# Literature Reviews on Sport for Development and Peace

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Introduction

Background

Sport and physical activity are rapidly gaining recognition as simple, low-cost, and effective means of achieving development goals. Over the past decade, UN agencies, international sport federations, international and national non-governmental organizations (NGOs) and national governments have been using sport as a tool for development and peace.

The Sport for Development and Peace International Working Group (SDP IWG) is a four-year policy initiative that includes representatives from 25 national governments, UN and civil society actors working to develop policy recommendations on incorporating sport as a tool for development in national and international programs and strategies.

As part of this mandate and recognizing the ever-growing need for evidence around the effectiveness of sport for development, in 2006 the Secretariat to the SDP IWG commissioned a research team from the University of Toronto, coordinated by Dr. Bruce Kidd, Dean, Faculty of Physical Education and Health, to conduct literature reviews looking into the use of sport to:

1. Foster child and youth development and education
2. Achieve health objectives
3. Promote gender equity
4. Foster inclusion, health and well-being of people with disabilities
5. Foster social cohesion, prevent and reduce conflict and build peace

The literature reviews looked into the research published in peer reviewed journals, as well as other literature. The final reviews were edited by Dr. Kidd and Professor Peter Donnelly, Director, Centre for Sport Policy Studies, with the assistance of Aaron Yarmoshuk, Program Director, HIV/AIDS Initiative Africa, Centre for International Health.

The explanation of the research methodology and confidence level is provided below.

Confidence Level

The “gold standard” for evaluating scientific evidence is the peer review process that results in the publication of research in ‘refereed journals’. The reviews of literature have focused, where available, on this level of evidence. In four of the research areas -- children and youth, health, gender and disability -- there are substantial bodies of high quality research, and important meta-analyses of that research. Thus, the research team has a high level of confidence in the data and conclusions in those areas.

It should be pointed out, however, that it is usual in such “gold standard” research to present findings and conclusions in a tentative and cautious way, without making
grand claims about ‘causality’. Such caution is appropriate, and the research team has been even more cautious in its overall conclusions because of the nature of the data. In particular, what is termed “sport” in the research literature varies (as noted in the Introduction) from exercise and spontaneous recreational play to highly organized and professionalized forms of sport. Thus, to make a claim about “sport” inevitably leads to the questions: “what form of sport?” and “what do you mean by ‘sport’?” Other problematic definitions are also noted in the Introduction sections of every literature review, and these support the level of caution the research team has adopted.

For the fifth review, concerning sport, peace and conflict resolution, the research literature is far more limited and embryonic. The research team has reviewed the basic literature and theory on peace and conflict resolution, and proposes that future research on sport adopts those terms. However, given the limitations of sport research in this area, the research team has been even more cautious in its conclusions, and cannot claim the same level of confidence for this review as for the other four reviews.

**Summary of Key Findings**

The physiological effects of participation in sport and physical activity are widely known, and one of the best established findings in the research literature. It is important to note that the effects are not a result of sport, as defined in this project, but of physical activity more generally – including both sport and manual labour. Given clean air, adequate nutrition, and a variety of moderate levels of exercise, there is a well-established direct positive relationship between physical health and physical activity, including feelings of well being associated with increasing physical fitness. In addition, research increasingly points to both the preventive and rehabilitative effects of physical activity with respect to some diseases.

With regard to all of the other benefits of participation in sport identified in the research literature (i.e., psychological and social benefits and improved mental health), the evident benefits appear to be an indirect outcome of the context and social interaction that is possible in sport rather than a direct outcome of participating in sport. Critical analysis of a broad range of research findings provides overwhelming support for this conclusion.

The research is often carried out under the assumption that positive benefits result from sport, or with the intention of discovering the positive benefits resulting from sport. As pointed out in the reviews, and in a number of critical meta-analyses that were reviewed, the results of such ‘research’ are frequently taken up uncritically, and repeated in other literatures.

As a consequence of the above finding, two major areas of further research are needed:

- Research to add to our growing knowledge of the precise circumstances under which sport may result in positive outcomes for gender relations, disability inclusion, youth development, mental health, peace and conflict resolution, and other areas of interest; research concerning how sport may be adapted to
achieve positive outcomes in different contexts, and for different populations and individuals; and research that assists program organizers to determine and plan the specific aims and form of the intervention.

- Research on leadership and leadership training – the form of leadership, and the knowledge and training of leaders have frequently been identified in the research literature as key to the achievement of positive benefits as a result of sport participation.

Apart from physical health benefits, interventions that focus only on sport participation are unlikely to produce long-term beneficial effects. To fully utilize the development potential of sport, it needs to be integrated in the existing development and peace efforts.

While the literature reviews identified areas where further research is needed, there are some key findings, which demonstrate that, under the right conditions, sport has the potential to contribute to development and social issues. They include the following:

- There is well-documented evidence about physical health benefits of sport, especially as it pertains to the prevention of non-communicable chronic diseases such as cardio-vascular diseases and diabetes.

- Regular participation in sport and physical activity enhances the physical health, including that of children, youth, girls and women, and may decrease the likelihood of unhealthy practices, such as illegal drug use and unsafe sex.

- Research suggests that sport and physical activity may positively affect self-esteem and self-worth, especially that of girls and women.

- Evidence from high-, middle- and low-income countries suggests that sport has the potential to positively influence social integration and inclusion of people with disabilities, girls and women.

- The participation of girls and women in sport and physical activity offers an opportunity for successful challenges to traditional and oppressive gender relations.

- Well-designed sport programs offer important opportunities for leadership development, and personal, and professional growth.

- Sports and play may have a significant role to play in the life of children with disabilities, just as they do for all children. They can promote physical well-being, combat discrimination, build confidence and a sense of security, as well as play an important role in the healing and rehabilitation process for all children affected by crisis, discrimination and marginalization.
As a consequence of these findings, the research team recommended two major areas of further research:

- Longitudinal research regarding the long term benefits of sport participation interventions – many programs are short-term, grant-funded, and are unable to establish sustainability; research evidence and theory suggests that such programs may have short term halo effects, effects that are likely to disappear within a year of the end of the program.
- Research is needed on long term combined interventions, and on the programs that develop such combined interventions.

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Please address any comments and questions about the research findings to the principal author of each review, whose email address is listed on each review, with a copy to the SDP IWG Secretariat at: IWGSecretariat@righttoplay.com
The use of sport to foster child and youth development and education

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1. Introduction

Emphasis on human rights approach

This review of literature draws attention to the work of the SDP IWG/Right To Play in achieving the Millennium Development Goals. However, even more fundamentally, the review demonstrates the ways in which sport is implicated in the achievement of basic human rights.

The right to child and youth development and education is established in the Universal Declaration of Human Rights (1948); children and youth are also the subject of a specific UN Convention, namely: Convention on the Rights of the Child (CRC, 1989).

Sport, physical activity and play are identified specifically in the CRC (and implicitly in the Universal Declaration), providing support for the increasingly well-recognized right to participate in sport and physical activity. The ‘fundamental right’ to participate in physical education and sport is proclaimed in the UNESCO Charter of Physical Education and Sport (1978). Despite recent attacks on the nature and implementation of human rights, we are convinced that a human rights–based approach to this review of literature captures the intent of the contractor, the researchers, and the vast majority of the literature reviewed.

‘Rational recreation’

In historical terms, the idea that participation in sport has some utility (other than being enjoyed for its own sake) can be traced to the mid-nineteenth-century United Kingdom. Middle-class reformers in the areas of education and urban welfare began to develop the idea that sport participation, appropriately directed, could be involved in the development of character, work discipline, teamwork, fair play, and other socially approved characteristics.

Thus, sport began to be justified in education (physical education, organized games), in youth detention centres, and by urban agencies, such as the YMCA, in an attempt to affect the character and behaviour of participants. These ideas quickly spread to other high-income countries, and also became a part of the system of colonization, where the British games tradition was often transferred to colonized populations.

Organized sport is still justified in these same terms, as evident in the mission statement of any children's/youth sport organization – what the organization claims will be taught to the participants involves a great deal more than sport. Similarly, there has been a recent proliferation of development through sport agencies all claiming that the intended and unintended consequences of involving young people in low- and middle-income countries in sport will involve a great deal more than improvements in sport skills. These claims need to be treated extremely cautiously, because direct evidence of the impact of sport on character and behaviour is often missing or quite equivocal. This review applies the strictest standards in assessing the claims made.
Multidisciplinary sources of research

Reviewing multiple sources of data from different academic disciplines has a real advantage in terms of triangulation, and building evidence to determine the accuracy of claims. However, there are also disadvantages in terms of the comparability of data. Different academic disciplines, and even different branches of some academic disciplines, make different assumptions about measurement, about the meaning of data, about how research ought to be carried out, and in terms of their definitions of key concepts.

Overall, for the purposes of this review, we consider that the advantages of reviewing multiple sources of data from different academic disciplines far outweigh the disadvantages. Perhaps the greatest area of concern lies in the terminology used, and the different meanings given to specific concepts in the different disciplines.

Disputed terminology

As noted above, because of the multidisciplinary nature of the research reviewed, it was necessary for us to develop a common understanding of some specific terms for the purposes of this review. These include:

Development

The level of development of a nation was initially considered only in economic terms, and concerned the extent to which its economy depended on the agricultural, industrial and/or service sectors (the latter being considered the most ‘developed’). The level of development was measured in terms of the gross domestic product (GDP) or gross national product (GNP). The idea that economic growth determined the well-being of a country was widely challenged, culminating in the UN Declaration on the Right of Development (1986), which recognized that:

...development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and the fair distribution of benefits therefrom.

The United Nations Development Program (UNDP) followed the Declaration with a far more comprehensive measure of ‘development’. The Human Development Index (HDI) was intended to measure improvements in the quality of life of humans, based on an index with three criteria:

1. A long and healthy life, as measured by life expectancy at birth;

2. Knowledge, as measured by the adult literacy rate (2/3 weight), and the combined gross enrolment ratio in primary, secondary and tertiary education (1/3 weight);
3. A decent standard of living, as measured by the GDP per capita in purchasing power parity (PPP) terms (measured in US$) (Human Development Report, 2006, p.394).

As with GDP and GNP measures, the latter measure suffers from ‘averaging’ – two countries may achieve a similar per capita GDP; in one country, though, it may be a result of relatively equal household income distribution, while in the other there may be marked extremes of household income distribution. This raises issues of relative deprivation or relative poverty. The ‘Gini coefficient’ has been used more recently to measure the degree of inequality in household income, with lower value coefficients indicating more equal household income distribution.

It is important to note that, under these definitions, no country ever achieves a final state of being ‘developed’ – as the UN Declaration notes, development is a process of “constant improvement.” However, key questions remain: “who determines the form of development in a country?” and “what are the appropriate roles for foreigners in the development of another country?”

Appropriate terminology for countries in receipt of development aid

The RFP prepared by the SDP IWG/Right To Play refers to “transitional and developing countries.” However, the way to refer to such countries is extremely contentious in the academic and policy communities, and has been the subject of a great deal of debate for the research teams. Among the terms in common use that were considered are: developed/developing nations; global North/global South; majority world/minority world; and countries with developing economies. For a time, “global South” achieved a great deal of support; it is now becoming more widely used in the academic and policy communities:

“Global South” is not just another name for the "South" or "the developing world." The term denotes a community of people at different geographical locations who experience a common set of problems – problems which emanate, by and large, from deep inequities of power within and between nations (Reed: [http://www.yorku.ca/ananya/Globalsouthhome.htm](http://www.yorku.ca/ananya/Globalsouthhome.htm); see also, UNDP, 2004).

However, “global South” was still considered to raise certain problems, and the term that achieved the most agreement among the research teams was “Low and Middle Income Countries” (LMICs); this standard term has been applied to all of the reviews. “Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status” ([http://web.worldbank.org/WSITE/EXTERNAL/DATASTATISTICS/0,,contentMD:20420458~menuPK:64133156~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html](http://web.worldbank.org/WSITE/EXTERNAL/DATASTATISTICS/0,,contentMD:20420458~menuPK:64133156~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html)).
Perhaps even more diverse than the meaning of ‘development’ is the variety of meanings that have been given to ‘sport’ in the research reviewed. The RFP prepared by the SDP IWG/Right To Play defines sport as: “all forms of physical activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games.” This is a slightly abbreviated version of the definition given in the European Sports Charter (2001): “Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels.”

In both cases, an extremely comprehensive definition is given, one that incorporates all forms of sport, physical activity and exercise. However, it should be noted that such comprehensive definitions are unusual in the research reviewed. There is invariably a focus on organized sport and physical activity in the research (because of its accessibility to researchers and its measurability in terms of participation, energy output, etc.). This, of course, neglects the considerable amount of informal, child-/youth-organized play games and sports in which so many participate.

It is also necessary to point out the widespread essentialized use of the term ‘sport’ throughout the literature reviewed. Rather than seeing sport as a social construction that is given meaning by the participants and by more powerful defining agents (e.g., the media, sport organizations, etc.), sport is far too often presented as an essential positive. For example, Nelson Mandela said:

> Sport has the power to unite people in a way little else can. Sport can create hope where there was once only despair. It breaks down racial barriers. It laughs in the face of discrimination. Sport speaks to people in a language they can understand.

In a recent reference to the Olympic Truce, International Olympic Committee President Jacques Rogge said: “Sport fosters understanding between individuals, facilitates dialogue between divergent communities and breeds tolerance between nations.”

Both of these statements are absolutely correct; but, so is the opposite. Sport is full of discrimination; it can be racist, divisive, and can breed intolerance and misunderstanding. We have paid careful attention to such essentialized characterizations of sport throughout this literature review, and we have dealt with them by the use of carefully contextualized examples and explanations.

**Youth sport**

As with definitions of ‘sport,’ definitions of ‘youth sport’ are variable in the literature reviewed. Youth-focused sport programs in high-income Western countries, such as Australia, Canada and the UK, have defined and targeted all age ranges from toddlers (aged 2–5) to young adults (aged 20–25) under the rubric of “youth.” Studies from these parts of the world tend to focus on school-based or community-based
organized sports programs, and so their research participants tend to fall into categories like kindergarten, elementary, high school, and university-aged young people (Bailey, 2006; Bailey & Dismore, 2004; Belch, Gebel & Maas, 2001; Gibbons, Ebbeck & Weiss, 1995; Hedstrom & Gould, 2004; PCPFS Research Digest, 2006; Seefeldt & Ewing, 2002). In LMICs, youth programs extend to people up to 30 years of age (Bailey, 2006; Sugden, 2006). As a result of these broad definitions, sport programs aimed at ‘youth’ differ dramatically in their approaches, goals and outcomes.

At issue are the ways in which literature reviewed in this document tend to conceptualize the social utility of sport in relation to the development of children and youth. The benefits of sport are considered to be a product, in many cases, of the discipline, team building, goal setting and positive social interactions afforded by both organized sport and training for competitive sport performances. Research suggests that Canadians see community-level sports as benefiting their local communities in the following ways: offering a source of fun and recreation, reducing crime and delinquency, bringing people together and building community, and providing a source of history and local tradition (CCES, 2002, p.3). These views seem to extend beyond the Canadian context and into contexts of child and youth development in LMICs (Auweele et al., 2006).

Youth

The United Nations defines youth as persons between the ages of 15 and 24, inclusive. In many cases, this definition includes people who have reached the age of majority (usually 18 years), yet still face unique issues and challenges as young adults. The UN also states that, while teenagers and early teens may be all considered ‘youth,’ the social, psychological and health challenges they face may be quite different (http://www.un.org/esa/socdev/unyin/qanda.htm). The National Youth Council states that, while there is no ‘correct’ definition of youth, the term generally refers to people between the ages of 15 –and 29. The Council also offers a working definition of ‘youth development’ as:

...a process which prepares young people to meet the challenges of adolescence and adulthood through a co-ordinated, progressive series of activities and experiences which help them to become socially, morally, emotionally, physically and cognitively competent. Positive youth development addresses the broader developmental needs of youth, in contrast to deficit-based models which focus solely on youth problems.

It is evident in the literature reviewed that this holistic definition of youth development dovetails with current research on youth and sport. The definition concludes that sport-based programs should be part of a multi-agency approach to meeting the needs of young people, and they should not be considered in isolation from the broader social and material context.
Children and childhood

Further complicating the extraordinarily broad definitions of ‘youth’ are definitions of childhood and children. Not to mention the fact that childhood is a legal category as well as a developmental category, and that the law varies not only between countries and jurisdictions, but also in terms of permissible behaviour. For example, the age of majority may be different from the age of consent (to sexual activity), or the age at which it is permissible to vote, get married, drink alcohol, smoke cigarettes, drive, leave compulsory education, or serve in the military. Article 1 of the United Nations Convention on the Rights of the Child states that:

For the purposes of the present Convention, a child means every human being below the age of eighteen years unless under the law applicable to the child, majority is attained earlier.

Given the range of ages identified in definitions of ‘youth,’ it is quite clear that the categories of ‘children’ and ‘youth’ not only overlap, but they are often interchangeable.

The categories have also been used interchangeably, or without precise definition in the research reviewed. Perhaps the only age group encompassed by the terms ‘children’ and ‘youth’ that is not a subject of study in the research reviewed is preschool children.

Criteria for identifying ‘best practices’

Selection of “best practice” programs or interventions was based upon carefully selected, consistent and pre-determined criteria. These include:

1. Scale – the size and sustainability of the program
2. How it addresses barriers
3. Justification – what were the criteria for establishing the program?
4. Culturally specific (needs based) – is the program sensitive to specific local needs?
5. Any evidence of mainstreaming
6. Evidence/published material – availability of appropriate evidence
7. Gender – is the program open, and sensitive to gender issues?
8. Disability – is the program open to and adapted for persons with a disability?
2. Parameters of children’s and youth sport

a. Sport, children/youth and developing countries

By naming 2005 The International Year of Sport and Physical Education, the United Nations did much to broaden the analysis of sport, and child and youth development, globally, and to increase the acceptance of sport as both an end and a means to aspects of international development, such as the Millennium Development Goals (Van Eekeren, 2006, p.19). Although much of the literature reviewed in this document uses definitions, concepts and evidence from high-income countries, such as Canada, the United States, the United Kingdom and Australia, a great deal of international attention is being paid to the potential utility of sport for child and youth development in LMICs. Recently, scholars have argued for the need to conduct prolonged, critical and empirical analyses of the utility of sport for child and youth development in LMICs, although this literature is only now emerging, and evidence of the success (or failure) of sport and child/youth development interventions in LMICs is scarce at this time (Auweele et al., 2006, p.15). Specifically, when considering the exporting of ‘Northern/Western’ sport to other countries, questions remain regarding the values of competitive sport and whether they should be disseminated, what kind of behaviour should be promoted in and through sport, and what criteria should be used for good sport delivery (Auweele et al., 2006, p.15). While there is no critical mass of evidence to address these important questions at this time, the literature reviewed goes some way towards addressing these questions through an evidence-based assessment.

b. Sport, child/youth development and evidence-based research

Evidence-based research has been conducted recently to examine and, where appropriate, document the positive outcomes of sport participation for children and youth. In a general sense, these attempts to quantify or state definitively the positive workings of sport are made difficult by the methodological complications of sport in the social context of children and youth. As such, reliance on a single type or source of data (statistics, case profiles, interviews with stakeholders and/or participants) will fail to capture the complexities of the relationship between sport and child/youth development (Sport England, 2002). Thus, researchers examining the impact of sport on child and youth development caution that assumptions regarding the mechanisms by which sport leads to positive youth development may impede the ability of researchers, policy makers and practitioners to recognize and evaluate other, less intuitive (but no less important) mechanisms (Nichols & Crow, 2004).

These methodological difficulties do not necessarily detract from the importance or reliability of the research findings. They do, however, illuminate the difficulty in accounting for the specific mechanism by which the positive social impacts of sport for children and youth take place, as well as the need for a self-reflexive and/or cautious approach when considering the conclusions.
c. Children, youth and health

The most significant body of literature concerning child and youth development and sport concerns the positive effects of sport and exercise on physical health, growth and development (and, to a lesser extent, mental health). This literature is so overwhelmingly positive in terms of the relationships between child/youth participation in sport/exercise and positive health outcomes (apart from some concerns about excessive exercise, sports injuries, etc.) that we feel it is not necessary to review it here. Children and youth are different from all other population categories in terms of the health benefits of sport and exercise in only one respect: for children, in particular, play, sport and physical activity are crucial to healthy growth and development – physical, social, and mental. Given the overwhelming amount of positive research evidence to support these findings, we accept this as a given.

