

Research Article

Development of Paralympic Sport 2008-2022 through Systematic Literature Review

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Abstract.

This study aims to analyze (1) the development of paralympic sports participation and achievement, and (2) the self-discovery and quality of life of athletes with disabilities through a systematic literature review (SLR). The SLR stages begin with formulating research questions, conducting a literature search through the Scopus database assisted with the publish or perish application and Mendeley desktop, screening and coding selected articles, analyzing and synthesizing selected articles, conducting quality control namely selected and eligible articles, compiling discussions, and determining the validity and reliability of the data. The results of the analysis show that (1) Paralympic participation and achievements have significant results that can be observed from the enthusiasm of athletes, officials, and spectators, with millions participating in enjoying and watching the euphoria of the biggest Paralympic event, as well as increased achievements with sharpening results, time records, and even breaking records. (2) Self-discovery and quality of life: Paralympic events stimulate social development, benefit the host community, and alter public negative perceptions of disability to positive things. Disabled athletes strive for independence, quality of life, and a sense of self. A systematic review of the literature compiled in original research summarized in the Scopus database can provide an overview of developments focusing on participation, achievement, identity, and quality of life of athletes with disabilities. Overall, this systematic literature review research can become a reference for sources and further research.

Keywords: athletes with disabilities, paralympic achievements, paralympic participation, paralympic sports, systematic literature review

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1. INTRODUCTION

The field of sports studies is a fascinating one. In order to obtain the most recent information, it is necessary to examine numerous facets [1, 2]. The Paralympics serve as a platform for athletes with disabilities to showcase their abilities. The sports involved include archery, swimming, cycling, table tennis, wheelchair tennis, etc [3]. Paralympic sports facilities and infrastructure are modified so that disabled athletes can perform. The rules are modified slightly to differ from sports in general. Competing athletes are classified into six different groups, namely cerebral palsy, amputation, spinal cord injury, visual impairment, and intellectual disability [4]. The groups are categorized into classes based on the type and level of disability. Consequently, exceptional athletes can include individuals with disabilities and typical athletes.

Sports are advancing, particularly for sports involving individuals with special needs. However, a thorough examination is required to assess the expansion of paralympic sports. Numerous studies have been conducted related to youth participation in disability sports [5, 6], the societal impact of the Paralympics [7, 8], and how effective coaching influences athletic performance [9, 10]. Previous research has shown that disability sports receive less attention. Government support is also important for the maximum advancement of disability sports [11, 12]. Disability research is still rife with unresolved issues; additional study is required to fill in the voids left by previous investigations. The researcher is particularly intrigued by disability sports research in Indonesia, where there is a considerable amount of sports-related literature that, thus far, has focused solely on conventional sports. Consequently, a systematic review was undertaken to examine the progression of participation, achievement, identity, and quality of life among athletes with disabilities. The review aimed to determine (1) the development of achievement and participation in paralympic sports and (2) the progression of identity search and quality of life among athletes with disabilities.

2. METHOD

The data sources utilized in this research comprised articles published in international periodicals within the Scopus database from 2008 to 2022. The following qualitative phases comprised the data collection methodology in this study, which adhered to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) Protocols [13].

2.1. Establishing Research Question

This necessitates the pre-determination of research questions and objectives to streamline the study's progression. Furthermore, it facilitates the process of locating pertinent articles in the designated journals [14].

2.2. Performing an Appropriate Literature Search

The researcher conducted a literature search in international journals for pertinent articles and a search for articles containing the terms disability sports and Paralympic sports development. Then, the criteria for inclusion and exclusion were established. Then, the Publish or Perish (POP) application assisted with a literature search using the Boolean operators "AND, OR" and scopus.com for the database search. The following Boolean keywords are employed:

History AND evolution AND paralympics AND sports

Participation AND achievements AND paralympics AND sports

Technology AND innovation AND paralympics AND sports

paralympic AND beijing OR china AND sport AND disability

Paralympic AND vancouver OR canada AND sport AND disability

paralympic AND london OR united AND kingdom AND sport AND disability

paralympic AND sochi OR russia AND sport AND disability

paralympic AND brazil OR rio AND sport AND disability

paralympic AND pyeongchang OR pyongyang OR korea AND sport AND disability

paralympic AND tokyo OR japan AND Beijing OR China AND sport AND disability

However, in cases where the document is not fully downloadable from the database, the exclusion criteria (EC) do not include the book category or any method other than qualitative in the coding process. Such are the inclusion criteria (IC):

IC1: Original research written in English

IC2: Qualitative research methods

IC3: Concerning participation and achievement

IC4: Concerning identity and life quality

2.3. Screening and Coding Articles

By implementing coding, it becomes more feasible to differentiate between articles that have been categorized based on predetermined criteria for inclusion and exclusion.

