

Review Article

Adapted sport and occupation: role of the occupational therapist

Deporte adaptado y ocupación: rol del terapeuta ocupacional

Esporte adaptado e ocupação: papel do terapeuta ocupacional

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Abstract

Introduction: Adapted sport can be seen as a human occupation, in which rules are created or modified in an accessible way for people with disabilities. The role of occupational therapy (is little visible in recognizing sport as an occupation for people with disabilities, despite the fact that there is a strong relationship between occupational therapy, occupation and disability in other fields of action such as health, education or work. **Objective:** The aim of the article was to map the available evidence, identifying gaps in research and providing an overview of the role of the occupational therapist in adapted sport. **Methods:** A search for publications was carried out on the Scopus, Web of Science, SciELO, EBSCO host, OT seeker and Google Scholar databases in the period 2012 to 2022. All scientific and grey literature documents with full text access were considered. **Results:** 27 articles were selected and five analytical categories were developed in relation to the work of occupational therapy in adapted sport. Considering the analytical categories, three perspectives of professional practice are questioned: the first one focuses on the purpose and use of the occupation of adapted sport in occupational therapy, the second on the practice of occupational therapy with adapted sports and the third on the work procedures of the occupational therapist with adapted sport. **Conclusion:** It has been shown that the role of occupational therapy in adapted sport not only serves as a fundamental tool for the physical and mental rehabilitation of people with disabilities, but also promotes the dignification of their rights and facilitates their social inclusion.

Keywords: Occupational Therapy, Disabled Persons, Sports for Persons with Disabilities, Sports, Activities of Daily Living.

Resumen

Introducción: El deporte adaptado puede ser visto como una ocupación humana, en la cual se crean o modifican reglas de manera accesible para las personas con

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discapacidad. El rol de terapia ocupacional es poco visible en cuanto reconocer el deporte como una ocupación para las personas con discapacidad, a pesar de que existe una fuerte relación entre terapia ocupacional, ocupación y discapacidad en otros campos de acción como salud, educación o laboral. **Objetivo:** El objetivo del artículo fue mapear la evidencia disponible, identificando brechas en la investigación y proporcionando una visión general del rol del terapeuta ocupacional en el deporte adaptado. **Métodos:** Se realizó una búsqueda de publicaciones en las bases de datos Scopus, Web of Science, SciELO, EBSCO host, OT seeker y Google académico en el periodo 2012 a 2022. Se consideraron todos los documentos de literatura científica y gris, de acceso a texto completo. **Resultados:** Se seleccionaron 27 artículos y se construyeron cinco categorías analíticas con relación al quehacer de la terapia ocupacional en el deporte adaptado. Teniendo en cuenta las categorías analíticas se interpelean en tres perspectivas del ejercicio profesional, la primera enfocada en los fines y uso de la ocupación del deporte adaptado en la terapia ocupacional, la segunda en la práctica de terapia ocupacional con los deportes adaptados y la tercera en los procedimientos de trabajo del terapeuta ocupacional con el deporte adaptado. **Conclusión:** Se ha evidenciado que el rol de la terapia ocupacional en el deporte adaptado no solo sirve como herramienta fundamental para la rehabilitación física y mental de personas con discapacidad, sino que también promueve la dignificación de sus derechos y facilita su inclusión social.

Palabras claves: Terapia Ocupacional, Personas con Discapacidad, Deportes para Personas con Discapacidad, Deportes, Actividades Cotidianas.

Resumo

Introdução: O esporte adaptado pode ser visto como uma ocupação humana, na qual regras são criadas ou modificadas de forma acessível às pessoas com deficiência. O papel da terapia ocupacional não é muito visível no reconhecimento do desporto como uma ocupação para pessoas com deficiência, apesar de existir uma forte relação entre terapia ocupacional, ocupação e deficiência nos outros campos de atuação como a saúde, a educação ou trabalho. **Objetivo:** O objetivo do artigo foi mapear as evidências disponíveis, identificando lacunas nas pesquisas e fornecendo uma visão geral do papel do terapeuta ocupacional no esporte adaptativo. **Métodos:** Foi realizada busca de publicações nas bases de dados Scopus, Web of Science, SciELO, EBSCO host, OT seeker e Google academic no período de 2012 a 2022. Foram considerados todos os documentos científicos e de literatura cinzenta, acesso ao texto completo. **Resultados:** foram selecionados 27 artigos e construídas cinco categorias analíticas em relação ao trabalho da terapia ocupacional no esporte adaptado. Tendo em conta as categorias analíticas, questionam-se três perspectivas de prática profissional, a primeira centrada nas finalidades e utilização da ocupação do desporto adaptado em terapia ocupacional, a segunda na prática de terapia ocupacional com desporto adaptado e a terceira nos procedimentos do trabalho do terapeuta ocupacional com esporte adaptado. **Conclusão:** Ficou demonstrado que o papel da terapia ocupacional no desporto adaptado não só serve como ferramenta fundamental para a reabilitação física e mental das pessoas com deficiência, mas também promove a dignidade dos seus direitos e facilita a sua inclusão social.