SUMMARY BOX:

Definitions of ‘sport’ and ‘children’ and ‘youth’ tend to vary, but, in most cases, child and youth sport is understood to be an organized and supervised activity that facilitates and encourages teamwork, discipline, and hard work among young people.

While a great deal of evidence has been collected regarding the benefits of sport participation for children and youth, few conclusions have been drawn regarding the mechanisms by which sport positively facilitates, or contributes to, child and youth development.

Developmentally appropriate forms and levels of sport and physical activity are key to the healthy physical, mental and social growth and development of children and youth.
3. Review of literature and evidence

Attempts to quantify and organize evidence of the relationships between sport participation and positive child and youth development in a conceptual or theoretical framework have resulted in the development of categories through which to understand these relationships. Results of the recent Canadian Public Opinion Survey on Youth and Sport (2002), data collected and organized by the U.K.-based Value of Sport Monitor, and Bailey’s (2005) recent review article on sport, youth and social inclusion suggest four seemingly separate categories through which to understand the positive relationship between sport and child/youth development:

a. Inclusion and community-building
b. Delinquency and community safety
c. Education
d. Character-building

These categories are used within this review for the purposes of organization and as a means of explaining specific ways in which sport participation contributes to child and youth development. It is important to note that the categories are not mutually exclusive, and the literature suggests and supports significant overlap both between the findings and across the categories. This is somewhat intuitive: lessons learned by children and youth through sport, which minimize delinquency, for example, would also be considered to have a positive impact in terms of educational achievement. The key point is that the categories used to organize this review of literature should be considered holistically, not compartmentally.

a. Inclusion and community-building

The utility of sport for building social inclusion is a result of its utility in reducing social exclusion (Bailey, 2005). Recent attempts to understand, quantify and/or specify the relationship between sport, children/youth and community-building have resulted in a variety of interpretations. According to the Conference Board of Canada, sport makes a major contribution to Canada’s economy and society, not only through the development of skills and the improved health of citizens, but also through the building of social cohesion and capital. This aligns with the sentiment held among Canadians that sport brings groups of people, particularly families, together and encourages family interaction (Canadian Centre for Ethics in Sport, 2002; Conference Board of Canada, 2005). Dance and traditional games are found to be effective in overcoming obstacles and barriers to interaction between groups in South Africa who would otherwise not interact (Keim, 2003, cited in Keim, 2006). In Canada, public opinion research found that more than eight out of 10 Canadians believe that it is definitely, if not critically, important that community sports actively promote and develop positive values in children and youth (CCES, 2002).

Coalter’s (2005) review essay captures important evidence regarding the role of sport in building and facilitating social and community inclusion and active citizenship. This body of literature, as interpreted and reported by Coalter (2005), links sport to Putnam’s (2000) notion of ‘social capital.’ Communities with good social capital have strong community networks, a good sense of local identity and solidarity, and high levels of trust and support among members. With this in mind, there is evidence to
suggest that developing sport in the community may contribute to developing communities through sport (Coalter, 2005, p.19), but also that non-traditional approaches should be taken if such results are to be realized. Most notably, a ‘bottom up’ approach that aligns with and supports existing community-based sporting infrastructure, and utilizes local labour and resources, has been found to have the most impact at the community level; it also has the additional advantage of avoiding local scepticism about ‘quick-fix schemes’ (Coalter, 2005). More specifically, sport has been used as a practical tool to attract young people to volunteering, engaging them at the community level. Eley & Kirk (2002, cited by Coalter, 2005) found that such programs resulted in increased measures of altruism, community orientation, leadership and sense of self among young people. These findings align with a recent analysis of the social and cultural benefits of sport in a Canadian city.

The report found that child and youth participation in sport in Calgary, not only as athletes but also as volunteers and officials, means that children and youth are experiencing and learning the values of citizenship and leadership – as they take on more responsibility for their sporting experiences and for the future administration of sport in their community (Douglas Brown Consulting, 2005).

Coakley (2002) and Donnelly & Coakley (2002) have also carried out broadly based reviews of research evidence regarding the potential of sport programs to contribute to child and youth development and the social inclusion of children and youth. Coakley (2002) reviewed a wide range of research regarding youth development and concluded that, in exemplary programs, participants should feel physically safe, personally valued, socially connected, morally and economically supported, personally and politically empowered, and hopeful about the future. Donnelly & Coakley (2004) have pointed out that, where such programs are not available, youth gangs may actually meet some of these needs. With regard to the social inclusion of children and youth, Donnelly & Coakley (2002) point out the following:

- Inclusion is, first and foremost, an access issue, and the first thing that is necessary to promote inclusion is to overcome the structural/systemic barriers that prevent participation;

- The real benefits of sport involvement appear to derive from the potentials that are released in children and youth with ‘good,’ educated and sincere leadership. “It seems that almost any type of well-intentioned program has tangible benefits with the ‘right’ people in charge” (p.15). Thus, a great deal of effort should be expended on research regarding leadership training, and on the process of training both professionals and volunteers who are likely to be involved in the leadership of such programs;

- At this time, we know a great deal more about the barriers to participation/inclusion (although we have not been able to tap the political will to overcome such barriers) than we do about the process of social inclusion. Questions have been raised about the social inclusion potential of competitive sport programs (which are, by their very nature, organized along principles of social exclusion), and about programs organized on the principles of ‘social control.’ In addition to overcoming barriers to
participation, we need a great deal more research to understand the process of social inclusion in sport.

There is the potential in South Africa for major and professional and spectator sporting events (e.g., the soccer World Cup) to act as a powerful tool for community-building and peace building; Keim (2006) calls for sport to be put back on the agenda for national transformation with regard to children and youth. In other words, if South Africa is committed to post-apartheid reconciliation among young populations and future generations, sport offers a means to this end and should be part of the plan (Keim, 2006).

Recent research suggests that sport-based programs focused on children and youth in areas of conflict offer a means of both resolution and, in turn, reconciliation. Richards (1997, cited by Giulianotti, 1999), for example, found that sport can facilitate positive social opportunities in post-war Africa, where violence and child-soldiering have severely restricted or foreclosed the health and welfare of children and youth. Similarly, Gasser & Levinsen (2004, p.179) documented the success of Open Fun Football Schools in reintegrating ethnic communities in the post-war Balkans, although they caution that “football is something like frontline farmland: fertile, but likely to be mined.” When war leads to limited avenues for social and personal development, the importance of physical activity for children and youth may be thought to increase, and participation opportunities become paramount, in the contributions such opportunities afford to children impacted by conflict (Richards, 1997). These results suggest that, if sport-focused projects are locally grounded, carefully thought out, and professionally managed, they can make a modest contribution to conflict resolution and peaceful coexistence in regions of violence (Sugden, 2006).

Willis’ (2000) case study of the Mathare Youth Sports Association (MYSA) suggests that MYSA and programs of its kind appear to provide hope that grassroots development may make a difference, that children and youth may own their development, that gender stereotypes can be successfully challenged through sport programs, that the objects of development can become its subjects. Furthermore, MYSA’s Letting Girls Play program afforded girls a safe and supportive environment in which they are treated with dignity and taught new skills. The report suggests that adolescence is a key time to introduce such programs given that transitions from childhood to adulthood are generally the time when boys establish more autonomy, mobility, privilege and opportunity than girls (CABOS Report, 2006).

In addition to the notion of community-building in geopolitical areas of conflict, and the idea that sport facilitates the building of local communities, there is also evidence to suggest that child/youth participation in sport aids in facilitating pro-social behaviour in peer relations. O’Callaghan, et al. (2003) found that, when coupled with additional behaviours, sport-based programs were successful in promoting social skills generalization among children diagnosed with attention-deficit/hyperactivity disorder (ADHD). Given that social skills generalization is unlikely to take place without active efforts, evidence suggests that sport offers one tool to be used to promote pro-social behaviour (O’Callaghan, et al., 2003, p.327).
Research also suggests that sport may provide an opportunity for positive peer interaction and healthy competition for and among youth (Weiss & Stuntz, 2004, cited by Hedstrom & Gould, 2004). Recent research suggests that peer relationships are a key part of young people's experiences in sport, and that social acceptance and affiliation are important components in determining the extent to which children and youth enjoy participating in sport (Smith, 2003). As young people mature, they increasingly rely on peers for information and feedback regarding physical competence; therefore, sport as a context of physical activity, serves as a key site of child and youth development (Smith, 2003).

b. Delinquency and community safety

Anti-social behaviour or delinquency among children and youth is increasingly seen as a social problem that is responsive to sport-based interventions. For example, in Canada, 49% of citizens believe in the ability of community-level sport to reduce crime among young people (CCES, 2002). Likewise, in 2002, the Australian Institute for Criminology identified over 600 programs that used sport and physical activities to reduce youth crime and anti-social behaviour (Morris, Sallybanks & Willis, 2003). The terms “crime,” “anti-social behaviour” and “delinquency” are often used interchangeably in the literature. Each term refers to a notion of “deviance” from socially accepted norms. In general, research suggests that sports are effective tools in alleviating deviant behaviours among children and youth, if provided through positive, supportive, and non-authoritarian approaches.

Deviance is defined by Donnelly & Coakley (2004) as “behaviours, ideas, or characteristics that fall outside a normally accepted range” (p.156). Harmful deviance can occur because of either “underconformity” to these social norms or because of “overconformity” to social norms. The majority of the literature in this review approached the problem of youth deviance as a function of underconformity to social norms. In these studies, behaviour understood as delinquent included: criminal or quasi-criminal behaviour, such as acts of aggression and violence, suicide and/or self-harm, vandalism, theft, illegal drug use or abuse, gang membership, unemployment, homelessness, mental health problems, and early school leaving or “dropping out.” Some indicators, such as mental health and homelessness, were included as forms of delinquent or anti-social behaviour through being “deviations from accepted (or ideal) social norms” (Morris, Sallybanks, Willis & Makkai, 2003. p.3).

Harmful deviance can also occur as a result of overconformity to social norms in sports – and, although this was not directly addressed in the literature reviewed, authors included cautionary notes about the dangers of overconformity in sports. Still, this section focuses on the impact of sport participation on deviant behaviour that occurs at a social level outside of the sport context itself.
Many theories that attempt to explain how sports directly impact delinquency credit the structured nature of sports involvement for legitimating social norms. These explanations are consistent with the assumption that underconformity to social norms leads youth to engage in anti-social behaviours. Among the most cited explanations are:

- Sports involvement encourages less frequent, shorter, or less intense interaction with deviant others;
- The “values” of sports – such as teamwork, effort, and achievement – reflect those of wider society;
- Sport involvement decreases the amount of unsupervised leisure time;
- Being labeled an “athlete” reflects positively on youth; thus, they will be encouraged towards more positive behaviours (this is complicated by some research that indicates that athletic youth are not less delinquent, but less likely to be punished); and
- Sports programs aimed at reducing youth delinquency work simply by reducing boredom in youth and creating a diversion from less desirable, sometimes criminal, behaviour (Morris, Sallybanks, Willis & Makkai, 2003).

Reports from the United States, Australia and the United Kingdom suggest that sports participation among children and youth is associated with reduced rates of delinquency. For example, in their overview of youth and sport in the U.S., Seefeldt & Ewing (2002) summarized social and epidemiological trends in sport participation and youth delinquency. This evidence suggests that sports participants engage in delinquent behaviour less often than non-participants (and that this correlation is stronger among youth from lower-class backgrounds) or youth who participate in minor sports. As the authors note, the reason for this negative correlation is unclear.

Partially on the strength of these correlations, hundreds of sport-focused crime-reduction programs targeting “at risk,” “high risk” or “marginalized” youth have been established. The Australian Institute of Criminology identified more than 600 recreational programs aimed at preventing or reducing anti-social behaviour among young people. In the U.S., the National Recreation and Parks Association identified 621 programs and estimated the number of participants in the “social problems industry” to be in the hundreds of thousands annually (Hartmann & Depro, 2006). The majority of sports programs targeted at delinquent youth seek to do one (or more) of the following: divert youth from delinquent others or behaviours; rehabilitate previous anti-social or delinquent behaviours; or hook the target population with sport in order to establish relationships among authority figures, social services, educational programs, and marginalized groups.

**Diversionary programs**

Evaluations of programs intended to provide alternatives to delinquency among youth have been undertaken in Scotland (Coalter, 2005), the U.S. (Hartmann & Depro, 2006) and Australia (Morris, Sallybanks, Willis & Makkai, 2003). These
meta-analyses could not conclude that the sport programs definitively replaced criminal or delinquent behaviour in the youth communities they served, given that measuring explicit anti-social behaviours require both short- and long-term follow-up and measurement (Morris et al., 2003). While short-term, uncontrolled studies are illustrative and informative, using such data to draw correlations between sports programs and reduced youth crime rates can result in misleading (or premature) conclusions. The case of Midnight Basketball in the U.S. is revealing.

The Midnight Basketball League (MBL) is a national program that operates organized basketball leagues in “at risk” communities in the U.S. for young men, aged 17–21, during the “high-crime” hours of 10 p.m. to 2 a.m. Early adopters of midnight basketball programs claimed extraordinary impacts on crime rates; however, it was later established that crime rates dropped rapidly in all regions of the country during the same period, severely limiting the claims of efficacy attributed to the sports intervention (Hartmann & Depro, 2006). However, after matching early-adopter cities with other U.S. cities that did not offer MBL, Hartmann & Depro (2006) found that the reduction of property crimes, specifically in MBL cities, was 5% greater than in non-MBL cities.

It is important to note that Hartmann & Depro (2006) did not credit the MBL basketball program with reducing property crime by diverting potential offenders into a more positive activity. Rather, they suggested that the media interest in MBL brought positive attention to these “marginalized” communities, which served to “send a more positive, proactive message to community members, one that puts a new emphasis on community outreach and builds trust, commitment and solidarity” (p.192). While comparisons on violent crimes did not reproduce these results, the authors concluded that diversionary sports programs warrant further investigation for their possible role in reducing property crime rates (see also Pitter, 2004).

Coakley (2002) and Donnelly & Coakley (2004) have also asked whether it is possible to use recreation to control violence and other problem behaviours among youth? They pointed out the class- and race-linked bases of diversionary (‘social control’) sport programs in North America, and how they differ in intent from middle-class (‘social opportunity’) sport programs. Coakley (2002) reveals these class linkages with two pertinent questions:

- Are corporate CEOs who participated in organized youth [sport] programs less likely than other CEOs to initiate and approve corporate policies that [violate corporate ethics], do violence to the environment, or have violent consequences for residents of low-income inner-city neighbourhoods?

- Can we control corporate [corruption] and violence through youth [sport] programs offered to young people who are likely to acquire power as adults in society?

These questions reveal some of the assumptions behind the original (‘social control’) question, and represent a striking contrast with the ‘social opportunity’ model. These assumptions are: that young people (inner city, lower class) are potentially dangerous; that they are likely to get into trouble if not in structured settings controlled by adults; that their parents are uninvolved and unable to control them;
that young people are inclined toward deviance, and need protection from their environment and themselves; and that the streets and the community would be safer if these young people could be controlled and socialized through recreation. This represents a marked contrast to the assumptions behind ‘social opportunity’ sport programs for middle-class youth, which are associated with personal development of career- and community-related skills, such as leadership and teamwork.

**Rehabilitation programs**

Young offenders are increasingly referred to programs that include sport as an integral part of the rehabilitative process. The theoretical rationale for this approach positions offending youth as inadequately socialized to community norms, and sport as a remedial lesson in social norms and community living (Andrews & Andrews, 2003). There is also a widespread belief in the therapeutic value of sport (Coalter, 2005; Seefeldt & Ewing, 2002).

In the U.K., all “secure units” (small, quasi-correctional facilities for delinquent youth aged 10–16, remanded temporarily to state care, primarily due to repeated criminal offenses) are legally bound to provide sport programming to residents (Andrews & Andrews, 2003). A participant-observation study of one secure unit found that sport is a useful tool in youth rehabilitation, because it provides an opportunity for these young people to display competence and develop a positive self-concept (Andrews & Andrews, 2003). However, this same study argued that a person-centred approach to the provision of sports opportunities is key to its success in alleviating delinquent behaviour. The activity must be purposeful for the individual, and it must recognize both the intricacies and particularities of the individual’s motivations as well as the meaning and value that sports participation holds for the individual. The authors support the use of those sporting activities that de-emphasize regulations and winning, that are tailored to individual needs, and that emphasize choice for participants and positive feedback (Andrews & Andrews, 2003). These results are supported by other analyses of delinquency and sports participation (Seefeldt & Ewing, 2002; Endresen & Olweus; 2005; Smith & Waddington, 2004; Morris et al., 2003).

**Gateway programs**

Sports have also been used to enhance social development among children and youth by connecting “at risk” youth to social- and job-skills training, education programs and/or leadership opportunities. In these schemes, sports are not a “mechanism” for social development, but rather a positive means of inducing marginalized or delinquent youth towards other social programs that address underlying risk factors for crime involvement, early school leaving, homelessness and a range of other social problems in this population. Seefeldt & Ewing (2002) suggest that sport programs that target “at risk” youth can provide a “safe alternative activity to violence and intimidation” and gang membership, because sports teams may meet the individual’s need for social inclusion, physical competency and recreation. This research argues that the usefulness of sports to mediate anti-social behaviour in young people improves when used in combination with a full range of social, educational, and job-skill training programs (Seefeldt & Ewing, 2002).
In fact, researchers acknowledge that there are nearly limitless sporting experiences for children and youth, due to the variety of sports played, the nature and length of time of involvement, the structure of the team/league/community, the sport’s gender composition, the skill and engagement of the coach, and so forth. As a result, it is generally accepted that the physical act of performing sports skills cannot be thought to impact directly, either positively or negatively, an individual’s inclination towards deviant behaviour (Shields & Bredemeier, 1995; Seefeldt & Ewing, 2002).

Given that most programs targeting youth delinquency offer a combination of sports, physical activities, outdoor experiences, leadership-skills development, and job-skills training, any reduction in anti-social behaviour cannot be attributed only to sport involvement (Morris, Sallybanks, Willis & Makkai, 2003). Thus, programs directed towards children and youth should “blend” the social interactions and physical activities offered by the experience of organized sport participation, in attempts to address social risk factors and decrease delinquency (Seefeldt & Ewing, 2002).

c. Education

There is a significant amount of evidence to suggest that sport-based programs improve the learning performance of children and youth, facilitating educational attainment and encouraging them to stay in school, and that sport-based programs in schools aid in the social development of young people. This relationship is thought of in different ways. In the most basic way, sport participation at a young age helps children to learn physical skills that allow them to stay active later in life (Hedstrom & Gould, 2004). The educational benefits are often thought of more broadly, though. Children may learn, or become familiar with, the competitive process and learn to assess their competence in different skills through sport participation (Seefeldt & Ewing, 2002). In addition, the Conference Board of Canada’s (2005) report on sport in society states that sport is an important tool by and through which participants, particularly young people, gain and enhance a range of skills that are transferable to important parts of adult life.

A case study of the Physically Active Youth (PAY) program in Namibia found that after-school programs targeting youth and focusing on a variety of physical activities (including aerobics, dance, outdoor education and competitive sports) increased the number of students who passed the national Grade 10 examination (CABOS Report, 2006). Since students who fail this exam, and drop out of school, tend to face a number of social barriers and engage in unhealthy behaviours (such as unemployment, drug abuse, anti-social behaviour, and an increased risk of contracting HIV/AIDS), the program is understood to make a strong contribution to the lives of Namibian youth by encouraging and facilitating their continued education (CABOS Report, 2006).

The U.K.-based Living for Sport project is based on the premise that any and all forms of “structured exercise” can be used to help students develop discipline, confidence, self-esteem and self-awareness (CABOS Report, 2006). The program made available a variety of resources and tools to teachers to engage students in physical activity expressly for the purpose of improving behaviour. Monitoring of the program found that Living for Sport resulted in improved student attendance and
punctuality, a reduction in detentions, improved communication and leadership skills, and general behaviour improvements (CABOS Report, 2006). Bailey & Dismore (2004) reported findings that specialist sport schools enhanced the opportunities for at-risk Aboriginal youth to engage personally and socially in school life.

