Disability and Sport Management: a systematic review of the literature

DAVIDE DI PALMA, GAETANO RAIOLA, DOMENICO TAFURI
Department of Sport Sciences and Wellness, Parthenope University, Naples, ITALY

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Abstract
The aim of the analysis is to demonstrate that sport, through the implementation of the classic principles of business management, can generate socio-economic benefits for disabled people.

Methods. A literature review was conducted using three electronic journal databases: EBSCO, Elsevier and PubMed. The presentation of the results is in compliance with the PRISMA method.

Results and observations. In this review process, we detailed selection following the above a total of 9 articles were selected, all meeting the inclusion criteria. From these it emerges that, through a managerial governance of disability sports, disabled athletes reach a level of self-esteem and autonomy significantly higher than those who do not practice sports, which significantly ease social inclusion and, as a result, "economic" inclusion.

Conclusions. It is important to invest in sport in order to pursue social and economic objectives of the disability management; at the same time, through the adoption of management principles, these positive effects are amplified.

Keywords: Inclusion, Integration, Prisma, social-economic

Introduction

Disability is so far one of the main global problems on different levels: social, health, economic. It has been estimated that over one billion people in the world live with some form of disability. At least one-fifth of these, approximately 200 million individuals suffer from severe disabilities and so they are forced to face a number of significant difficulties and problems in everyday life. In addition, the percentages of disability in the world are constantly increasing due to the progressive aging of the population and the resulting increase in individuals suffering from chronic diseases (WHO, 2011; OECD, 2007).

From the need to deal with this important problem, an innovative approach defined disability management has been developed. It is aimed at improving the quality of life of persons with disabilities through the implementation of principles and rules that govern the management of the traditional economic and industrial sectors. It is expressed through the proposal of action programs and social policies to support a strategic and organizational system that wants to promote social, territorial, economic and labor inclusion of these individuals (Angeloni, 2011). Some aspects of inclusion and mental health have to be deepened to give a contribution at this field (Raiola 2015ab, Raiola et al., 2015). In this course of action, sport can, and must, make a fundamental contribution (Raiola, Tafuri, 2015, Altavilla et al., 2014) as well as the specific characterization of exergames and the use of new technologies (Sgro, et al., 2015, Raiola, Di Tore 2015).

After all the concept of sport is more and more often associated with that of disability. In fact, the link between sport and disabilities is intrinsic to the social nature of the first and to the possibilities of psychophysical improvement that it is able to generate in the disabled people (Dowling et al., 2012; Mitchell, 2007; Nixon, 2000). "Adapted" sport was born in relatively recent times (in the 40s), and provides a valuable aid to promote independent living and to promote social inclusion of people with disabilities; for years the Paralympic games have supported the most popular Olympic games with an ever-growing number of disciplines, federations and athletes (Dowling et al., 2012; Legg & Steadward, 2011; Luongo, 2007). In this way the specific study on performance in sitting position could has the particular value for the sports of the Paralympics Committee such as the sitting volleyball (Alberti et al., 2014).
But in order to pursue effective and efficient objectives through sport for social, health and economic conditions aimed at improving disability in the world, it seems essential to assimilate the main principles of the enterprise management theory, in line with what is proposed by the model of disability management. In support to this hypothesis, it is also worth remembering that sport over time has increasingly structured itself according to business policies with profit targets, through managerial organizations, and extending the market logic to activities previously set according to completely different criteria (Caselli, 2003; Di Palma, 2014; Gratton & Taylor, 2000). It is thus correct to assume and support the adoption of managerial settings also for the disability sport sector, so that it can turn into an asset in which to invest.

In this regard, the present work of systematic review of the literature has as its main objective to analyze the role of management in the disability sport and the benefits derived from it, with specific reference to the last 10 years.

**Materials and methods**

A literature review was conducted using three electronic journal databases: EBSCO, Elsevier and PubMed.

The presentation of the results conform to the PRISMA methodology (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) for submission of systematic reviews.