Palavras-chave: Terapia Ocupacional, Pessoas com Deficiência, Esportes para Pessoas com Deficiência, Esportes, Atividades Cotidianas.

Introduction

Sport in the lives of people with disabilities can be enhanced to the extent that it is integrated through practice into a form of work, leisure and free time, rehabilitation or high performance occupation (Lastuka & Cottingham, 2016). This can guide paths of inclusion and subsistence both in individuals and groups. In principle, the relationship between disability and sport is relevant, because it allows the expression of different experiences and occupational forms of participating in society. For example, the practice of the occupational role of athlete in the Paralympic Games (Sousa et al., 2021) or the practice focused on rehabilitation (Chen et al., 2015; Côté-Leclerc et al., 2017). When these two experiences and terms are related, disability and sport, challenges and questions about the use of sport for occupational therapy arise.

Occupational therapy allows people to participate in activities of daily living (World Federation of Occupational Therapists, 2017), whether they are individuals, groups or populations, with the aim of improving or enabling meaningful occupations (Amini et al., 2014; Guajardo et al., 2016). It should be noted that the American Occupational Therapy Association includes sport as an occupation susceptible to intervention since physical activity is part of the health management category (American Occupational Therapy Association, 2020). Adapted sport is understood as the adaptations that fit the specific characteristics of people with disabilities when practicing sport (Abellán et al., 2022; Hernández-Lanas et al., 2024). These modifications are made to the regulations, materials, facilities or technical-tactical adaptations (Rivas & Vaíllo, 2013). In addition, there are sports created specifically for people with disabilities such as Goalball (Flores-Rodríguez et al., 2023) or Boccia (Ferreira et al., 2023).

Currently, there is a perceived predominance and recognition of the use of sport only among some disciplines such as physiotherapy, psychology and medicine, which can limit the participation of other professions that, from their disciplinary work, can also use sport as a means of intervention (Smith et al., 2022). However, recent studies highlight the contributions that occupational therapy can make to adapted sport (Sousa et al., 2021), as well as the relevance of having occupational therapists in interdisciplinary teams to contribute their experience to Paralympic sports teams (Teixeira & Alves, 2021). For example, at the South American level, specifically in Brazil, the development of legal actions in relation to adapted sports stands out. In 2017, COFFITO (Federal Council of Physiotherapy and Occupational Therapy), the regulatory body for physiotherapy and occupational therapy in Brazil, legitimized the occupational therapist as a professional who works in the field of sport with people with disabilities. Despite this regulation, scientific productions are still incipient, causing professionals to end up basing their practices on similar sciences (Sousa et al., 2021). Precisely, as mentioned by several authors, there is a clear need for future research to explore sport as an occupation (Bullen & Clarke, 2021; Costalonga et al., 2020; Host & Mankie, 2018) despite the fact that there are few published studies that support this need with scientific evidence (Merchan et al., 2020).

Asking ourselves about the current situation of occupational therapy in the occupation of sport for people with disabilities requires a comprehensive search for scientific articles that allows relating the different interventions and perspectives around the work of the occupational therapist. Therefore, the following research aimed to map

the available evidence, identifying gaps in research and providing an overview of the role of the occupational therapist in adapted sport in the years 2012 - 2022.

Materials and Methods

Scoping review study following the PRISMA statement (Page et al., 2021), based on the following research question: What is the bibliographic evidence on the role of the occupational therapist in adapted sport between 2012 and 2022? All documents returned by the search equation for both grey literature and scientific literature, published during the decade 2012 - 2022, with access to the full text, were included.

The query was carried out in the databases: Scopus, Web of Science, SciELO, EBSCO host, OT seeker, Google Scholar. Thesauri, meSH and deCS were used to create the search algorithm in Spanish, English and Portuguese for the following keywords: “Occupational Therapy” “Sports” “Sports for Persons with Disabilities” “Disabled Persons”. Using the Boolean AND and the following combinations for the search equation: “Occupational therapy” AND “Sports for Persons with Disabilities”. “Occupational therapy” AND “Disable person” AND Sports. “Occupational therapy” AND Sports. The above was consulted by academic experts in occupational therapy research who validated the search strategy and the selected databases.

