Participants will be able to apply the knowledge and tools presented to inclusive physical exercise and sports programs in their professional fields, thereby promoting the well-being and quality of life for individuals with ASD.

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Poster Presentations

From top athletes to beginners - Development of cross-country sitski for small children

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Keywords: Assistive devices, adapted, sports, developing, top athletes, beginners,

Independent mobility is a prerequisite for exploration of the environment and thereby important for the general development in children. Compensatory assistive devices for children with disability can be crucial. To be able to participate in activities with peers in the snow during wintertime, assistive devices like cross-country sit-ski are useful. However, such devices only exist for adults. Through adaptation and development of equipment for top athletes to enhance performance to the maximum of their conditions, we have experienced and learned what is important to optimize equipment, sitting position and technique. We have taken this knowledge with us further in the development of cross-country sit-skis for small children.

Patients and

Beitostolen Healthsports Centre (BHC) has expertise on adapted physical activity for children with disabilities included adaptation and training in the use of assistive devices. Two companies, two Paralympic champions and BHC have developed prototypes of cross-country sit-skis for small children in collaboration with the Norwegian Labour and Welfare System that finance assistive devices in Norway.

Four prototypes of cross-country sit-skis for children were developed, two with kneeling sitting in sizes 3-6 and 7-13 years, and two sitting with legs forward in similar sizes. Skates can be put on to use them on ice, which has significantly less friction than snow and takes less energy.

It is important to have the best possible skis to make the activity as easy as possible to experience mastery and enjoyment. This can be realised by collaboration across professional and administrative borders. Using learning and experiences from the best athletes to develop equipment and activities for children and beginners is important in order to provide opportunities for enjoyment and mastery of activities at the earliest possible stage. This can in turn lead to the development of top athletes and Paralympic athletes.

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Exploring the influencing factors in the sport development career of women with disabilities in Spain: A person first case study

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Keywords: Paralympic, talent identification, barriers, initiatives

Women with disabilities may experience greater difficulties starting and developing in sport, especially in the Paralympic context. Although there has been a great deal of research in this area on high-performance athletes, there is a notable lack of studies focused on athletes with disabilities, especially in the case of Paralympic women and person first approaches. The main objective of this study was to understand how these athletes reach their full potential, thus, to identify the elements and athletic pathways that can influence their sporting trajectory and developmental milestones.

This case study was designed analysing the case of woman, a triple Paralympic medallist in blind Judo who has been competing since the 2004 Athens Paralympic Games. The participant is currently preparing for her participation at the 2024 Paris Paralympic Games. Information was gathered from a book chapter (written by her), her participation in a forum and a personal interview.

The athlete stated a clear differentiation of two key stages in her sport career: the beginning of sport practice and the development processes and the search for Paralympic athletes. In the first phase, the difficulties of women with disabilities in accessing sport are highlighted, in which the foundations and the coach play a fundamental role. On the other hand, the importance of initiatives to facilitate the identification and development of talents was pointed out, in which the sport itself can influence these processes.

This case study highlighted different key aspects at the beginnings and development of sport in the Paralympic framework: the degree of inclusion they have had, the coach or the nature and regulations of each sport. The lack of female referents makes it necessary to promote actions such as Paralympic School Days and to develop actions by the federations, for example, adapted competitions.

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Match physical response differences of international female footballers with cerebral palsy and severe impairments according to team ranking

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Keywords: soccer, women, brain impairment, match load, sport class

There has been an increased volume of research examining various aspects of the physical responses of players with cerebral palsy (CP) in competition (Henríquez et al., 2023). While the influence of contextual factors (i.e., team rankings) on physical responses in competition has been investigated in male CP football (Henríquez et al., 2023), this aspect has not been analysed in female players with severe impairments (i.e., FT1 sport class). Therefore, the objective of this study was to compare the physical response of female footballers with cerebral palsy and severe impairments according to the team ranking position.

Twelve female international-level footballers with CP (19 observations) from five national teams that competed in the World Cup participated in the study. Total distance (TD), explosive distance (ED: distance covered with acceleration exceeding 1.12 m.s^{-2}), and distance covered at $>12 \text{ km.h}^{-1}$ (m.min^{-1}) were recorded during 4 matches using Global Positioning System devices. Participant teams were classified according to their final position in the world ranking (IFCPF, 2022), establishing two groups: players from teams ranked 1, 2 and 3 (i.e., Top) and teams ranked 4 and 5 (i.e., Bottom).

Players in the Bottom group covered a greater distance at speeds exceeding 12 km.h^{-1} compared to players in the Top group ($M = 7.08$, $SD = 5.59$ vs. $M = 2.36$ $SD = 1.37 \text{ m.min}^{-1}$, $p < .05$, $ES = 0.73$). No significant differences were found in TD or ED.

The results of this study indicate that FT1 players from Top teams covered a greater distance at speeds exceeding 12 km.h^{-1} than those from Bottom ranked teams. This may be attributed to the fact that players from Top teams spend more time without ball possession, having to counteract opponent actions in defensive situations by running without the ball (Lorenzo-Martínez et al., 2021).

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FitnessGram® for ALL: Pilot Data

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Keywords: assessment, fitness, disability, adapted

The promotion of health-related physical fitness, including aerobic capacity, muscular strength and endurance, flexibility, and body composition, is a key objective of evidence-based physical education. FitnessGram® is used by ~67,000 schools and over 22 million students each year in the United States. However, the FitnessGram® lacks representation of students with disabilities. The purpose of this pilot study was to determine appropriate fitness items for FitnessGram for All, an inclusive assessment for students with disabilities.

Purposive sampling was used to recruit 100 individuals with disabilities 18 to 22 years from the southwest United States. Pre and post assessment (8 weeks between pre and post) were used for field testing the 11 FitnessGram for ALL skill items. To examine the convergent validity of fitness items, correlation and linear regression techniques were used to quantify the shared variation of multiple test items of the same fitness construct (i.e., aerobic capacity, muscular strength and endurance, flexibility).

Assessors scored 91% accuracy on assessment training. Significant correlation results included PACER $r(67) = .95$, $p < .001$, TAMT $r(36) = .98$, $p < .001$, YMCA Step Test $r(29) = .67$, $p < .001$, Isometric Push-ups $r(40) = .52$, $p < .001$, Vertical Jump $r(25) = .79$, $p < .001$, Dominant Grip Strength $r(25) = .79$, $p < .001$, SitNreach $r(61) = .86$, $p < .001$, Shoulder Stretch $r(49) = .68$, $p < .001$, Modified Apley $r(51) = .89$, $p < .001$. Two test items were not significant and should be further considered before re-validation: Standing Long Jump $r(51) = .24$, $p = .08$ and Curl-ups $r(41) = .20$, $p = .23$.

Thematic Relevance: Having a validated, inclusive fitness test is important for the field of adapted physical education to continue to provide appropriate assessment practices.

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Physical education teachers' self-efficacy towards inclusion of students with autism spectrum disorders

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This research aimed to assess teachers' self-efficacy toward inclusive PE lessons, focusing on the inclusion of students diagnosed with ASD, and compare the differences between teachers with and without experience.

A total of 117 PE teachers with a mean age of 40.5 (SD = 9.2) years participated in the study. Of the total sample, 66 PE teachers had experience with the inclusion of students with ASD in their PE classes, and 51 teachers were not experienced with the inclusion of students with ASD in their PE classes. Research data were collected utilizing the PESEISD-A version 8.2 questionnaire (Taliaferro et al., 2011).

PE teachers with experience expressed a self-efficacy overall score of 6.67 (SD = 2.23), while those without experience showed a slightly lower overall self-efficacy score of 6.25 (SD = 1.97). When examining specific variables related to self-efficacy, teachers with experience demonstrated the highest levels in following areas: working with other specialists (M=7.19, SD = 2.75), motivating children with ASD to participate in PE class (M = 7.04, SD = 2.23), and assessing their motor skills (M = 6.78, SD = 2.53). The lowest level of self-efficacy they demonstrated in modifying equipment for children with ASD (M = 6.15, SD = 2.39). Teachers without experience showed the highest self-efficacy also in working with other specialists (M = 7.23, SD = 2.32), assessing motor skills (M = 6.67, SD = 2.36), and motivating children with ASD (M = 6.57, SD = 2.28). The lowest level of self-efficacy was observed in modification of the activities (M = 5.69, SD = 2.45). No significant differences were revealed in self-efficacy between teachers with and without experience.

The present research indicates that regardless of experience level, PE teachers' self-efficacy toward including students with ASD in PE classes does not significantly differ.

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Fundamental motor skills of youth with visual impairment attended camp abilities switzerland

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Keywords: summer camp, locomotor, balls skills

Numerous studies indicated that youth with visual impairment (VI) could have poorer fundamental motor skills than sighted peers and the longitudinal data confirmed that these delays increased over time. However, most research has been conducted in the United States limiting the generalizability of extant findings. In Europe, Switzerland in this case, despite policies for inclusion, physical education can be offered in either an inclusive or specialized school setting. Nevertheless, teachers reported a lack of training and knowledge to assess students using standardized tools and to adapt teaching objectives and strategies. The purpose of this study was to evaluate the fundamental motor skill development of youth with VI in Switzerland using the Test of Gross Motor Development - III, brief version (TGMD-3).

Participants were recruited through Camp Abilities Switzerland (a five-day sports camp for youth with visual impairments). They participated for two consecutive years (2022 and 2023) ($N = 12$; $M_{age} = 13$; Boys = 3, Girls = 7). Using United States Association of Blind Athletes (USABA, 2013), participants are categorized as B1 ($N = 6$), B2 ($N = 1$) and B3 ($N = 5$). The TGMD-3 were used, this standardized instrument has been vetted for use for individuals with visual impairments and offers least-to-most prompting/modifications where necessary.

Participants had the choice of performing the ball skills with an audio or a regular ball. Preliminary results illustrated relatively low scores, particularly for ball skills. Nevertheless, score comparisons between 2022 and 2023 showed improvements in ball skills (catch, kick, throw) and locomotor skills (run, hop) and except for slide skills, which deteriorated.

Analysis of skills and sub-skills results will provide recommendations for practice to teach adapted physical activity to youth with VI.

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Experiences and perspectives of athletes with visual impairment, parents and stakeholders involved in camp abilities: A systematic review

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Camp Abilities (CA) is an educational summer camp for children and youth with visual impairment (VI) created in 1996 by Dr Lauren Lieberman at The State University of New York at Brockport and implemented internationally. The uniqueness of CA is that is developed more than a summer camp, but also a teaching and research laboratory. The aim of this systematic review was to identify and analyse all qualitative articles that had studied the experience of participants (athletes, directors, parents).

The following electronic databases were consulted: Web of Science, OvidSP, EBSCOhost, and SAGE Journals from 1996 (corresponding to the first year of CA) up to 2023. The search procedure resulted in the selection of 16 articles corresponding to the inclusion criteria. Using thematic analysis, a qualitative synthesis was conducted to identify themes and main findings. Narrative conclusions were extracted from the studies to present the perspectives and lived experiences through the voice of the participants involved.

Findings indicated that athletes with VI have reported meaningful experiences enabling them to connect with peers, have experimented with a wide range of sports, outdoor activities, and self-determination opportunities through adapted teaching.

The directors reported that CA had enabled them to develop a community service combining teaching and research on adapted physical activity and VI. Finally, parents reported that CA had helped their child overcome barriers to physical activity.

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The effect of participation in the adapted baseball program on visual perception and attentional capacity of adolescent with developmental disabilities

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The movement of humans involves a complex process of synthesizing responses to information and stimuli from the environment through various sensory systems. To generate movement, an integrated process of information is required, and about 80% of this process utilizes visual information. It was reported that students with developmental disabilities experience learning failure due to delays in visual perception development, which can lead to the formation of a negative self-concept and affect the overall development process. In addition, one of the reasons for delayed visual perception development of students with developmental disabilities was mentioned as a problem of decreased attention. The purpose of this study is to determine effects of participation in the Adapted Baseball Program on visual perception and attention in Korean adolescents with developmental disabilities.

Twenty-six adolescents with developmental disabilities were recruited for the study, assigned to experimental group (N = 13) and control group (N = 13). Adapted Baseball Program was provided to experimental group for 12 weeks, 24 sessions, 90 minutes. The control group provided fitness training sessions such as treadmill and cycling. As a measurement tool, the Korean Developmental Test of Visual Perception-Adolescent was used for visual perception, and Interactive Metronome was used for attention. Two-way analysis of variance (ANOVA) was conducted to identify the effect of Adapted Baseball program.

Participation in adapted baseball program showed interaction effect according to group and time on visual perception. Significant effect showed on visual perception, specifically in the General Visual Perception Index ($F = 11.600$, $p = .002$), Visual-Motor Integration Index ($F = 12.088$, $p = .002$), copying ($F = 7.532$, $p = .012$), figure-ground ($F = 8.256$, $p = .009$), visual-motor integration ($F = 6.003$, $p = .022$), and visual-motor speed ($F = 7.096$, $p = .014$). Also, participation in Adapted Baseball Program showed interaction effect according to group and time on Attention ($F = 26.755$, $p < .001$).

Participation in adapted baseball program for adolescents was significantly effective to enhance the visual perception performance and attention concentration performance of Adolescent with Developmental Disabilities.