- **Selection of Articles**
  The keywords used were "sports management", "sports disability", "disability management." Combined searches were carried out for: "sports management AND disability sports", "sports management AND disability management", "sports disability AND disability management.

- **Reference time period**
  A time restriction was applied on the research carried out; they have been, in fact, considered only the articles published in the last decade: from 2007 (included) to 2016 (included).

- **Inclusion criteria**
  They were included, without any spatial or geographic limitation:
  - Articles or reviews related to the management and organization of sport activities for disabled people;
  - Articles or reviews regarding the strategies and / or action plans related to the sport disability;
  - Articles or reviews related to the disability management through sport.

- **Exclusion criteria**
  They were excluded, since the stage of selection for the title:
  - Articles or reviews published in a language other than Italian and / or English;
  - Articles or reviews that analyze the role of management in sport without considering the aspect of disability;
  - Articles or reviews that analyze the role of management for disability not contextualized to the sports sector;
  - Articles or revisions not responding clearly to the object of research and to its purpose.

- **Data extraction and quality assessment**

After completing the bibliographic research, two authors, independently examined the list of titles and then the abstracts and related full-text in order to include those that met the inclusion criteria.

**Results**

*Figure n.1: Process of selection of the articles reviewed*
In this review process, after the detailed selection in the graph in Figure 1, a total of 9 articles were selected, all of which meet the inclusion criteria. These turn out to be all in English, even though it was also planned to include articles written in Italian in the analysis of literature review.

From a temporal point of view, four items out of nine (45%) were published in 2014 (Cottingham et al., 2014; Kung & Taylor, 2014; Shapiro & Pitts, 2014; Sotiriadou & Wicker, 2014), while there is just one article published in 2012 (Shapiro et al., 2012), as well as for 2011 (Legg & Steadward, 2011), 2010 (Surujlal, 2010), 2009 (Beyer, Flores & Vargas-Tonsing, 2009), 2008 (Skinner, Zakus & Cowell, 2008). No article or review published in the other years covered by this work (2007, 2013, 2015 and 2016) met the inclusion criteria. Still, five articles contextualize their object of analysis to certain geographical areas; specifically Kung & Taylor (2014) focus on the English reality, which is also covered by Skinner, Zakus & Cowell (2008) together with other countries such as Scotland, Northern Ireland and Canada, while the study conducted in the other three articles concerns Australia (Sotiriadou & Wicker, 2014), the US (Beyer, Flores & Vargas-Tonsing, 2009) and South Africa (Surujlal, 2010).

Finally, it is important to underline that only one article carries a specific contextualization of the analysis conducted in relation to the age of the reference population, only considering the school-age children in the US (Beyer, Flores & Vargas-Tonsing, 2009). The other articles do not consider this distinctive feature.

The agreement between the auditors for the title screening was high ($k = 90\%$); perfect that for the evaluation of the full-text ($k = 100\%$).

Table 1 schematically shows selected items included in the review, ordering them by title, year, author and magazine. The order of presentation is chronological, from most to least recent.
Table 1. Articles included in revision

<table>
<thead>
<tr>
<th>TITLE</th>
<th>YEAR</th>
<th>AUTHORS</th>
<th>REVIEW</th>
</tr>
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<tbody>
<tr>
<td>Development and validation of the motivation scale for disability sport consumption.</td>
<td>2014</td>
<td>Cottingham, M., Carroll, M. S., Phillips, D., Karadakis, K., Gearity, B. T., &amp; Drane, D.</td>
<td>Sport Management Review</td>
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<td>What Little Do We Know: Content Analysis of Disability Sport in Sport Management Literature.</td>
<td>2014</td>
<td>Shapiro, D. R., &amp; Pitts, B. G.</td>
<td>Journal of Sport Management</td>
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<td>Examining the participation patterns of an ageing population with disabilities in Australia.</td>
<td>2014</td>
<td>Sotiriadou, P., &amp; Wicker, P.</td>
<td>Sport Management Review</td>
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<td>Infusing Disability Sport into the Sport Management Curriculum.</td>
<td>2012</td>
<td>Shapiro, D. R., Pitts, B. G., Hums, M. A., &amp; Calloway, J.</td>
<td>Choregia</td>
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<td>The Paralympic Games and 60 years of change (1948–2008): Unification and restructuring from a disability and medical model to sport-based competition.</td>
<td>2011</td>
<td>Legg, D., &amp; Steadward, R.</td>
<td>Sport in Society</td>
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Source: Our elaboration