Each author independently added the data from the studies using an Excel matrix with the information of the selected articles including year of publication, country, author, title, type of study, keywords, primary outcome and conclusions as shown in the flowchart (Figure 1). The criteria taken into account for the selection of the articles were clarity, rigor, comprehensiveness, pertinence, relevance and coherence (Peters et al., 2021). The selected articles had to be endorsed by both authors. If there were disagreements between the authors, the article was reviewed again and the decision was made jointly. The qualitative analysis was based on the content analysis method to identify and define the analytical categories (Krippendorff, 2019).

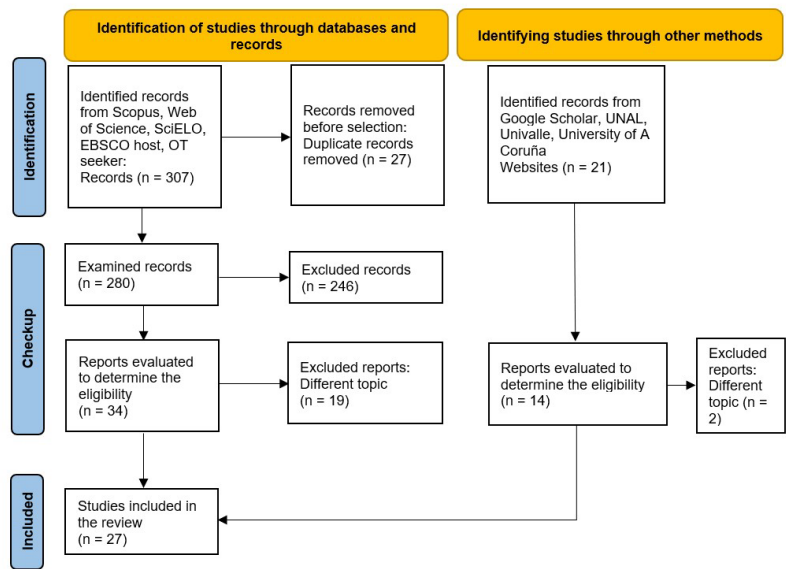


Figure 1. Flowchart: systematic review process. Note: Own authorship. Adapted from (Page et al., 2021).

Results

The search results included 27 documents related to the research topic of this article (Table 1). Once the information was reviewed, it was grouped by analytical categories according to the occupational therapy intervention. The categories were the following: job occupation; mental health interventions; adaptations and assistive technology; means of rehabilitation; leisure and free time.

Category of sport as a main occupation in people's lives

Sport is presented as the main occupation in different populations and life courses. It involves the individual as an athlete who competes, trains and belongs to a club or league, such as the wheelchair basketball club that explored experiences and the impact on daily life, reflecting on the need to access inclusive opportunities (Moss et al., 2020). Authors such as Merchan et al. and Ramirez make a constructive criticism of sport as an occupation, highlighting that it should be promoted among people who do not practice it and favoring it for those who do, referring to the right to be able to satisfy the basic needs of each person and have possibilities and opportunities to participate, strengthening equity and equality in access to sports practice (Merchan et al., 2020; Ramirez, 2016).

Likewise, the occupational activity of adapted sport is highlighted, as well as the interventions of occupational therapy in the sports field. In a quantitative research, the occupational roles played by the athletes of the Paranaense Association of Physical Disabilities were defined, applying the occupational role identification interview. In this same research, a critical reflection is made about how occupational therapy can contribute in the field of Para Sports, in addition to skills training, prescription, preparation and training of assisted technologies, becoming an important professional area for interdisciplinary gearing, highlighting occupational performance as the main contribution (Sousa et al., 2021). Furthermore, it is possible to evidence an intervention from occupational therapy in athletes who practice Boccia improving communication and social interaction skills (Pita Cabana, 2015).

In other research with athletes with physical disabilities that limit their mobility, adapted sport has positive effects on self-esteem, self-efficacy, sense of belonging, participation in meaningful activities and physical well-being (Bacelar Pousa, 2014; Côté-Leclerc et al., 2017).

In conclusion, sport as the main occupation in people with disabilities who belong to a sports club or league is related to occupational therapy in terms of equal opportunities, equity, equality and inclusion. It also entails benefits in physical, communicative, psychosocial skills, use of assistive technology, sports performance and participation in daily life activities.