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Exploring Latina mothers' perspectives on physical activity for autistic children

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Keywords: Health disparities, Parents, Physical Activity Intervention, Qualitative Design Theory of Planned Behaviour

The Latino community, largest minoritized group in the United States, plays a substantial role in the nation's cultural diversity. Nevertheless, a concerning gap exists in addressing the physical activity (PA) levels of Latino parents of autistic children. Despite the well-established benefits of PA, this group faces disproportionately lower engagement due to multiple barriers (Columna et al., 2020b). This study aimed to explore Latina mothers' attitudes and intentions towards PA for their autistic children.

Nine mothers of autistic children aged 5 to 14 were purposefully sampled through nationwide listservs and ASD advocacy groups. The study was guided by the Theory of Planned Behaviour (TPB; Ajzen, 1991) as its conceptual framework. Data collection involved one-on-one interviews conducted in Spanish or English, based on participant preferences. Thematic line-by-line analysis (Clarke & Braun, 2021) using NVivo 20 software was employed to analyse the data. While participants acknowledged the opinions of others, it was evident that these opinions did not influence their participation in PA. Despite facing multiple challenges, Latina mothers shared a strong commitment to supporting their children during PA. Their confidence in facilitating PA was shaped by past experiences, although some faced challenges in translating their expertise into effective guidance. These mothers consistently demonstrated proactive efforts, actively promoting PA by navigating opportunities, considering their child's preferences, and overcoming various barriers.

These findings emphasized the pressing need for culturally appropriate PA interventions, recognizing unique challenges in promoting PA for autistic children in Latino families. The observed parental strategies provide valuable insights for intervention development. Addressing these disparities is critical for advancing health equity and inclusive well-being in diverse communities. Moreover, these findings contribute not only to understanding dynamics within this group but also lay the groundwork for future research initiatives.

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The Impact of equipment and resources in a physical activity intervention for autistic children: Parental perceptions

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Autism Spectrum Disorder, Family Involvement, Fundamental Motor Skills, Interventions, Parents Physical Activity, Resources

Autistic children encounter challenges participating in physical activities (PA) due to limited opportunities and parental unfamiliarity with effective strategies to promote PA (Columna et al., 2020). As such, the purpose of this study was to investigate how parents perceived the equipment and resources provided during a PA intervention that involved both parents and their children.

A purposeful sample of parents with autistic children aged 4 to 11 (N = 21; 18 females, 3 males) participated in face-to-face interviews. Participants were randomly assigned to one of three group conditions (online home, in-person, and control group), designed to equip them with strategies for promoting PA. Thematic analysis using a line-by-line process was employed to analyse the data, and semi-structured interviews were analysed using constant comparative analysis, guided by the theory of planned behaviour (TPB; Ajzen, 1991). The combination of PA resources and equipment positively influenced participants' PA experiences, enhancing accessibility, creativity, and their child's excitement, while reducing boredom. This resulted in increased family PA, even during COVID-19. Access to new equipment helped parents discover new interests for their children. While pamphlets and QR codes aided skill adjustment, demonstrations, and recall elimination, participants suggested that a mobile app would enhance resource accessibility.

Although provided equipment was perceived as beneficial, parents emphasized the need for a varied set of resources to better support their children. Parents noted that the equipment and games did not evolve with their children's development and interests. It was plausible that by eliminating barriers and providing equipment, parents perceived behavioural control regarding their participation in physical activity could have increased, potentially leading to an increase in their PA participation as voiced by parents. Future programs should offer ongoing support, enabling parents to scaffold activities toward more complex games that meet their children's evolving needs.

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Inclusion of students with ASD in Scholar Physical Education: a look by teachers

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Keywords: Autism, Scholar Physical Education

Inclusion is a right of people with disabilities in different aspects of life and school is a means to make it possible. Among people with disabilities that are in school age, we find those who are part of Autistic Spectrum Disorder (ASD), who usually have a difficulty in communication and social interaction. Studies show improvement in some of the behaviours exhibited by the autistics through classes of Scholar Physical Education (PE).

This study sought to identify inclusion in school by Brazilian and international laws, and to explore and to analyse how it is done in a scholar environment from the perspective of teachers who had past or present experience with autistic students in Physical Education classes of the public school system.

The data collection was conducted from semi-structured interviews with open questions, with five teachers from the regular scholar system.

Results found enable the identification of two big categories identified by the participants: difficulty for inclusion and suggestion from PE teachers to work with autistic students. In difficulty for inclusion, teachers have shown why they cannot include all students, like lack of adequate physical space or material, inexperienced assistant teachers and lack of family in school. Some suggestions from PE teachers to work with autistic students were the importance of multidisciplinary work in school and adequate material and space.

Inclusion should happen for everybody, in many aspects of life. Several laws were created in order to establish and effect inclusion, but in fact, students with ASD still are not completely included in Scholar Physical Education. In this paper it was possible to identify existing difficulties, as well as suggestions to improve the inclusive process through the perspective of the interviewed teachers.

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A Pilot Study on Empowering a Judo Athlete with Intellectual Developmental Disorder to become a Sport Teacher

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Keywords: Inclusion, Intellectual Developmental Disorders

This pilot study addresses the unexplored area of empowering athletes with intellectual developmental disorders (IDD) to become sports teachers, focusing on a female judo competitor. The research aims to contribute valuable insights to the field, offering a novel perspective on inclusion in sports education.

The study followed a comprehensive approach involving a female judo competitor with IDD pursuing a judo teaching role over a sports season in a Slovenian sports club. The intervention included program development, mentoring, and the creation of pedagogical and didactic tools, such as creating and using a pedagogical poster. A qualitative interview at the project's conclusion captured the participant's teaching experiences, challenges, enjoyment, satisfaction, and future aspirations.

The participant's experiences revealed a positive teaching journey facilitated by a supportive environment and effective mentorship. Overcoming initial challenges, she developed essential teaching skills and expressed a desire to continue teaching judo, with a focus on inclusivity for individuals with IDD and young children.

Empowering individuals with IDD to become sports teachers demonstrates promise for fostering inclusion, self-confidence, and personal and professional development. The study underscores the significance of supportive environments, tailored training programs, and mentorship models for successfully transitioning athletes with IDD into teaching roles. It advocates for broader inclusion by incorporating individuals with IDD into authority and leadership roles, contributing to a more inclusive and equitable society. The findings emphasize the need to adapt Judo Federations' curricula and develop national programs to create professional opportunities for individuals with IDD in sports education.

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Judo teachers' feelings regarding the inclusion of participants with intellectual developmental disorders: Insights from qualitative interviews

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Recognizing the growing acknowledgement of judo's benefits for individuals with intellectual developmental disorders (IDD), this qualitative study delves into judo teachers' feelings/emotions. This article focuses on the positive and negative feelings/emotions associated with including a participant with IDD in their judo class.

Qualitative interviews were conducted with 21 judo teachers from Slovenia (N = 7), Portugal (N = 7), and France (N = 7). A vignette describing a judo practitioner with IDD was presented, and the following questions were guided by each of the constructs of the Theory of Planned Behavior. Data were meticulously coded, categorized, and analysed using NVivo to derive meaningful insights. In this article, we focus on the analysis of the two questions regarding positive and negative emotions; those two questions are part the behavioural outcome construct of the TPB.

Positive feelings among judo teachers fell into three categories: "Success-Progress" where eleven teachers expressed joy in witnessing the child's development; "Usefulness and Proudness" with five teachers finding satisfaction and pride in contributing to the well-being of the participant with IDD; and "Interaction" as six teachers highlighted the positive impact of genuine interaction and empathy. Negative feelings were classified into five subcategories, including concerns about teacher ability (N = 8), negative teacher-related feelings (N = 6), worries about the group (N = 3), and concerns about participants with disabilities (N = 5). Interestingly, six teachers reported having no negative feelings, viewing challenges as opportunities for growth.

The study sheds light on both positive and negative emotions associated with teaching judo to individuals with IDD. Recognizing these emotions is crucial for developing strategies to enhance positive experiences and address challenges in inclusive sports education.

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Comparative analysis of mood states according to different demographic variables in persons with schizophrenia

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Keywords: POMS-SV; Physical Activity; Gender; Marital Status; Mental Health

Persons with schizophrenia express clinical symptoms such as delusions, hallucinations, disorganized thinking, disorganized motor behaviour and negative symptoms. Negative symptoms are related with fluctuating mood and depression. Although physical activity (PA) is recommended as an adjunctive treatment in persons with schizophrenia, evidence about its effect on the mood states of this population is scarce. The aim was to explore differences in mood states of persons with schizophrenia according to different demographic variables.

The analysis included 106 Portuguese with a diagnosis of schizophrenia, with an average age of 43.37 years (SD = 9.98), of which 47 (44.3%) were women. The Portuguese Version of the Profile of Mood States Questionnaire (POMS) was used to assess the subjective feelings of mood. To calculate Total Mood Disturbance (TMD) we summed up Tension, Depression, Hostility, Fatigue and Confusion, subtract Vigor, and added 100. The POMS and demographic questions (gender, age, marital status, clinical settings and PA) were used. Mann-Whitney and Kruskal-Wallis tests were used to compare mean differences of POMS subscales and total scales between sociodemographic groups.

Significant differences were found in gender with men reporting worse TMD (Male M = 129.78 vs female M = 120.21, $p = .031$) and in most of the negative mood states scores compared with women. Single persons reported significantly higher scores for depression, tension, hostility, and confusion as well as for the TMD (M = 128.01 vs M = 113.44, $p = .010$) when comparing with other status. Regarding PA engagement, participants who practice PA reported higher scores for fatigue compared with non-practitioners (M = 9.33 vs M = 7.05, $p = .037$).

These results highlight the importance of demographic factors (i.e., gender, marital status and PA) when addressing mood states, thus underlining the need for tailored interventions to promote mental wellbeing in persons with schizophrenia.

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Recommendations for successful teaching in inclusive music and dance settings - best practice experiences from the ALIISA project

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Keywords: art pedagogy; inclusion

ALIISA - ‘All in - International Inclusive Society in Arts’ was an Erasmus+ funded project (09/2020-08/2023) for the development of inclusive art pedagogy in international cooperation. It was coordinated by Savonia University of Applied Sciences (SUAS), Finland, and carried out in partnership with universities from Lithuania (VUSA) and Austria (mdw). ‘Ich bin OK’ was one of three other non-academic partners. This presentation gives an overview on recommendations for successful teaching in inclusive artistic activities.

During the project, training and research in inclusive art pedagogy were carried out in international as well as national cooperation. Teachers of the project presented their aims and methods in theoretical and practical lessons within several training workshops in the three partner cities. The results were presented in the final symposium in June 2023 in Vienna.

Recommendations for successful teaching had been formulated by the cooperation team considering the main criteria: personal attitude, didactic and methodical skills, and the framework conditions. These guidelines include to be convinced that everyone is capable of learning, has abilities and can make a meaningful contribution in a joint learning process. Furthermore, it is necessary to be open towards a variety of approaches and problem-solving strategies, innovative artistic ideas, etc. Basic didactic and methodological skills are needed to be able to adapt contents to individual possibilities and to lead them to self-determined, self-responsible action. The ability to observe, analyse, document and design learning processes from a developmental-dynamic point of view is another criterion for success. Framework requirements are independence in terms of accessibility, supportive aids, and materials.

The presented example of results (IO8) is one among other intellectual outputs (e.g. “Syllabus for inclusive continuing art education” - IO7 or “Dissemination model for inclusive art pedagogy educational practices” - IO11) and can be visited at the ALIISA website.

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https://aliisa.savonia.fi/images/PDF/ALIISA_English_Version_of_Gelingensbedingungen%20.pdf

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Anthropometrics, strength, and maturity status influence on child and adolescent para-swimmers' performance

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Keywords: Persons with Disability, Swimming, Talent Development, Proportionality, Maturation

The aims of the present study were (1) to describe the anthropometric indices and upper and lower body strength in child and adolescent para-swimmers of top national-level and (2) to examine the relationships between the aforementioned variables and swimming performance.

Eight males and four females ($M = 13.4$ $SD = 2.2$ years old) medallists' para-swimmers in their respective age categories [Under-12 ($N = 3$), Under-15 ($N = 6$) and Under-18 ($N = 4$)] volunteered to participate in the study. Anthropometric variables calculated were indices relative to height, sitting height, trochanteric height and arm span. Upper and lower limbs strength was evaluated using handgrip and countermovement jump tests, respectively. Maturity offset was determined using Mirwald et al. (2002) procedures. Swimming performance was considered as the Multi-Class Point Score (MPS) obtained in their season personal best time in a 50 or 100m event.

Hereinafter, the data is presented for Under-12, Under-15 and Under-18 categories, respectively. The mean relative lower extremity length was 47.7 ($SD = 1.4$), 41.5 ($SD = 7.9$) and 45.9 ($SD = 1.9\%$); the mean relative arm span was 100.0 ($SD = 1.9$), 104.0 ($SD = 26.3$) and 84.8 ($SD = 18.8\%$); and the mean cormic index was 52.3 ($SD = 1.4$), 59.0 ($SD = 8.8$) and 54.1 ($SD = 1.9$). The mean maturity offset was -2.4 ($SD = 0.8$), -0.2 ($SD = 1.1$) and 2.4 ($SD = 0.5$) years to peak height velocity. Swimmers' mean handgrip strength was 17.4 ($SD = 6.2$), 24.4 ($SD = 11.5$) and 37.4 ($SD = 7.4$) N and swimmers' mean jump height was 9.4 ($SD = 1.5$), 15.3 ($SD = 4.6$) and 23.7 ($SD = 5.1$) cm. Mean swimming performance was 232 ($SD = 46$), 334 ($SD = 32$) and 492 ($SD = 55$) MPS. Partial correlation, controlling for the maturity status, showed positive correlation between the competitive level and the relative arm span ($\rho = .75$; $p < .01$). A multiple linear regression model determined that 87% of the variance in swimming performance was explained by maturity status and relative arm span.