2.4. Synthesizing and Analyzing Selected Articles

At this stage, the researcher identified pertinent articles and searched to conduct an aggregative qualitative synthesis and evaluation analysis, which consists of summarizing research results in response to research queries [15].

2.5. Implementing Quality Control

Implementing quality control procedures entails verifying the adequacy and appropriateness of the literature and literacy utilized [16].

2.6. Producing the final report

In order to conclude the process, the systematic review report was compiled and presented as a scientific article [16].

2.7. The reliability and validity of data

Validity and reliability refer to the consistency and accuracy of a tool or instrument utilized to assess a subject. When the sample size is below 20, bias correction is implemented in literature review research.

The research procedure employing the PRISMA framework is delineated in Figure 1.

3. RESULTS AND DISCUSSIONS

The present study employs a systematic literature review approach to gather and search for prior articles via the Scopus journal database. The Scopus database is utilized due to the high credibility of its data [17]. The literature search, which utilized keywords, yielded 422 articles. The researcher then performed a filtration process on the articles, eliminating duplicates and those that do not pertain to the research topic. As a result, the final collection of articles consists of 1,093. The researcher then performed a second

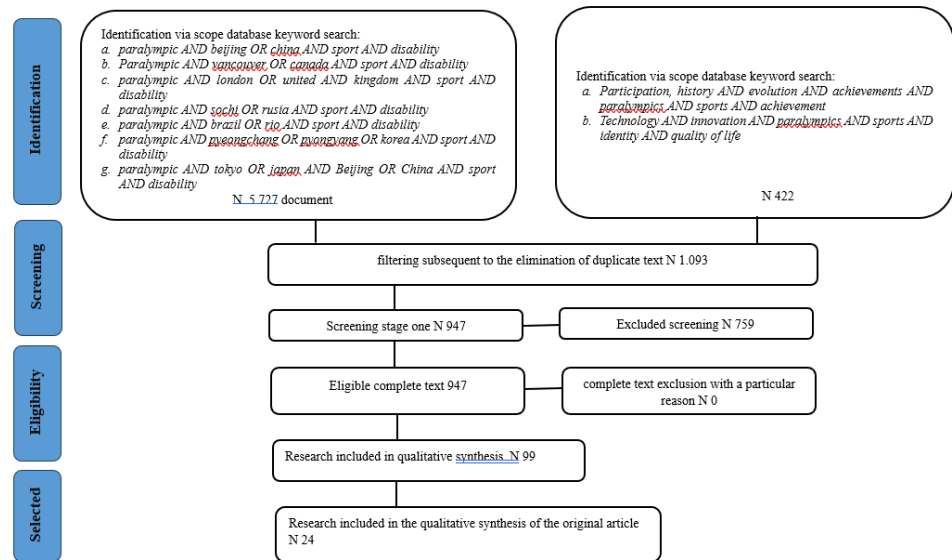


Figure 1: PRISMA framework.

round of sifting to determine the articles’ pertinence in greater detail; 947 articles meet the criteria, while the remaining 759 do not. The subsequent phase consists of further sifting by the researcher; thus far, the articles remain pertinent to the subject matter, resulting in a total of 947. In the subsequent phase, data analysis and full-text filtering are repeated in qualitative research until 99 complete documents are identified. Subsequently, the researcher re-evaluated the articles in accordance with the criteria for qualitative analysis of original content, ultimately obtaining 24 articles. The 24 articles that have been chosen based on their eligibility and completeness are subsequently synthesized using the Meta-synthesis approach. The filtered data were categorized before a comprehensive analysis using the PICO (population, intervention, comparison, and outcomes) method.

3.1. The Development of Achievement and Participation

The Paralympics is a globally significant mega-event. The Rio de Janeiro Olympics attracted 2.15 million spectators and 4,328 athletes and were reported on by the media in 154 countries [18, 19], as per the findings of the literature review. The number of athletes with disabilities who competed in the Olympics has increased by a factor of ten since 1960. For the Rio de Janeiro Olympics, there were approximately 4,300 competitors [20]. It was the International Paralympic Committee that initiated the Paralympic movement. The rise in prominence and progress of disability sports coincided with a

positive trend in financial support for pre-Paralympic sports. The United Kingdom allocated an estimated 75 million pounds towards the four-year duration of the Tokyo 2020 Paralympics, in contrast to 10 million pounds allocated for the Sydney Paralympics twenty years prior [20]. Disability swimming achieved notable accomplishments by securing the third position in medal acquisition at the 2016 Summer Olympics in Rio de Janeiro, Brazil. In this instance, assistance with emotional support, practical knowledge, and self-esteem is not sufficient for athletes with disabilities [20]. Family members, coaches, acquaintances, the entire staff, physiotherapists, nutritionists, and psychologists are all positive sources of support [20]. Furthermore, it is critical to prioritize athletes' physical and mental health, as well as their performance and personal growth. Consequently, performance is impacted by psychological factors, and both personal and professional support is regarded as crucial [20]. This pertains to the psychological dimensions of most athletes willing to participate, underscoring the importance of psychological assistance from supporters, including family and environment [21, 22].