Category of mental health interventions

All the research focused on occupational therapy on adapted sport in communities or people with a diagnosis or mental condition is highlighted, as is the case of a social participation program in the community in people with serious mental disorders through sport, achieving a decrease in stigma and improvement in their occupational

performance (Vilouta Pena, 2013). Similarly, research highlights participation in football, proving long-term feasibility as a therapeutic means in the delivery of occupational therapy mental health services (Moloney & Rohde, 2017; Peralta, 2019).

Other research highlights the terminology used to refer to people who play sports, for example, referring to people with experiences of mental distress because they intended to include all experiences, whether or not they have been formally diagnosed, whether or not secondary mental health services have been provided, and whether or not it is perceived as a current episode of mental distress. They also chose the term because they wanted to reflect that, for some, mental distress is a transitory experience, while being diagnosed or assigned a mental health problem often feels like a permanent label (Pettican et al., 2021, 2022).

It is worth highlighting the research on mental health specifically in adolescent population in sports programs in which improvements in mood are evident (Egaña, 2022; Véliz, 2013). In conclusion, adapted sport in people who experience some mental health condition is used as a therapeutic means and has benefits in reducing stigma, improving occupational performance and mood. It also allows for a debate on the terms used in mental diagnoses and proposing the term experience of mental anguish, from the voice of the subjects properly involved (Sánchez, 2013).

It is necessary to reflect on the importance of moving forward by listening to the main actors to meet their needs and interests and thus promote equal opportunities in sport from occupational therapy.

Category of adaptations and assistive technology

Research where an occupational therapist was present through orthoses, support products, adaptations, assistive technology according to the demands of each adapted sport, population or individual was included. As evidenced in the following case study research carried out in Spain by Díaz (2020), in which a user presented an amputation of phalanges of the hand and 3D adaptations were made so that he could practice the sport of canoeing, generating significant improvements in his practice. While in Brazil, a cross-cultural adaptation of the Assistive Technology Device - Readiness Assessment (ATD-PA) was carried out for national use (ATD-PA Br) (Alves et al., 2017). Consequently, they published research that identified assistive technology in Paralympic sports using the adaptation of the scale (Do Nascimento da Silva & De Jesus Alves, 2020). Posteriorly, they used it in wheelchair rugby players improving sports performance and increasing satisfaction with the support products created by occupational therapists in this Paralympic sport (Teixeira & Alves, 2021). In that same year, they also described and analyzed the relationship between environmental factors present in Para Sports (attitudes, support, services, assistive technology and policies), identifying that the majority of athletes with disabilities have low economic income and that assistive technology acts as a facilitator (Marques & Alves, 2021). In the latest and most recent research based on a theoretical model, they managed to maximize the successful use of assistive technology by occupational therapy in Para-badminton athletes (Soares et al., 2022).

In conclusion, the role of the occupational therapist is key because it contributes to the work procedures of assistive technology since it favors the realization of adapted

sport. Through the design, use and adaptation of support products that allow participation and maximize the performance of the athlete.

Category of adapted sport as a means of rehabilitation

This category presents the research that, from occupational therapy, uses sport as a procedure or means of intervention, through different sports, with different populations and diagnostic conditions.

To exemplify, an occupational therapy intervention was carried out to improve the cognitive abilities of a person with a stroke, demonstrating the efficacy of the intervention through sport (Fraga Pastorini, 2016). Following the cognitive/perceptive line, improvements are evident when practicing table tennis as a therapeutic option in mild intellectual disability (Chen et al., 2015). In contact sports such as hockey, occupational therapists intervene in athletes so that they can return to playing hockey safely and effectively. This research presents a website that provides information to occupational therapists about assessments and interventions, in order to obtain information on the role of the occupational therapist in this sport, emphasizing knowledge about concussions and upper extremity injuries (Host & Mankie, 2018). Finally, there is an article on the experiences of adapted snow sports, highlighting that people with disabilities have opportunities to develop a community, participate in new and meaningful experiences and overcome challenges, and emphasizing the need to continue researching the work of occupational therapy in different adapted sports and their respective populations or individuals (Mavritsakis et al., 2021).

The use of sport as a means of rehabilitation in occupational therapy brings benefits to the person receiving treatment because it improves or enhances their cognitive, perceptual and motor skills, abilities or capacities while facilitating the performance or participation in sports activities.