Coaches and sport scientists could use the data reported as reference values. Relative arm span may determine performance in child and adolescent para-swimmers regardless of the type of disability.

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Relationship between IMPRP profile load-velocity and MVC rotator cuff test in Wheelchair rugby players: Design and reliability of a new protocol

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Keywords: Paralympic sport, mechanical outputs, strength, isometric.

In spite of the growing popularity of wheelchair rugby (WR), there is a lack of evidence that supports the validity and reliability of field tests to measure the physical condition of WR players. New technologies are being applied in WR in order to advance and improve athletic performance in this sport. It plays an important role in the advancement of the sport. We sought to assess the intrasession reliability of two tests: the Initial Maximum Push-Rim Propulsion (IMPRP) test and the Maximum Voluntary Contraction (MVC) over the rotator cuff (external-internal) test. Additionally, we aimed to establish correlations between the mechanical outputs of IMPRP and the variables of MVC in the rotator cuff.

A total of 20 elite WR players participated in the study during the 2023-2024 season of the Spanish WR league. Preceding the match and following the warm-up, players underwent analysis in both tests. Firstly, the MVC rotator cuff test employed a Chronojumo force sensor, and subsequently, players were assessed in the IMPRP load-velocity profile using sled loads of 0, 5, and 15 kg.

IMPRP mechanical output variables in all sleds loads and MVC rotator cuff test demonstrated high reliability. The strongest correlations were observed between the maximum IMPRP values and the MVC over the rotator cuff (external-internal) test. Finally, it would be fair to state that the newly developed methodological protocols appear to be sensitive and suitable for use in coaches, strength and conditioning professionals, physiotherapists, and other practitioners. It is also important to note that they act as a valuable tool for differentiating between functional categories based on performance differences.

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Trends and future directions in deaf sport: a systematic review

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Keywords: deaf athlete, hearing impairment, inclusion, athletic performance

The studies about sport for people with hearing impairment and/or deafness are sparse in the literature. In our knowledge, no study revealed the main research trends and needs of this population within the sport context. This is important in order to provide adequate tools to promote inclusion in sport, with applications to health enhancement through physical activity and sports in this population.

Following PRISMA guidelines, a systematic review was developed. A search of electronic databases (PubMed, EBSCO, Scopus) was conducted to identify all studies on physical activity/qualified sport, sense of social inclusion and athletes with hearing impairment and from 2003 to 2023. Data mining, data discovery and classification were used as Search terms were combined by Boolean logic (AND/OR) at indicated databases. The search was undertaken using the combination of the following seven keywords in English with the assumed hierarchy of their importance: deaf, sport, athlete, hearing impairment, inclusion, hearing loss, performance.

Sixty-four full-text articles were assessed to determine eligibility, while 33 studies met the inclusion criteria and were subjected to detailed analysis and assessment of their methodological quality. Main topics emerging from references' analysis showed the following topic distribution: sport participation (3 studies), athlete – coach communication (4), quality of life and self-esteem (4), athletes' aerobic capacity (6), reaction time (3), postural control (4), strength and power (7), and miscellanea (2).

The review found a shortage of references in the sport sciences literature, so this population appears as an opportunity for novelty and originality in the field. Inclusion in sport participation and specific tools (i.e. communication aids) appears to be crucial factors in their access to sport. In addition, specific features of this population and activities influenced by the impairment when practising sport appears as important areas to develop in the future (i.e. reaction time, postural control).

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Off-task behaviour of children with special educational needs during dance lessons

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Keywords: SOFIT, Applied Behaviour Analyses

Off-task behaviour of pupils during lessons of Physical Education is a recurring frustration for teachers. According to Applied Behaviour Analysis, one approach to prevent off-task behaviour is to change the environment: the manipulation of antecedents that prevent off-task behaviour as well as the manipulation of consequences that avoid reinforcing off-task behaviour. In this project we targeted the specialized content knowledge of the teachers as an antecedent for appropriate behaviour.

We observed 21 PE dance lessons in three schools for children with special educational needs, where 34 children participated. The teachers received a training in the quality of instructions (a workshop with 4 evidence-based building blocks of dance; Lund & Kirk, 2019). We recorded lessons with the same children before and after this intervention. Following Momentary Time Sampling as a form of systematic observation (Cooper et al., 2020), we broke down the lesson time into intervals of 6 seconds to be coded. We coded the skill level of children as determined by the teacher, their compliance and coded the lesson context using the validated System for Observing Fitness Instruction Time instrument (Ridgers et al., 2011).

Analyses did not reveal a statistically significant difference in off-task behaviour according to children's gender, but children with lower skill levels showed more off-task behaviour compared to their higher skilled peers. $F(2, 258) = 11.84, p < .001$. Additionally, children were more likely to be off-task during management and knowledge intervals compared to fitness or skill practice intervals, $F(3, 246) = 3.42, p < .05$. However, no statistically significant differences were found in off-task behaviour between the lessons before and after the intervention ($M_{\text{before}} = 20.25\%$; $M_{\text{after}} = 20.83\%$; $p > .10$).

Children's off-task behaviour did not reduce after an intervention for teachers' instructions. Future research should examine this in larger samples.

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Path of young Brazilian paralympic athletes: An analysis of transition from Parapan youth games to high-level events

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Keywords: Athlete pathway; Paralympic Games, Development

Paralympic athletics and swimming represent important pillars in the Brazilian sports scene for athletes with physical, visual, or intellectual disabilities, generating numerous medals in high-level competitions. This study aims to analyse the trajectory of athletes from the Brazilian athletics and swimming teams, investigating whether there is a trend among young athletes who competed in the 2017 São Paulo Parapan Youth Games to continue participating in the Lima 2019 Parapan American Games and, possibly, the Tokyo 2021 Paralympic Games.

We utilized documentary analysis as a methodological tool and tabulated data provided by the Brazilian Paralympic Committee.

Out of 60 participants in the 2017 Parapan Youth Games, only eight proceeded to Lima 2019 and seven to Tokyo 2021. In athletics, out of the 27 involved in 2017, five competed in Tokyo, while four were in Lima 2019. In swimming, out of the 33 participants in 2017, four were present in Lima 2019 and two in Tokyo 2021. Among the 101 participants in Tokyo, only seven had competed in São Paulo in 2017. Out of 100 athletes competing in the Lima 2019 Parapan Games, 70 were selected for Tokyo, with 40 from athletics and 30 from swimming.

The results indicate a relatively low trend of continuity among young athletes in subsequent events. Although some progressed to the Parapan American and Paralympic Games, the majority did not. This underscores the need to understand the factors influencing this continuity and development in their sporting careers, as well as the importance of support strategies to promote continuous participation and success in high-level events for young Paralympic athletes.

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Supports for the inclusion of a student with a physical disability in outdoor activities training: A case study.

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Keywords: inclusion, sports sciences, physical activity, adaptations

This work explains the support carried out with a student with severe physical disability in the Outdoor Activities subject in the Physical Activity and Sports Sciences Degree. Only one similar study has been identified, at this level and type of studies, although it was a student with visual disabilities (Reina & Ruiz, 2016). The objective is to present the way in which the practices linked to the subject have been carried out so that they can serve as a reference for other students with similar needs.

Prior to carrying out the practical activities, an interview was carried out with the student to determine the best way for the student to carry out the different activities (orienteering, climbing, hiking, cycling, rope park and stand up paddle (SUP)). Subsequently, the students were divided into project groups, being responsible for organizing each practice in collaboration with the teacher and carry out the design and execution of it.

The student managed to develop each of the practices inclusively. In some of the practices developed, the use of specific material was essential, such as an all-terrain chair for hiking, a special tricycle for cycling or a big SUP board for SUP, while in others the focus to achieve inclusion was on the methodology used.

Various supports and recommendations were generated to be able to include students with similar disabilities in this type of activities. It is essential to put the person with a disability at the center of the activity and involve them in the decision-making of the activity. The inclusion of this student has been satisfactorily achieved through the use of the necessary supports.

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Service-learning and intellectual disability: Benefits of a physical activity programme

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Currently, people with disabilities face different barriers when it comes to accessing sport. In the case of people with intellectual disabilities, they often find themselves in residential centres that do not offer the possibility of practising sport or physical activity. In this sense, service-learning projects (SLP) can be a great opportunity to solve this problem and have an impact on improving the quality of life of this group. The Polytechnic University of Madrid, in collaboration with the AMÁS Foundation, in the 22-23 academic year, initiated and developed an ApS project to bring sports practice closer, thanks to the work of graduates in Physical Activity and Sports Sciences, to people with intellectual disabilities living in the AMÁS Foundation. This project will continue this year 23-24, so the aim of this study is to know the benefits of the programme as perceived by the participants with intellectual disabilities, their families and the technical and support staff.

In this study a qualitative methodology was used in which on the one hand, semi-structured interviews were used to know the opinion and perception of the participants with intellectual disabilities and on the other hand, two focus groups were carried out with family members and support staff.

People with Intellectual Disability indicated the benefits that the physical activity programme brought them in different areas related to quality of life together with the perceived improvement in motivation, and these coincide with the opinion and perception reflected by family members and support staff in the focus groups.

Once the participants' opinions are known, this study can serve as a precedent so that other entities, both educational and from the disability associative movement, can continue to make progress in the field of health-oriented physical activity.

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An exploratory study on the changing process of Blind football coach's perspective of on coaching: A study of leading Japanese coaches

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Keywords: Paralympics, coach development

The Tokyo 2020 Paralympics in Japan spurred significant growth in para-sports and introduced a system to improve athlete performance. However, reports indicate a prevailing deficiency in the availability of coaches.

Considering the unique demands of para-sports, which necessitate a comprehensive understanding of and engagement with diverse challenges, it is imperative to adopt an inductive approach to model the formation of coaches' competencies. In this study, we conducted interviews with leading Japanese coaches of blind football regarding their coaching philosophy. The development of this grounded theory is anticipated to significantly enhance the training and proliferation of coaching practices. The reason is that Japanese blind football has shown certain achievements, ranking third in the world.

The methodology employed in this research was semi-structured interviews, which were meticulously designed to gather insights into the coaches' personal evolution and growth alongside the development of sport, critical aspects of coaching, and their individual viewpoints.

The findings of this study have elucidated several key aspects, including “motivational approaches tailored to the history and extent of disability” the establishment of environments conducive to the facile exchange of information between players and staff, and the innovation of coaching methodologies. These elements have culminated in the acquisition of fundamental materials instrumental for the training of future blind football coaches. Such materials extend beyond mere empirical guidelines prevalent in soccer coaching for sighted individuals or conventional educational approaches for individuals with disabilities, incorporating both awareness and practical applications in coaching.

Consequently, these insights will serve as invaluable resources for shaping the mental models essential for future coaching training programs. Moreover, the data derived from this investigation have yielded analytical insights applicable across various para-sports coaching contexts. Continued research is essential for developing outstanding national para-sports coaches.

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Strength exercise and Down Syndrome: A systematic review

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Keywords: disability, physical activity, resistance training, physical exercise, trisomy 21

Down syndrome (DS) is the most common cause of intellectual disability worldwide. The estimated incidence of DS is one in 1,000-1,100 live births worldwide. Physically, people with DS have reduced strength and muscle mass, which affects their functionality and quality of life. Physical exercise, particularly neuromuscular training, is considered an effective intervention for this population, however, no systematic review has analysed the effects of strength training (ST). Therefore, the aim of this systematic review is to analyse the effects of ST in children, adolescents or adults with DS.

A systematic literature search was conducted in two databases: Web of Science and PubMed, according to the following inclusion criteria: 1) studies with a randomized controlled trial (RCT) design, 2) RCTs conducted in children, adolescents, or adults with DS, 3) RCTs comparing RT with a control intervention (usual care or similar), and 4) RCTs published in English or Spanish. The title and abstract were then read until final selection. The final search was conducted in February 2024. Methodological quality was assessed using the TESTEX tool. Two researchers independently reviewed the TESTEX. A third researcher was appointed to resolve disagreements if consensus could not be reached.

The search using the descriptors yielded 194 references, nine RCTs met the selection criteria and were eventually included. Most ST interventions were beneficial, improving strength, endurance, and muscle mass, work performance, bone mineral density and physical function. Reductions in levels of markers of oxidative damage and proinflammatory cytokines associated with ST performance were also reported.

The evidence shows that ST appears to be effective in improving functional and molecular variables in children, adolescents and adults with DS.

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Research on supporters' learning in sports activities through university and local community collaboration

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Keywords: inclusive, teacher education, awareness, social education

In Japan, an inclusive education system in schools has been developed through the transition to a special needs education system (2001-2007) and the general education system described in Article 24 of the Convention on the Rights of Persons with Disabilities ratified in 2014, which is reflected in the curriculum guidelines. Until now, in school physical education in Japan, students with and without disabilities have been engaged in mutual learning in physical education classes. In addition, education on understanding and teaching physical education to students with disabilities has been promoted in the training of physical education teachers at universities. The 2017 reform of the Japanese educational system underscores the importance of fostering student development through synergistic endeavours between educational institutions and community entities, described as “curriculum open to society.” Against this background, this study reports on the learning outcomes of supporters in inclusive sports activities implemented through collaboration between a university and a local sports club.