Furthermore, an assessment of an education-based sport-development intervention in South Africa concluded that a variety of perceived social spinoffs, including community, financial and personal empowerment, were attached to increasing sport opportunities in a school setting, and helped to foster improved relations between children and teachers (Burnett, 2001). The Sport in Education (SpinEd) project, under the direction of Richard Bailey, gathered evidence to influence policy development aimed at redressing the decreasing trends in physical education and school sport (PESS). In addition, the project constructed a framework for evaluating the role of PESS in different countries and cultures, and collected best practices and evidence regarding the role of PESS in making positive contributions to school life (Bailey & Dismore, 2004). Their report concluded that PESS can make an important contribution to the education and development of children and youth, and that evidence supports the positive relationship between PESS and development in physical, lifestyle, affective, social and cognitive domains (Bailey & Dismore, 2004, p. 12). Bailey & Dismore conclude that the educational character of PESS needs to be accentuated and that PESS should be available to all children and youth as an educational entitlement, though they caution against any simple interpretation of causal benefits from PESS participation.

The cognitive benefits of sport participation among children and youth remain a topic of research. Bailey’s (2006) review article illustrates that research debunks the notion that physical education and sport participation interfere with educational goals and academic achievement and, in many cases, research supports a link between physical education and improved academic performance (see also Sallis & Owen, 1999). While the benefits of regular exercise on cognition are small, the results are reliable for reaction time, reflexivity and performance of mathematics (Thomas et al., 1994, cited by Coalter, 2005). However, since the quantitative data in this area are based on cognitive differences in pre- versus post-testing, it is difficult to assess or identify the mechanisms by which such improvements in cognitive performance occur. Coalter (2005) concludes that there is no definitive evidence in the literature of a causal relationship between sport participation and academic achievement. Thus, Bailey (2006) cautions that it should be considered that PESS can lead to improved cognitive development under the right conditions.

There is also evidence to support the link between sport participation and educational achievement for college and university students. University students who use recreational sports facilities persist in their studies at a higher rate than non-sport participants, since recreational and intramural sport offers an important opportunity for interaction among students and the building of student satisfaction (Belch, Gebel & Maas, 2001).

Evidence supports not only the educational benefits of sport participation, but also the utility of sport programs as educational catalysts to implement interventions and teach life skills. Papacharisis et al. (2005) provide evidence from the GOAL
program, a peer-to-peer, sport-based life-skills program targeted at youth who participated in sports clubs. The study supported the effectiveness of life-skills education (such as goal setting, problem solving and positive thinking) through its integration with sport programs.

The results suggest that, in such interventions, athletes may improve their sports and life skills in a complementary fashion (Papacharisis et al., 2005).

d. Character-building

Donnelly (1993, p.428) noted: “We have long held, although with little evidence, that sport participation has the capacity to transform the character of individuals.” Of all the literature on sport and children/youth, the most difficult to quantify, yet also the most compelling in terms of social benefits, deals with the possibility that participation in sport and physical activity may positively impact the moral development of youth. Based on survey data, Canadians consider sport, after family, to have the most influence on the development of positive values in youth (CCES, 2002).

In fact, in data collected in this survey, the role that sport plays in promoting and developing moral character was considered to be an essential component of the very definition of sport for children and youth, although not surprisingly, these ideas of the positive impact of sports on the development of character tend to come from those coaches, parents, volunteers and participants who are actively involved in children's and youth sport (CCES, 2002). According to Coakley & Donnelly (2004, p.93) this “character logic” is often used to encourage and defend children’s participation in sport; it is also used to justify the funding of sport programs, the building of facilities and the sponsorship of events.

While the causal linkages and mechanistic connections between sport participation and character-building are difficult to create and sustain, theories have been put forth (supported in some cases by evidence-based research) to support the notion that participation in sport and physical activity builds character in children and youth. In a review essay, Ewing et al. (2002, p.36) argued that sport offers a “dynamic domain” for moral and character development and expression among youth, particularly in terms of positive values such as hard work, fair play and an orientation to succeed, and behaviour and social relations. However, the same authors argue that sport does not, in and of itself, lead to the development of character or morals in youth, and, in fact, holds the possibility to undermine the creation of what would generally be considered positive traits of personal behaviour (Ewing et al., 2002).

Such interpretations are borne out in the literature. Hansen et al.’s (2003) recent analysis of youth activities found that such activities provide a context for a wide range of developmental experiences; but, development of self-knowledge, emotional regulation and physical skills were particularly high within sport participation when compared to academic- and leadership-type activities. At the same time, sport activities were also the only context in this study in which youth also reported higher rates of negative experiences, particularly in relation to peer interaction and inappropriate adult behaviour (Hansen et al., 2003, p.47). Thus, when cataloguing
sport within an array of youth activities, the pattern of experiences was mixed and sport could be understood as both character building and challenging (Hansen et al., 2003, p.50).

Hedstrom & Gould’s (2004, p.5) review essay also concludes that research has demonstrated that character in children and youth can be enhanced in sport and physical education settings “when fair play, sportsmanship and moral development information is systematically and consistently taught.” In other words, given that sport is a powerful social experience in the lives of children and youth, positive character development may occur under the right circumstances (PCPFS, 2006).

Given that moral behaviour is learned through social interaction, the ways in which relations with others are constructed and facilitated impacts the ethical and moral behaviour learned through sport. In other words, there is a level of transfer between the values and ethics promoted in the sport and the moral character instilled in children and youth who participate.

Ewing et al. (2002) reviewed evidence suggesting that a focus on reflection and meditation led to lower levels of anxiety for youth studying martial arts, and that athletes who focused on personal improvement, as opposed to greater ability, considered the sport to be a pedagogical tool for co-operation and citizenship as opposed to dominance and ends focused orientations (Ewing et al., 2002, p.37).

Evidence also suggests that coaches play a key role in developing the moral and ethical parameters that impact youth involved in sport. This research indicates that the moral values and behaviour learned by children in sport come directly from instruction and their own engagement, and indirectly from observing coaches’ responses (Ewing et al., 2002, p.37).

The analysis of youth sport participation and character development has been broken down into component parts: perspective-taking and empathy, moral reasoning and motivational orientation (PCPFS, 2006). The concept of character is often understood in relation to the ability to consider the views and positions of others. Perspective-taking is the cognitive ability to understand multiple points of view, while empathy is the affective skill of understanding the experiences of another person or group (PCPFS, 2006). In combination, perspective-taking and empathy underpin moral development and can be learned through game strategy and consideration of multiple perspectives within the sporting context – although this relationship is primarily a theoretical one, yet to be corroborated through evidence-based research (PCPFS, 2006). What has been documented through research, however, is that physical activity outside of sport may, in fact, be better suited to promoting empathy among youth, and that moral reasoning may be developed through sport if actively promoted in dialogue with a coach (PCPFS, 2006). For example, Trulson (1986, cited by Coakley & Donnelly, 2004, p.171) found that the type of sport experience was key to reducing ‘delinquent’ behaviour in that martial arts taught with a philosophy of respect, patience, responsibility and honour were related to decreased delinquency, while those based on free sparring and self-defence were related to higher levels of delinquency.
Research examining moral reasoning, or the ability to think about moral issues, among athletes has actually found that participation in sport is associated with lower levels of moral reasoning maturity; however, there is also evidence that coaches or physical educators may successfully promote the development of moral reasoning if they actively seek to do so (PCPFS, 2006). In relation to the third component of character, motivational orientation or the cognitive rationales for behaviour, research suggests that motivation may be improved through the type of positive team environment that sport participation can provide for children and youth (PCPFS, 2006). In effect, the potential does exist to effectively promote moral development through sport because the social interactions associated with sport participation may impact certain psychological traits that underlie moral decision-making (Seefeldt & Ewing, 2002).

Leadership is also an issue that has been examined in research on children/youth and sport participation. Dobosz & Beaty’s (1999) analysis found that high-school athletes scored higher on a leadership ability measure than their non-athlete counterparts. They conclude, therefore, that athletics offers youth an opportunity and platform to develop and improve leadership skills and abilities.

In conclusion, whereas sport has the possibility to provide an environment for the development of moral character, evidence also supports the idea that sport provides an opportunity to suspend moral obligation or support unethical behaviour in pursuit of winning. Coakley & Donnelly (2004, p.94) point out that much of the research addressing sport and character over the past 50 years suffers from three problematic assumptions: that every kind of organized, competitive sport impacts the moral development of every athlete in the same ways; that the character-building experience of sport is unique to the extent that those who do not play are at a disadvantage in developing moral character; and that the notion of what constitutes positive moral characteristics is generally accepted. In this sense, Shields & Bredemeier (1995, cited by Ewing et al., 2002) caution that it is not the physicality of sport, or the learning and performance of sporting skills, that is either ethical or unethical or related to character development; more accurately, it is that social interactions within the sport experience potentially impact the development of moral character.
SUMMARY BOX:

Research suggests that sport programs among children and youth may contribute to social inclusion, both at the community level and in post-conflict areas, as well as in social psychological relations such as peer groups.

Criminology literature has found evidence that sport-based programs may make a positive contribution to reducing youth crime as diversionary, rehabilitation and gateway programs.

Youth sport participation has been linked to educational benefits if physical education is included as part of broad-based educational programs, although causal links between sport participation and educational achievement are difficult to establish.

Evidence suggests that character-building, including moral behaviour, empathy, reasoning and leadership, may be promoted and facilitated through sport, although such processes are highly dependent on the context of the sporting program and the values promoted therein.
4. Current uses, best practices, recommendations

a. Findings from research

A review of current research indicates that sport programs have been employed successfully in the service of child and youth development in a number of contexts. Based on the reviewed literature, some findings have been highlighted as being of particular importance for child and youth development through sport.

First, it has been consistently reinforced that the benefits (or failures) of sport and child/youth development projects cannot be understood in isolation from other social factors and reasons for social change (Sport England, 2002). Bailey (2006) further emphasizes that it is important in all cases to differentiate between necessary conditions (i.e., participation in sport) and sufficient conditions (i.e., the conditions under which the potential outcomes are achieved). Thus, it is essential that sport projects be aware of the risk factors, social conditions and material realities of the children and youth they serve, in order to have a positive impact.

Second, documentation of successful sport and child/youth development projects have, in nearly all cases, pointed to the impact and importance of skilled, enthusiastic project coordinators, leaders and core staff. The leadership skills, interpersonal skills, and behaviour of the coach or sport leader are, therefore, essential to positive development in the children and youth they teach. It has also been found that character, notions of fair play, and moral development are only transferred to sports participants when the goals of the program and coach are in line with moral attitudes and behaviours, and when coaches enact specific teaching strategies to promote a positive change in moral growth (Ewing et al., 2002). Positive benefits of sport may only be achieved through sporting experiences that provide positive experiences and minimize negative ones.

Third, a multi-agency approach to child and youth development has been consistently emphasized in the literature as leading to successful outcomes for sport-focused programs for young people. This approach recognizes the role that sport can play in addressing some of the many issues and factors that contribute to positive (or negative) development in children and youth. Furthermore, long-term commitments to these types of projects are necessary if successes and quantitative monitoring are to be effective (Sport England, 2002).

b. Mathare Youth Sports Association (MYSA)

Two current initiatives using sport to support child and youth development are illustrative of best practices. Willis’ (2000) case study of the Mathare Youth Sports Association (MYSA) suggests that MYSA, in particular, but also programs of its kind, appear to provide hope that sport-based programs can make a difference in the lives of marginalized youth. Namely, Willis (2000) found that grassroots development programs, such as MYSA, may make a tangible difference in the everyday experiences of youth, that youth can own their development, that gender stereotypes may be successfully challenged through sport-based development programs, and that the objects of development can become its subjects. Furthermore, MYSA’s Letting Girls Play program afforded girls a safe and supportive
environment in which they are treated with dignity and taught new skills. With respect to gender, analyses of MYSA’s programming suggests that adolescence is a key time to introduce sport-based initiatives, because transitions from childhood to adulthood are generally the time when boys establish more autonomy, mobility, privilege and opportunity than girls (CABOS Report, 2006).

c. Physically Active Youth (PAY)

A similar program, Physically Active Youth (PAY), was designed and implemented in Namibia to support the educational achievements of high-school students. More than half of the students in the Namibian educational system (approximately 16,000 16-year-olds) fail a national exam after Grade 10, preventing them from continuing their educational pursuits. PAY combines a sport program with informal tutoring to support high-school dropouts and other students considered to be at risk of failing the national exam and ending their educational career. The program also involves HIV/AIDS awareness and prevention, and sexual and reproductive health issues that are commonly faced by students who drop out of the school system.

Research indicates that the program has a direct impact on the educational achievement and sustainability of students who participate (CABOS Report, 2006). In the pilot program, 92% of participants passed the Grade 10 exam, and researchers concluded that the appeal of sport among young people had motivational effects on youth, in terms of passing the exam and continuing their education (CABOS Report, 2006).

### SUMMARY BOX:

Research indicates that the benefits of sport participation and sport initiatives for children and youth cannot be understood in isolation from other social and material conditions.

The skills and enthusiasm of trained, committed administrators, coaches and volunteers is key to the success of child- and youth-focused sport programs.

To be successful, sport programs should be part of a multi-agency approach to meeting the needs of child and youth development.

Mathare Youth Sports Association and Physically Active Youth are examples of successful youth-focused sport programs in LMICs.
5. What we know

At the risk of oversimplifying an impressive array of research and theory on youth and youth development, I have concluded that positive transitions from childhood to adolescence to adulthood are most likely when young people live in a context in which they are: physically safe; personally valued; socially connected; morally and economically supported; personally and politically empowered; and hopeful about the future. To the extent that [sport] programs serve these needs, we can expect them to contribute to the positive development of participants (Coakley, 2002, p.25).

Coakley bases these general conclusions on his review of a wide range of research on child and youth development carried out in sociology, psychology, and related disciplines. They represent a daunting list for those intending to establish a sport program for the purposes of child/youth development. However, if such programs are to have a positive impact on the lives of young people, especially those living in communities characterized by economic need and social problems, unless these needs can be met, sport programs will not be a completely viable form of intervention (see also, Donnelly & Coakley, 2002, 2004; Martinek & Hellison, 1997).

From the literature reviewed, it is clear that sports participation among children and youth can encourage positive social, emotional, educational, community and moral development; however, these benefits are not automatic. Sports programs positively impact youth when: (a) they are conducted with a person-centred approach that is flexible enough to respond to the needs, motivations and rights of the child/youth, and (b) they de-emphasize rules, rivalry and winning, and emphasize choice for participants, effort and positive feedback (Sport England, 2002). This review of research also indicates that the operation and outcomes of sport programs are affected by, and, in turn, affect, a myriad of social factors/forces, and cannot be implemented or evaluated in isolation from these conditions. In terms of positive child and youth development, a multi-faceted approach is needed to target the multiple social conditions that contribute to positive outcomes (Coalter, 2005).

In particular, positive attitudes, values and character traits must be actively promoted and taught in any child-/youth-focused sports program. This is most effectively accomplished with the positive, enthusiastic and skillful engagement of a coach, teacher or leader (Seefeldt & Ewing, 2002).
SUMMARY BOX:

Coakley’s list of the characteristics of exemplary sport programs for child and youth development indicates that participants should feel: physically safe; personally valued; socially connected; morally and economically supported; personally and politically empowered; and hopeful about the future.

Sport programs have a positive impact on children and youth when they are person-centred, as opposed to outcome oriented, and emphasize choice and autonomy over rules and a focus on winning.

Sport programs should be part of a multi-faceted approach, and they succeed when supported by skilled, enthusiastic leaders.

6. What we don’t know and need to know

In general, there is a lack of evidence from which to make strong claims about sports participation and social inclusion for and among children and youth (Bailey, 2005). Although there is an increasing awareness of the potential of sport to aid in the social and educational development of children and youth, there is also consensus that the specific contributions of sport (regarding education, socialization and social integration) need to be identified, and that a solid knowledge base can help to create a new political agenda and to ensure its implementation (Doll-Tepper, 2006, p.71). The future success of sport and child/youth initiatives rely, to an extent, on cooperation between a variety of networks and stakeholders, such as community, sports clubs and schools, and between researchers and practitioners (Doll-Tepper, 2006, p.71).

There is also a need for more research to focus on the specific mechanisms by, and conditions under, which sport can and does make a positive contribution to child and youth development. Similarly, there is a need to better understand issues such as social inclusion and leadership/leadership training. Without careful attention paid to the conditions (social, psychological, material) that frame the lives of children and youth and their sporting experiences, the impact of sport-based interventions in relation to child/youth development are speculative at best.
7. Conclusion

There is significant evidence to support the utility of sport in facilitating and supporting the development of children and youth. Sport participation and sport-based initiatives targeted at children and youth have been shown to decrease social exclusion and contribute to community-building and inclusion in a host of social contexts, such as areas of post-conflict and areas of poverty in LMICs. Research also suggests that sport offers an important resource for reducing delinquency and crime among youth and promoting community safety. Sport is also associated with facilitating educational commitment and attainment among children and youth, and as a vehicle for promoting character-building and moral development.

The central conclusion of this literature review, however, is that these positive results of child/youth sport participation and child- and youth-based initiatives are not automatic or linear. Research indicates that sport programs should be part of a multi-agency approach to child and youth development, and that committed facilitators (coaches, administrators, volunteers) are needed to ensure that appropriate values (fair play as opposed to winning) are encouraged through sport programs.
8. Annotated bibliography

1. Title: Youth sports in America: An overview  
   Author(s): Vern D. Seefeldt & Martha E. Ewing  
   Year: 2002  
   Category: Sport and Youth  
   Countries: United States

Summary: Based on empirical studies and reviews of literature on youth sports in the U.S., this article describes youth sports in terms of the characteristics of youth sport programs, the barriers that prevent participation in youth sports, and the role that sports play in the social and moral development of youth. It concludes with recommendations to assist in the positive development of youth in organized sports.

Youth sports in the U.S. are composed of six types of programs: agency-sponsored sports; national youth service club sports; recreation programs; intramural; and interscholastic sports programs. Agency-sponsored and recreation programs enjoy the largest participation rates, and the largest rates of growth. Sports participation of girls and women has grown significantly, but remains at about 65% of the rate that boys and men participate. At the same time, however, the ratio of men to women in coaching positions has dramatically decreased, resulting in fewer role models to influence girls and women to stay in sport.

Other barriers to participation in sports are summarized by the authors and include limitations in team membership, due to the finite numbers of positions available, as well as limited amounts of money, facilities and personnel. Failure to 'make the team' may result in decreased participation in other sports, as the rejection may turn potential sports participants away from athletics in general. Under-prepared coaches and overzealous promoters of youth sport are also listed as barriers to beneficial participation.

Despite its many problems, the authors also recognize that positive youth development can occur through sports that foster positive experiences and minimize negative ones. Positive experiences are more likely to occur for children who are psychologically ready for the co-operative and competitive nature of sports, and who have appropriate achievement goals.

Social and moral development is also possible through sports, and the social interactions offered therein. Both delinquency and aggression are negatively correlated with youth sports that actively seek to teach non-aggression and socially desirable traits. The authors caution that sports skills themselves are neither moral nor immoral, but that early involvement in sports with an engaged and capable coach/role model may have positive outcomes.

The authors recommend that the positive benefits of sports may be optimized by early involvement in activities that emphasize an array of sport opportunities in a non-competitive way; and that, when trained, coaches actively teach responsibility, independence and leadership. Also recommended are more female and ‘minority’ status coaches to serve as role models and positive influences. Finally, organized
sports programs should provide educational opportunities for coaches and athletes for sustained personal and social development.

2. **Title:** The social benefits of sport: An overview to inform the community planning process  
   **Author(s):** Fred Coalter  
   **Year:** 2005  
   **Category:** Sport and Youth  
   **Countries:** Scotland

**Summary:** This research report was commissioned by Sport Scotland to provide policy direction for sport provision for Scottish youth. The report discusses the perceived impact that sports programs may have for communities, and includes sections dedicated to Sport, Fitness and Health; Sport, Young People and Education; Community Development; Youth Crime; and The Economic Impact of Sport. The author describes the more obvious benefits of sport as being indirect, and to be found in the ability of sport to deliver young people for partnerships with groups such as educators, social workers, volunteer groups and others. The importance of sport to young people may encourage educational underachievers, delinquent youth, un- or underemployed youth, and disengaged youth to stay in school or attend remedial classes, connect with volunteer or employment training opportunities, and become more active citizens. Although these are lofty claims, the author argues that such programs cannot achieve these results without continued support from skilled professional workers, which should be acknowledged by strategic and mainstreamed funding.