Category of leisure and free time

This grouping of research was done based on recognizing the relationships between sports activity, its uses and benefits in free time and leisure activities. One research shows that occupational therapists should promote the role of sport as a preventive means to achieve a better use of leisure time in the lives of clients since it has positive individual results (Costalonga et al., 2020). Similarly, in an exploratory qualitative study entitled Mapping the participation of young people with disabilities in sport and other leisure activities to facilitate the development of their livelihoods, they highlight that occupational therapists are well positioned to interact through sport as a means to develop social and life skills through leisure time activities in young people (Lorenzo et al., 2019).

The potential of virtual reality sports games to positively influence sports engagement and health is currently being promoted. This suggests that virtual reality sports can be a reliable alternative for leisure time sporting activity (Hanifah et al., 2022). In addition, studies show that occupational therapy plays a fundamental role in access to sports leisure for people with disabilities, since the participation of this group is compromised by the lack of resources and accessibility (Gato, 2022). Likewise, it is

recommended to expand opportunities in the professional role in innovative environments, such as conventional sports environments, and play a key role in allowing people to participate in sport (Bullen & Clarke, 2021).

In conclusion, sport is an alternative for leisure and free time activities. Benefits, different populations and innovative environments are identified.

Table 1. Studies included in the systematic review.

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
2013 Spain Vilouta, D	Social participation in the community in people with severe mental disorders through sport	Grey literature, thesis	Mental health, sport, social participation, community and occupational therapy	Mental health interventions.	There is evidence of improved participation in the community through sport, as this is a significant occupation for the study participants, thereby achieving a reduction in stigma and improvement in their occupational performance.
2013 Spain Sanchez, M	Perception of sport and people with intellectual disabilities.	Grey literature, thesis	Occupational Therapy, Intellectual Disability and Sport.	Mental health interventions.	It allows us to reflect on the importance of moving forward by listening to the people involved in order to meet their needs and interests and thus promote equal opportunities in sport.
2013 Guatemala Véliz, J	Sport and recreation as effective occupational therapy techniques in the treatment of anxiety disorders in adolescents deprived of liberty at the provisional juvenile detention center (CEJUDEP)	Grey literature, thesis	N/A	Mental health interventions.	The effectiveness of sport and recreation in reducing anxiety is proven as alternative occupational therapy techniques.
2014 Spain Bacelar, S	Sport and quality of life in people with physical disabilities	Grey literature, thesis	Occupational Therapy, Physical Disability, Quality of Life and Sport.	Main occupation	It argues the need to include sports activities in occupational therapy intervention, in order to promote health, well-being and social participation.
2015 Spain Pita Cabana, E	Boccia as a means of enhancing communication and interaction skills in a Resource Centre for People with Disabilities	Grey literature, thesis	Sport, Disability.	Main occupation	The application of physical, body and sports activities as therapeutic tools is used by professionals in education, sports and health, among others, and occupational therapists can also use it.

Table 1. Continued...

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
2015 Taiwan Ming-De, Chen. et al.	The effectiveness of racket-sport intervention on visual perception and executive functions in children with mild intellectual disabilities and borderline intellectual functioning	Cases and Controls	visual perception, executive function, table tennis, intellectual disabilities	Main occupation	Table tennis could be considered as a therapy option when treating cognitive problems/perceptual problems in children with mild intellectual disability and borderline intellectual functioning.
2016 Spain Ramirez, S	Comparative study of occupational therapist competencies in physical activity and sport	Grey literature, thesis	Occupational therapy, physical activity, adapted sport, games, leisure	Main occupation	It is necessary to promote this occupation for people with disabilities, referring to the right to be able to satisfy the basic needs of each individual and to have possibilities and opportunities for participation, promoting equity and equality in access to sports practice.
2016 Spain Pastorini, F	Occupational therapy Intervention through physical activity to improve the cognitive skills of a person with a stroke	Grey literature, thesis	occupational therapy, physical exercise, sport, stroke, rehabilitation.	Rehabilitation means	This study supports the effectiveness of physical activity intervention, which aimed to improve cognitive abilities through physical activity.
2017 Canada Côté-Leclerc, F. et al.	How does playing adapted sports affect quality of life of people with mobility limitations? Results from a mixed-method sequential explanatory study.	Mixed article	Quality of Life Index, Para sports, Well-being, Life satisfaction, Sense of belonging, Wheelchair users	Main occupation	Participation in adaptive sports was found to have positive effects on self-esteem, self-efficacy, sense of belonging, participation in meaningful activities, society's attitude towards people with mobility limitations, and physical well-being. However, participants reported that this participation, especially at higher levels, had a negative impact on their social life.
2017 Ireland Moloney, L. et al.	Experiences of men with psychosis participating in a community-based football programme	Exploratory qualitative	Mental health, Football, Recovery, Psychosis, Physical activity, Model of human occupation	Mental health interventions.	It proves the long-term feasibility of football as a therapeutic means in the delivery of occupational therapy mental health services. The findings could help to promote the routine use of sport-based interventions in mental health services.