This study employed an interview survey of leaders of local sports clubs in which intellectually disabled students participate and university students who aspire to become physical education teachers regarding “the outcomes of developing students through university and community collaboration”.

The leaders of the sports clubs indicated that their students benefit from a theoretical approach and different stimulation from their daily lives by actively collaborating with universities and students. The university students also mentioned that, in addition to understanding disabilities, they were able to rethink their own attitudes and the construction of their relationships with others.

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Latino parents of children with developmental disabilities' perspectives regarding physical activity and exercise engagement: A qualitative study

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Caring for a child with a developmental disability poses unique challenges, often leading to increased risks of negative health outcomes, including depression and obesity (Masefield et al., 2020). These challenges are exacerbated among Latino parents, who face even higher health disparities (Magaña & Smith, 2006). While physical activity (PA) shows promise in mitigating these health risks, there is a dearth of knowledge about the perceptions and factors influencing PA and exercise engagement within this ethnic group. This study aimed to explore Latino parents of children with developmental disabilities' perspectives on the barriers, facilitators, and preferences in engaging in exercise.

Participants consisted of 12 Latino parents of children aged five to 21 with developmental disabilities. Purposeful sampling was employed utilizing disability advocacy groups. Data collection included one-on-one semi-structured interviews conducted in either Spanish or English, depending on participants' preferences. The social cognitive theory (Bandura, 1986) framework guided the thematic line-by-line analysis with assistance from NVivo 20 software.

Identified themes and subthemes that emerged were centred around the framework's interrelated personal, environmental, and behavioural factors. Self-efficacy emerged as a central construct facilitating engagement in exercise. Prominent barriers included time and a lack of knowledge on how to exercise appropriately. Participants articulated facilitators that may assist them in engaging in exercise, such as childcare and guidance from an expert to lead the exercise effectively.

This study contributes to bridging a gap in research by exploring PA participation among Latino parents of children with developmental disabilities. The findings are expected to inform the design of future culturally appropriate exercise interventions for Latino parents. Addressing PA considerations in these interventions is envisioned to provide a comprehensive approach to increasing PA levels and reducing health disparities among Latino parents of children with developmental disabilities.

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Why do South Korea's basic level municipal governments promote physical exercise of people with disabilities through their Ordinances? -The cases of South Korea's basic level municipal governments

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The purpose of this study was to analyse what are the main factors that affect decisions of basic level municipal governments in Korea about whether to enact an ordinance on the promotion of physical exercise of people with disabilities. This research adopted three independent variables; economic, social, and geographical factors, each of which was operationalized into the gross regional domestic product (GRDP) of basic level municipal government, its financial independence rates, registration rates of persons with disabilities and the number of relative ordinances in neighbouring basic level municipal governments. As a dependent variable, it was considered whether an ordinance on the promotion of physical exercise of people with disabilities existed in the basic level municipal governments.

This study used publication and statistics from the National Law Information Center, the National Statistical Office, and the websites of metropolitan governments. Also, binary logistic regression was used to identify the factors that affect the existence of a relative ordinance in the basic level municipal governments. A total of 226 basic level municipal governments nationwide were surveyed.

The results of this research are as follows: Firstly, the economic factor - the GRDP and the financial independence rate-did not have a statistically effect on the dependent variable. Secondly, the social factor - the ratio of the registered rates of persons with disabilities did not have a statically significant effect on the dependent variable, either. Lastly, geographical factor - the number of relative ordinances in neighbouring basic level municipal governments-was found to have a statistically significant effect on the dependent variable.

This suggests that the possibility of policy selection due to external factors are highly based on policy diffusion theory. This research would have implications for basic level municipal governments not yet equipped with a relative ordinance, as its findings provide a direction for the enactment of such an ordinance.

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The reliability of kinetic based static balance tests in primary school aged autistic children

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Balance is a fundamental movement skill required daily. However, research has shown that autistic children have poorer balance. Kinetic assessment of balance using force plates is considered the 'gold standard'. However, to date, the reliability of assessing static balance kinetically in autistic children has been inadequately researched. Therefore, the aim of this study was to examine the inter sessional reliability of kinetic variables during a range of balance tests in autistic children.

The inter sessional reliability of balance was assessed three times per week over a five-week period, via a modified balance error scoring system (BESS), while standing on force plates using a double leg, single leg, and tandem stance, in 16 autistic children ($M = 9.25$ $SD = 1.65$ years). Kinetic variables included: total excursion, the medial-lateral and anterior-posterior range of the CoP and area of CoP ellipse 95%. Reliability criteria included intraclass correlation coefficient ($ICC > .75$) and coefficient of variation (CV) percentage (Double leg stance ;CV = 60.27 - 221.93%; single leg stance; CV = 40.57 - 123.23%; and tandem stance ;CV = 60.55 - 120.53%).

The reliability of the balance measures varied dependent on the stance performed, double-leg (mean $ICC = .44 - .79$; mean CV% = 61.43 - 99.81), single leg (mean $ICC = -0.85 - 0.59$; mean CV% = 50.59 - 107.07), and tandem stance (mean $ICC = 0.39 - 0.55$; mean CV% = 67.31 - 126.64%). The tandem stance position obtained the greater number of sessions which met the reliability criteria (11) in comparison to the double leg (8), or single leg (4) stance.

The stance which had the most reliable sessions was the tandem stance, followed by the double-leg and the single-leg stance. However, the overall reliability of assessing kinetic balance in autistic children was poor and its use in clinical practice should be questioned. All kinetic variables had high CV% and this information should be taken into account when assessing the magnitude of change in future balance intervention programmes.

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Game is a kind of therapy: Wheelchair sport athletes' perceptions of health-related quality of life

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Keywords: Wheelchair basketball, elite athletes, areas of armed conflict, qualitative inquiry

Research indicates that physical activity (PA) participation can improve health-related quality of life (HRQOL) for many populations, including physically impaired persons. However, most scholarship examining the role of PA and parasport on HRQOL has focused on those residing in Western, high-income countries (HIC). Conversely, much less is known about the potential impact of parasport participation on physically impaired persons residing in low- and middle-income countries (LMIC) and areas of armed conflict. Therefore, this study sought to understand the meaning and potential physical, psychological, and social HRQOL benefits of wheelchair basketball participation from the perspectives of physically impaired wheelchair sport athletes in LMIC affected by ongoing or recent armed conflict.

An interpretive descriptive methodological approach was utilized, and 108 wheelchair sport athletes from eight different countries participated in the data collection. Data for this study were collected via focus group interviews, using a semi-structured interview guide.

Based on data analysis, three major themes were developed. The theme one was focused on the physical health benefits of wheelchair basketball participation, including fitness for sport, physical independence, and impact on secondary medical complications. The theme two pertained to the psychological benefits participants ascribed to participation, such as sport enjoyment and increased feelings of capability and self-confidence. The final theme presented the social benefits related to sport participation, including subthemes describing camaraderie between wheelchair basketball athletes and perceptions of greater respect and esteem in athletes' local communities.

In keeping with findings of previous literature that was conducted primarily in Western or HIC, the present findings indicated that participation in wheelchair sports may help to improve multiple dimensions of HRQOL for disabled persons living in LMIC that have been impacted by recent or ongoing armed conflict.

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European diploma in adapted physical activity (lessons learned from history - vision for future)

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Keywords: Study program, Finland, Ireland, Czechia, Cooperation

Adapted physical activity is defined by EUFAPA as a service delivery profession and an academic field of study which advocates active lifestyles and sport for persons with special needs. In order to deliver quality services, there is a need for study programs to prepare professionals in areas of sport, rehabilitation, leisure time, and physical education. The majority of programs are based in national training frameworks, either as part of physical activity teacher preparation training, or other areas of sport sciences. However, not all countries offer such study programs. On the other hand, there is growing demand for qualified staff to support inclusion in physical education, leisure, and sports. There is a rich history of European projects and study programs. The most well-known study program, the European Masters in APA, started in 1991 with nine participating universities and grew to 29 in the year 2004/05. Later, it was transformed into the Erasmus Mundus Masters in APA, and after termination of EU funding, it was shortly transformed into International Masters in APA. A shorter European program, DEUAPA (European University Diploma in APA), started as an intensive 6-week program in French language (Milan, Torino, Pallanza and Bordeaux), and from 2005 to 2008 the program was carried out by the Paris-Nanterre University. Major challenge of this program was a number of students and teachers able to communicate in French. Therefore, in 2009, the program was taken over by the Haaga-Helia, Finland. After COVID restrictions and changes in financing, EUDAPA was unable to open in year 2023/2024. With remaining needs for qualified professional training in APA, there is an initiative to reform and transform EUDAPA program to reflect Hybrid Erasmus mobilities, combining online elements with practical training. This poster will present current activities carried out by three universities and invite further partners for discussion and cooperation about future of EUDAPA in Europe.

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European standards in adapted physical activity: Where we stand after 14 years

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Keywords: Competence framework, Inclusive Physical Education, Disability sports, Therapeutic recreation

The EUSAPA (European Standards in Adapted Physical Activity) project started in October 2008 and has been funded with support from the European Commission. The main aims of the EUSAPA project were to describe professional competencies in each of the three areas of Adapted Physical Activities: 1) adapted physical education, 2) adapted sports and recreation, and 3) adapted physical activities in rehabilitation. The project aimed to identify the need for each APA area in all partner countries, to define academic standards (subject specific competencies and learning outcomes) in the three areas of APA and to develop international academic framework to guarantee the quality of professional preparations in the fields of APA at European level. The outcomes of the project were: a) structured description of APA service delivery in partner countries (strengths and weaknesses, conditions) in all three areas of APA and Functional map of APA professional in three areas (Adapted Physical Education, Sport and Recreation, and Rehabilitation), b) the thoroughly designed and jointly accepted framework on STANDARDS (subject specific competencies and learning outcomes) in three areas of APA, c) a model curriculum structure for each area of APA, and d) examples of case studies of good practice and innovations according to all free areas of APA competencies. The purpose of this poster presentation is to initiate the reflection and evaluation of competence Framework defined by project in year 2010. We intend to present basic structure of competence frameworks and invite colleagues to provide structured feedback and join in discussion about future potential of the EUSAPA standards.

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Developing a universal design for learning pedagogy: Perspectives of students with and without disabilities

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Keywords: Document analysis, qualitative research, adapted physical education, belonging, exclusion, marginalization

Universal Design for Learning (UDL) is a pedagogical teaching approach utilized to eliminate barriers. Often, UDL was seen as a strategy implemented only to benefit students with disabilities. However, current research on the voices of students with and without disabilities from their perspectives on physical education, illuminates a clear need for this innovative educational approach.

UDL has been utilized across a variety of subjects, and this poster presentation identifies the direct need for UDL implementation in physical education that can be infused into any curricular model.

In this study, a document analysis of 69 specific articles highlighted the voices of children with and without disabilities in physical education. Inclusion criteria were school age children, voices, physical education, and published in the last 20 years. Careful analysis of the manuscripts illuminated voices related to each specific component of UDL.

The results of this overview of selected studies shows the need for the three components of UDL: multiple means of engagement, representation, and action and expression. The voices of the children spoke to these three components of UDL.

This Document Analysis illustrated the direct need for a call-to-action to encourage inclusive pedagogy that addresses a wide variety of abilities. The utilization of the UDL approach may very well alleviate the many negative experiences currently plaguing students in schools today.

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Scope of the 'Paradesporto Brasil + Acessível' project

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Keywords: Parasport, digital material, Education, Academic dissemination, inclusion

The 'Paradesporto Brasil + Acessível' Project was created to promote information about parasport, a sport for people with disability, with support from São Paulo Federal University and Sport Ministry. Through different strategies, the project gathered, produced, and released research, manuals, books, interviews, lives, and one Congress. This study aims to present the project's scope, specifically, the project's structure and the number of accesses in the different areas.

The professionals who worked on this project included fixed and financial support, and volunteers were invited. The access numbers were verified in website accesses, video views, Congress inscription, and followers of social media.

Twenty-two fixed works were responsible for producing project goals. The project website, which verified 52,120 accesses, included a repository cataloged with 4,205 academic documents in three languages, ten manuals, three books, two reports, and links to videos. Additionally, there were 9,782 views of interviews, lives, and classes on YouTube. The 1st Brazilian Parasport Pedagogy Congress that was produced by the project happened online and face-to-face, with 425 inscriptions, 4,614 views and 31 academic works presented. In social media using Instagram®, the project has 1,258 followers. All this data was collected within the first 10 months of the project.

The project 'Paradesporto Brasil + Acessível' is an important work aiming to divulge academic information in simple language for professionals, families, and people with disability. The numbers presented here represent only a small part of the project's impact. All materials are available for free access to everybody, and it is possible to share the files directly without registering for access.

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Sports performance analysis strategy in Paracanoe through the action camera: An exploratory study

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Keywords: Paracanoeing, performance analysis, Paralympic sport.

The objective is to describe the possibilities of evaluating, monitoring, and planning sports training in paracanoe through the use of an action camera.

This research is characterized as an exploratory study. The motor performance assessment was carried out in an artificial lake in Brazil, in the city of Petrolina, with a KL2 class paracanoe athlete, who rowed a 200-meters course as quickly as possible. Data capture was carried out with an action camera (GoPro 7 Hero Black ®) attached to the bow of the kayak with a frontal image of the athlete. Soon after, the telemetry program (Telemetry Overlay ®) was used to extract the GPS data from the camera, together with the Kinovea ® program to analyse the video data. Two collections were carried out, pre- and post-, over 12 weeks with five 90-minute sessions. With this analysis it was possible to obtain and compare quantified pre- and post-results of the performance variables: Average speed, stroke index, stroke frequency, and stroke phases.