Scholars have emphasized that coaches play a crucial role in advancing performance in sports. An additional analysis of the dearth of well-informed coaches in the realm of disability sports [23]. There is a recognized necessity to cultivate coaches and propose additional specialized resources for formal education and training in disability sports [23]. In addition, the research conducted by [24] investigated the biographies and backgrounds of coaches who assisted athletes with disabilities. A significant factor in enhancing the human resources of coaches is monitoring national disability sports organizations and government structures [23].

The need for optimized human resources, particularly a coach committed to instructing athletes with disabilities, is emphasized, as demonstrated by the aforementioned study. It is imperative to have experience in teaching, analysis, leadership, and management. In order to have effective teaching abilities, coaches must be able to place themselves in the shoes of athletes or former athletes who participate in regular or disability sports and possess sufficient academic aptitude. This theoretical academic ability can be developed and strengthened through training, seminars, and other means. Given that science is in a constant state of change, it must remain current.

Furthermore, an additional investigation involving parents or guardians of students with disabilities who competed in the Paralympics on behalf of the Brazilian state of Roraima revealed that the principal benefits for disabled athletes in the games were enhancements in health, sociability, and psychology [25][26]. Consequently, the growth and progress of other nations can be facilitated by the expansion of participation [25]. Emphasizing the findings, it is possible to discern that participants and athletes with

disabilities who consistently demonstrate exceptional athletic prowess can sustain positive social relationships with their peers, enjoy excellent physical health, and possess intuitive mental fortitude. In this instance, participation in sports by those with disabilities is growing daily.

3.2. Self-Discovery and Life Quality

An objective of the Paralympics is to foster societal progress, provide advantages to host communities globally and alter public perceptions regarding disability [18, 19]. In the study of environmental adaptation and training, individuals with disabilities may also be distinguished by their pursuit of self-discovery, quality of life, independence, curiosity, and personal growth [27]. This is particularly true for elite athletes, including rugby players. Millions of athletes and spectators from 159 countries participate in the Paralympics, a sporting event documented in another research to grow annually. Approximately 5 million downloads and 100 television broadcasts occurred on social media in 2012 [28]. With a viewership of 2.15 million, the 2016 Summer Olympics in Rio de Janeiro ranked second in ticket sales, following the London Olympics 2012 [28]. Furthermore, the primary objective of the Paralympic agenda is to enhance consciousness and perspectives regarding disability sports while also altering the audience's anticipations from merely witnessing an individual with a disability to appreciating the athlete's prestige [28]. Singapore and Malaysia have enacted regulations to combat discrimination based on disability [28].

Observing the audience's fervor, ticket sales for the 2016 Paralympics in Rio multiplied the figures from the 2012 Paralympics in London to demonstrate the rapid increase in participation in Paralympic sports. This implies that the level of audience engagement in disability sports is equivalent to that of regular sports. The audience can see that a disabled athlete who can combat normally possesses a benefit and prestige. Furthermore, the researchers observe that the challenges faced by athletes with disabilities extend beyond mere competition victory. These individuals also seek self-actualization, an identity, and motivation through participation in athletic endeavors.

Additionally, disabled athletes require psychological and moral support from their families, coaches, peers, and other supportive individuals. Malaysia and Singapore require 1% of their workforce to be individuals with disabilities employed in the public sector. While this is undoubtedly a positive development in assisting athletes who have ceased to be productive in sports to maintain their careers, implementing these regulations requires clarity. In conclusion, infrastructure, livability, and awards continue

to improve annually to ensure that athletes with disabilities are regarded similarly to their non-disabled counterparts.

The pursuit of success is a journey marked by extraordinary challenges, and this is precisely how swimming athletes with disabilities have dealt with theirs. The observable conceptual study is the theory of the life voyage of money, which is distinguished by uncommon occurrences and phenomena of a particular era. This occurrence is intricately linked to procuring essential human resources, including health, knowledge, economic security, and positive social relations [29]. Athletic participation yields positive outcomes, including expanding social connections and forming a new identity centered on the individual as an athlete. The empowerment attained by athletes is directly correlated with the demonstration of independence through daily activities, including regular training or retirement from sports [29].