Table 1. Continued...

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
2017 Brazil Alves, A. et al	Cross-cultural adaptation of the assistive technology device – Predisposition assessment (ATD PA) for use in Brazil (ATD PA Br)	Cross-cultural adaptation	Assistive technology device; assistive technology; outcome measures; usability; Matching Person and Technology Model; translation	Adaptations and assistive technology.	ATD PA Br will support professionals and people with disabilities in Brazil to better select AT Devices according to customer needs.
2018 United States Host, A. et al.	Occupational Therapy's Role in Sport: A Website on Promotion and Education for occupational therapists and Coaches.	Grey literature, thesis	N/A	Rehabilitation means	An interdisciplinary approach involving occupational therapy with sports-related injuries may bring benefits to aid in the recovery of athletes.
2019 South Africa Lorenzo, T. et al	Mapping participation of disabled youth in sport and other free-time activities to facilitate their livelihoods development	Exploratory qualitative	Community-based rehabilitation, disabled youth, sport and leisure, community participation, social inclusion, employability, occupational therapy	Main occupation	Occupational therapists promote social and life skills developed through sport and leisure activities that can enable the development of livelihoods for all young people.
2019 Spain Peralta, L.	Occupational therapy intervention program for homeless people with severe mental disorders through sport.	Grey literature, thesis	Football, serious mental illness, homelessness, social participation, motivation, values, quality of life, leisure and free time.	Mental health interventions.	There is little bibliography in the area of occupational therapy, due to the limited research carried out that proves its psychosocial benefits. This has made it difficult to find specific bibliographic sources on occupational therapy, having to resort to other areas of rehabilitation outside our discipline.
2020 United Kingdom Moss, P. et al	Children and young people's perspectives and experiences of a community wheelchair basketball club and its impact on daily life	Exploratory qualitative	Wheelchair basketball, disability sport, occupational therapy, reverse integration	Main occupation	The findings have implications at individual, organizational and societal levels, and provide some justification for the role of occupational therapy in disability sport.
2020 Australia Costalonga, D. et al.	Sport as a Leisure Occupation in Occupational Therapy Literature: A Scoping Review.	Scoping review	Occupational therapy, sports.	Leisure and free time.	There are opportunities to research sport as a leisure occupation and its importance in occupational therapy practice.
2020 Brazil da Silva, I. et al.	Identification of assistive technologies in Paralympic sports:	Qualitative descriptive exploratory	Occupational Therapy, Self-Help Devices, Disabled Persons, Sports	Adaptations and assistive technology.	The items considered essential for the use of AT, as well as user satisfaction and the

Table 1. Continued...

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
	contributions and barriers		Medicine, Social Participation.		assistance provided, can act as barriers or facilitators for the practice of Para Sports. It is noteworthy that there are still few studies that focus on Assistive Technologies and Paralympic sport.
2020 Spain Díaz, R.	Occupational Therapy and 3D adaptations in adapted sport: Canoeing. A case of amputation of the phalanges of the hand	Grey literature, thesis	Occupational therapy, adapted sport, adapted canoeing, adapted physical activity, 3D adaptations, amputation of upper phalanges.	Adaptations and assistive technology.	Occupational therapy and sport can go hand in hand, and in conjunction with new technologies such as 3D printers, which help in the implementation of new versatile and affordable support products. The design of adaptations is part of the occupational therapist's skills, improving the quality of life in the practice of adapted sport, thus opening up an interesting and novel field of professional action.
2021 Brazil Sousa et al.	Identification of occupational roles in adapted sports athletes	Quantitative observational cross- sectional.	Athletes. Sports for People with Disabilities; Roles Performance; Occupational Therapy; Analysis and Task Performance	Main occupation	Occupational therapy can contribute in the field of sport and para-sport in addition to skills training, prescription, preparation and training of assisted technologies, becoming a critical professional area for the constitution of a multidisciplinary team as a catalyst for occupational performance and the strengthening of these support networks.
2021 Brazil Marques, M. et al.	Investigating environmental factors and Paralympic sports: an analytical study	Qualitative analytical	Assistive technology; Para Sport; participation; occupational therapy; assessment; people with disabilities	Adaptations and assistive technology.	This study showed the predominance of low-income para- athletes and that environmental factors such as access to public policy benefits can be a barrier to participation in para- sports. Furthermore, the technology and services provided should act as facilitators of para- sport performance.