By using the camera, it was possible to observe that the athlete showed improvement during a 200 m race in the variables of average speed (2.98 m/s to 3.52 m/s), time (67.93s to 57, 48), rowing index (6.52 m².cycles/s⁻¹ to 7.78 m².cycles/s⁻¹), rowing frequency (76.43 cycles/m to 95.85 cycles/m), and variations in the rowing phase.

The present study presented the possibility of easily applying the analysis of several performance variables with a single data capture device, the action camera. This strategy can facilitate the evaluation, mapping, and feedback of the athlete's performance, which can help with preparation for high-performance paracanoeing. Furthermore, it enables analysis in a field environment, which brings it closer to the reality of the sport, with low-cost equipment. To date, no publications have been found using this practice in this modality.

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From separate activities to integrated sports experiences: a project for people with multiple disabilities

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Keywords: Separate activities, Special Olympics, Inclusion Spectrum

According to the Inclusion Spectrum paradigm (Black & Williamson, 2011) and in the perspective of Universal design (Murawski & Scott, 2021), separate activities should represent an intermediate stage of a path oriented towards the full participation of the person with disabilities within sportive experiences integrated into the community. Even in the field of sports, people with multiple and complex disabilities encounter cultural and organizational barriers that can slow down, and in some cases, stop the full realization of their rights. Then, separate activities become those rare opportunities through which someone can pursue their interests and satisfy needs related to corporeality and well-being.

The contribution describes the cultural approach and methodological choices of a project born in 2012 within a rehabilitation facility in Arezzo (Tuscany Region, Italy). This project currently involves around 50 people with multiple disabilities, both congenital and acquired, within two structured weekly occasions of activity, lasting one hour each one of them. The activities are proposed to groups of approximately eight people, take inspiration from the Special Olympics MATP program (SO, 2005), and are led by graduates in Sports Science together with physiotherapists. To achieve clinical, functional, and personal results shared at a multidisciplinary team level, ludic and ludiform activities are proposed (Staccioli, 1998), significantly reducing the medicalization of interventions and aligning with participants' preferences. Among the objectives of the project, the contribution highlights the systematic implementation of particularly significant experiences within local schools, as well as participation in recreational initiatives proposed by other sports entities attentive to the promotion of inclusive practices and cultures (Booth et al., 2006). Through the collection of data and images, these events demonstrate that it is possible to learn and have fun, regardless of one's motor skills.

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Pediatric cancer survivors as Paralympic athletes: the Captain Volante Project

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Keywords: secuelas, cáncer pediátrico, deporte paralímpico, calidad de vida

The results of cancer treatment interfere with the social interaction of those affected, separating them from a full social life (communication and/or mobility problems), due to the sequelae produced, the duration and intensity of hospitalization and rehabilitation and, sometimes, an associated recognized disability. The Captain Volante Project, through sport and physical activity, is a vehicle for re-education, rehabilitation, and integration that pursues the development of sports practice opportunities. It arises to improve your quality of life and mitigate the sequelae. Its objective is for the minor to join the federations' Paralympic teams, train as an athlete, and participate in competitions, transmuting their difficulty/disability into something positive. The scientific importance of this initiative lies in its holistic approach, which considers the physical, cognitive, emotional, and social benefits of sports activity for these young people from an interdisciplinary approach.

Methodologically, different diagnostic tests - including medical, physical-sports, neurocognitive, psychological, and sociological - are conducted on each candidate controlled by each of the researchers/professionals from different fields, such as oncology, cardiology, traumatology, physiotherapy, training, psychology, linguistics, sociology, and others. The results are collected in a unified database.

The project team (15 people) with the general executive coordination of Gloria Álvarez Benito, researcher and president of AEetc, after a preliminary medical evaluation, has made a selection of 10 volunteer patients. With this data, an individual "sports prescription" is created. This prescription recommends adapted training sessions, (in gyms and sports centres with which an agreement has been made) supported by the use of technology, such as smart bracelets to monitor progress, and social robotics to assist in rehabilitation. In the second year, the candidates will choose sport and federation.

As the pilot study is in the collection phase, it is not yet possible to provide specific results or conclusions beyond the starting hypotheses and the experience of the researchers.

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They are not cars, they are humans: Puerto Rican physical education teachers' experiences teaching students with disabilities

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Keywords: disability, Puerto Rico, adapted physical activity

To date, there is a limited understanding of physical education (PE) teachers' experiences teaching students with disabilities in Puerto Rico (PR) and, especially considering the significant number of students receiving special education services, as well as the lack of research on this subject in the island. As such, the purpose of this study was to explore the subjective experiences of physical education teaching students with disabilities in PR.

An interpretative Phenomenological Analysis (IPA) approach was used and 10 APE/PE teachers (ages 23-56 years; eight men, two women) served as participants in this research. The primary data sources were semi-structured zoom interviews and reflective notes, recorded during and immediately after each interview. Thematic development followed a three-step analytical process guided by IPA.

Based on the data analysis, four interrelated themes emerged from the participants transcripts: (a) systemic impediment: 'I think the system is consuming us, draining us, and we don't have the same energy', (b) self-awareness: 'why do they downplay my profession?', (c) culture: 'different, but not less', and (d) disability: 'they are not cars, they are humans'. The first theme described the participants' frustrations about the overcomplexity of the educational system in PR. The second theme described that PE teachers may experience a sense of undervaluation or diminished recognition compared to their peers in other disciplines. The third theme described the participants' perceptions of the importance of serving others with kindness and compassion. Lastly, the final theme depicted the participants' views toward seeing disability through the lens of humanization and empathy.

The constructed themes offer distinct insights into how the culture of Puerto Rican APE/PE teachers play a significant role in shaping the educators they become. This is particularly evident in their approach to viewing disability through the lenses of humanization and kindness, even in the face of systemic challenges.

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The perceptions and experiences of Latino caregivers of individuals with developmental disabilities towards Latin dance as physical activity: A qualitative study

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Regular participation in physical activity is well-documented for positively impacting overall health and quality of life (Piercey et al., 2018). Latin dance, as a form of aerobic training, uniquely incorporates interpersonal communication and involvement (Esmail et al., 2020). However, despite the well-established benefits of dance as a form of physical activity, caregivers of individuals with Developmental Disabilities frequently encounter challenges in integrating it into their routines. The purpose of this study was twofold: a) to investigate perspectives toward dance, and b) to explore factors contributing to participation and perceived health benefits among Latino caregivers.

Latino caregivers of individuals with developmental disabilities took part in this study. Purposeful sampling was utilized to recruit participants, reaching out through nationwide listservs and disability advocacy groups. The study utilized the Theory of Planned Behaviour as its conceptual framework. Data collection comprised one-on-one interviews conducted in either Spanish or English, based on participant preferences. Subsequently, the interviews were recorded, transcribed, and subjected to thematic line-by-line analysis with the support of NVivo 20 software (Vaismoradi et al., 2013).

The findings suggested a general enthusiasm among Latino caregivers of individuals with developmental disabilities for physical activity and dancing. However, participants faced various barriers, that limited their physical activity and dance participation including limited time, financial constraints, lack of programs, and a lack of support. Proposed solutions to enhance their physical activity and dance participation included the development and implementation of Latin dance programs in their community.

Despite the participant's positive attitudes towards Latin dance as a form of aerobic training and acknowledging the benefits of such practice, they highlighted the presence of persistent barriers to dance participation. These findings offer insights for practitioners and researchers into the development and implementation of future dance interventions that promote physical activity engagement through dancing and its associated benefits.

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Inclusive and equitable sport for people with autism and intellectual disability - the IDEAL 2.0 project

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Keywords: disability sport, physical activity

In an ideal scenario, everyone possesses the right to participate equally in society, including engaging in physical activity (PA) and sports, alongside others. However, the reality in many EU countries is that the majority of young people with intellectual disability (ID) and/or autism spectrum disorder (ASD) have fewer opportunities to become physically active or to access sport. Despite the EU prioritizing physical activity as a public health concern, individuals with ID and/or ASD often face lower levels of PA, heightened sedentary behaviour, and an associated increased risk of health issues such as diabetes, obesity (Melville et al., 2018), and diminished physical fitness (Fernhall et al., 1996). Additionally, the global COVID-19 pandemic has heightened the limitations on the daily routines of marginalized youth with ID/ASD, exacerbating both their physical and mental disparities (Theis et al., 2021). Building upon the outcomes of the successful IDEAL project finalized in 2020 (www.idealproject.org), and taking into account the COVID-19 situation, a new consortium was built to address the needs and priorities in the field of inclusive and equitable sport. The aim of the IDEAL 2.0 project is to facilitate equitable and inclusive opportunities for young people with ID/ASD to engage in sports and PA. Our goal will be pursued by implementing five actions: Include (create awareness within society about inclusivity in sport), Develop (translate evidence-based practices successfully to PA/sport professionals), Educate (teach coaches and support staff on how to organize adapted PA/sport training), Activate (address the relevant social-determinants of inactivity), and Lead (foster leadership and personal development skills). Project activities will involve systematic literature review, pilot web-based intervention, semi structure interviews, e-learning for coaches at Articulate platform, seminars, workshops, educational resource database, virtual competitions, awareness campaign, and toolkit for athletes who may face problem of limited access to sport or PA due to unexpected circumstances.

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Initial successes and weaknesses of the #WeThe15 campaign

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Keywords: Sponsorship, Advocacy, Partnership, Paralympics

The WeThe15 campaign was launched at the 2021 Paralympic Games as a 10-year campaign to break down barriers commonly faced by people with disabilities. Through this campaign, several organisations and companies have worked together in an attempt to end discrimination. As a new and innovative campaign, little is known about what companies have done in the early stages of the campaign and how disability groups have reacted to the campaign. Therefore, this study aimed to find out the perceptions of the campaign within 6 months after its launch.

Volunteer representatives of disability rights groups and companies from around the world were invited to take part in focus groups or interviews to discuss their perceptions of the WeThe15 campaign. Data were collected within six months after the 2021 Paralympic Games ended. Data were translated and transcribed to English, before deductive thematic analyses.

There were 29 representatives (20 identified to have lived experience of disability) of disability organisations or companies from Canada, Finland, Malawi, Peru and the UK, who took part in five focus groups and 10 one-to-one interviews. The general theme was hope and optimism. Dominant themes were empowerment, localisation, partnering, representation, and participation.

The campaign was generally received positively with descriptions of potential for impact, but greater participation and partnership with disability advocate groups are needed to make it relevant at the local level.

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Quality of life in children with post COVID-19 condition after water-based and land-based exercise (postCOVIDkids): A randomized controlled trial

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Keywords: child, long COVID, SARS-CoV-2, quality of life

The evidence that COVID-19 can have long-term impact on children highlights the need to implement measures to reduce consequences of the pandemic on child's health. The purpose of the study was to determine the effectiveness of water-based and land-based exercise interventions on quality of life in children with post COVID-19 condition.

Children (boys and girls) with long COVID aged 10-12 years were randomly assigned into one of three groups - WATER, LAND or CONTROL (no intervention). The intervention was led by the physiotherapist, lasted eight weeks, two times per week for 45 minutes. The assessor was blinded to the group allocation. Health-related quality of life (HRQoL) was measured with the validated Polish version of the Pediatric Quality of Life Inventory 4.0 Generic Core Scales (PedsQL) for children and for parents.

Of the 179 children assessed for eligibility 86 met the inclusion criteria and were randomized. 74 children (86%) finished the intervention and took part in post intervention data collection. The overall HRQoL, indicated by total PedsQL score, significantly improved only in the LAND group of parents ($p < .01$). In the AQUA and LAND groups, the parents reported minimally clinically meaningful difference in the total PedsQL score (4.85 and 9.83, respectively). No agreement was found between the PedsQL scores returned by the children and parents prior to the intervention, in either the AQUA, LAND or CONTROL groups; however, after intervention, slight agreements were evident between children and parents for physical functioning ($\hat{I}^2 = 0.097$; $p < .001$), social functioning ($\hat{I}^2 = 0.145$; $p < .001$) and school functioning ($\hat{I}^2 = 0.101$; $p < .003$).

Parents of children in the exercise groups observed improved quality of life in children aged 10-12 with post COVID-19 condition after an eight-week, twice-weekly supervised exercise program on land and in the water.

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Implementation methodology of the summer camp for children with special needs

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Keywords: adapted physical activity, art, music, drama, story-telling, freetime

During the summer holidays, leisure activities with a certain exercise regime are highly sought after by parents of kids both without and with special needs. The offer of suburban camps is currently increasing significantly. We have been organizing such suburban camps for five years. The aim of this contribution is to show the importance of some activities for selected children.

Using several case studies, we will show the benefit of selected therapies on children's motor and social competences. Observation and interviews with parents were used as a qualitative research methodology.