Recommendations are also made in this report regarding best practices to realize goals of educational attainment, emotional and personal development, community-building, and youth crime reduction. To achieve positive results, the author recommends that a multi-agency approach that ‘blends’ sports with other educational and development opportunities be undertaken. Sports programs must be led by committed professionals, who actively demonstrate and teach social, moral, educational and community-building skills. These programs should build on the needs and strengths of the communities in which they are situated.

3. **Title:** Sports and character development  
   **Author(s):** Brenda Light Bredemeier & David Light Shields  
   **Year:** 2006  
   **Category:** Sport and Youth Development  
   **Countries:** United States

**Summary:** Through the application of Kohlberg’s (1984) theories of character development, this paper explores how sport contributes to perspective-taking and empathy, moral reasoning, and the motivational orientation of youth in sports. “Character” refers to those aspects of a person that guide moral life and enable the person to live in fidelity with their moral values, judgments and intuitions.

Perspective-taking is primarily cognitive in nature, and empathy affective. Due to a dearth of empirical evidence measuring if or how perspective-taking/empathy is improved through sport participation, the authors theorize that understanding sport
strategy exercises perspective-taking skills. Conversely, sports have been shown to
discourage empathy, by encouraging the exploitation of opponents’ weaknesses.
However, empathy may be taught outside of competitive situations through specific
programming that allows the opportunity to empathize with others.

Moral reasoning develops in phases and changes as children grow and are exposed
to experiences that encourage growth in reasoning. Studies of moral reasoning in
university and high-school athletes produced mixed results, with the strongest
evidence suggesting a negative correlation between sports and moral maturity.

In younger children, it was reported that there may be some confusion in
distinguishing between aggressive and non-aggressive, but physically forceful, play.
This, in turn, may hinder the development of fairness concepts. These results should
not be extended to all sports and sport experiences, however, since all sports do not
offer the same range of experiences or outcomes for all children. To help in the moral
maturing of youth sport participants, the coach must be in active dialogue with the
participants regarding sports in general and the life of the team in particular.

Finally, the authors note that participants’ motivations in sport are strong
 contributors to moral decisions and behaviours in sports. Differentiations between
task and ego motivational orientations often predict moral behaviour in sports, with
higher ego orientations being related to higher approval rates for unsportsperson-
like behaviours, such as cheating and aggressive acts, and task orientation being
related to some dimensions of sportspersonship, moral functioning and pro-social
behaviour. The climate in which sports are delivered may promote task, rather than
goal orientation. The coach has a special responsibility in this regard to promote co-
operation, effort and learning, over mastery and rivalry. The authors conclude that
sports may lead to positive character development if coaches actively seek to do so,
and are adequately informed regarding the educational processes required.

4. **Title:** Research in youth sports: Critical issues status
**Author(s):** Ryan Headstrom & Daniel Gould
**Year:** 2004
**Category:** Sport and Youth Development
**Countries:** United States

**Summary:** The scientific literature on selected key issues in youth sports is
reviewed, with the intent of informing policies and projects relating to youth and
sports in the U.S. Youth sports participation included both school-based and agency-
sponsored sport programs for children and youth. Six issue areas were identified and
discussed, and this annotation refers specifically to the two areas of relevance to
*Sport and Youth Development,* namely: ‘The benefits of youth sport participation,’
and ‘Youth sports: Involvement, participation, and dropout.’ In the former chapter,
the authors report that sport programs may be useful in developing positive
physical, psychological, and social characteristics in youth participants.

The authors list learning physical skills, gaining an appreciation of fitness and skills
for leisure activities, gaining a sense of belonging, growth and maturation effects,
improved self-concept, and social competence as potential areas of benefit to youth
sports participants. It is stressed that “quality adult leadership is a key factor” in achieving any developmental benefits through youth sport programs.

In the latter chapter, reasons for engagement and dropout in sport are explored. It is reported that the benefits of sport are most apparent to non-minority status boys, as this group participates in school-based and agency-sponsored sports more than any other group. African-American and Hispanic-American youth reported dropping out of sport because of an emphasis on winning, needing time to study, and ineffective coach/teacher, more often than white youth; females rated relationships with teammates and negative experiences in sport as more of an influence in their decision to discontinue sport participation than did males. The authors conclude that understanding how to impact personal factors (i.e., self-esteem, skill competence) and social factors (i.e., coach-athlete interactions, peer relations) through sport experiences is important in creating programs with sustained positive involvement.

5. **Title:** Physical education and sport in schools: A review of benefits and outcomes  
**Author(s):** Richard Bailey  
**Year:** 2006  
**Category:** Sport and Youth Development  
**Countries:** International (data gathered from 50 countries)

**Summary:** This paper explores and evaluates the empirical evidence that has been gathered to support the link between physical education and sport (PES) and positive benefits for both child development and educational systems. Due to cross-cultural differences in how terminology such as physical activity, sport and physical education are understood and used, the term “physical education and sport (PES)” is employed to refer to those structured, supervised physical activities that take place at school during the day.

The outcomes of PES are divided into five domains, and organized in descending order from the scientifically strongest: physical; lifestyle; affective; social; and cognitive. This review demonstrates that physical competencies are improved through PES, which are important for later sporting activities that contribute to healthier lifestyles. Conversely, children who do not develop such competencies are at increased risk of social exclusion, because they cannot participate in organized sport or play experiences with their friends. The benefits of school PES may also extend into adulthood by contributing to the establishment of regular physical activity as a lifestyle. The psychological well-being of children is also improved through PES, particularly measures of self-esteem. Pro-social behaviour can be encouraged, and anti-social behaviours may be combatted through appropriately structured and presented PES activities that promote social inclusion and social networks, and allow participants to display valued competencies. Finally, the author reports that PES in schools do not interfere with pupils’ achievement in other subjects, and, in many instances, PES is associated with improved academic performance. The scientific evidence does not support the automatic transmission of such benefits to children or schools through PES. To make a positive contribution to schools and child development, PES activities must emphasize positive experiences
and enjoyment, must be directed by dedicated and trained teachers and coaches, and
must be supported by informed parents.

6. Title: Sport and development: The significance of Mathare Youth Sports
Association
Author(s): O. Willis
Year: 2000
Publication: Canadian Journal of Development Studies
Countries: Canada, Kenya

Summary: Using a case study of the Mathare Youth Sports Association (MYSA) in
Nairobi, Kenya, this article addresses the question of whether sport can be used as
an effective vehicle for grassroots development in LMICs. Willis argues that sport
allows a potentially significant entry point to development, although caution is
needed to guard against unreasonable expectations and the functionalist endowment
of sport with mythical abilities for social change.

The analysis of MYSA concludes that the organization has achieved modest success
in the following areas: environmental cleanup, HIV/AIDS awareness and education,
the facilitation of male role models, community-building, pride, the social inclusion
of youth, and challenging patronizing attitudes of development workers and donors
who dismiss the abilities of Mathare residents. In addition, MYSA’s theory that
every soccer team is a ‘mobilized youth group’ may be currently underused and
potentially useful for successful development in the new century.

Unresolved tensions remain, however, between the utility of mass sport versus elite
sport in the context of development, and the accomplishments and promise of MYSA
versus the weaknesses of its functionalist assumptions, denial of any of sport’s
dysfunctions, and its neo-colonial tendencies. Further research is needed to examine
MYSA’s ability to effectively empower youth through sporting programs, and
whether MYSA provides an opportunity to effectively challenge patriarchy. In
conclusion, MYSA appears to provide hope that grassroots development can make a
difference, that youth can own their development, that gender stereotypes can be
successfully challenged, that the objects of development can become its subjects.

7. Title: Teaching and playing sport for conflict resolution and co-existence in
Israel
Author(s): J. Sugden
Year: 2006
Publication: International Review for the Sociology of Sport
Countries: United Kingdom, Israel

Summary: This article reports on Football for Peace (F4P), a program for Jewish
and Arab youth in the Galilee region of northern Israel, designed to promote and
facilitate peaceful coexistence. The program, organized by the University of Brighton
and the British Council, has been operating in towns and villages since 2001.

The article argues that any sport-based peace intervention must consider the
relevant socio-political context, in this case the relations of Jews and Arabs within
the state of Israel, since its creation in 1948. Drawing on previous research arguing
that the integrative potential of football, and sport, is never automatic, F4P implemented a series of programs designed to make pragmatic, grassroots changes in Israeli sport culture to connect divided communities and impact, if only modestly, political/policy debates around sport in the region.

Based on interviews with F4P participants and organizers, there is evidence of local support of, and belief in, F4P as an opportunity for cross-cultural encounter and the promotion of peaceful coexistence. At the same time, challenges include uneven ratios of Arab/Jewish participants, difficulty with language and translation, the social complexities surrounding the recruitment of female participants, and whether competitive sport enhances or detracts from social integration.

Based on these results, major issues and debates requiring further attention and analysis within research and practice of sport and conflict resolution are identified: the political complexity of conflict, the need for military and political accommodation, the difficulty in adopting and maintaining neutrality, the question of whether to support the Israeli state and society through such programs, and the continuing debate as to whether such initiatives constitute neo-imperialism.

The article concludes that sport-based programs can make a modest contribution to wider efforts focused on conflict resolution and peace-building, if they are locally grounded, carefully thought out and professionally managed.

8. **Title:** Evaluating the relationship between physical education, sport and social inclusion  
   **Author(s):** R. Bailey  
   **Year:** 2005  
   **Publication:** Educational Review  
   **Countries:** United Kingdom  

**Summary:** This article offers a review of evidence regarding the outcomes of youth participation in curriculum-based sport and physical education in terms of social inclusion and the development of social capital. The evidence and outcomes are considered against the theories underpinning physical education policy in the United Kingdom, namely that the social aspects of sport participation support the development of social capital.

While ‘physical education’ and ‘sport’ are not synonymous, they are similar, and can reduce social exclusion in the following areas: physical health, cognitive and academic development, mental health, crime reduction, and the reduction of truancy.

Evidence supports the link between sport participation and the physical health of youth, and there is fairly consistent evidence that regular physical activity may have a positive effect upon the psychological well-being of children. Some literature suggests links between sporting activity, educational performance and cognitive benefits, although there is not enough evidence to differentiate correlation from causation.
There is a general lack of empirical evidence regarding sport participation and crime rates, and it is therefore difficult to state definitively that sport participation reduces crime. However, a small number of detailed studies have made a link between youth sport participation and the reduction of drug use and crime and, as an alternative to prosecution and incarceration, sport may be ‘good value for the money.’ In addition, there is not enough evidence to state that sport participation decreases truancy although some research has linked positive school attendance to the introduction of sports-based schemes. Still, not all students enjoy sport and physical education activities, and some evidence suggests that boys continue to dominate physical education settings and that the sport curriculum often reflects traditionally male activities.

In conclusion, it is important, in all cases, to differentiate between necessary conditions (i.e., participation in sport) and sufficient conditions (i.e., the conditions under which the potential outcomes are achieved). More research is needed to examine not only whether sports participation contributes to personal, community and social development, but also the nature of the contribution sports participation makes to a range of social issues. It is important, therefore, to broaden the social issues attended to in research on youth and sport participation.

9. **Title:** The role of sports in youth development  
   **Author(s):** M.E. Ewing, L.A. Gano-Overway, C.F. Branta & V.D. Seefeldt  
   **Year:** 2002  
   **Publication:** Gatz, M., Messner, M. & Ball-Rokeach (eds.), Paradoxes of Youth and Sport  
   **Countries:** United States

**Summary:** This book chapter provides a review of literature of six areas in which sport participation may make a positive contribution to the development of youth: fitness and health, social competence, physical competence, moral development, aggression and violence, and education, as well as barriers to youth participation in sport. Positive links are made between sport and children’s development.

Research illustrates that participation in sport and physical activity not only leads to increased physical health, but can also play an important role in facilitating the learning of appropriate social behaviour, and it may positively impact children’s self-esteem. Further, sport provides a dynamic domain for the learning and development of moral behaviour and character, offers a tool for teaching and learning acceptance and/or disapproval of aggression and violence, and appears to facilitate, or at least coincide with, commitment to school and education and academic achievement.

At the same time, a host of social factors, some structural in nature, continue to preclude youth participation in sport and physical activity, including a lack of public awareness and prioritization, intellectual condescension regarding sport and physical activity, racism, sexism, low socio-economic status, fear for personal safety and overzealous promoters. To address these barriers, the authors argue for diverse programming opportunities, infrastructure to ensure community safety, the availability of qualified coaches and volunteers, programs focused on the needs of participants rather than coaches, and the promotion of physical activity as well as
competitive sport. The authors conclude that the benefits to youth of sport participation should not be thought of as automatic, nor should sport be considered a way to change one’s socio-economic status. Rather, sport has the potential to contribute to learning skills and values needed to succeed in education and the workforce.

10. **Title:** Project report: SpinEd, the role of physical education and sport in education  
    **Author(s):** R. Bailey & H. Dismore  
    **Year:** 2004  
    **Publication:** 4th International Conference of Ministers and Senior Officials Responsible for Physical Education and Sport (MINEPS IV)  
    **Countries:** Australia, Colombia, Japan, South Africa, United Kingdom  

**Summary:** This document summarizes the findings of an international research project tasked with gathering and synthesizing evidence of the benefits to schools of physical education and school sports (PESS). The objective of the report was to construct a framework for evaluating PESS that can be adapted in different countries and cultures. The report combines a comprehensive literature review and a series of national case studies, and comments on the claimed benefits of PESS in terms of: Physical development, Lifestyle development, Affective development, Social development and Cognitive development.

The results of the literature review and case studies indicate that PESS engages students, offers a sense of purpose in their lives, brings enjoyment and fun into the school setting, and provides a foundation for the encouragement of lifelong physical activity.

The authors conclude, therefore, that PESS has the potential to significantly contribute to the overall development and education of children and youth and that these benefits are, in some cases, unique to sport, given the distinctive contexts of PESS. In other words, many of the benefits of a PESS experience are not reproducible through other curricula or other sport and physical activity settings.

However, the authors caution that none of the benefits of PESS are achieved through the automatic application or delivery of PESS to youth. Given that the values of educational systems, and the actions and interactions of teachers, largely influence the results of PESS and its impact on the development of children, the educational character of PESS, and the quality of the PESS experience, should be stressed.
9. References


L. Morris, J. Sallybanks & K. Willis, Sport, Physical Activity and Antisocial Behaviour in Youth (Canberra: Australian Institute of Criminology, 2003).


The use of sport and physical activity to achieve health objectives

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1. Introduction

The belief that sport, exercise and other forms of physical activity can be healthy is as old as recorded history. In those societies that grew out of the Mediterranean and Europe, the belief may be traced back to the upper-class gymnastics of classical Greece. In modern, urban, industrializing societies, the idea that sport and physical activity contribute to individual and social health, and that all citizens should be encouraged to participate, developed in the eighteenth and nineteenth centuries in Denmark, Germany, Sweden and the United Kingdom, and was quickly embraced by like-minded peoples in many other societies. By the late-nineteenth century, middle-class reformers in the areas of education, public health and urban welfare began to develop the idea that sport and physical activity, appropriately directed, could also develop character, work discipline, teamwork and fair play.

Organized sport and physical activity are still justified in these same terms, as evident in the mission statement of any youth sport organization – what the organization claims will be taught to the participants involves a great deal more than sport. Similarly, there has been a recent proliferation of development through sport agencies, all of which claim that the intended and unintended consequences of involving young people in low- and middle-income countries in sport and physical activity will involve a great deal more than improvements in sport skills.

This literature review shows that there is a strong link between physical activity (and healthy eating and tobacco cessation) and the reduction in non-communicable diseases, such as cardiac heart disease, chronic respiratory disease, diabetes and some forms of cancer. It also suggests that sport and physical education may play a role in the fight against HIV/AIDS, by providing a popular site for preventive education and some retardation in the progress of the virus.

This review of literature draws attention to the work of the SDP IWG/Right To Play in achieving the Millennium Development Goals and the achievement of basic human rights. The right to health is established in the Universal Declaration of Human Rights (1948). The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being, as set out in the WHO Constitution.

The right to participate in sport, physical activity and play is identified implicitly in the Universal Declaration, providing support for the increasingly well-recognized right to participate in sport and physical activity. And the ‘fundamental right’ to participate in physical education and sport is proclaimed in the UNESCO Charter of Physical Education and Sport (1978). While this literature review focuses on the growing evidence about the links between physical activity and health, our starting point is the human right to health. This rights-based approach captures the intent of the contractor, the researchers, and the vast majority of the literature reviewed.

Multidisciplinary sources of research

Reviewing multiple sources of data from different academic disciplines has a real advantage in terms of triangulation, and building evidence to determine the accuracy of claims. However, there are also disadvantages in terms of the
comparability of data. Different academic disciplines, and even different branches of some academic disciplines, make different assumptions about measurement, about the meaning of data, about how research ought to be carried out, and in terms of their definitions of key concepts. This is particularly true in the literature about health, which draws upon the full spectrum of the academic disciplines, from the humanities and social sciences to the life sciences.

Overall, for the purposes of this review, we consider that the advantages of reviewing multiple sources of data from different academic disciplines far outweigh the disadvantages. Perhaps the greatest area of concern lies in the terminology used, and the different meanings given to specific concepts in the different disciplines.

**Disputed terminology**

Because of the multidisciplinary nature of the research reviewed, it was necessary for us to develop a common understanding of some specific terms for the purposes of this review. These include:

**Development**

The level of development of a nation was initially considered only in economic terms, and concerned the extent to which its economy depended on the agricultural, industrial and/or service sectors (the latter being considered the most ‘developed’). The level of development was measured in terms of the gross domestic product (GDP) or gross national product (GNP). The idea that economic growth determined the well-being of a country was widely challenged, culminating in the UN Declaration on the Right of Development (1986), which recognized that:

> ...development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and the fair distribution of benefits there from.

The United Nations Development Program (UNDP) followed the Declaration with a far more comprehensive measure of ‘development.’ The Human Development Index (HDI) was intended to measure improvements in the quality of life of humans, based on an index with three criteria:

1. A long and healthy life, as measured by life expectancy at birth;
2. Knowledge, as measured by the adult literacy rate (2/3 weight), and the combined gross enrolment ratio in primary, secondary and tertiary education (1/3 weight);
3. A decent standard of living, as measured by the GDP per capita in purchasing power parity (PPP) terms (measured in US$) (Human Development Report, 2006, p.394).
As with GDP and GNP measures, the latter measure suffers from ‘averaging’ – two countries may achieve a similar per capita GDP; in one country, however, it may be a result of relatively equal household income distribution, while in the other there may be marked extremes of household income distribution. This raises issues of relative deprivation or relative poverty. The ‘Gini coefficient’ has been used more recently to measure the degree of inequality in household income, with lower value coefficients indicating more equal household income distribution.

It is important to note that, under these definitions, no country ever achieves a final state of being ‘developed’ – as the UN Declaration notes, development is a process of “constant improvement.” However, key questions remain: “who determines the form of development in a country?” and “what are the appropriate roles for foreigners in the development of another country?”

Appropriate terminology for countries in receipt of development aid

The RFP prepared by the SDP IWG/Right To Play refers to “transitional and developing countries.” However, the way to refer to such countries is extremely contentious in the academic and policy communities, and has been the subject of a great deal of debate among the research teams. Among the terms in common use that were considered are: developed/developing nations; global North/global South; majority world/minority world; and countries with developing economies. For a time, “global South” achieved a great deal of support, and it is becoming more widely used in the academic and policy communities:

“Global South” is not just another name for the "South" or "the developing world." The term denotes a community of people at different geographical locations who experience a common set of problems – problems which emanate, by and large, from deep inequities of power within and between nations (Read: [http://www.yorku.ca/ananya/Globalsouthhome.htm](http://www.yorku.ca/ananya/Globalsouthhome.htm); see also, UNDP, 2004).

However, ‘global South’ was still considered to be raising certain problems, and the term that achieved the most agreement among the research teams was ‘Low and Middle Income Countries’ (LMICs). “Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status”(World Bank, year?). This standard term has been applied to all of the reviews.

Sport

Perhaps even more diverse than the meaning of ‘development’ is the variety of meanings that have been given to ‘sport’ in the research reviewed. The RFP prepared by the SDP IWG/Right To Play defines sport as: “all forms of physical activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games.” This is a slightly abbreviated version of the definition given in the European
Sports Charter (2001): “Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels.”