Fundamentally, an athlete's existence consists of a struggle for consistency, tenacity, self-control, and perseverance, which are critical success factors. Achieving success in sports is facilitated by the social environment. Therefore, supportive environmental factors can supply positive energy that enhances training consistency. Consequently, in relation to independence, athletes must possess an independent character to practice diligently. Obviously, even after retirement, an athlete can remain active in the sporting world by attending training to hone his theoretical training knowledge and subsequently become a dependable coach or team manager.

A phenomenological hermeneutic analysis of interviews with five paralympic swimmers revealed that participation in swimming sports could enhance social and personal identity, career development via competition, skill development, and independence [30]. By utilizing the experience they acquire as paralympic athletes, swimmers can demonstrate that they continue to possess a robust personality, a strong socialist spirit, and the ability to pursue an outstanding career in the sports industry. However, this is achieved through considerable effort and is dependent on internal factors and external support, including human resources advisors, organizational synergy and sponsorship, and adequate infrastructure.

Disability rights activists and paralympic sports administrators were interviewed. The findings of the exploratory qualitative study indicate that non-disabled athletes find motivation in activists and sports administrators due to the examples they provide of pre-Paralympic athletes who consistently deliver their peak performances. This implies no distinction in treatment between athletes with and without disabilities [18].

In light of this, it can be concluded that sports for individuals with disabilities can no longer be disregarded or undervalued. Participation and the organization of specialized

sporting events for disabled individuals have occurred, and they now contend with regular sports events. Additionally, athletes with disabilities may perceive their limitations as strengths, which allows them to concentrate on a singular field of study and perform at their highest level. Occasionally, average athletes who cannot participate until they reach their optimum performance are prevented from doing so due to the misconception that sports cannot provide lifelong security; sports as a pastime are not sincerely internalized. Obviously, this diminishes the level of achievement.

An intriguing finding from the study by Souza et al. is that prejudices and attitudes toward individuals with disabilities have shifted in a positive direction. In the past, individuals with disabilities were regarded as delicate beings, a burden, and worthless. However, contemporary perception has shifted to one in which individuals with disabilities, particularly athletes, are regarded as ordinary athletes with formidable motivation and determination to succeed [18, 19]. De Souza et al. [18] conducted an exploratory qualitative study that employed thematic analysis to uncover the perception of prejudice. The study revealed that while direct and indirect contact can serve as mechanisms to mitigate and reduce prejudice, it is insufficient to merely observe prejudice and discrimination. Positive outcomes can certainly be achieved through contact facilitated by educational connections.

According to the aforementioned results, the degree to which prejudice is deemed good, bad, or neutral is contingent upon our reaction. Furthermore, prejudice cannot be divorced from historical cultural components. Individuals and their descendants will inevitably interpret prejudice as such if they have previously been subjected to prejudice against the perspectives of people with disabilities. This, nevertheless, is not generalizable. Evidently, individuals who have participated in sports, are well-educated, and possess a greater capacity for empathy recognize that athletes with disabilities are not exceptional individuals but ordinary people who lead optimistic lives. Consequentially, perception cannot be quantified, even when employing exploratory and comprehensive methodologies. However, it is a scientific fact that athletes with disabilities are valuable assets with great potential for growth and progression to attain success in the realm of athletics.

4. CONCLUSION

Paralympic participation and achievements show that significant results can be observed from the enthusiasm of athletes, officials, and spectators, with millions participating to enjoy and watch the euphoria of the biggest Paralympic event, as

well as increased achievements with sharpening results, record times, and even breaking records. Moreover, the advancement and heightened visibility of disability sports have spurred the establishment of financial resources for the Paralympics. Furthermore, success in accomplishments escalated with the expansion of financial, human, and infrastructure assets. Furthermore, parents and guardians of athletes with disabilities who took part in the event believed that engaging in positive sporting activities positively affected both social aptitude and mental well-being. Self-discovery and quality of life are not inherently negative when considering the positive impacts of Paralympic events on social development, the host community, and the alteration of public perceptions regarding disability. Furthermore, disabled athletes are strongly inclined towards independence, pursuit of quality of life, and an eagerness to discover novel experiences. Extraordinary achievements mark the experiences of disabled athletes. Through the pursuit of sports excellence, disabled individuals offer unique and remarkable experiences. They not only attain success but also discover the meaning of life, enhance their social and personal identities, forge careers through competition, and develop their skills and independence.

By conducting a systematic review of the literature, comprised of original research summaries from the Scopus database, one can understand advancements in the quality of life, participation, achievement, and identity of athletes with disabilities, particularly in the context of the Paralympics.

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