Five days long summer camp program has every year a story or theme that serves as a framework for a variety of adapted physical activities and games. Every day happen four main physical education lessons (physical therapy) for supporting physical literacy of camp participants (skills in gross and fine motor, knowledge of sports and the attitude). Occupational therapy and art therapy consist of everyday art lesson (painting, creating) and of support children in ADL (transport, eating, cloth changing). Elements of drama therapy are included in active connection with main story (interactive psychomotor games inspired by the overcoming various obstacles in the story) and final presentation for parents. Music therapy (MT) is represented with one special lesson with MT therapist and every day singing and/or rhythm games. Communication skills are actively supported with methods from the system of speech therapy (pictograms, memory cards of activities)

The whole concept of the camp includes a wide range of activities aimed at improving the child's ability to succeed in life and to support their quality of life on a bio-psycho-social level. The inclusion of art therapy and applied movement activities in the camp program for children with special needs is an innovative and essential step towards providing a creative inclusive environment. The methodology we have developed can serve as a model for other suburban camps and organizations working with children with special needs in the Czech Republic.

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The importance of visual feedback of young hearing-impaired persons' balance control during dual task performance

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Balance control is influenced by cognitive factors such as attention, motivation, memory, and intentions. In healthy individuals, the entire system works harmoniously and is processed automatically, but in the presence of certain impairments or disorders, such as hearing loss, it may be necessary to maintain a balance of voluntary movement control (Greters et al, 2017). Thus, although the hearing system is generally not included in the peripheral elements of central processing related to balance control, the studies reviewed show a direct or indirect effect of hearing on the performance of a dual task, but this area is not sufficiently explored. The aim of the study was to assess whether hearing impairments may affect the balance control during dual task performance.

Participants were 59 young adults (age $M = 28$ $SD = 5.3$ years) divided into two groups: people with hearing impairment and people without. A Posturography method with a single piezoelectric force plate was used to measure postural sway activity. The application point (centre of pressure - CoP) of the measured foot ground reaction forces in the anteroposterior (AP) and mediolateral (ML) directions was calculated. For the Mathematical Counting task, negative or positive one-digit integer-numbers (10 in total) were presented on the paper and participants were instructed to calculate and remember the sum of the numbers shown. The results showed that young people with hearing impairments are characterized by greater imbalance instability (i.e., greater Vcop) ($p < .03$). The results also revealed that the balance was statistically significantly better in the hearing with the eyes closed ($p < .04$). In addition, the effects of the dual task were statistically significant ($p < .05$) in both cases, indicating that the number of attentional resources in the cognitive task requiring attention was obtained at the expense of the posture task. Persons with hearing impairments have poorer balance control than people without hearing impairments, especially when performing a dual task.

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The use of ICT in adapted physical activity: MOOC ‘Sport, disability and inclusion’

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Keywords: education, innovation, technology

Information and communication technologies (ICT) are an increasingly used tool in education. This extends to inclusive education, as ICT are playing an increasingly important role in the inclusion process at all levels. For this reason, the Universidad Politécnica de Madrid, together with the CEDI Chair and the AFIPE research group, created a MOOC (Massive Online Open Course) during 2022-2023 entitled ‘Sport, Disability, and Inclusion’, aimed at teachers and students who wish to increase their knowledge in the area of adapted and inclusive physical activity. The aim of this study was to design and develop the contents of this training, as well as to know the opinion of the participants in its first edition (May-July 2023).

The course was divided into three modules (divided in 24 lessons) and opened on the platform free of charge. In this course there were a total of 283 participants, of which 56 answered the overall satisfaction survey of the training activity, which consisted of four Likert-type questions with five answer options (1 being “very dissatisfied” and 5 “very satisfied”), one dichotomous question and one final open question.

General positive perceptions of the students were assessed, as the Likert-type questions more than 87% of the participants showed their degree of satisfaction between 4 “satisfied” and 5 “very satisfied”. Regarding the dichotomous question, it is worth noting that more than 98% of the participants would recommend this training. Suggestions for further improvements were also provided through open questions.

This study represents a breakthrough in the field of ICT use in inclusive physical education and adapted physical activity, setting a precedent for those entities that want to continue facilitating the training of teachers and students in a flexible and innovative way. Applications for physical education teachers and adapted sport coaches will be discussed.

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The influence of exercise with music on motor skills and cognitive functions for children with autism spectrum disorder

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ASS usually affects social skills, verbal and non-verbal communication, and behavioural development (Hodges, Fealko & Soares, 2020; Sowa & Meulenbroek, 2012). Exercise reduces atypical repetitive movements, hyperactivity, improves communication skills, concentration of attention and decreases sensory sensitivity (Case & Yun, 2019). Additional interventions used to achieve better results are interactive and sensory tools (Lang et al., 2012). Music improves social integration, verbal communication, attention concentration, and movement planning (Marquez-Garcia et al., 2021; Broder-Fingert, Feinberg & Silverstein, 2017). Likely exercise with music can lead to improvement of motor skills and cognitive functions.

The aim of the study was to evaluate of the influence of exercise with music on motor skills and cognitive functions for children with autism spectrum disorder.

The research was carried out at child development centre that provides early rehabilitation services for children with developmental disabilities from 15.04.2022 to 31.03.2023. It involved 25 4-5 years old children) randomly assigned to the study and the control group. During the study, one subject participated in 20 individual exercise therapy sessions that lasted 30 minutes.

Non-equilibrium coordination samples (based on Schmitz, 1988) - to assess coordination; Children's balance scale (modified Berg scale) - to assess balance; "Burdon - Anfimov" methodology - to assess the concentration of attention.

After the study, children with ASD in both groups had statistically significant improvements in balance, coordination, and concentration ($p < .05$). Nevertheless, no significant difference was found between the groups in any indicator. Correlation was found between balance and coordination ($r = .85$), balance and concentration ($r = .79$), coordination and concentration of attention ($r = .66$)

Exercise with music improves motor skills and cognitive functions in children with ASD. Nevertheless, no difference was found between exercise session with music and without. There is a direct relationship between balance, coordination and concentration improvement.

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The Brunel mood scale (BRUMS) in Portuguese adapted sailors

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Keywords: mood states, measurement, scale

Mood states are indicators that help with the athlete's performance and health prevention. The high demands of competitive sport can have serious consequences, leading to overtraining syndrome, which results from an imbalance between the demands of exercise and the possibility of assimilating the training. This can lead to metabolic changes, with consequences that not only affect performance, but also other physiological and emotional aspects.

The aim of this study was to assess the mood of Portuguese sailors adapted to a world championship. Sixteen Portuguese adapted sailors (15 male, 1 female) aged between 33 and 60 ($M = 45.56$ $SD = 9.76$), participating in the HANSA Worlds Portimão Championship, held in October 2023 in Portugal, answered the Brunel Mood Scale (BRUMS) questionnaire before any regatta held. BRUMS contains 24 simple mood indicators, allowing classification into six sub-scales: tension, depression, anger, vigour, fatigue, and mental confusion. Respondents answer how they feel about these feelings on a 5-point scale (from 0 = not at all to 4 = extremely), then the score for each item on each sub-scale is added up to a maximum of 16 points. SPSS 28.0 was used to perform the statistical analysis. On average, the vigour subscale showed the highest results ($M = 10.13$ $SD = 2.03$), followed by fatigue ($M = 4.62$ $SD = 3.84$), and tension ($M = 3.169$ $SD = 3.44$). Depression, anger, and mental confusion had average values of less than 2 points. Transient mood factors are placed on an individual graph, and the ideal graph is the iceberg, which on average we observed in the study. This shows that, on average, Portuguese sailors do not show overtraining syndrome. However, we don't always identify the "iceberg" if we look at individual states of mind.

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What helps or hinders physical activity and campus engagement among autistic students? A qualitative study to inform intervention design.

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Keywords: Digital Health Intervention, Autism Spectrum Disorder, College Students, Campus Engagement

Autistic students at higher education institutions in Ireland have reported feelings of isolation, depression, and disengagement, all of which contribute to health disparities in this population. It is critical to address these issues, given the recent significant increase in the number of autistic youths enrolling in higher education in Ireland. To inform the development of programmes to support autistic college students to be more active and engaged in higher education institutions, this study aimed to examine the perspective of physical activity and campus engagement among autistic college students.

Semi-structured interviews were conducted with a convenience sample of autistic college students. Interviewees were questioned regarding physical activity preferences, barriers, needs, and their preferences regarding physical activity promotion initiatives. Interviews were recorded, transcribed verbatim, and analysed via reflexive thematic analysis (Braun et al., 2023).

Participants (N = 4, incl. three males) were recruited from a University in Ireland. Codes developed during the coding process formed three central themes: (1) 'Psychological Factors' describing participants' experiences and needs relating to routines, motivation, and self-consciousness/anxiety, (2) 'E-Health Ideas and Needs' encapsulated the participants' preferences and suggestions for digital health intervention components, including effective e-communication about physical activity and campus engagement events and the potential use of an AI chatbots, and finally, (3) 'Supportive Spaces' encompassed the participants' preferences relating to the physical and social environment.

Preliminary findings highlight multifaceted barriers faced by autistic college students. Specific barriers mentioned related to multiple or all central themes. Findings emphasize the importance of physical activity events for autistic college students that offer flexible social engagement and that feature specific event details provided in advance.

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Prescription and application strategies for exercise programs for individuals with Autism Spectrum Disorder (ASD)

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Keywords: Adapted physical education, physical activity, Intervention strategies, Exercise adaptation

Autism Spectrum Disorder (ASD) affects neurodevelopment. Regular physical exercise promotes improvements in the overall physical fitness of individuals with autism. This study aims to analyse exercise prescriptions and strategies on physical activity to include individuals with autism.

We used an integrative systematic review as a methodological tool and compiled information on prescription and strategy presented in these articles. The search terms were: bibliometrics AND “physical activity” AND “autism spectrum disorder”; present in the Article title, Abstract, or Keywords, with bibliometric articles published between 2014 and 2024, in Spanish, English, or Portuguese. Initially, 413 studies were located in the consulted databases: Academic Google (405), Scopus (4), PubMed (3), Web of Science (1). Of these, 310 were excluded for not being related to the theme; 103 presented search terms, specifically, in their titles, abstracts, and/or keywords, but 25 were duplicate articles; 69 provided information on the terms but did not discuss the central focus of the study. Nine articles were included.

These analyse trends and characteristics of global research on physical activity in autism, as well as specific analyses on physical activity interventions. Considering age groups, psychomotricity has shown positive benefits in children with ASD, indicating significant improvements in symptoms with neuro-psychomotor interventions. For autistic children and adolescents, aerobic and resistance exercise programs are recommended, with specific prescriptions regarding frequency, intensity, duration, and type of exercise, as well as flexibility and neuromuscular training. For autistic adults, a combination of aerobic, resistance, movement-based intervention/sports training, and lifestyle changes is suggested. Prescriptions for physical exercise in elderly autistic individuals are still limited. The results indicate that in all age groups, strategies involve planning, differentiation in application, and monitoring of activities, adapted to individual needs and abilities.

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Social media use by Special Olympics athletes and its social visibility - An empirical survey at the SO World Games Berlin 2023

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Keywords: Mega Sport Events; Social Media; Intellectual Disability

Recognition is central of importance for inclusion and participation in society. The Special Olympics World Games Berlin (SOWG) 2023 provided the world's first largest setting for an inclusive mega sporting event. The research team Schwarz & Langbein conducted an empirical survey analysing the social media use of participants - athletes with intellectual disabilities.

A digital questionnaire consisting of 11 questions was developed; TUM students served as interviewers and recorded the participants' responses. The survey followed a quantitative research design. Targeted group consisted of athletes from different countries and disciplines. The sample contained 101 athletes randomly selected based on their willingness and time availability.

According to the empirical survey, most of the athletes surveyed, regardless of gender, engage with social media platforms (83%). This indicates that social media is also a widespread source of communication and information. The results are also consistent with other research findings, and they are also in line with the general use of social media by people without disabilities (Lohmeier, 2023).

The empirical survey shows that the majority of respondents (41%) learnt how to use social media platforms on their own. However, family (30%) and friends (22%) also play an important role as a source of learning and supporters.

The importance and relevance of social media are undeniably high. With 67% daily users (Kunst, 2023) and even 90.2% users aged 14 to 24, social media platforms are an integral part of many people's everyday life. Social media is also increasingly used in means of communication - and an excellent interface for social life especially at sport events. People with disabilities are also increasingly using social media to stay in touch with others and fulfil their social needs. The convenience and accessibility of social media help them to overcome challenges in their lives.

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The sport education model in the special education schools of Castilla-La Mancha (Spain)

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Keywords: physical education, pedagogical models

This study is based on the need to move towards quality Physical Education in Special Education Schools. As an aspect to take into account, the application of successful methodologies that allow students to be placed at the centre of the teaching-learning process is highlighted. With this purpose, the goal of this study was to know the scope of the expansion of the Sport Education model (Siedentop et al., 2020) and its assessment when applied in Special Education Schools of the autonomous community of Castilla-La Mancha.

Six Special Education Schools participated in this study, developing a program to promote physical activity and healthy habits in the 2021-2022 academic year, where the Sport Education model was part of it. The characteristics of the seasons applied by teachers and their perception were collected through two online reports and field notes.

The results of this study highlighted the need for teachers to contextualize the Sport Education model to the school reality in which they develop their teaching practice and specific training is suggested to successfully guarantee this purpose. The triple relationship government-university-schools are essential for methodological change with guarantees in Special Education schools.

In conclusion, the Sport Education model seems to have the potential to become an alternative methodology to traditional games teaching in specific groups of people with intellectual disabilities.

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Report of the therapeutic riding program at an equestrian centre in Portugal

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Keywords: Adapted Physical Activity. Rehabilitation. Education. Competition.