In both cases, an extremely comprehensive definition is given, one that incorporates all forms of sport, physical activity and exercise. However, it should be noted that such comprehensive definitions are unusual in the research reviewed. **In this review, the focus is almost invariably on the individual physiological benefits of exercise/physical activity, with little mention of sport or the social benefits to be derived from participation.** Exercise and physical activity also provide a controlled and measurable environment for the purposes of such biomedical research.

It is also necessary to point out the widespread **essentialized** use of the term ‘sport’ throughout the literature reviewed. Rather than seeing sport as a social construction that is given meaning by the participants and by more powerful defining agents (e.g., the media, sport organizations, etc.), sport is far too often presented as an essential positive. For example, Nelson Mandela said:

> Sport has the power to unite people in a way little else can. Sport can create hope where there was once only despair. It breaks down racial barriers. It laughs in the face of discrimination. Sport speaks to people in a language they can understand.

In a recent reference to the Olympic Truce, International Olympic Committee President Jacques Rogge said: “Sport fosters understanding between individuals, facilitates dialogue between divergent communities and breeds tolerance between nations.”

Both of these statements are absolutely correct; but, so is the opposite. Sport is full of discrimination; it can be racist, divisive, and can breed intolerance and misunderstanding. We have paid careful attention to such essentialized characterizations of sport throughout this literature review, and we have dealt with them by the use of carefully contextualized examples and explanations.

**Health**

The definition of health and what constitutes good health will be influenced not only by who is defining health, but by their location (urban vs. rural) and by which population group is being targeted. This has been subject to a great deal of debate – particularly, along the lines of the role of the state vs. the individual in determining optimal health. In this review, the widely accepted and broad definition of health by the World Health Organization (WHO) is used. WHO defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (2006).
Health objectives

The terms of the literature review request evidence about how sport can be used to achieve health objectives. The identification and selection of specific health objectives may be contentious, as different countries and populations place priority on certain health objectives that may contrast sharply with those of other countries and populations. With the aging of the ‘baby boomers’ in many high-income countries, health objectives that are specific to an aging population (such as osteoporosis) may have greater priority than communicable diseases (such as HIV/AIDS).

In our selection of health objectives and specific diseases, we chose those where there is evidence of a beneficial impact resulting from sport and physical activity participation, and where there is a high prevalence in the general population and in some specific population groups. This selection is justified by the quantity of literature in those areas, and, to some extent, the absence of literature and evidence for some other diseases.

Intensity and duration of participation for achieving health objectives

It is important to address the question of what constitutes an adequate level of intensity and duration to achieve therapeutic benefits from exercise. This is an area of debate. For example, questions about higher levels of intensity being beneficial for some health objectives can also be viewed as potentially leading to musculoskeletal injury. Depending on the disease and the population group, the level of intensity and duration of exercise may provide a protective effect. For previously sedentary individuals, becoming active may have considerable beneficial effects in comparison to individuals who are already active. Current public health guidelines suggest that a minimum of 30 minutes per day of moderate physical activity (at approximately 50–70% of maximum heart rate) is optimal. These guidelines are extremely popular in the biomedical community, but not as popular in the broader health community, where they are considered to be unrealistic for many people. Thus, there are widespread debates about quantity and intensity, with an emerging bottom line suggesting that any level of activity is better than no activity.

Obesity

There is a lack of clear definition of obesity, and an associated problem of measurement, with concerns about the lack of accuracy of the popular Body Mass Index (BMI). Concerns have been expressed about the use of contagious disease terminology (‘epidemic’) to refer to a non-contagious ‘risk factor.’ Meanwhile, concerns have been expressed about the ‘moral construction’ of the term ‘obesity,’ which is often used in morally judgmental terms rather than health-enhancing terms. In this review, the WHO definition is used, while noting the associated challenge of a lack of consensus in the definition and the environmental factors that contribute to obesity. WHO defines obesity as the abnormal and excessive accumulation of fat that may impair health (WHO, 2007).
Criteria for identifying ‘best practices’

Selection of “best practice” programs or interventions was based upon carefully selected, consistent and predetermined criteria. These include:

1. Scale – the size and sustainability of the program
2. How it addresses barriers
3. Justification – what were the criteria for establishing the program?
4. Culturally specific (needs based) – is the program sensitive to specific local needs?
5. Any evidence of mainstreaming
6. Evidence/published material – availability of appropriate evidence
7. Gender – is the program open and sensitive to gender issues?
8. Disability – is the program open to and adapted for persons with a disability?
2. Understanding health

a. Understanding health

Historically, the definition of health has been influenced by pathogenesis or the origins of disease. The most widely accepted and used definition of health is the WHO definition, as noted in the Introduction. Significant in this definition is the recognition that the physical, mental and social are all essential if an individual is to attain an optimal level of health.

Critics, however, argue that the WHO definition is too utopian and not particularly useful in the practical application of health interventions, and that the concept of health and its measurement is focused on ill health (Breslow, 1972). Antonovsky (1979) argues that “the WHO definition of health is impossibly abstract, philosophically utopian and misleading and static” [p.55]; it also suggests that this definition assumes that everything in life falls within the jurisdiction of a health care or disease care system and, ultimately, those who control that system. A noteworthy aspect of Antonovsky’s argument and proposal is that of salutogenesis, or the origins of health. Antonovsky, thus, offers a different starting point in the definition of health by considering factors that enable individuals to lead lives with a lower probability of falling ill or, as Antonovsky terms it, what factors lead people not to break down. Antonovsky (1972) argues that, by asking questions about health-ease or seeking to explain what facilitates an individual’s movement toward the salutary end of the ease/dis-ease continuum, is to search for remedies that may be far more potent in decreasing human sufferings than is any specific disease-preventing or disease-curing factor.

More recently, an emerging area of how health is conceptualized and subsequently defined is that of ‘wellness.’ This approach focuses on the individual and places greater responsibility on the individual in obtaining optimal levels of health. Thus, wellness, as the starting point in the broader context of health, is possessed by an individual and may be considered a state of being. Corbin & Pangazi (2001) define wellness as a “multidimensional state of being describing the existence of positive health in an individual as exemplified by quality of life and a sense of well-being” [p.3].

Of the three perspectives, the WHO definition was considered most applicable to this review, due to its widely accepted nature and its broad outlook stressing the importance of physical, mental and social aspects in attaining the highest possible levels of health. This is particularly significant when considering health in the context of LMICs, where individuals may have limited capacity to influence external factors that nonetheless have a significant bearing on their health.

b. The potential role of sport and physical activity in health

As the burden of disease continues to claim the lives of millions globally, countries strive to strengthen their health systems and deliver cost-effective and quality health care and services to their populations. In this milieu, measures that contribute to the prevention of disease while enhancing the health of populations are central to the public health agenda. Active living (walking, use of stairs, playing
sports, etc.) and physical activity have been advanced as measures that may contribute to population health and disease prevention. Indeed, a great deal of research literature indicates a positive association between physical activity and improved health. There is a widespread consensus on the beneficial effects of physical activity to the health of individuals, communities and nations, and physical activity is considered an ‘important element of healthy living’ (WHO, 1995). Moreover, the associated increased productivity of individuals (e.g., fewer sick days) and the potential for significant reduction in health care spending resulting from a more physically active population provide policy makers with powerful arguments. In short, active living and physical activity will increasingly become a cornerstone of national public health agendas.

This considerable consensus has not been accepted without question, even controversy. What exactly constitutes physical activity? What duration and intensity are required to optimize the health benefits? Is involvement only a matter of individual responsibility, or are there societal responsibilities with regard to the provision of facilities and taking steps to overcome barriers to participation? Finally, what environment is necessary (e.g., school, gym) to ensure effective interventions? These are just some of the issues that are being debated.

c. Conceptualizing sport, physical activity and health

Any form of physical activity, physical exertion or energy expenditure, as incorporated in the general definition of sport employed in this review, was the main search criterion for the review. The focus of the review is to consider how physical activity may contribute to moving individuals and populations closer to states of complete physical, mental and social well-being, and preventing disease and its effects in the process. The terms ‘exercise,’ ‘physical activity’ and ‘sport’ are used interchangeably, and are all regarded as having the potential to impact an individual's physical, mental and social environments. Each one of these environments entails issues of prevention, treatment and harm, implying that sport or physical activity may contribute toward prevention, treatment or harm in the particular environment. Different population groups, including those with disabilities, the elderly, youth, and the general population, will be impacted and may derive different outcomes with regard to health. The following conceptual framework helps to illustrate mechanisms by which sport and physical activity may affect the health of different population groups.
The conceptual framework, while basic in illustrating the various mechanisms, is helpful in conveying the idea that a number of factors will influence how sport and physical activity impact the health of different populations. Evidence suggests that changes in the environment may increase opportunities for physical activity, and, in turn, prevent and control chronic diseases (WHO, 2005). Consideration should also be given to the conditions under which physical activity is taking place or the potential health outcomes may not be realized – and, in some cases, may result in injury. For example, without good nutrition, the benefits of increased physical activity on the immune system may not accrue. Similarly, physical activity may lead to injury if one does not consider the physical environment where the activity is taking place – particularly, in impoverished areas where participants may not own shoes and may injure their feet as they participate in physical activity. In some instances, prolonged endurance exercise and heavy exertion may increase the risk of upper respiratory tract infections, also known as the ‘open window’ theory (Nieman, 2001).

d. The relationship between sport, physical activity and health

Bouchard (2001) describes a basic paradigm noting the path from physical activity levels to health outcomes. In this paradigm, changes in physical activity level can affect health, directly or indirectly, by inducing changes in health-related fitness, which influences health outcomes.
Rankinen & Bouchard (2002) note that different “health outcomes do not respond in the same manner to an increased level of physical activity... [The] challenge is defining the relationship with regular physical activity and various health outcomes” (Rankinen and Bouchard, 2002; p.2). They further suggest three potential paths for the relationship between physical activity and health benefits. These relationships are depicted in a graph showing the health benefits derived from physical activity measured in duration (minutes) during the course of the week. The three relationships produce concave, convex and linear relationships. They conclude that “current physical activity recommendations are based on a dose-response\(^1\) pattern described by a linear relationship, where health benefits increase linearly as a function of increasing physical activity (e.g., with mortality rates)”(p.2). The concave relationship describes a situation where health benefits are from low to moderate physical activity (e.g., as in controlling blood pressure and hypertension).

Most studies reveal a positive relationship between health outcomes and physical activity. Indeed, in many reviews of the evidence regarding the beneficial effects of physical activity, the authors make unambiguous claims about the beneficial effects of physical activity in the prevention of a number of chronic diseases:

“There is ample evidence supporting the beneficial effects of regular physical activity on all reviewed health outcomes...There is a strong suggestion of an inverse and linear relationship between regular physical activity and rates of all-cause mortality, total cardiovascular heart disease and coronary heart disease and mortality, and the incidence of type 2 diabetes mellitus” (Rankinen & Bouchard, 2002; p.7).

It is important to acknowledge, again, the potential danger of ‘essentializing’ sport and physical activity in relation to potential benefits. In the first place, all forms of sport and physical activity are not the same; there are vast differences in the biophysical requirements and effects of different activities. For example, the cardiovascular training effects of Nordic skiing, which makes strenuous aerobic demands, are significantly different than those of a game like baseball, where players only exert themselves for brief moments during the game. The benefits of sport and physical activity will only accrue to individuals and populations in certain environments and in combinations with other factors. Nieman (2001), writing with reference to immune functions, highlights the need for a well-balanced diet, minimal life stresses, avoiding chronic fatigue, adequate sleep, and avoiding rapid weight loss. Where people live in abject poverty, it may be difficult to achieve a balanced diet or to achieve minimal life stresses. This is important to note throughout this review – sport and physical activity in themselves may not directly lead to the indicated benefits, but only in combination with other factors, and under certain conditions.

\(^1\) Dose is the energy expended in physical activity or the volume of exercise derived from the duration and intensity of activities. (Rankinen & Bouchard, 2002, p.2).
SPORT, PHYSICAL ACTIVITY AND HEALTH:

A positive relationship exists between health outcomes and physical activity. Changes in the environment increase opportunities for physical activity and prevent/control chronic diseases (WHO, 2005).

Regular physical activity may reduce the days individuals are sick during the year; this has potential for reductions in health care spending as well as increased national productivity.

However, different health outcomes do not correspond in the same manner to increased levels of physical activity (Rankinen & Bouchard, 2002).

Prolonged exercises may increase risk of upper respiratory tract infections (Nieman, 2001).
3. Review of literature and evidence

The review of evidence by Rankinen & Bouchard (2002), which concludes that health outcomes do not correspond in the same manner to an increased level of physical activity, is useful in determining which health objectives should receive priority in recommendations on the use of sport and physical activity to achieve health objectives. The choice of health objectives varies from country to country and also depends on many other variables such as the composition of the population. Countries with aging populations are likely to adopt health objectives that address diseases, such as osteoporosis, and the prevention of hip fractures. Social and environmental factors also influence the prioritization of health objectives.

In this review, the key health objective was the prevention and treatment of a select number of chronic and communicable diseases. The decision to consider a number of diseases was deliberate; it was also necessitated by the fact that, historically, discourse on the use of sport and physical activity to achieve health outcomes in many LMICs has focused on HIV/AIDS prevention, and on communicable diseases. In high-income countries, the focus and discourse around sport, physical activity and health are often concerned with active living and prevention of chronic diseases, such as cardiovascular disease. Sport and physical activity are seen as conferring health benefits that may contribute to achieving national health objectives. Additionally, and more importantly, LMICs are now experiencing a ‘double burden’ with a rise in chronic diseases, in addition to the existing burden of communicable diseases, such as HIV/AIDS, tuberculosis and malaria. With an estimated 80% of cardiovascular disease deaths occurring in LMICs – combined with the fact that the number of people dying from chronic diseases is double that of people dying from all infectious diseases, maternal and perinatal conditions, and nutritional deficiencies combined (WHO, 2005) – it is important to highlight how sport and physical activity may contribute to stemming the rising tide of this ‘double burden.’ The WHO estimates that 36 million lives could be saved between 2005 and 2015 by deploying some simple, tested chronic-disease prevention strategies. The Centre for Disease Control (CDC) notes that people of all ages, who are generally inactive, may improve their health and well-being by becoming active at a moderate intensity level on a regular basis (2007). Giannini et al. (2006) suggest that active lifestyles and physical fitness may represent the most effective strategies to prevent chronic disease and improve growth and development for children.

The following diseases were chosen as a focus for this review because of their prevalence in society, and the increasing risk of contracting these diseases due to changing lifestyles (e.g., becoming more sedentary as a result of migration to urban centres, changes in technology, increased access to prepared foods, and people living longer). The selected diseases are: cardiovascular diseases, obesity-related illness, cancer, osteoporosis, HIV/AIDS, and some mental health problems.

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2 The importance of physical activity: Physical activity for everyone.
3 The total number of cases of a disease in the population at a given time, or the total number of cases in the populations, divided by the total population.
a. **Cardiovascular diseases**

Cardiovascular diseases (CVDs), including both coronary heart disease (CHD) and stroke, are the leading cause of death globally; in 2005, it was estimated that 17.5 million people died from CVDs, representing approximately 30% of total global deaths. The most important causes of CVDs are unhealthy diets, physical inactivity and tobacco use. WHO (2007) estimates that, between 2006 and 2015, China will lose $558 billion in foregone national income due to combinations of heart disease, stroke and diabetes. WHO (2007) contends that the underlying determinants include social and economic conditions and cultural change, including poverty and stress; WHO further notes that 80% of premature deaths could be avoided by a healthy diet, regular physical activity and avoiding tobacco smoke.

Research in this area (particularly, epidemiological cohort studies) points to an increased risk of CVD mortality as a result of low levels of physical activity or cardio-respiratory fitness (Surgeon General’s Report, 1996, p.87). Studies of the relationship between dose and response indicate that cardiovascular health benefits occur at moderate levels of physical activity, and they increase at higher levels of physical activity and higher levels of physical fitness (Surgeon General Report, 1996, p.87). This gradient effect means that even small increments in physical fitness are associated with reduced risk of cardiovascular-related death (Warburton et al., 2006, p.802). In sum, people who participate in regular physical activity are at significantly less risk for suffering a major coronary event, such as a heart attack (Surgeon General’s Report, 1996, p.87; Warburton et al., 2006, p.802).

With children, too, there is evidence to support the positive benefits of physical activity in relation to cardiovascular health. Given that children rarely experience coronary heart disease (CHD), epidemiological research has examined the relationship between physical activity in children and CHD risk factors, such as elevated low-density lipoprotein cholesterol (LDL-C), lowered high-density lipoprotein cholesterol (HDL-C), and elevated blood pressure (Surgeon General’s Report, 1996, p.91). The results suggest that there may be a direct relationship between physical activity and HDL-C level in children, and that children at a high risk for CHD may benefit from physical activity. Furthermore, physical activity can help to lower blood pressure in children and adolescents (Surgeon General’s Report, 1996, p.102).

In addition to reducing the onset of CVD, physical activity is also related to the reduction of harmful outcomes for persons with established cardiovascular conditions (Warburton et al., 2006, p.802). Along with dietary change, tobacco cessation and weight loss (where appropriate), risks of negative outcomes in those with established CVDs may be reduced by over 60% as a result of participating in physical activity, including sport (WHO, 2007).

There is limited evidence, however, to directly support the physical activity/CVD relationship within the specific socio-cultural context of health practices in LMICs. Recent literature, though, does suggest that rates of cardiovascular disease, linked to low rates of physical activity, among other factors, are rising among urban dwellers in India and are likely to rise in sub-Saharan African nations (Walker et
al., 2003). It also is unclear whether physical activity plays a protective role against stroke (Surgeon General’s Report, 1996, p.112).

b. Diabetes

Diabetes is a chronic condition that occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. Globally, some 180 million people have diabetes and, in 2005, an estimated 1.1 million people died from diabetes – with almost 80% of deaths occurring in LMICs. Of the total number of deaths, almost half occur in people below 70 years of age (WHO, 2006). The International Diabetes Federation (IDF) estimates that Type 2 diabetes affects 5.9% of the world’s adult population, and that India has the highest number of people with diabetes, with approximately 40.9 million cases. Seven LMICs are in the top ten countries with the highest number of people with diabetes.

The IDF (2006) suggests that “a complex interplay of genetic, social and environmental factors is driving the global explosion of Type 2 diabetes.” The IDF further notes that for LMICs, economic advancement may lead to alterations to the living environment that result in changes in diet and physical activity within a generation or two. Consequently, people may develop diabetes despite relatively low gains in weight. In high-income countries, diabetes is most common in the poorest communities. Either way, “wherever poverty and lack of sanitation drive families to low-cost-per-calorie foods and packaged drinks, type 2 diabetes thrives” (IDF, 2006, p.1).

Current research indicates a strong relationship between physical activity and diabetes. Exercise, both aerobic and resistance types, are associated with a decreased risk of Type 2 diabetes (Warburton et al., 2006, p.802) or a strong protective effect of physical activity on the likelihood of developing Type 2 diabetes (Surgeon General’s report, 2006, p.125). The benefits of exercise are particularly evident among those who are at high risk of diabetes due to being ‘overweight’ (as indicated by a high body mass index) (Warburton et al., 2006, p.802).

Exercise interventions are also beneficial and effective in the management of diabetes. For example, exercise in patients with diabetes has been shown to improve glucose homeostasis (Warburton et al., 2006, p.803). The health protective effects of exercise are also more pronounced in those with Type 1 diabetes (Giannini et al., 2006). While both aerobic and resistance training are beneficial in the control of diabetes, resistance training provides greater benefits for glycemic control than aerobic training.

Further research is needed to determine the ideal methods (e.g., resistance versus aerobic training, and the intensity of exercise) for the primary prevention of Type 2 diabetes, as well as the effects of dose for secondary prevention (Warburton et al., 2006, p.803). More research is also needed to investigate whether or not physical activity may reduce the risk of developing Type 2 diabetes in persons with impaired glucose tolerance⁴ (Surgeon General’s Report, 1996, p.129).

⁴ A pre-diabetic state in which the blood glucose is higher than normal, but not high enough to warrant the diagnosis of diabetes.
There are several potential adverse events for patients with diabetes participating in sport and physical activity, such as hypoglycemic and hyperglycemic episodes; therefore, the details of the physiological effects of exercise and its metabolic events must be known so that involvement in sport and physical activity can be healthy and enjoyable (Giannini et al., 2006; Surgeon General’s Report, 1996, p.127).