Table 1. Continued...

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
2021 Brazil Teixeira, G. et al.	Occupational therapy intervention in Paralympic sport: a look at low-cost assistive technology for wheelchair rugby	Quantitative descriptive explanatory case study	Assistive technology; Para Sport; participation; occupational therapy; assessment; people with disabilities	Adaptations and assistive technology.	The study achieved its objectives and the use of a conceptual model, standardized assessments and joint work with athletes and their coaches were essential. It is hoped that the baseline presented in this study can be used in future research in the fields of AT or Para Sports.
2021 Canada Mavritsakis, O. et al.	Up on the hill: the experiences of adaptive snow sports	Exploratory qualitative	Sports for persons with disabilities; adaptive snow sports; social participation; social environment; sport equipment	Adaptations and assistive technology.	Adaptive snow sports provide people with disabilities with opportunities to build community, engage in new and meaningful experiences, and overcome challenges.
2021 United Kingdom Pettican, A. et al.	An occupational justice perspective on playing football and living with mental distress	Exploratory qualitative	Occupational science; Complexity; Football; Physical activity; Sport; Occupational justice	Mental health interventions.	The study's findings reveal tensions, nuances and subtleties that exist in relation to the reciprocal relationship between playing football and people's health and wellbeing. The complexity of enabling participation in sport and physical activity among marginalised groups, such as people experiencing mental distress, is highlighted.
2022 United Kingdom Pettican, A. et al.	Levelling the playing field: Exploring inequalities and exclusions with a community-based football league for people with experience of mental distress	Exploratory qualitative	football, health inequalities, mental distress, occupational marginalisation, occupational therapy, participatory action research, physical (in)activity, sport	Mental health interventions.	Occupational therapists can address experiences of occupational marginalization in collaboration with players and coaches in community sport projects.
2022 Spain Gato, A.	The influence of occupational therapy on adapted sports leisure	Grey literature, thesis	adapted physical activity, leisure, occupational therapy, occupational therapist, acquired physical disability.	Leisure and free time.	Occupational therapy plays a fundamental role in providing access to sports leisure for people with disabilities, since the participation of this group is compromised by the lack of resources and accessibility.
2022 Spain Egaña, O.	Occupational therapy intervention project for non- suicidal self-harming behaviors in adolescents through the sport of climbing	Grey literature, thesis	N/A	Mental health interventions.	It presents a novel intervention programme for people with self-harming habits, as no similar programme has been found to date. This combines sport with

Table 1. Continued...

Year Country Author	Title	Type of study	Key words	Categories: Role of the occupational therapy'	Conclusions
					the physical and mental health of adolescents with emotional vulnerability and few resources for managing emotions.
2022 Brazil Lopes, L. et al.	Assistive technology for Para-badminton athletes: the application of the matching person and technology theoretical model in occupational therapy	Mixed case study	Assistive technology; assessment; occupational therapy; Para sport; participation; people with disabilities.	Adaptations and assistive technology.	The role of occupational therapy in Para Sports, based on a theoretical model, may contribute to the successful use of AT and therefore to better performance of Para athletes. Studies with different populations are needed to improve knowledge in the area.

Note. Own authorship.

Discussion

The following discussion is set up from the results section, in which five analytical categories are described. For the analysis of these, they are questioned from three perspectives of professional practice, the first focused on the purposes and use of the occupation of adapted sport in occupational therapy, the second on the practice of occupational therapy with adapted sports and the third on the work procedures of the occupational therapist with adapted sport.

From the first perspective of professional practice, it is recognized that from occupational therapy, adapted sport is perceived as a vital means for the rehabilitation of people (Chen et al., 2015; Fraga Pastorini, 2016); main occupation that dignifies the rights of people with disabilities (Côté-Leclerc et al., 2017; Moss et al., 2020) and; opportunity to participate in social environments that eliminate social prejudices (Lorenzo et al., 2019; Sánchez, 2013; Vilouta Pena, 2013). This perspective on the purposes and uses of occupation in occupational therapy and sport can be expanded and related to Townshend's theoretical orientation that highlights the relationship of occupations with the change of people and society. "Individual and social transformation lies in using occupation consciously for processes of personal growth and personal interaction and for emancipatory processes of equity and justice" (Townsend, 1997).