Observations and content analysis

The content analysis of the 15 selected articles, in accordance with the leading international auditing analysis, is summarized in Table 2 which presents the information provided in those articles. In this regard, they have been reported for each work: study design; context of reference of the paper (whether it is related to a geographical reality or a certain condition of the population considered); main findings, proposals and indications from the articles.

Table 2. Content Analysis of the articles

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<tr>
<th>References</th>
<th>Study design</th>
<th>Contesto del paper</th>
<th>Main results, discussions and observations</th>
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<tr>
<td>Cottingham, M., Carroll, M. S., Phillips, D., Karadakis, K., Gearity, B. T., &amp; Drane, D.</td>
<td>While there is a growing body of knowledge on disability sport consumer, behavior, these studies used scales explicitly designed for non-disability sport contexts, showing only reasonable model fit and not examining factors specific to the disability sport consumer experience. This publication represents the first attempt to identify specific disability sport motives and develop a scale, the Motivation Scale for Disability Sport Consumption (MSDSC). Newly identified disability sport motives include inspiration, supercrip image and disability cultural education. These were examined in conjunction with factors from Trail and James (2001) and Trail (2010).</td>
<td>Data were collected at the 2011 collegiate wheelchair basketball championships.</td>
<td>Results indicated that a 9-factor model was most appropriate. Significant motives included physical attraction, drama, escape, inspiration, physical skill, social interaction, violence, and supercrip image. This scale represents a tool for practitioners and academics to effectively examine spectators of disability sport.</td>
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<tr>
<td>Author(s)</td>
<td>Title</td>
<td>Summary</td>
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<td>Kung, S. P., &amp; Taylor, P.</td>
<td>This paper aims to provide a detailed insight into the preferences and behaviour of disabled sports participants. It investigated whether there were statistical differences: first, between the disabled sports participants and the non-disabled sports participants in terms of (1) social demographics, (2) patterns of participation, (3) travel, (4) sports activities and (5) customer satisfaction; and second, between age, ethnic, socio economic and gender groups of their subsamples, on (2), (4) and (5) again.</td>
<td>They have been considered the disabled persons who practiced sport in one of the 458 public sporting centers in UK between 2005 and 2011. Swimming, using fitness equipment and keep fit related exercises were the top three most frequently stated main sports activities by the disabled. It was also more likely for the disabled to participate in organised activities, own a leisure card and participate regularly when compared with the non-disabled participants. In addition, the disabled were also more likely than the non-disabled to travel to the centre by public transport, from home and travel a longer journey time. Measures that can be taken to increase sports participation by the disabled include competent support at sports centres, promotions through discount schemes or leisure cards, and free transportation to sport centres in catchment areas with high proportions of disabled in their population.</td>
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<td>Shapiro, D. R., &amp; Pitts, B. G.</td>
<td>As the field of sport business management develops, it is critical to assess its literature. A content analysis of 34 sport business management journals between 2002 to 2012 was conducted relative to sports, physical activity, recreation, and leisure for individuals with disabilities. Journals were selected based on their alignment with sport management curriculum standards.</td>
<td>Results show that of the 5,443 articles reviewed in this study, merely 89, or .016%, pertained to disability sport, leisure, recreation, or physical activity. Information insufficiency was found across all sport management curriculum domains. Results provide direction for future scholarship and advancement of studies in disability sport in sport business management.</td>
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<td>Sotiriadou, P., &amp; Wicker, P.</td>
<td>The purpose of this study is to investigate the patterns of participation in physical activity of people with disabilities. Based on the leisure constraint theory, a theoretical framework is developed that describes participation as a function of intrapersonal, interpersonal, and structural constraints.</td>