Appropriate physical exercise, combined with diet or drug therapy, can be the most effective for controlling Type 2 diabetes in persons who have mild disease and who are not taking medication (Surgeon General’s Report, 1996, p.127). WHO (2006) points to the need to “achieve and maintain a healthy body weight and being physically active” as a way to prevent Type 2 diabetes (p.1).

c. Obesity

Obesity is defined as the abnormal and excessive accumulation of fat that may impair health (WHO, 2006). In 2005, it was estimated that 400 million people in the world were obese. By 2015, this figure will rise to 700 million (WHO, 2006). WHO suggests that the fundamental cause of obesity is energy imbalance between calories consumed and energy expended. It is important to note that obesity is unlike other diseases or pathologies in that socially constructed and environmental factors play a significant role in defining obesity. This leads to a great deal of debate with regard to the definition of obesity and its measurement.

The measurement and definition of obesity has been contested and continues to be debated by commentators in both the medical and non-scientific arena. Obesity is usually measured by a weight-to-height ratio referred to as the body mass index (BMI), with obesity considered to be a BMI equal or greater than 30, overweight as 25–30, and healthy weight as 20–25. A major criticism of the use of BMI is that it is arbitrary and does not account for several factors, including differences in sex, age, ethnicity and bone density. The BMI is highly correlated to both lean mass and fat mass; it acts as a proxy for both, but cannot distinguish either. Wells (2000) conclude that, as an absolute measure of fatness in individuals, BMI has poor accuracy; rather, it is best seen as an abstract index of nutritional status rather than as a measure of body composition. Gibbs (2005, p.1) points out that “we can all agree that severe obesity greatly increases the risk of numerous diseases, but that form of obesity, in which BMI exceeds 40, affects only about one in 12 of the roughly 130 million American adults above the healthy range.”

Campos (2004) and Oliver (2005) argue that scientists and health professionals, including the Centres for Disease Control and Health Promotion (CDC) and WHO, exaggerate the risks of fat and the feasibility of weight loss, inadvertently perpetuating stigma, encouraging unbalanced diets and, perhaps, even exacerbating weight gain. Campos (2004) points out that genetic differences account for 50% to 80% of the variation in fatness within a population, because no safe and widely practical methods have been shown to induce long-term loss of more than about 5% of body weight. The resulting consequence is that it is impossible for many people to follow health guidelines about maintaining a BMI in the healthy weight range.
Despite concerns about the definition of obesity, there is strong evidence that excessive weight increases the relative risk of several chronic diseases, and this, together with other social factors, such as limited access to high nutritional content foods and a sedentary lifestyle, make addressing obesity particularly challenging. Indeed, the global trend of increasing numbers of obese people is largely due to a shift in diet (energy-dense foods, low in vitamins) and decreased physical activity. Blair & Church (2004) characterize this as a positive energy balance, due to low levels of energy expenditures and increased supply of inexpensive food or food with inadequate nutrition content – which may lead to the rightward skewing of the body mass index (BMI) distribution and an increasing prevalence of obesity. A high BMI is a risk factor for chronic diseases (CVD, diabetes and musculoskeletal).

In their review of literature on body weight and body composition, Rankinen & Bouchard (2002) found that a linear relationship between physical activity–induced energy expenditure and the amount of weight loss was more evident in short-term studies (less than 16 weeks) with controlled diets than in long-term studies (greater than 24 weeks). The evidence reviewed on physical activity and abdominal fat loss (independent of weight loss) was too limited to evaluate and establish a dose-response relationship, although visceral fat loss was considered to be comparable in both diet- and exercise-based intervention studies. Rankinen & Bouchard (2002) further note that that there is merit for the hypothesis that physical activity is associated with the prevention of weight gain over time, but due to the observational nature of the data, the dose response question remains unclear. A further limitation highlighted by Rankinen & Bouchard (2002) is that the majority of data are derived from middle-aged white males. This clearly points to the need for more studies involving females and other population cohorts (p.4).

Blair & Church (2004) conclude that “there is indisputable evidence that links obesity to health problems...These associations are dose-related, temporally consistent, and biologically plausible, which support a causal hypothesis. Physical inactivity also has a dose-related, temporally consistent, and biologically plausible relationship to the same health outcomes as those for obesity. Both obesity and inactivity have similar patterns of association with clinical risk indicators such as blood pressure, fasting plasma glucose, and inflammatory markers" (p.1232). However, they caution that "the majority of studies examining obesity and health have not adequately accounted for physical activity. When physical activity has been considered, investigators have often relied on simple self-report questionnaires in which inaccuracy can increase proportionally with the respondent's weight. Failure to adequately quantify physical activity when examining the risks of obesity is similar to exploring risk factors for cancer and misclassifying tobacco use" (p.1232).

Blair & Church (2004) did find that "obese individuals with at least moderate cardiorespiratory fitness (CRF) have lower rates of cardiovascular disease (CVD) or all-cause mortality than their normal-weight but unfit peers" (p.1232). The death rate in such individuals with obesity was 50% lower than the individuals in the unfit category. This finding is significant in reinforcing the beneficial effects of an active lifestyle in individuals with relatively higher risks for chronic diseases.
d. **Cancer**

Cancer is a generic term for a group of more than 100 diseases that may affect any part of the body. One defining feature of cancer is the rapid creation of abnormal cells, which grow beyond their usual boundaries and can invade adjoining parts of the body and spread to other organs, a process referred to as metastasis. Metastases are the major cause of death from cancer (WHO, 2006).

WHO (2006) estimates that 7.6 million people died due to cancer worldwide in 2005 – and 70% of these deaths occurred in LMICs. Lung, stomach, liver, colon and breast cancer are the main types of cancer that lead to mortality. It is further estimated that 40% of all cancers may be prevented by a healthy diet, physical activity, and by not using tobacco. Lack of physical activity has a distinct role as a risk factor for cancer (WHO, 2006). WHO (2006) further estimates that the most frequent cancers among men (in order of number of global deaths) are: lung, stomach, liver, colorectal, oesophageal and prostate. Among women (in order of number of global deaths) are: breast, lung, stomach, colorectal and cervical.

The research literature shows “relative consistency” in findings, suggesting that physical activity reduces risks of cancer (Surgeon General’s Report, 1996). Routine physical activity has been associated with reductions in the incidence of specific cancers (e.g., breast and colon). In their meta-analysis of the association between physical activity and reduced risk of colorectal cancer, Samad et al. (2004) reviewed data from 19 cohort studies and concluded that “there is considerable evidence that physical activity is associated with reduced risk of colon cancer in both males and females” (p.204). Colditz et al. (1997) found that more physically active individuals were at significantly lower risk of developing colon cancer in comparison to a less active group.

Moderate physical activity is associated with a greater protective effect than lower levels of activity, with physically active men and women exhibiting a 30–40% reduction in the relative risk of developing cancer. Samad et al. (2004) suggest that the insulin–colon cancer hypothesis is of most interest among researchers with regard to investigation into the mechanism by which physical activity confers a protective effect. In this hypothesis insulin resistance is suggested to lead to colorectal cancer through the growth-promoting effect of insulin, glucose or triglycerides. Thus, it follows that obesity and physical inactivity, both of which are major determinants of insulin resistance, will increase the risk of colorectal cancer. The protective effect of physical activity may result because physical activity directly increases insulin sensitivity and reduces plasma insulin levels. Samad et al. (2004) further note that it is evident from the epidemiological studies that there is a close association between insulin resistance and the risk of colon carcinogenesis.

There is little published information regarding the effectiveness of exercise intervention for the health status of patients with cancer, making it difficult to make definitive conclusions about the secondary prevention of cancer by physical activity. Warburton et al. (p.803, 2004) reviewed a study involving women with breast cancer that revealed little association between total recreational physical activity and the

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5 In Samad et al. [2004], p.204.
risk of death from breast cancer. Some studies reviewed indicated that regular physical activity is associated with improvements in overall quality of life and health status. Other studies (Holmes et al., 2005; Haydon et al., 2005) involving breast and colon cancer patients showed that increased self-reported physical activity was associated with a decreased recurrence of cancer and risk of death, with the reduction in risk estimated to be between 26% and 40%. Warburton et al. (2004) caution that more randomized trials are needed to evaluate the effectiveness of exercise interventions.

e. Osteoporosis

Osteoporosis is a disease characterized by low bone mass, and structural deterioration of bone tissue leading to bone fragility, and an increased susceptibility to fractures. Globally, the lifetime risk of fracture in 50-year-old women is 40%—similar to the risk of coronary heart disease (WHO, 2003, p.1). In 1990, there were 1.7 million hip fractures, and it is estimated that there will be six million in 2025, worldwide.

Bone formation occurs mostly during childhood and adolescence, with peak bone mass being reached at about 30 years of age, after which cell reproduction of bone is not as efficient and bone loss begins to occur. Exercise-induced gains in children are maintained in adulthood. Men tend to have a longer growth period. Menopausal women lose bone more rapidly due to a decrease in estrogen levels, resulting in a higher risk of osteoporosis in older women. On average, men lose approximately 0.5% of bone mass per year; the rate of loss is higher in women (particularly, in the first 3–5 years following menopause), with estimates putting this figure at 3% per year.7

Physical activity, in combination with calcium and vitamin D, is important for building bone mass. Physical activity increases force on bones, and bones respond by increasing their mass so that the force is spread over a larger amount of bone. This positive effect is greatest in previously sedentary adults.

Warburton et al. (2006), in their review of evidence of the health benefits of physical activity, find that weight-bearing exercise (and, particularly, resistance exercise) has the greatest effect on bone mineral density. In one of the studies, people engaged in resistance training had increased bone mineral density relative to those not undertaking the training. This was coupled with the finding that most athletes who engage in high-impact sports tend to have increased bone mineral density relative to athletes in low-impact sports. Wolf et al. (1999)8 found that exercise programs prevent or reverse almost 1% of bone mass loss per year in the lumbar spine and femoral neck in both pre- and post-menopausal women.

Physical activity is particularly beneficial in improving balance and coordination, which reduces the risk of falling. Several studies (Tinetti et al., 1999; Wolf et al.,
found that exercise training appears to significantly reduce the risk and number of falls. Improved strength, flexibility and posture leads to reduced pain, and enables individuals to carry out daily tasks relatively more easily.

Warburton et al. (2006) conclude that regular physical activity is an effective secondary preventive strategy for the maintenance of bone health, and some of the research results indicate that exercise training was effective in improving bone density in older women (75–85 years) with low bone mineral density. A study by Kemmler et al. (2004) found that a two-year intensive-training program was effective in attenuating the rate of bone loss in early post-menopausal osteopenic women.

**f. HIV/AIDS**

Historically, sport and physical activity have been associated with prevention of the disease, but there was no corresponding focus on how physical activity may benefit HIV-positive individuals. Earlier studies focused on prevention of the spread of HIV/AIDS in sports and the creation of policies governing practices by participants in sporting activities. More recently, HIV/AIDS has become a significant focus of the ‘sport for development’ movement, with the convening nature of sport being used to convey information about HIV in a non-discriminatory, non-threatening and age-appropriate manner. While the use of sport for prevention is laudable and important, there is a need for more visible programs and greater dialogue regarding how sport and physical activity may be used for individuals who are HIV positive, particularly as the number of people infected continues to rise.

Globally, 39.5 million people are estimated to be living with HIV. In 2006, approximately 4.3 million new infections occurred, with 2.8 million (65%) of them in sub-Saharan Africa. Of these new infections, East and Central Asia experienced significant increases in infections. During the same period, 2.9 million people died of AIDS-related illnesses.

Several reviews of literature on exercise training in HIV infection, which were carried out before the era of highly active antiretroviral therapy (HAART), found exercise to be beneficial (Smit et al., 2006). For example, engaging in physical activity three or more times per week has been associated with a slower progression of AIDS (Mustafa et al., 1999). As well, an inverse relationship between viral load and physical activity level has also been shown (Bopp et al., 2004).

In addition to aerobic exercise interventions being safe and leading to improvement in cardiopulmonary fitness in adults living with HIV/AIDS (Nixon, 2002), progressive resistive exercise, or a combination of progressive resistive exercise and aerobic exercise, appears to be safe and may be beneficial for adults living with HIV/AIDS (O’Brien et al., 2004). It is notable, however, that Smit et al. (2006) found lower levels of physical activity among HIV-positive participants on HAART than both HIV-positive participants not on any treatment and HIV-negative participants.

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9 In Warburton et al. (2006), p.804.
10 In Warburton et al. (2004), p.804.
It is not known if the lower levels of vigorous activity occurred before the advent of HAART treatment or if it is the result of HAART treatment. Further research is needed to explore the epidemiological factors and the social relationships that impact physical activity patterns and practices among people living with HIV/AIDS.

At a psychological level, a correlation exists between young people’s confidence levels and their tendency to behave in more sexually responsible ways. Sport may, therefore, be used as a tool to build confidence and aspirations – in turn, impacting the spread of HIV/AIDS (The loveLIFE Franchise; 2003).

At a social level, research in South Africa, Zimbabwe and Zambia has documented the potential of sport in the fight against the HIV/AIDS pandemic. There is evidence of a mutual interest between sport and HIV/AIDS organizations to build cooperative ventures on sport and HIV/AIDS to reach young people (Norwegian Olympic Committee and Federation of Sports, 2002, http://www.kickingaidsout.net). These types of analyses align with the research agenda put forth by Delva & Temmerman (2006) who argue that the current evidence base regarding the sociocultural and political appropriateness of sport programmes for HIV/AIDS prevention is limited, particularly in sub-Saharan Africa where the HIV/AIDS pandemic is most severe. Social science research into the epidemiological context of the pandemic is urgently needed.

Research also supports the utility of sport-based programs in HIV education and risk avoidance among youth in LMIC. Ross et al’s (2006) analysis of research on the Mathare Youth Sports Association (MYSA) in Kenya supported the findings that innovative sport-based programming can serve to challenge gender norms that increase the vulnerability of young girls. As such, the benefits of MYSA for the broader community make it worthy of future support and funding.

At the same time, reliance on programming requiring sports equipment can limit the sustainability of sport-based HIV-education programs, as evidenced by an anti-AIDS club in Malawi where equipment was stolen or broken within 1-2 years (Ross et al, 2006)."

For sport to play a part in the significant reduction of the incidence of HIV in youth requires feasible, accessible and affordable sport programmes that are effective in promoting safe sexual behaviour in a favourable epidemiological context (Delva & Temmerman, 2006). Determinants of effectiveness need to be considered at three levels: the intervention, sexual behaviour and behavioural change (Delva & Temmerman, 2006).

g. Mental health and psychological well-being

WHO (2007) estimates that one in four patients visiting a health service has at least one mental, neurological or behavioural disorder, but most of these disorders are neither diagnosed nor treated. It is further estimated that 145 million people suffer from depression. Some estimates of depression, the most common psychiatric disorder, predict that 5–10% of populations in high-income countries suffer from
depression (Wesman & Klerman, 1992). Significantly, mental illnesses affect and are affected by chronic conditions (e.g., HIV, CVD, cancer), which can confound the treatment of other diseases and the mental health condition itself. Biddle et al. (2000) argue that the importance of dealing with anxiety and stress-related disorders is best highlighted when the huge cost to industries and national health programs is considered; it is estimated that almost 17% of expenditure on health services in the U.K. (£5 billion in 1992–93) was attributable to mental illness. In 1992, it is estimated that £333 million was spent on treating depression (p.3).

In their review of literature on physical exercise and psychological well-being, Scully et al. (1998) conclude that exercise may play a therapeutic role in relation to a number of psychological disorders and that exercise has a positive influence on depression, with stronger effects noted among clinical populations (p.113). Biddle et al. (2000) suggest that physical activity may be used as a medium to promote physical self-worth and other important physical self-perceptions, such as body image, and that, in some situations, this may lead to improved self-esteem (p.157). They also argue that “physical self-worth carries mental well-being properties in its own right and should be considered as a valuable end point of exercise programmes... [these] positive effects of exercise on self-perceptions can be experienced by all age groups, but the evidence is strongest for change in children and middle-aged adults and the positive effects on self-esteem are strongest in individuals with initially low self-esteem” (p.158).

Scully et al. (1998) urge caution with regard to the enthusiasm for the positive effects of exercise on psychological well-being; they highlight the importance of researchers, physicians and exercise practitioners working to develop sound guidelines. Significantly, Scully et al. (1998) also acknowledge the existence of potential dangers, such as exercise addiction and body-image disorders. However, Fox (1999) points out that that there is “little evidence to suggest that exercise addiction is identifiable in more than a very small percentage of exercisers” (p.411).

Fox’s (1999) review of the influence of physical activity on mental well-being acknowledges the growing evidence demonstrating how exercise may be effective in improving the mental well-being of the general public, largely through improved mood and physical self-perception. Fox (1999) further notes the strong evidence to support the use of aerobic and resistance exercise for enhancing mood states, and that the evidence is weaker in support of the use of exercise to improve cognitive function in older adults (as assessed by reaction time).

Biddle et al. (2000) suggest that physical activity interventions might affect immediate anxiety feelings (state anxiety), relatively stable anxiety characteristics of the individual (trait anxiety) or psycho-physiological markers of anxiety, such as blood pressure or heart rate. They concluded that exercise has a low to moderate anxiety-reducing effect, and that exercise training may reduce trait anxiety. Single exercise sessions can result in reductions in state anxiety, with the strongest anxiety reduction effects shown in randomized trials. They also found that single sessions of moderate exercise can reduce short-term physiological reactivity to, and enhance recovery from, brief psychosocial stressors.

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11 In Fox et al. (1999), p.2.
Fox (1999) suggests several possible mechanisms for the positive effects of exercise on improving mental well-being: a) biochemical – the endorphin effect; b) physiological – increased muscle reactions, cerebral blood flow and neurotransmitter efficiency; and c) psychosocial – improved perception of competence, self-efficacy and confidence about the body and its capabilities (p.414).

Biddle et al. (2000) identify intensity and duration (exercise dose response) as an area deserving further study, as it has important public health implications, but remains poorly controlled in many studies. Specifically, they argue that there is need to identify the psychological effects of more moderate forms of physical activity, especially given Murphy & Hardman’s (1998) finding of similar improvements in fitness for previously sedentary women between those undertaking a brisk walking programme involving one 30-minute walk per day and those doing a 10-minute walk three times per day (p.161).

**HEALTH, SPORT AND PHYSICAL ACTIVITY EVIDENCE:**

Cardiovascular health benefits occur at moderate levels of physical activity and increase at higher levels of physical activity and fitness (Surgeon General, 1996).

Exercise is effective in the management of diabetes, as it has been shown to improve glucose homeostasis (Warburton, 2006).

Both obesity and physical inactivity have similar patterns of association with clinical risk factors, such as blood pressure (Blair & Church, 2004).

Obese individuals with at least moderate cardio respiratory fitness have lower rates of cardiovascular disease (Blair & Church, 2004).

40% of all cancers may be prevented by a healthy diet, physical activity and not using tobacco.

Regular physical activity is an effective secondary prevention strategy for osteoporosis, as well as the maintenance of bone health.

Exercise can be effective in improving mental well-being largely through improved mood and physical self-perception (Fox, 1999)
4. Current uses, best practices to achieve health outcomes

This section provides three examples of best practices where sports and physical activity have been used to achieve health objectives, nationally and internationally.

a. Kicking AIDS Out!: International

Description

Kicking AIDS Out! (KAO) was an initiative of the Edusport Foundation (a Zambian Sports NGO) adopted by NORAD (the Norwegian Development Agency) in 2001. The Kicking AIDS Out! initiative has developed into an international network of organizations, from Canada, Kenya, Namibia, Norway, South Africa, Tanzania, United Kingdom, Zambia and Zimbabwe. The network shares information and best practices, promotes policy development and supports local projects. It provides a forum for exchange between organizations from different countries and continents – as equal partners – with different contributions (KAO).

Kicking AIDS Out! promotes the use of sport as a tool for development. Sports and physical activities are used to build awareness about HIV/AIDS through educational games and activities that encourage peers to discuss issues that affect their lives and their communities (KAO). These games, also referred to as movement games, have also drawn on indigenous and traditional games in a number of southern African countries and have been adapted to include HIV-prevention messages. Mwaanga (2001) and the Edusport Foundation (Zambia) are widely regarded as the pioneers of the movement to use games to address HIV/AIDS.