Therapeutic riding has been scientific and practiced for years, and its physical, social, and psychological benefits have been described in several studies. There are four programs, 1) hippotherapy, 2) education/re-education, 3) pre-sports, and 4) para-equestrian sports. Walking the horse at a pace provides physical evolution due to the three-dimensional movement generated, in addition to improving psychosocial aspects. This research aims to verify the results of therapeutic riding services at an equestrian centre in the central region of Portugal.

Observations were recorded in a field diary by the person responsible for the sessions. Content analysis was carried out to identify changes presented. Six practitioners of individual care aged between five and 15 years and 40 practitioners aged between 20 and 50 participated, with group support. Participants have different characteristics, such as delayed neuro-psychomotor development, intellectual disability, Down syndrome, attention deficit hyperactivity disorder (ADHD), autism spectrum disorder (ASD), type I diabetes and/or low vision. The appropriate program for each participant was selected from among the possibilities of therapeutic riding. For participants P1 and P2, the hippotherapy (rehabilitation) program was selected, which carried out six and 15 sessions respectively. Participants P3, P4 and P5 received respectively eight, seven and nine sessions of the education/re-education program (educational). For participant P6, the para-equestrian sports practice program (competitive) was selected, which carried out four sessions. Adult care was divided into four groups, and each group underwent 12 sessions of the hippotherapy (rehabilitation) program. The results obtained by analysing the field diaries show changes in all participants, demonstrating the adequacy of the program selection, and that the sessions met the capabilities and needs of each one. It is found that the results of the therapeutic riding services are appropriate for each participant, due to the countless possibilities of therapeutic riding.

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Teachers' opinion on the use of digital technologies in physical education for students with special education needs in Latvia

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Keywords: Physical education teachers

The purpose of this study was to explore the opinion of physical education teachers to use digital technologies (DT) in inclusive education in Latvia.

The focus group interviews (FGI) were conducted in Latvia as part of the international project. The six teachers (27 - 59 years of age) were selected with more than seven years professional experience in inclusive physical education and currently using digital resources and DT.

The study outcomes were presented in the three themes: (1) Preparing the class. All teachers shared opinion that it was important to use the DT to prepare the teaching materials according to the students' age and ability, (2) Communication. All teachers indicated that they invested lot of time in self- learning, for example, to use Teams and other DT in teaching process. Some teachers expressed concern that DT distracted students, particularly in elementary schools, and (3) Support for teachers. All teachers emphasized importance of the training opportunities on DT, while they do not have extra time for it. Especially, senior teachers have limited capacity to learn new information and use different DT.

Teachers in Latvia highlighted the significance of appropriate preparation, effective communication strategies, and additional support in utilizing DT for pupils with SEN in physical education classes. Findings demonstrate the importance of the class preparation, communication strategies, and need of support for teachers on how to navigate digital resources.

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Students with sensory disabilities in inclusive physical and sports education from the perspective of students without disabilities

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Keywords: Inclusion, Social interaction, Rules modifications, Deaf and hard of hearing students, Students with visual impairments

Inclusive education affects equally the subject of physical and sports education (PSE), which is inherently different from other subjects. The objective of the research study was to investigate and compare the attitudes toward the inclusion of students with hearing and visual impairments in physical and sports education among Slovak students without disabilities.

The study sample ($N = 432$) consisted of primary school students ($N = 225$) and high school students ($N = 207$), with a mean age of 14.99 ($SD = 2.14$ years). The CAIPE-R questionnaire (Block, 1995), modified for the inclusion of students with sensory disabilities in PSE (Nemček, 2022), was used to collect data. We processed five statements on social interactions ($\hat{I}SD = 0.75$), five statements on modifications of sports game rules ($\hat{I}SD = 0.72$), and overall attitudes towards inclusion in PSE. We compared the differences in attitudes towards inclusion of students with visual impairments (VI) and deaf/hard of hearing students (D/HH) in PSE.

In the social interactions, we revealed more positive attitudes towards the inclusion of D/HH students compared to the inclusion of students with VI ($Z = -10.39$, $p < .001$). In modifying the rules of sports games, we revealed more positive attitudes toward the inclusion of students with VI vs D/HH students ($Z = -14.80$, $p < .001$). Overall attitudes towards inclusion of students with sensory disabilities were more positive for students with VI ($Z = -10.24$, $p < .001$) compared to D/HH students in both primary and high school students.

The present research declares that students without disabilities manifest more positive attitudes towards the inclusion of D/HH students in the social interactions area and more positive attitudes towards the inclusion of students with VI in sports game rules modifications. In general, students without disabilities would better accept students with VI than D/HH students in the inclusive PSE.

The research was supported by grant projects of the MERDY SR KEGA 051UK-4/2022, VEGA 1/0611/23, VEGA 1/0694/24.

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Home-based exercise program as part of postoperative care after bariatric surgeries - a case study

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Keywords: bariatric patients, home-based exercise program, physical activity, post-surgery care

Physical activity is a frequent and justified recommendation in the prevention of muscle loss after bariatric surgeries (Hue et al, 2008; Steele et al, 2015). However, some patients are unable to participate in supervised training sessions. Therefore, the purpose of this project was to design a home-based exercise program for bariatric patients and evaluate the effect of the program on musculoskeletal aspects, as well as on the quality of life and pain.

The research was designed as a case study. The effect of the program was evaluated using the following aspects and body composition (InBody), static posturography (TekScan MobileMat3140), the level of physical activity (Garmin Vivofit, RAPA = Rapid Assessment of Physical Activity, NEAT = Non Exercise Activity Time Questionnaire), pain (SF-MPQ = Short-form McGill Pain Questionnaire), and quality of life (IWQOL-Lite = Impact of Weight on Quality of Life-Lite Questionnaire). The exercise program started 1 month after the surgery and lasted 3 months. The data was collected 2 weeks before bariatric surgery and four months after the surgery.

The patient (male, age 46) lost 22.2 kg of which 12.2 kg of body fat mass and 7.3 kg of skeletal muscle mass. Half (50%) of the postural stability parameters improved and the other half (50%) of the parameters showed worse values. The amount of physical activity increased. The patient walked more steps on average and progressed from Minimally active category 2 to HEPA active category 3 according to the IPAQ. RAPA 1 score, RAPA 2 score, and NEAT score were improved by 3 points. According to the SF-MPQ, the patient's pain decreased by 3 points. The quality of life evaluated by IWQOL-Lite improved by 47 points.

A home-based exercise program is an option to enhance physical activity after bariatric surgery. In upcoming research, we aim to improve our program based on the results and then conduct a controlled study.

This work was supported by the Charles University Grant Agency (GA UK, grant number: 86123), the POINT program (POINT/a/2023-2-114), the Cooperatio Program (Sport Sciences - Biomedical & Rehabilitation Medicine), and project MH CZ - DRO (General University Hospital in Prague - VFN, 00064165).

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Disability and sport: the choices of a Brazilian female Paralympic athlete

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Keywords: paralympic sport, disabled woman, paralympic athlete, life history

Paralympic sports emerge as a transformative setting, changing the perspectives and lives of disabled women. This study aimed to investigate the experience of being a woman and disabled in Brazilian high-performance sports, seeking to understand the identity constructed through sports practice.

The research focused on the life history of a female athlete, adopting a post-structuralist perspective. The life history was developed through dialogical audio-recorded interactions between the researcher and the participant, subsequently analysed in alignment with the theoretical framework of feminist disability studies.

Faced with the discovery of a spinal cord angioma during pregnancy, she was confronted with a crucial decision: terminate the pregnancy and undergo surgery to avoid becoming a disabled person or proceed with the pregnancy and embrace the condition of being disabled. As disabled, she grappled with the paradox between the social narrative of disability centred on incapacity and, on the other side, her possibilities and aspirations for individual and collective expression as a disabled person. Sports emerged as a significant turning point in the participants' lives. Sports translated into a place for individual and collective expression for disabled women, shifting the previous perspective from the 'disabled body' to the 'able-body'. Before Paralympic sports, as a disabled person, the participant had her right to motherhood, sexuality, and sports questioned. Through Paralympic sports, her body is recognized as able, validating her existence as a productive and valuable individual within our neoliberal society.

This athlete's life story reveals the narratives and intricacies of the life of a disabled woman, permeated by discourses of inequality, denial, and marginalization. Moreover, it illustrates a reality of women with disabilities that many believe to be impossible: being a mother and an athlete.

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A comprehensive analysis of self-efficacy towards the inclusion of students with disabilities: A study with a wide sample of Portuguese physical education teachers

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Keywords: Inclusive Education, Self-efficacy, Disability

In recent decades, societal perspectives, legal frameworks, and educational philosophies have evolved to prioritize inclusive education, emphasizing equity, access, and participation for students with disabilities. The field of physical education (PE) holds a significant role in the facilitation of inclusion for students with disabilities. According to Bandura (1994), self-efficacy assesses one's personal perception of competence or inability concerning specific knowledge and skills.

This study aimed to investigate the self-efficacy levels of Portuguese PE teachers towards the inclusion of students with disabilities in their classes.

Participants comprised 1073 in-service (total $M = 48.76$, $SD = 7.94$; $N = 461$ females) Portuguese PE teachers. The Portuguese Version of the Self-Efficacy Scale for Physical Education Teacher Education Majors toward Children with Disabilities (SE-PETE-D) was applied to assess the PE teacher's self-efficacy levels (Campos et al., 2022). The scale includes 25 items structured on a 5-point Likert scale, ranging from 1 (no confidence) to 5 (total confidence), across three subscales: Intellectual Disability (ID), Physical Disability (PD), and Visual Impairment (VI). Descriptive statistic (mean and standard deviations) was calculated.

Results revealed high self-efficacy among Portuguese PE teachers, with mean scores of 4.06 ($SD = 0.882$) for ID, 3.95 ($SD = 0.993$) for PD, and 3.68 ($SD = 1.126$) for VI. The national cross-section sample encompassing different teaching levels highlighted the overall confidence of PE teachers in inclusive practices.

The study provides valuable insights about the self-efficacy of Portuguese PE teachers, affirming their confidence in inclusive practices. However, it is crucial to comprehend how different variables, such as age, gender, education, years of experience, and the teaching level, influence self-efficacy and, consequently their impact on the attitudes of PE teachers towards inclusion.

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Health PE in Czech educational system as a prevention of exempting students from PE

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Keywords: physical education, primary school, exemption

Health Physical Education (HPE) in the context of Czech education system is a school subject focused on promoting health and developing physical literacy among children with special educational needs (SEN). The subject HPE has in Czech Republic more than 70 years long tradition and it is based in legislation as in basic curricular document (Frame Educational Programmes, FEP). However, despite increasing number of students exempted from PE, the number of schools offering this subject is insufficient.

Aim of the research was to analyse the situation about exempting students from PE through the literature analysis of FEPs, survey data of Czech school inspection (CSI) and 11 surveys from the period 2005-2022 reviewing the state of HPE.

According to the CSI, when we compare primary and secondary school, the number of students exempted from PE increased by over 1200%. The number of fully exempted is more than twice bigger to only partially exempted. From 226 schools included into analysis, in only 32 schools is HPE still part of the curriculum. The reasons are lack of financial resources and unqualified teachers.

In the situation of HPE, strengths consisted of long tradition, cheap and affordable bridge between physiotherapy and PE at schools. Weaknesses consisted of some legislative contradictions and organisation demands. Opportunities we see in systematic cooperation and new revision of FEP with emphasis on adaptation of PE lessons for all children.

Legislation changes and constant systematic communication and methodical support could be the key factors in prevention of exemption children from PE.

Framework Education Programme for Basic Education (2021) Online:
<https://www.msmt.cz/vzdelavani/zakladni> Frame education programme for basic education

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Movement behaviour of paediatric cancer survivors and adult survivors of childhood cancer

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Keywords: paediatric cancer, adult survivors of childhood acute lymphoblastic leukaemia, movement behaviour

Paediatric cancer survivors (PCS) are at a heightened risk of experiencing late treatment-related effects, which may manifest years after treatment completion, significantly impacting their quality of life. Physical activity and quality sleep are potential strategies for preventing or minimizing these effects. Despite this, there is a dearth of studies that devices measure movement behaviour (encompassing sedentary behaviour, physical activity, and sleep) in this demographic, particularly over extended post-treatment periods. This study aimed to instrumentally characterize the movement behaviour in PCS during their remission period and in adult survivors of childhood acute lymphoblastic leukaemia (ASAL). A secondary objective was to ascertain whether these groups meet health-oriented physical activity and sleep recommendations.

The study encompassed 26 PCS aged 7-15 years and 20 ASAL survivors, with an average of 15.5 years since diagnosis. Movement behaviour types were instrumentally measured using Actigraph GT3X or Axivity AX3 accelerometers over a minimum of seven consecutive days.

During a recovery stay, 77% of PCS achieved the recommended levels of physical activity. However, only 15% met these recommendations during a regular school week. Additionally, 62% of these children fulfilled the sleep efficiency recommendation. In the ASAL group, all subjects (100%) met the physical activity recommendation, and 80% achieved the sleep efficiency indicator.

The findings suggest that PCS and ASAL are capable of reaching recommended movement behaviour levels akin to those of a healthy population. The instrumentally measured monitoring of movement behaviour should be integral in evaluating late treatment-related effects.