<td>The framework is tested using a comprehensive sample of people in Australia from 2009 and 2010. From the dataset a sub-sample of people with disabilities was identified (n = 4342). As 78.1% of participants were aged 45 years and older, the sample represents an ageing population and a selected segment of the population of people with disabilities. The results show that 57% of the respondents participate in physical activity for an average of 4 h per week. The regression results indicate that the type of disability, the extent to which the person is restricted by the disability, age, gender, and education have a significant effect on participation. People with high workloads who are in a relationship participate less frequently. The cluster analysis resulted in two non-participant clusters and three participant clusters. The results inform policy makers and sport managers on ways to better support the participation of people with disabilities and specifically target their needs.</td>
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<td>Author(s)</td>
<td>Paper Summary</td>
<td>Keywords</td>
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<td>Shapiro, D. R., Pitts, B. G., Hums, M. A., &amp; Calloway, J.</td>
<td>This paper: (a) discusses theoretical perspectives toward understanding and thinking about disability, (b) explores ways to enhance sport management curricula through infusion of disability sport, (c) reflects upon current social practices for curriculum integration of athletes with disabilities in sport, and (d) acknowledges infusion of disability sport businesses, organizations and events.</td>
<td>All the disability sport stakeholders</td>
<td>The study shows that disability sport is a &quot;movement&quot; in continuous growth that absolutely needs structures and workforce with the right managerial skills specific to support this development in both economic and social terms.</td>
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<td>Legg, D., &amp; Steadward, R.</td>
<td>The Paralympic Games began officially in 1960 and have evolved to become the second largest multisport event in the world, and the pinnacle of sporting achievement for athletes with disability. For the purposes of this article, determination of what events constituted major change was based on a synthesis of the authors’ personal experiences and suggestions from a number of international experts.</td>
<td>All the disability sport stakeholders, particularly those from Paralympic Games.</td>
<td>The conclusion is that the new management of the Paralympic Games had an indelible impact on disability, sport and society and that in the future this will only continue.</td>
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<td>Surujlal, J.</td>
<td>There has been little research attention in the South African context on volunteer motivation for special events for people with disabilities. This study explored the key factors that motivated volunteers to volunteer their services at three major sport events for people with disabilities in South Africa. A 28-item questionnaire was administered to volunteers of three special sport events for people with disabilities. Analyses were performed using the Statistical Package for Social Sciences (SPSS version 17). Principal component analysis (PCA) was conducted on the data.</td>
<td>Volunteers for disability sport events.</td>
<td>The analysis produced a 4-factor model which accounted for 61.47% of the overall variance in the scale item scores. The factors were external influence and free time (7 items), interaction and achievement (5 items), altruism (5 items) and diversion (4 items). The study found that the main reason for volunteering was to make a contribution to the community and help make the event a success.</td>
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<td>Beyer, R., Flores, M. M., &amp; Vargas-Tonsing, T. M.</td>
<td>The purpose of this article is to provide youth sport coaches with strategies and methods that will increase the likelihood that athletes with &quot;invisible&quot; disabilities have successful team sport experiences and thus reap the benefits of participation.</td>
<td>Children and youth with high incidence disabilities (learning, emotional/behavioral, speech/language, and mild intellectual) of the USA's school age population (U.S. Department of Education, 2007).</td>
<td>Participation in organized sport activities has been shown to increase self-concept, social skills, and peer acceptance.</td>
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<td>Skinner, J., Zakus, D. H., &amp; Cowell, J.</td>
<td>This paper addresses only the issue of development through sport for disadvantaged communities. The discussion focuses on best practice success factors such as policy and strategy, partnerships, places and spaces, community/social development, evaluation and monitoring and sustainability. The role of traditional sports clubs and local government in delivering social inclusion programs and the emerging provision of community based sport activities by community/social development organizations is detailed. The implications for sport management, in terms of community development, community sport development and sport policy, are also discussed.</td>
<td>Examples from England, Scotland, Northern Ireland and Canada are analyzed and the implications for the Australian context are discussed.</td>
<td>The study shows that sport represents a chance for the underprivileged communities, such as that of disabled persons.</td>
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The review study also highlighted two main observations, particularly interesting for the literature:

I. Sport can be a tool that can effectively serve the purposes of disability management.

II. The adoption of business management principles is important to fully use the potential of sport as a means of inclusion for persons with disabilities.

Both the previous considerations are closely related to each other, because sport, specifically that for disabled people, is organized according to the principles of business management and it favors the inclusion of disabled people in society, stimulating the mechanisms under the approach of disability management.

In this regard, it is, first of all, essential to clarify what it is meant by disability management.

The disability management takes shape from the need to reconcile the right to inclusion for disabled and chronically ill with business efficiency requirements. It has been theorized for the first time in the eighties, in different economic, management and organizational disciplines, and spreads mainly in Canada, the USA and some countries of Northern Europe.

The model has the intent to reconcile the interests of the company with the disabled person's need to work not only for economic reasons, but also to satisfy an unquenchable need for identity and integration and, through the work, to ensure their proactive contribution to the community (Angeloni, 2011; Shrey, 1996; Geisen, 2015). The difficulties in reaching this goal are clearly linked to the vision and the wrong preconceptions often expressed about the working ability of sick and disabled people, as well as the mechanisms related to changes in the performance as a result of the disease (Roncallo & Sbolci, 2011).

According to a technical definition, the Disability Management is an active process of minimizing the impact of a disability (whether arising from disability, illness or injury) on the individual's ability to participate in a competitive socio-economic environment, business firstly, contributing at the same time to control the social costs, and to support employment and economic productivity (Shrey, 1996; 2011).

Sport and the whole sport sector to be considered in both economic and social terms may represent a good instrument to achieve the above. In fact, the analysis of Cottingham et al. (2014) showed that sport is an opportunity for development for disadvantaged communities, like that of disabled people, and added that it should be organized and managed precisely in relation to this opportunity. In this regard it is highlighted the key role of public policies to support this sector in order to generate social and economic benefits as they are trying to do in England, Canada and also Scotland and Northern Ireland, although in a less incisively way.

In addition, the organized sport also represents an efficient strategy to achieve social outcomes for disabled young people. In fact, in the US young athletes with disabilities, have developed greater self-esteem and above all a higher degree of autonomy with respect to disabled people of the same age who do not practice sports (Beyer, Flores & Vargas-Tonsing, 2009). In perfect agreement are the results of the study on sport activities for people with disabilities in Australia, which reaffirmed the level of autonomy reached by athletes for the same disabling condition, sex, age and education level. Sotiriadou & Wicker (2014) add, also, the need to propose policies to encourage the practice of sport in relation to different forms of disability.

Further confirmation to the thesis supported emerges from the study of Surujjal (2010), which analyzes the main reasons why the volunteers agree to cooperate with sports events for the disabled, experiencing the full willingness to be part of the efficient management of the event and contributing to that social inclusion that sport is able to generate. Furthermore, Legg & Steadward (2011) show that a sporting event such as the Paralympic Games has created a strong sense of awareness that emerges both from the subjects with disabilities, and in their respect, about the condition and the possibility of achieving success in life through an "Olympic" sporting event. It transcends, thus, the concept of disability understood as a limit, and it gives the chance to the person with a disability to be a sports, and consequently, a social and economic resource, active and productive.