Target population

The target is youth, especially girls and women, and persons living with HIV.

Programs

Kicking AIDS Out! develops programs to train coaches, trainers and leaders, building capacity at the individual, organizational and community levels. Programs implemented by member organizations integrate sport skills and life skills through movement games, role playing, drama, and other cultural and recreational activities.

KAO has been working to develop standard courses wherein a person completing the beginner course will develop competencies to be able to demonstrate an understanding of HIV and AIDS as well as the ability to integrate those competencies in the coaching of peer educators (KAO).

Outcomes/impact

There has been widespread adoption of this approach by many local NGOs in southern Africa. This has also led to the resurgence of traditional games in some instances, which has allowed for greater support from governments to support physical education in schools and promote the use of sport for HIV prevention.
Central to this approach is building capacity among peers in the knowledge and coaching of games. The Kicking AIDS Out! Network has significantly impacted communities with regard to awareness of HIV/AIDS; however, more evaluative studies are needed to consider the effects of the peer-to-peer approach in relation to local and national HIV/AIDS prevalence rates. For example, how much of the reduction in prevalence in youth may be attributed to such a network and to participation in such sporting programs?

Further information http://www.kickingaidsout.net/

b. Obesity prevention in communities: Australia, Fiji, New Zealand and Tonga

Description and purpose

This four-country project, operating in Australia, Fiji, New Zealand and Tonga, is aimed at reducing the prevalence of obesity in young people. The project uses a community-based approach in young populations involving multi-strategy and multi-settings (e.g., school and churches). A key objective of the project is the examination of socio-cultural factors that promote obesity and how they can be influenced. It focuses on changing behaviour, enhancing appropriate skills and improving the environment to reduce the rate of obesity via increased physical activity and increased choices for healthy food. The rationale for targeting young people is that they are at a critical stage when life-long attitudes and behaviour are developed and reinforced.

Target population

High-school/secondary school students

Programs

The project implemented an ANGELO framework,\textsuperscript{12} to determine key behaviours during the inception phase, and focused on a wide range of activities during project implementation, such as increasing physical activity at lunch and after school, increasing the proportion of students eating breakfast before school, and decreasing consumption of sugary drinks and time spent watching TV.

Outcomes/impact

A number of notable outcomes include enhanced capacity of the communities to sustain obesity prevention, and the identification of evidence-based, culturally appropriate and effective ways of preventing obesity that health workers can adopt. The project uses both objective measures (height, weight, waist circumference, step

\textsuperscript{12} The basic framework is a 2x4 grid, which dissects the environment into environmental size (micro and macro) by type: physical (what is available), economic (what are the costs), political (what are the "rules"), and sociocultural (what are the attitudes and beliefs). Within this grid, the elements which influence food intake and physical activity are characterized as obesogenic or "leptogenic" (promoting leanness). See Swimburn, et al. (1999).
and subjective measures (demographics, nutrition, physical activity, environmental influences). A key contributor to the success of the project was the commitment of funding for a significant period of time to investigate and adapt the information being received. A considerable amount of time appears to have been spent on the project inception phase, ensuring that environmental and socio-cultural factors were adequately considered.


c. **Agita São Paulo: Brazil**

**Description**

Agita São Paulo is a health promotion program launched in São Paulo, Brazil, in 1996, to reach the 80% of people not involved in physical fitness and sports. Agita promotes a goal of at least 30 minutes of physical activity per day, at least five days per week. The program uses a ‘two hats’ approach, working simultaneously with government and NGOs, and spanning the fields of sport, health, education, and environmental and transportation systems. After 10 years of program activities, the number of people rated as “sedentary” and “regularly inactive” had declined.

**Target population**

Population of São Paulo Province (40 million)

**Programs**

Uses an ecological model that includes mostly intrapersonal and social environments. Good evaluation of impact and cost-effectiveness.

**Outcomes/impact**

Agita works with labour unions, inserting the health promotion message into union newspapers and activities. Physical activity counselling groups are available in companies, such as the Bank of Brazil. Coalitions have been formed among governmental, non-governmental and private institutions. These coalitions have been key to the success of the region’s physical activity programs, because they enable programs to go beyond government. The government’s role is to facilitate efforts by all organizations and institutions to reach their own members. Government policies are used to sensitize other levels of government and communities about the importance of physical activity and a healthy diet.

On a national level, people attending an annual meeting share best practices in promoting physical activity.

5. What we know

1. There is irrefutable evidence of the effectiveness of regular physical activity in the primary and secondary prevention of several chronic diseases, including CVD, diabetes, cancer, hypertension, obesity, depression and osteoporosis (Warburton et al., 2006).

2. Cardiovascular health benefits occur at moderate levels of physical activity and increase at higher levels of physical activity and fitness (Surgeon General, 1996).

3. Exercise, both aerobic and resistance types, are associated with a decreased risk of Type 2 diabetes. Exercise is effective in the management of diabetes, as it has been shown to improve glucose homeostasis (Warburton et al., 2006).

4. Physical activities (e.g., weight-bearing exercises) have a positive effect on bone health across the age spectrum and are greatest in previously sedentary individuals.

5. Both obesity and physical inactivity have similar patterns of association with clinical risk factors, such as high blood pressure (Blair & Church, 2004). Obese individuals with at least moderate cardio-respiratory fitness have lower rates of cardiovascular disease.

6. Each exercise session represents an augmentation in immune surveillance that appears to reduce risk of infection over the long term. Many components of the immune system exhibit adverse changes after prolonged heavy exertion lasting longer than 90 minutes (impaired immunity or ‘open window’ theory).

7. Exercise may be effective in improving mental well-being, largely through improved mood and physical self-perception (Fox, 1999).

8. Targeted messages (no general messages), adherence (accumulated exercise), inclusion (active vs. sport/fitness terminology), culturally specific, institutional and intellectual partnerships are significant in large-scale programs for promoting physical activity.

To summarize current research, there is a clear relationship between regular physical activity and the derivation of health benefits. The conclusive findings as articulated by the following authors illustrate the degree of certainty on the positive relations of between physical activity and health benefits.

“We confirm that there is irrefutable evidence of the effectiveness of regular physical activity in the primary and secondary prevention of several chronic
diseases (CVD, diabetes, cancer, hypertension, obesity, depression and osteoporosis) and premature death...We also reveal that current Health Canada physical activity guidelines are sufficient to elicit health benefits, especially in previously sedentary people. There appears to be a linear relationship between physical activity and health status, such that a further increase in physical activity and fitness will lead to additional improvements in health status” (Warburton, Nicol & Bredin, 2006; p.801).

Research has shown that during moderate exercises, several positive changes occur in the immune system. Although the immune system returns to pre-exercise levels quickly after the exercise session is over, each session represents a boost that appears to reduce the risk of infection over the long term. (Nieman, 2001, p.7).

6. What we don’t know and need to know

1. We lack sufficient evidence to directly support the physical activity/CVD relationship within the specific socio-cultural context of health practices in ‘developing’ nations.

2. We need more research to determine whether physical activity plays a protective role against stroke (Surgeon General’s Report, 1996, p.112).

3. With respect to obesity, we need to know what the most effective program components are for different groups of children, and where they are most effectively situated. Due to the observational nature of studies reviewed, the question of dose still remains. More obesity studies involving women and non-white ethnic groups are needed, due to the prominence of white-male studies.

4. We need to know the ideal methods for the primary prevention of Type 2 diabetes (i.e., resistance versus aerobic training, and intensity of exercise).

5. We need to know more about the role of sport for prevention of communicable diseases, especially in light of some present research on the effect of physical activity on the immune system.

6. We need to know which exercise programs for children and adolescents optimize peak bone mass. This is, in part, due to a lack of dose-response studies.

7. We need to know the psychological effects of more moderate forms physical activity.

8. We need to know about the role of sport in combating stigma & discrimination (especially HIV and AIDS-related; but also that related to disabilities).

9. We need to know about the role of sport in addiction prevention.
10. We need to know more about the contribution of sport to reproductive and sexual health

11. We need more studies on the impact of physical activity on HIV-positive individuals in LMICs – particularly in youth and people with disabilities. This is necessitated by the fact that more than half of all new HIV/AIDS infections strike people under the age of 25.

12. We need more evaluations of the impact/effectiveness of ‘sport and HIV’ programs in relation to local and national prevalence rates.

13. We need to know about the impact of sport on reducing the effects of trauma.
7. Conclusion

The systematic collection, analysis and dissemination of evidence is a vital aspect of the public health approach to promoting physical activity, and is essential to influence political processes (Cavill, et al., 2006). There is overwhelming evidence that physical activity can confer considerable health benefits and increase the likelihood of governments, societies and individuals achieving their health objectives.

Since LMICs continue to experience a ‘double burden’ of (communicable and chronic) disease, measures and activities that may prevent/reduce the risks of non-communicable diseases should also become the central to national public health policies. Sport and physical activity, having already shown significant influence on the prevention and outcomes of these diseases, are central to this endeavour, and partnerships to promote AND implement sport and physical activity involving various levels of government, the private sector, local communities and schools are essential in ameliorating the impact of this ‘double burden.’

HIV/AIDS continues to devastate communities and impede development for many countries in sub-Saharan Africa and, increasingly, in Asia. There is evidence of the potential benefits of physical activity for individuals who are HIV positive and, yet, most sport interventions in the area of HIV focus primarily on prevention. The ‘sport for development’ sector may make a significant contribution in reducing stigma and fostering social inclusion by increasing activities and programs that include HIV-positive individuals.

To date, ‘sport for development’ interventions are largely driven by NGOs in many countries. There is a unique opportunity to ‘mainstream’ these interventions in society, particularly through dissemination in national education sectors. While not all youth and children will be covered, working with Schools and Teacher Training Colleges is imperative because of the potential to influence health behaviours in youth that, once formed, carry on into later years of life. The literature revealed that sedentary lifestyles are modifiable risk factors for many chronic diseases. Therefore, it follows that opportunities to influence lifestyle behaviours should be addressed at critical times – when they are being formed, such as in early childhood and youth. Warburton et al. (2006) suggest that health promotion programs should target people of all ages, since the risk of chronic disease starts in childhood and increases with age (p.807). This approach, however, calls for the co-operation and partnership of both the education and health sectors of governments, and those teaching or working with children should be included in of developing these strategies.
8. Annotated bibliography

1. **Title:** Determinants of the Effectiveness of HIV Prevention Through Sport  
   **Author(s):** Delva & Temmerman  
   **Year:** 2006  
   **Publication:** Sport and Development  
   **Countries:** South Africa

   **Summary:** Sport facilitates the development of life skills that are needed to translate knowledge, attitudes and behavioural intentions into actual behaviour. In addition, stigma and discrimination of people infected or affected by HIV/AIDS can be tackled by the non-discriminatory impartial nature of sport and play.

   Whether significant numbers of HIV infections will be averted through sport programmes depends on the socio-cultural and political context of the intervention, the socio-economic context of the targeted sexual behaviour, and the epidemiological context in which individuals acquire and transmit HIV infection – the stages and determinants of the intervention-impact cascade.

   The current evidence base regarding the socio-cultural and political appropriateness of sport programmes for HIV/AIDS prevention is sparse, and social science research is urgently needed. The authors do point out that lacking evidence should not prevent us from pursuing a favourable, supportive environment for unlocking the potential of sport for HIV/AIDS prevention.

   Sexual behaviour is never just a matter of making personal choices. Planning of HIV prevention programmes through sport should include a comprehensive situational analysis of barriers that could hamper sustainable behavioural change; these must take into account all epidemiological factors. The authors further point out that HIV/AIDS prevalence is higher among South African girls for social and biological reasons. Addressing the sexual behaviour of the adult population is equally important if HIV preventions for youth are to be effective.

   A key message the authors make is that significant reduction of the HIV incidence in youth through sport requires feasible, accessible and affordable sport programmes that are effective in promoting safe sexual behaviour in a favourable epidemiological context. Determinants of effectiveness need to be considered at three levels: the intervention, sexual behaviour, and behavioural change. Evidence on the efficacy of other approaches to HIV prevention, including sport, is at best incomplete, but often contradictory or absent.

2. **Title:** Physical Activity in a Cohort of HIV-Positive and HIV-Negative Injection Drug Users  
   **Author(s):** E. Smit, C. Crespo, R. Semba, D. Jaworowicz, D. Vlahov, E. Ricketts, F. Ramirez-Marrero & A. Tang  
   **Year:** 2006  
   **Publication:** Journal of AIDS Care  
   **Countries:** United States
Summary: The authors confirm the widely accepted view that physical activity can provide benefits to health and disease, including cardiovascular disease, diabetes and psychological well-being. Significantly, however, the authors reveal that several reviews of literature on exercise training in HIV infection before the era of highly active antiretroviral therapy (HAART) have found exercise to be beneficial. Specifically, engaging in physical activity three or more times per week has been associated with a slower progression of AIDS, and an inverse relationship between viral load and physical activity level has been shown. In Smit et al.'s study, physical activity was lower among HIV-positive participants on HAART than HIV-positive participants not on any treatment and HIV-negative participants. It is unknown, however, if the lower vigorous activity came before the HAART treatment or if it is the result of the HAART treatment.

This review is particularly useful because it highlights the beneficial effects of physical activity in individuals that are HIV-positive. Historically, the focus of sport and physical activity in many LMICs has focused on prevention and has not adequately addressed physical activity in HIV-positive individuals, despite the rise of the number of people infected over the past decade.

3. Title: Health Benefits of Physical Activity: The Evidence (Review)
Author(s): D. Warburton, C. Nicol & S. Bredin
Year: 2006
Publication: CMAJ
Countries: Canada

Summary: The purpose of the review was to evaluate current literature and provide insight into the role of physical inactivity in the development of chronic disease and premature death. The authors acknowledge the limitation of reviewing the same evidence by most systemic reviews and meta-analyses. The authors attempt to address this limitation by searching the literature using select 'key words,' including disease-specific terms, such as osteoporosis, cancer and cardiovascular.

A particularly useful approach is the review of evidence relating physical activity to both the primary and secondary prevention of premature death from a selected number of chronic diseases. The authors review the evidence relating physical activity to cardiovascular disease, diabetes, cancer, osteoporosis and musculoskeletal fitness. Significantly, the authors address (briefly) independent effects of frequency and intensity of physical activity on health outcomes, an area that needs to receive further inquiry if physical activity is to become a mainstay in the public health agenda. This is because there is overwhelming consensus on the health benefits associated with physical activity, but questions still remain with regard to how much physical activity and what level of intensity to optimize the health benefits.

The authors conclude that there is incontrovertible evidence that regular physical activity contributes to the primary and secondary prevention of several chronic diseases and is associated with a reduced risk of premature death.
4. **Title:** Physical Exercise and Psychological Well-being: A Critical Review  
**Author(s):** D. Scully, J. Kremer, M. Meade, R. Graham & K. Dugeon  
**Year:** 1998  
**Publication:** British Journal of Sports Medicine  
**Countries:** United Kingdom

**Summary:** The authors review evidence relating physical activity and psychological health with a focus on anxiety, stress responsivity, mood state, self-esteem, premenstrual syndrome (PMS) and body image. The authors also devote attention on potential negative effects of physical activity by highlighting research evidence in the area of exercise addition and withdrawal. It is notable that the authors also choose to focus on PMS and body image; this is an area that receives less attention, but could have a significant impact in society if the associated benefits and risks in these particular areas were well understood. The review leads the authors to conclude that, in some cases, exercise may be able to play a therapeutic role in relations to a number of psychological disorders.

Their review, while highlighting the positive effects of physical activity, offers a critical perspective that is essential in balancing and keeping in perspective benefits of physical activity. The authors conclude that it is safe to accept the belief that exercise regimens will have a positive influence on depression, with most powerful effects noted among clinical populations. The positive effects are also confirmed in the relationship between physical activity and anxiety, with short-burst exercises, in particular, appearing to be sufficient to confer the beneficial effects. Exercise is found to have a preventive effect on stress responsivity, though it is pointed out that stress response is itself only partially understood. The evidence further reveals that various forms of exercise are associated with the elevation of mood state. The authors do not question the existence of a relationship with self-esteem, but the nature of the relationship warrants further investigation as the literature provides little guidance. Limited studies have focused on the relationship with PMS, with available data indicating potential benefits of exercise for those experiencing PMS. Investigations with regard to the dose are further warranted in the relationship, with less intensive exercises appearing to be more effective.

The authors point to the potential of disregarding the gendered nature of physical activity, and the risk of body dissatisfaction and the perpetuation of eating disorders. This may lead to psychopathological consequences. With regard to exercise addiction, more systemic investigation is warranted, given the complexity; numerous questions must still be clarified.

5. **Title:** Does Exercise Alter Immune Function and Respiratory Infections?  
**Author(s):** D. Nieman  
**Year:** 2001  
**Publication:** Presidents Council on Physical Fitness and Sports  
**Countries:** United States

**Summary:** The author provides a useful description of the relationship between the physical activity and the immune system, as people generally associate regular physical activity and exercise with being healthy. This study is, thus, helpful in
understanding this widely held view and the mechanisms by which physical activity impacts the immune system.

The author reviews the associations between exercise and the immune function, whether to rest or exercise when sick, how vigorous activity affects the immune function, and how the immune functions change after exercise. Interestingly, the author draws parallels between athletes and non-athletes, in relation to resting function in athletes and non-athletes, and finds that there is no evidence that athletic endeavour is linked to clinically important changes in immunity – despite compelling epidemiological data.

The author makes a significant point by highlighting the role of nutrition in the development of the immune system. This suggests that physical activity in itself is not sufficient for a strong immune system. Physical activity, in some cases, may lead to altered immunity after prolonged and intensive exercise. This is also referred to as the ‘open window’ theory and, during this period, virus and bacteria may get a foothold. More investigations are warranted in this area before this theory can be wholly accepted.

The author concludes by noting that the most important finding that has emerged from exercise immunology studies is that positive immune changes take place during each bout of moderate physical activity. Over time, this translates to fewer days of sickness from the common cold and other upper respiratory tract infections.

6. Title: Dose-Response Issues Concerning the Relations Between Regular Physical Activity and Health.
Author(s): T. Rankinen & C. Bouchard
Year: 2002
Publication: Presidents Council on Fitness and Sports
Countries: United States

Summary: There is considerable evidence that supports the beneficial effects of physical activity in relation to various chronic diseases. The evidence, however, is thin in relation to the issues of dose or the volume of physical activity necessary to produce the given health outcome. This study is a review of evidence on the dose-response relationship between physical activity and several health-related outcomes, by 24 experts from six countries, at a symposium sponsored by the Centres for Disease Control, and Health Canada.

The study provides a useful paradigm that defines the paths from physical activity levels and health outcomes. The authors point out that different health outcomes will require varying levels of dose, ranging from moderate to heavy, in order to elicit health benefits.

The study reviews evidence for a dose-response with all-cause mortality, cardiovascular disease, diabetes, cancer, blood pressure, body weight, bone density, blood lipids, homeostatic factors, low back pain, and depression and anxiety. The authors conclude that there is ample evidence supporting the beneficial effects of regular physical activity on all health outcomes.
The authors find a strong association of an inverse and linear relationship between regular physical activity and rates of all-cause mortality, CVD and CHD incidence and mortality, and Type 2 diabetes. The dose-response relationship for other health outcomes is found to be less clear, owing to insufficient studies in the area, difficulty in quantifying dose, small effects of health outcomes, uncontrolled confounding factors, and simultaneous changes in body composition. The study also points to the potential risk and harm of physical activity, such as musculoskeletal injury.
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Gender, sport and development

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1. Introduction

Emphasis on human rights approach

This review of literature draws attention to the work of the SDP IWG/Right To Play in achieving the Millennium Development Goals. However, even more fundamentally, the review demonstrates the ways in which sport is implicated in the achievement of basic human rights.

The right to gender equity is established in the Universal Declaration of Human Rights (1948); gender equity is also the subject of a specific UN Convention, namely: the 1979 Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW).

Sport, physical activity and play are identified specifically in the CEDAW (and implicitly in the Universal Declaration), providing support for the increasingly well-recognized right to participate in sport and physical activity. The ‘fundamental right’ to participate in physical education and sport is proclaimed in the 1978 UNESCO Charter of Physical Education and Sport. Despite recent attacks on the nature and implementation of human rights, we are convinced that a human rights-based approach to this review of literature captures the intent of the contractor, the researchers, and the vast majority of the literature reviewed.