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Game changers: providing sport and sport leadership opportunities for students with disabilities

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Keywords: disability, participatory action research, para sport, adapted sport, school

The benefits of sport for youth are well-documented and include, but are not limited to, increased levels of general health, and well-being, greater social engagement, enhanced self-esteem, and improved academic performance. Nevertheless, the literature finds that students with disabilities do not have the same access to school sport, as other students do and, therefore, they do not benefit physically, mentally, emotionally, and socially from sport participation. Although school communities in Canada must provide physical education opportunities for all students, those with disabilities often face additional barriers beyond limited sporting opportunities, including limited resources (human, financial, facility, and equipment), and a lack of school awareness as to how to serve, meaningfully, these students' sporting and physical activity needs. This presentation critically examines a six-phase participatory action research (PAR) pilot project, Game Changers, a Physical and Health Education Canada initiative focused on improving school sport opportunities and providing leadership training for students with disabilities. Students with disabilities, the physical education teachers in their schools, the sport leaders of their communities, and university researchers came together to engage in PAR in hopes of learning and growing together to improve outcomes for all those involved in the research (Kemmis et al., 2014). This pilot involved a mixed-methods design involving 43 students, and nine teachers at three school sites over two years. Data sources included pre- and post-program surveys for student participants, pre- and post-program focus group interviews for student participants and teachers, and school/sports observations. The initial phase of this project produced positive outcomes, such as enhancing students' perceived competence and autonomy, incorporating student input, addressing sport participation barriers, and establishing genuine sport opportunities in schools. We will also discuss informative, undesired findings. This presentation also advocates for the use of PAR in supporting and giving voice to marginalized populations to make meaningful and sustainable changes in their communities.

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Overview of Paradesporto Brasil + Acessível Project

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Keywords: Parasport, Pedagogy, Public policy, Inclusion

Approximately 8.9% of Brazilians have some disability. Currently, there is a lack of specialized programs in creating and sharing a knowledge network for professionals of Parasport promoting rehabilitation, health maintenance, social inclusion, and performance. The demand for more information is identified as a significant barrier to inclusion. Therefore, to help overcome this national need, the Paradesporto Brasil + Acessível project was created. Consequently, this study aims to present the Paradesporto Brasil + Acessível project.

The project encompassed four main goals, pursued through various methodologies spanning 24 months. First, a digital content repository was established via a systematic literature review across multiple databases and languages. Secondly, the 1st Brazilian Parasport Pedagogy Congress was organized. Thirdly, digital materials covering diverse Parasport sub-areas were produced, involving expert input and accessible language for field professionals. Lastly, national public policy data on Parasports was analysed utilizing resources from the partnership with the Inteligência Esportiva Institute. This project had the support of the Brazilian Ministry of Sports.

The repository indexed 4,205 academic documents in three languages. The 1st Brazilian Parasport Pedagogy Congress featured national and international speakers, culminating in a congress proceeding. Digital materials, including sign language, comprised eight podcasts, 13 interviews, 10 lives, and six classes. Specific videos were also made about the Special Olympics (4), wheelchair sport (4), Deaflympics (3), and autism spectrum disorder (5). Ten manuals on parasport topics and two books were published. Analysis of data on the national public policy on Parasports yielded two reports on Parasports in Brazil (National Athlete Grant Program and Municipal Parasport Management). All materials are freely available on the project's website.

The project achieved its four goals, highlighting the importance of improving academic materials about Parasport with accessible language and layout, using different formats.

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Impact of Parasports class on students' attitudes towards inclusion in physical education: A study in a PIET school

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Physical Education classes are essential for including students with disabilities, and the teacher must find different strategies to improve this process. Parasports are sports practiced by people with disabilities. This approach to sports can be a tool for physical education teachers to enhance the inclusive attitudes of their students without disabilities. The present study aims to examine students' attitudes at a Priority Intervention Educational Territory (PIET) school in a rural area to include students with disabilities in physical education classes before and after participating in a Parasports class.

This investigation involved 37 students of both sexes, aged between 12 and 20 years ($M = 15.59$ $SD = 2.35$ years), who were enrolled in physical education classes during 2023/2024 school year at a PIET school in elementary (6th) and high school (11th) levels. The physical education class was polythematic, with two Parasports (sitting volleyball and boccia) as subjects. Attitudes toward including students with disabilities in general physical education were assessed using the Children's Attitudes Towards Integrated Physical Education-revised (CAIPE-R) questionnaire. The CAIPE-R was applied one class before and one class after the Parasport class. The questionnaire has 11 items that measure global, general physical education, and sport-specific attitudes. SPSS 28.0 was used to perform statistical analysis. Descriptive and non-parametric statistics, the Wilcoxon test, were used.

The 6th grade students showed significant differences in global (from $M = 3.31$, $SD = 0.32$ to $M = 3.52$, $SD = 0.32$; $p = .006$) and general physical education attitudes (from $M = 3.18$, $SD = 0.35$ to $M = 3.44$, $SD = 0.36$; $p = .0039$) between the evaluation pre- and post-Parasport class. In contrast, 11 grade students only changed their general physical education attitudes ($M = 3.44$, $SD = 0.36$ to $M = 3.25$, $SD = 0.51$; $p = .13$) between the moments.

Teaching only one class on Parasports may not be enough to change sport-specific attitudes. However, it seems to be an effective approach to modify the general physical education attitude of PIET students towards including students with disabilities.

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Social Cohesion Lab: The research cooperation between Football for Development (FfD) and Palacký University Olomouc

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Keywords: Living lab approach, football for all, inclusion, socially excluded localities, community work

The Football for Development (FfD) project originated as part of an international development cooperation program between the Czech Republic and Kenya, employing a specific methodology 'football' aimed at nurturing personal and social skills and values among participants (Gannett et al, 2014; Moustakas & Kalina 2022).

The aim of our study is to explore the potential of the Czech sports program FfD in fostering social cohesion among its participants in marginalized neighbourhoods. We 1) investigate how local neighbourhoods and social cohesion are conceptualized and experienced by participants, and 2) examine the potential of FfD in promoting social cohesion.

We employed the Living Lab approach. Data were collected through four group discussions (60 min/each) with children and youth from socially disadvantaged backgrounds aged 10 to 18 (FfD football players) (N = 27). Stakeholders active at local and regional levels were engaged in two focus groups (90 min/each), including social workers from drop-in centres, Roma advisors, social prevention workers (N = 15). Semi-structured template was used.

Our data analysis sheds light on various aspects of social cohesion as perceived through activities within the FfD project. Participants shared experiences, expectations, and beliefs. Themes emerging from the analysis of the research data include safe spaces, the inclusivity of activities, integration, shared values, and the importance of family and friends. These themes are further discussed and elaborated from the perspective of FfD.

The focus group technique, employed as part of the Living Lab approach by researchers from Palacký University, helps address questions regarding the outcomes and impacts of the FfD program on end-users and their environment. These comprehensive insights into the thoughts, beliefs, and needs of participants, in addition to regular informal evaluations conducted by social workers and football coordinators after activities, may enhance the provision of services in the form of sports activities aimed at promoting social cohesion.

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Quality of life and life satisfaction of wheelchair basketball players

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Keywords: para-athletes, COVID-19 restrictions, WHOQOL-BREF

The presented survey on the quality of life (QLF) and life satisfaction (SWL) of wheelchair basketball players during the COVID-19 pandemic years (2021 and 2022), is part of a broader research focusing on the QLF of para-athletes in the Czech Republic (together with para ice hockey players, para cyclists, athletes, and dancers). The covid restriction affected elite sports of the general population, and even more para-athletes. The aim of this work was to assess the QLF and SWL of wheelchair basketball players and assess how their training habits changed compared to the normal sports regime without pandemic restrictions.

The research sample included 19 wheelchair basketball players of the national team (aged 21-48 years). Research methods consisted of Satisfaction with Life Scale (SWLS) and the WHOQOL-BREF (CZ) questionnaire.

In the SWLS questionnaire, the participants achieved an average to above-average life satisfaction score of 23.74 out of 35 points. In WHOQOL-BREF questionnaire, the respondents rated their Quality of Life (QLF) as good or very good, with an average score of 4.11 out of 5. However, their subjective health rating was lower, with an average score of 3.58 out of 5. The domains of the WHOQOL-BREF questionnaire social relationships ($M = 16.14$) and psychological well-being ($M = 16.00$) were rated the highest, followed by the environmental domain ($M = 15.82$) and physical health domain ($M = 15.40$).

Fear of COVID-19 and its impact negatively affected resilience, sense of cohesion, and life satisfaction. However, wheelchair basketball players in our sample do not have subjectively lower QLF or SWL. This fact may be attributed to a higher level of satisfaction among athletes compared to non-athletes. The pandemic limited respondents' ability to engage in active training, as many indoor sports facilities were inaccessible. For nine out of 19 athletes was impossible to train at all. The results are limited by COVID-19 period, the implications in post-covid time and importance of the research replication are addressed.

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Helping chance on its way: Talent search in Para Sport

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Keywords: athletic pathway, first contact, awareness

Talent search for Paralympic sports presents a unique challenge, with less than 1% of the German population under 18 having an eligible impairment. To develop an effective national talent search strategy, an analysis of the careers of German Paralympic athletes was conducted. Using a mixed-method design, a quantitative cross-sectional survey was administered to current German national squad athletes (N = 238), supplemented by qualitative multiple case study with 10 successful Paralympians from various sports using biographical mapping (Schubring, Mayer & Thiel, 2020).

The careers of German Para athletes exhibit considerable diversity, influenced by the nature and cause of their disability, as well as the characteristics of their respective sports. Eighty-eight percent of athletes attended regular schools, and half initiated their sports involvement within mainstream settings. The journey of Paralympic athletes interviewed often began with chance encounters or introductions to the concept of Parasport through key individuals in their social circles, such as coaches, teachers, or family members. One notable aspect is the lack of awareness among the athletes themselves regarding how their disabilities could be classified, or the lack of familiarity with Paralympic sport among the athletes themselves. The individuals, possessing awareness of Para sport, served as “undercover talent scouts”.

In addition to more athlete-oriented measures increasing awareness among such multipliers—coaches, teachers, therapists—through integrating Para sport aspects into educational programs can enhance talent identification efforts in future. While chance encounters will continue to play a significant role, systematic strategies can be implemented to equip more individuals, including those in Olympic sports, rehabilitation settings and regular schools, with Para sport awareness.

In conclusion, the search for Para sport talent in Germany necessitates systematic efforts to increase awareness among potential multipliers. By broadening the understanding of Paralympic sport and its opportunities, the recruitment of young talents can be enhanced.

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Unveiling Intersectional Marginalization: The Landscape of Physical Activity among Disabled Canadians

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Keywords: intersectional marginalization, equity, diversity, inclusion, accessibility

Physical activity is a fundamental right for all (UNESCO, 2015). This study examines the processes and outcomes of intersectional marginalization in physical activity participation experienced by disabled Canadians and explores ways to address these social injustices. This study is the first Canadian knowledge synthesis study focusing on intersectionality at the centre of the investigation.

A scoping review was conducted (Tricco et al., 2018). A total of 15,261 studies, conducted with Canadian participants in Canadian contexts and published in English between 2013 and 2023, were searched using seven databases. Additionally, 1,266 articles were identified as grey literature. A two-stage screening process was followed by subsequent data extraction. This process yielded a total of 284 studies, of which 117 discussed the aspect of disability and/or included disabled participants in their analysis. Common experiences of marginalization, underlying factors contributing to intersectional marginalization, and priorities and strategies for addressing such injustices presented in the findings of selected articles were thematically analysed.

Challenges included time, financial, and transportation constraints, inconsistent cultural understanding of disability, safety concerns, negative societal perceptions, inaccessible built environments, limited services, programs, resources, and technologies. Limited knowledge and information, along with the significant influence of personal, familial, and organizational dynamics on participation, were reported. Suggestions included creating positive and accommodating environments, offering gender-, culture-, and age-specific support, providing tailored programs for diverse abilities and backgrounds, implementing health/safety considerations specific to different needs, and developing ongoing adaptive strategies.

Promoting social justice in physical activity participation is a nuanced endeavour, with disabled Canadians facing multifaceted challenges rooted in policy barriers and systemic oppression. This complex landscape demands the establishment of equity, diversity, inclusion, and accessibility (EDIA)-driven policies and practices. Emphasizing the significance of collaborative community-building efforts and sustainable systemic changes in policy and practice is imperative.

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Inclusion through the development of motor and coordinative skills of students with special educational needs within the setting of additional training in special schools

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Inclusion as social and political goal should also apply to the field of sports. However, in Germany just few children and adolescents with disabilities are part of regular sports clubs. Participation in organized leisure activities promotes social skills, initiative, and cultural awareness. Furthermore, this has been shown to have a positive impact on physical and mental health and positive effects on motor skills. Current research findings indicate connections between the degree of cognitive impairment and motor skills. Coordination performance also correlates significantly with physical activity in adolescents with impairments and is, therefore, both a prerequisite for sports activities and their outcome.

For this very reason, 1) FCN has initiated the movement program “FCNino at Special Schools”, with the goal to strengthen the motor skills of children through targeted training sessions at seven special schools in a Bavarian city. In addition to learning football-specific skills, the focus is on imparting joy in movement and promoting general motor skills and facilitates their entry into local sports clubs. The aim of the study is to find out whether the intervention leads to a measurable development in the motor and coordination skills of pupils with special educational needs.

In the pre-post design, tests were conducted at the beginning and end of the year 2023. The exercise catalogue for the testing consisted of exercises from the DMT (German Motor Test) and the Mobak (Motor Basic Competencies).

The evaluation of the results is currently ongoing and will be presented at EUCAPA. An improvement in motor skills is already evident in the score of most students. This results in the performance differences with individuals without special educational needs became smaller. This fact increases the chance of joining a local sports club.

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