In reference to the second observation, confirming the strong relationship among sports, disability and management emerged from the review, the newly analyzed literature has often led to evidence the need for performing management policies, so that they could generate and amplify the benefits that sport is able to give to disabled and consequently to the whole community, both socially and economically (Cottingham et al., 2014; Sotiriadou & Wicker, 2014). In fact, the same Legg & Steadward (2011) identified in Paralympics the first example of how a sports event for the disabled, organized following the event management principles typical of the non-disabled sport world, can lead to the pursuit of social and economic objectives. Thanks to an organization characterized by the presence of professional managers able to attract sponsors, media and private investment, this event has become the second largest sporting event in the world, and represents the pinnacle of
sporting success for athletes with disabilities. It is clear that this has only served to amplify the benefits of sport described above, for disabled students.

Efficient and effective management should not be limited only to sports events, but should be used in all those sports and expressions of physical activity that can, and must, involve individuals with disabilities. For example, the various sports facilities should be free from architectural barriers and organized and managed by a professionally adequate staff to support disabled people. Furthermore, in order to increase sports participation a series of measures could be taken, both private and public, including, for example, discount promotions through systems or cards for leisure, or even free transportation to sports centers situated within the territories whose population has a certain percentage of disabled people. Kung & Taylor (2014) argue that if all this were real, the propensity to sports by persons with disabilities would be even higher than that of non-disabled. The statement is confirmed in the study by Shapiro et al. (2012) which shows that the disability sport is a "movement" in continuous growth that absolutely needs structure and workforce with the right managerial skills specific to support this development in both economic and social terms.

These management and organization "developments" can, and must, be the first step to increase the "consumption" of disabled sports by increasing the number of viewers and fans of the relevant disciplines. In fact, Cottingham et al. (2014) have developed a rating scale to identify the main factors that will attract new viewers / consumers who are not only patients themselves, but also people without disabilities attracted by the sporting spectacle offered by the event. It is enhanced, thus, the performance of the disabled athlete extolling the potential social benefits and increasing, at the same time, the economic value of disability sport.

Finally, it is important to stress that, through a content analysis of disability sport in sport management literature, Shapiro & Pitts (2014) noted the lack of contributions, in sports management literature, related to disability sport. Only 0,016% of reviewed articles in this study looked at this issue. Despite this, however, the few reported cases demonstrate the possibility of obtaining positive results both from the economic and social points of view through a sports management approach also in the field of disability sport.

Conclusions

The current global situation is characterized by a large and growing gap between the demand for social services (including those of medical, relief, economic, financial, business support nature, etc.) and the constraint of the scarcity of resources available to cope with it (Belfiore et al, 2015).

Among the main problems that must be solved through an appropriate rationing of resources and an efficient management, there is definitely disability. More than one billion people in the world, in fact, have some form of disability, or about 15% of the world population; of these about 80% live in developing countries. In addition, we must consider the progressive aging of the population to which it is closely related the increase of people with chronic degenerative diseases that as a direct result will multiply the number of disabled people. In this regard it has been discussed the importance of the innovative model of disability management. The audit analysis led to the evidence that sport for persons with disabilities can be the means through which pursue social and economic objectives of this management approach.

In line with the principle of rationing mentioned above, the literature revised considers disability in sport a valuable resource in which to invest and for which different socio-economic support policies are needed. Disabled athletes reach a level of self-esteem and autonomy significantly higher than those who do not practice sports, which significantly ease social inclusion and, as a result, "economic" inclusion.

At the same time it has been observed that through the adoption of business management principles, which already govern the sport for non-disabled, we can enhance the benefits that the sector is able to generate towards the disabled. The role of management in the disability sport is to make individuals with disabilities, through sport, as much active and productive human resources as possible for the community and for economy itself.

The present review analysis of the literature has also revealed a substantial lack of contributions that examined the issue in question, which, even in relation to the continuous increase of the disability sport movement in the world, proposes it as an interesting starting point for future research work.

References


Altavilla G., Tafuri D., Raiola, G. (2014) Some aspects on teaching and learning by physical activity Sport Science vol 7 1

delle persone con disabilità. Roma, Rirea.


Raiola, G. (2015a) Sport skills and mental health Journal of Human Sport and Exercise, 10 (Specialissue), pp. S369-S376.