The second perspective responds to the scenarios of occupational therapy in adapted sport which are Boccia (Pita Cabana, 2015); Table tennis (Chen et al., 2015); Wheelchair basketball (Moss et al., 2020); Wheelchair rugby (Teixeira & Alves, 2021); Football (Peralta, 2019; Pettican et al., 2021; 2022); Hockey (Host & Mankie, 2018); Canoeing (Díaz, 2020); Para-badminton (Marques & Alves, 2021; Soares et al., 2022) and; Adapted snow sports (Mavritsakis et al., 2021). The above can be understood in light of the past in a 1997 publication by the Universidad del Rosario inviting to explore new emerging fields of action, mentioning sport as one of them (Caicedo, 1997). Currently, occupational therapy practices are registered in sport and these have been growing as

described in this article. However, other scenarios emerge, expanding to other occupations and practice spaces such as dance (Smith & D'Amico, 2020), animal-assisted therapies (Gonzales, 2024; Gunnarsson, et al., 2024) or art therapy (Sun, 2022).

And in the third perspective regarding the forms and means of intervention in sport, they range from transfers, positioning, prevention of deformities, bedsores and other problems related to the athlete (Teixeira & Alves, 2021); enable reinterpretation, social reintegration and adaptations to make the activity possible and meaningful (Vilouta Pena, 2013); strengthen equity and equality in access to sports practice (Moss et al., 2020); prescribe and provide guidance and implementation of assistive technology, support products and orthoses (Sousa et al., 2021; Do Nascimento da Silva & De Jesus Alves, 2020; Teixeira & Alves, 2021); treat motor, cognitive and visual perception difficulties through sports training (Chen et al., 2015); promote health (Merchan et al., 2020), contribute to the recovery of athletes from concussion pathologies and upper limb injuries (Host & Mankie, 2018); 3D adaptations (Díaz, 2020); analyze environmental factors, barriers and facilitators of the context (Marques & Alves, 2021).

At the national level in Colombia, Trujillo Rojas (2002) classifies occupational therapy procedures into: analysis, execution and adaptation of activities, evaluation and treatment of body function and structure, identification and analysis of the context, design and application of assistive strategies and technology, and management of the therapeutic relationship. At the international level, the American Occupational Therapy Association (2020) in the domain framework takes into account occupations, contexts, execution patterns, performance skills and client factors that interrelate with each other. The above-mentioned allows us to understand and support from the professional perspective regarding the forms and means of intervention of occupational therapy in adapted sport.

In particular, the incorporation of sport in the training of future occupational therapists in the academic curriculum is recommended, as a condition of possibility to continue expanding the professional role. Sport, as a meaningful occupation, promotes innovative and effective interventions that favor participation and well-being in different population contexts (Caicedo, 1997; Payán, 1997; Rosa, 2012). Regarding the professional practice of occupational therapy, it is recommended to include sport in the normative documents of the profession to consolidate its relevance as a therapeutic and/or inclusion tool and to visualize it as a field of action in Colombia. The above is already being done in countries such as Brazil or the United States (Sousa et al., 2021; American Occupational Therapy Association, 2020).

Conclusion

This research highlights the role of occupational therapy in the field of adapted sport through the review of various researches. It has been proven that the role of the occupational therapist in adapted sport not only serves as a fundamental tool for the physical and mental rehabilitation of people with disabilities, but also promotes the dignification of their rights and facilitates their social inclusion. The different sports scenarios analyzed, from Boccia to Para-badminton, among others, together with the various forms of intervention such as the prescription of assistive technology and health promotion, highlight the versatility and scope of occupational therapy in this emerging field. These conclusions reinforce the importance of continuing to explore and develop

inclusive and effective strategies in adapted sport, in order to continuously improve the quality of life and social inclusion of people with disabilities.

A limitation is that most studies focus on specific contexts or specific sports, which could limit the generalization of the results to other adapted sports in different cultural and social contexts. For future research, it is suggested to conduct prospective studies to better understand the effects not to have any conflict of interest for the publication of this manuscript.

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Pedro José Navarrete Moriones was responsible for the text conception, data collection, analysis, editing, and final revision of the document. Jaqueline Cruz Perdomo was responsible for the analysis, editing, and final revision of the document. All authors approve the final version of the text.

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