‘Rational recreation’

In historical terms, the idea that participation in sport has some utility (other than being enjoyed for its own sake) can be traced to the mid-nineteenth-century United Kingdom. Middle-class reformers in the areas of education and urban welfare began to develop the idea that sport participation, appropriately directed, could be involved in the development of character, work discipline, teamwork, fair play, and other socially approved characteristics.

Thus, sport began to be justified in education (physical education, organized games), in youth detention centres, and by urban agencies, such as the YMCA, in an attempt to affect the character and behaviour of participants. These ideas quickly spread to other high-income countries; they even became part of the system of colonization, where the British games tradition was often transferred to colonized populations.

Organized sport is still justified in these same terms, as evident in the mission statement of any youth sport organization – what the organization claims will be taught to the participants involves a great deal more than sport. Similarly, there has been a recent proliferation of development through sport agencies, all of which claim that the intended and unintended consequences of involving young people in low- and middle-income countries in sport will involve a great deal more than improvements in sport skills.

These claims need to be treated extremely cautiously, because direct evidence of the impact of sport on character and behaviour is often missing or quite equivocal. This review applies the strictest standards in assessing the claims made.
Multidisciplinary sources of research

Reviewing multiple sources of data from different academic disciplines affords particular advantages in terms of triangulation, and building evidence to determine the accuracy of claims. However, there are also disadvantages in terms of the comparability of data. Different academic disciplines, and even different branches of some academic disciplines, make different assumptions about measurement, about the meaning of data, about how research ought to be carried out, and in terms of their definitions of key concepts.

Overall, for the purposes of this review, we consider that the advantages of reviewing multiple sources of data from different academic disciplines far outweigh the disadvantages. Perhaps the greatest area of concern lies in the terminology used, and the different meanings given to specific concepts in the different disciplines.

Disputed terminology

As noted above, because of the multidisciplinary nature of the research reviewed, it was necessary to develop a common understanding of some specific terms for the purposes of this review. These include:

Development

The level of development of a nation was initially considered only in economic terms, and concerned the extent to which its economy depended on the agricultural, industrial and/or service sectors (the latter being considered the most ‘developed’). The level of development was measured in terms of the gross domestic product (GDP) or gross national product (GNP). The idea that economic growth determined the well-being of a country was widely challenged, culminating in the UN Declaration on the Right of Development (1986), which recognized that:

...development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and the fair distribution of benefits therefrom.

The United Nations Development Program (UNDP) followed the Declaration with a far more comprehensive measure of ‘development.’ The Human Development Index (HDI) was intended to measure improvements in the quality of life of humans, based on an index with three criteria:

1. A long and healthy life, as measured by life expectancy at birth;

2. Knowledge, as measured by the adult literacy rate (2/3 weight), and the combined gross enrolment ratio in primary, secondary and tertiary education (1/3 weight);
3. A decent standard of living, as measured by the GDP per capita in purchasing power parity (PPP) terms (measured in US$) (Human Development Report, 2006, p.394).

As with GDP and GNP measures, the latter measure suffers from ‘averaging’ – two countries may achieve a similar per capita GDP; however, in one country it may be a result of relatively equal household income distribution, while in the other there may be marked extremes of household income distribution. This raises issues of relative deprivation or relative poverty. The ‘Gini coefficient’ has been used more recently to measure the degree of inequality in household income, with lower value coefficients indicating more equal household income distribution.

It is important to note that, under these definitions, no country ever achieves a final state of being ‘developed.’ As the UN Declaration notes, development is a process of “constant improvement.” However, key questions remain: “who determines the form of development in a country?” and “what are the appropriate roles for foreigners in the development of another country?”

Appropriate terminology for countries in receipt of development aid

The RFP prepared by the SDP IWG/Right To Play refers to “transitional and developing countries.” However, the way to refer to such countries is extremely contentious in the academic and policy communities, and has been the subject of a great deal of debate for the research teams. Among the terms in common use that were considered are: developed/developing nations; global North/global South; majority world/minority world; and countries with developing economies. For a time, “global South” achieved a great deal of support, and it is becoming more widely used in the academic and policy communities:

“Global South” is not just another name for the "South" or "the developing world." The term denotes a community of people at different geographical locations who experience a common set of problems – problems which emanate, by and large, from deep inequities of power within and between nations (Reed: [http://www.yorku.ca/ananya/Globalsouthhome.htm](http://www.yorku.ca/ananya/Globalsouthhome.htm); see also, UNDP, 2004).

However, ‘global South’ was still considered to be raising certain problems, and the term that achieved the most agreement among the research teams was “Low and Middle Income Countries” (LMICs); this standard term has been applied to all of the reviews. “Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status.”

Sport

Perhaps even more diverse than the meaning of ‘development’ is the variety of meanings that have been given to ‘sport’ in the research reviewed. The RFP prepared by the SDP IWG/Right To Play defines sport as: “all forms of physical
activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games.” This is a slightly abbreviated version of the definition given in the European Sports Charter (2001): “Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels.”

Both are extremely comprehensive definitions, incorporating all forms of sport, physical activity and exercise. However, it should be noted that such comprehensive definitions are unusual in the research reviewed. There is invariably a focus on organized sport and physical activity in the research (because of their accessibility to researchers and their measurability in terms of participation, energy output, etc.). This, of course, neglects the considerable amount of informal, child-/youth-organized play, games and sports in which so many participate.

It is also necessary to point out the ways in which sport has been essentialized in the research reviewed. Rather than viewing sport as a social construction that is given meaning by the participants and by more powerful defining agents (e.g., the media, sport organizations, etc.), it is far too often presented as an essential positive. For example, Nelson Mandela said:

> Sport has the power to unite people in a way little else can. Sport can create hope where there was once only despair. It breaks down racial barriers. It laughs in the face of discrimination. Sport speaks to people in a language they can understand.

In a recent reference to the Olympic Truce, International Olympic Committee President Jacques Rogge said: “Sport fosters understanding between individuals, facilitates dialogue between divergent communities, and breeds tolerance between nations.”

Both of these statements are absolutely correct; but, so is the opposite. Sport is full of discrimination; it can be racist, divisive, and can breed intolerance and misunderstanding. We have paid careful attention to such essentialized characterizations of sport throughout this literature review, and we have dealt with them by the use of carefully contextualized examples and explanations.

Gender

*Gender* is defined as:

...the assignment of masculine and feminine characteristics to bodies in cultural contexts. It is a socially constructed category that involves roles, expectations, and responsibilities that are not biologically determined. Gender is constructed through power relations between the sexes as well as in relation to class, race, sexuality, nationality, religion, and a host of social divisions specific to particular cultures and regions (Grewal & Caplan, 2006, p.xix).
In this way, gender varies socially and historically, and is deeply embedded within power relations. Notions of gender differ between regions, and the meaning of gender is translated through cultural ideologies of femininity and masculinity. Furthermore, gender is a relational construct; attributes of femininity are defined in relation and opposition to characteristics of masculinity, and vice versa (Birrell, 1990; hooks, 1984).

This review also treats gender in intersectional terms. People are never defined only by their masculinity or femininity – and the review also attempts to take into account other characteristics that help to determine the meaning of gender (e.g., age, social class, race/ethnicity, and religion).

**Self-esteem**

The vague and disputed nature of the term/cluster of related terms (self-concept, self-efficacy, etc.) has been noted. Concerns have been expressed about whether it is situation specific; whether it has any resilience; and about the individualized nature of this term. Meta-analyses by Nicholas Emler at the London School of Economics and Roy Baumeister at Case Western Reserve University have called the concept into question, and have pointed out the dangerous aspects of high self-esteem.

**Criteria for identifying ‘best practices’**

Selection of “best practice” programs or interventions was based upon carefully selected, consistent, and predetermined criteria. These include:

1. Scale – the size and sustainability of the program
2. How the program addresses barriers
3. Justification – what were the criteria for establishing the program?
4. Culturally specific (needs based) – is the program sensitive to specific local needs?
5. Any evidence of mainstreaming
6. Evidence/published material – availability of appropriate evidence
7. Gender – is the program open and sensitive to gender issues?
8. Disability – is the program open to and adapted for persons with a disability?
2. Understanding gender

This section provides a brief examination of the history of gender, sport, and development initiatives, and a brief overview of the theoretical guidelines for this review.

a. Gender, sport and development

Given the widespread subordinate status of women in gender relations in many countries, the following focuses primarily on girls and women. In the early 1960s, the international women’s movement gained momentum and made significant achievements both legislatively and socially. The United Nations recognized the need to focus on women and development due to the fact that significant structural inequities continued to persist globally. Women in Development (WID) was formed at this time to improve the lives of women globally, although the organization was critiqued for utilizing western methods to challenge gender relations and ideologies. In the case of sport, women in the women’s international sports movements tended to come from Western countries, and failed to reflect diverse groups of marginalized women (Hargreaves, 1999, 2000; SAD, 2005).

In the early 1970s, various sport and development projects focused specifically on women. When the United Nations declared 1975 as the start of the decade for women, initiatives broadened; gender issues were integrated into areas, such as policy making, programs, projects, and research.

A transition from women in development to women and development became a form of resistance to power and to social structures dominated by males (Hargreaves, 1999; SAD, 2005; United Nations, 2005). The decade was characterized by the development of the United Nations Convention on the Elimination of All Forms of Discrimination Against Women (1979).

A major transformation occurred in the 1980s when socialist feminists realized that the struggles against poverty and the global effects of patriarchy needed to include males; in order for equity to be established, the existing gender order and social hierarchies required transformation (Hargreaves, 1999, SAD, 2005. The name of WID was changed to Gender and Development (GAD); its aim was to investigate gender sensitive strategies that included males and females. The change resulted in international research, the establishment of NGOs, and international recognition that a gender-sensitive approach is essential.

Although GAD promotes inclusivity, it was criticized for failing to account for women’s oppression as a product of colonial and neo-colonial power. The Third World Women’s movement called for recognition of women’s differential location in the social order and, in this way, the notion of a global sisterhood was challenged by drawing attention to the differences between women. In addition, gender oppression was historicized so that colonialism and imperialism were acknowledged as significant factors in the construction of gender oppression (Hargreaves, 1999; Mohanty, 1991; Saavedra, 2005).
The international community also began to recognize that sport was a viable tool for development and improved gender relations. In high-income Western countries, several studies provided evidence of the benefits of girls' and women's participation in physical activity (Brady, 2005; Hargreaves, 1997; SAD, 2005; Saavedra, 2005). These included health-related benefits and an increase in self-concept and confidence. Sport has also, under certain circumstances, provided opportunities for girls to foster new friendships and identities (Brady, 2005; Hargreaves, 1997; SAD, 2005; Saavedra, 2005). Historically, sport functioned as an exclusively male preserve, and as a domain for those with the financial resources to participate—(those women that did compete internationally were, largely, elite, upper-class women). Although participation broadened to include a wider socio-economic base, sport continued to be dominated by males. Opportunities for all women to play sport, regardless of class, race, religion, and sexual orientation is an ongoing, international struggle (Hargreaves, 1990; Messner, 1994; Messner, 2002; Theberge, 1985).

In several countries, there are gender-equity campaigns and legislation, and national organizations have been established to promote the participation of girls and women in sport in high-income countries (e.g., Women's Sport Foundation [WSF]) in the United States in 1974; the Canadian Association for the Advancement of Women in Sport and Physical Activity [CAAWS] in 1981) has (?) helped to increase women's participation. A number of international organizations were formed in the 1990s with the same purpose. They were spurred by the 1st World Conference on Women and Sport, held in Brighton, England, in 1994.

In addition to the Brighton Declaration on Women and Sport, the conference led to the formation of the International Working Group on Women and Sport (http://www.iwg-gti.org), and Women's Sport International (http://www.sportsbiz.bz/womensportinternational).

These organizations, together with lobby groups such as Atlanta Plus, have had a great deal of success in persuading international sport federations and major sports organizers, such as the International Olympic Committee, to increase the participation of women athletes and the number of women in sport-leadership positions.

The IWG on Women and Sport provides guidelines to increase participation, in their respective countries. Although significant progress has been achieved, grassroots initiatives continue to pose a significant challenge. In LMICs, women involved in sport organizations often hold positions within several volunteer and paid organizations.

As a result, time and resources are spread thin and outreach to marginalized communities is difficult to achieve (Hargreaves, 1999). Neo-colonial practices in developing countries reproduce unequal distributions of power that are replicated in sport. Utilizing sport as a tool for gender development has gained international

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13 Neo-colonialism is a term used by scholars to describe the international economic dependence of countries that were previously colonized. Despite UN resolutions against such exploitation, some governments argue that their economic projects are helping to develop the country. Neo-colonialism can also be seen as comparable to the colonialism that existed prior to WWII.
attention, and organizations are increasing their capacity to implement gender, sport, and development programs.

b. The social construction of gender

As noted in the Introduction, the concept of gender is a social construction that varies depending on the context, and that has the capacity to be reconstructed. With regard to sport, there are many context-specific gender role expectations that impact participation (Brady, 2005, Saavedra, 2005). Women’s access to sport is often restricted as a result of the demands of domestic and reproductive labour. Although sport may, under certain circumstances, provide women with a site to develop new and liberating identities and contest limiting definitions of gender, continued emphasis on gender relations should be the focus when sport-for-development programs are formed (Brady, 2005, Hargreaves, 1999; 1990, Saavedra, 2005). This critical perspective guides the following review.

c. The politics of space

McDowell & Sharp’s (1997) work illustrates how gender relations are situated within the structure and meaning of place. The spaces in which social practices occur affect the nature of those practices, who is ‘in place’, who is ‘out of place’, and even who is allowed to be there at all. But, spaces themselves are, in turn, constructed and given meaning through the social practices that define men and women as different and unequal.

Physical and social boundaries reinforce each other, and spatial relations act to socialize people into acceptance and gendered power relations – they reinforce power, privileges and oppression (McDowell & Sharp, 1997). Research has also focused on the gendered space of sport (Vertinsky, 2004; van Ingen, 2003; Brady, 2005); thus, in considering sport, gender, and development, this review critically considers the ways in which access to women’s space is often confined and constricted – actually reducing physically active pursuits.

d. A post-colonial framework

A post-colonial perspective is also employed in this review. This approach was formulated to give voice and a historical perspective to those who had been subjected to colonialism. Post-colonialism considers the struggles of the colonized, and illuminates how race, ethnicity, culture, and human identities are contested and represented (Ashcroft, 1995; Hall, 2000). Striving for equity in sport involves challenges to exclusionary practices, including the neo-colonial influences of western

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14 As Hall argues, culture is not so much about a set of things, novels, painting or television programmes as about a process, a set of practices. Culture is associated primarily with the production and exchange of meanings, how we make sense of the world. But, it is not simply about ideas in the head, it is also about how those ideas organize, and regulate social and institutional worlds. Meanings are constructed in languages, and languages work through representation. They use signs and symbols to stand for or represent ideas and feelings in ways that allow others to decode and interpret them. Meaning is constructed through language, and language is therefore crucial to culture. “It is through culture and language that the production and circulation of meaning take place” (Hall, p.11, 2000).
sport. Utilizing a post-colonial approach, scholars examine the personal biographies of women from diverse backgrounds; social, economic, and political contexts, as well as their intersections, need to be historicized and accounted for when considering research on gender, sport and development (Birrell, 1990; Brady, 2005; Hargreaves, 1990; Messner, 2002; Saavedra, 2005)

e. Equity vs. equality

Finally, it is important to consider the difference between equity and equality. The International Working Group on Women in Sport states, in the Montreal Tool Kit (2002), that: “Gender equity is the principle and practice of fair and equitable allocation of resources and opportunities for females and males. Gender equity eliminates discriminatory practices that are barriers to full participation of either gender (See Appendix A).” Equitable practice involves the use of differential treatment in order to ensure that different groups gain access to the same conditions. In contrast, equality strives for similar treatment and outcomes without consideration for the diverse needs and “starting points” of different groups. Gender, sport, and development programs must not assume that equal opportunity leads to equal outcomes. This review focuses on the extent to which sport-for-development and gender programs demonstrate equitable practices. Taken together, the above critical perspectives provide a theoretical and systematic way in which to review literature on gender, sport, and development.

**SUMMARY BOX:**

Since the 1960s, activism and research in both sport and development has strived to increase opportunities and benefits for girls and women.

Contemporary analyses of gender, in relation to both sport and development, needs to consider multiple sets of socio-historical relations. In this review, these include gender as a social construct; the intersection of gender with race and ethnicity, social class and other social structural characteristics that influence participation; , gendered spaces; the post-colonial context; and issues of equality and equity.
3. Review of literature and evidence

A systematic review of the current research evidence on sport, gender, and development revealed five main themes: (a) the role of sport in enhancing the health and well-being of girls and women; (b) fostering self-esteem and empowerment; (c) facilitating social inclusion and integration; (d) transforming gender norms; and (e) enabling opportunities for leadership and achievement. Research on sport, development, and gender from LMICs is scarce, and it represents an inherent limitation with the research base. Thus, this review presents data from high-income countries and, when available, LMICs. Extrapolations from high income to LMICs are made with caution.

a. The role of physical activity in enhancing girls’ and women’s health and well-being

Health may be defined as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization). Health is a continuum on which complete wellness and the presence of disease are end points. This review takes a holistic bio-psychosocial view of health and well-being in which access to sport (in its most general sense) is an integral component.

A large body of research indicates that physical activity and sport participation play a significant role in enhancing the overall health and well-being of girls and women in all contexts. For example, research by Walseth & Fasting (2004) suggests that, for Muslim women in Egypt, involvement in sport plays a significant role in cultivating the body for health, well-being, and fitness, and that participants express the close association between physical activity, religion, and a healthy body. Women in Tehran, Iran, also express similar sentiments regarding the benefits of physical activity in enhancing health and physical fitness (Pfister, 2006).

Sabo, Miller, Farrell, Barnes & Melnick (1999) suggest that the costs of early, unwanted teenage pregnancy may be particularly devastating. Unwanted teenage pregnancy may place a socio-economic burden on the family, and it is associated with decreased educational achievement and a negative impact on the health of mother and child. Recent U.S. data shows a strong, inverse association between athletic participation by adolescent girls and unwanted pregnancy. Specifically, adolescent girls who participated in sports and physical activity between Grades 9 and 12 (approximately ages 14–17) were 50% less likely to experience an unwanted pregnancy. Female athletes in this study engaged in less sexual intercourse, had fewer sexual partners, and were more likely to use contraception than their non-athletic counterparts (Sabo et al., 1998; Sabo, Miller, Farrell, Barnes & Melnick, 1999).

A study to assess the relationship between athletic participation by adolescent girls in the United States and incidents of forced sexual victimization also noted a negative association between these two variables, suggesting that sport participation may offer some protective effect against sexual victimization (Fasting, Brackenbridge, Miller, & Sabo, 1995).
In the context of LMICs, a study of female, national-level soccer players in the Western Province of South Africa indicated that the athletes in this sample had fewer children than non-athlete women in the same region (Fabrizio-Pelak, 2005). Qualitative data from the Mathare Youth Sport Association (MYSA) in Kenya indicates that one of the most important benefits of the program for young girls is the sexual-health education component regarding HIV and AIDS protection (Belewa, 2005).

The process by which sport participation may offer protection against unwanted pregnancy or sexual victimization is unknown. However, Sabo et al. (1999) postulate that by augmenting and buffering self-esteem, fostering a strong sense of social identity in school, and loosening gender constraints, sport may indirectly fortify the ability of adolescent girls to challenge sexual pressure from men.

Illegal drug use is a frequent social problem for a significant proportion of adolescents in high-income countries, and it threatens overall health and well-being. A representative, population-based study, derived from the 1997 Youth Risk Behaviour Survey, showed significant results in the relationship between sport participation, gender, and drug use. Female high-school athletes were significantly less likely to engage in the consumption of drugs, such as cocaine, marijuana, or other substances, such as LSD. With regard to tobacco use, athletes were less likely than other girls to have ever attempted smoking (Page, Hammermeister, Scanlan, & Gilbert, 1998).

Although there is less evidence from LMICs, engaging in sport and physical activity appears to attenuate or decrease the pathogenesis of gender-specific disorders and diseases in girls and women. Current research suggests that regular physical activity delays or prevents the onset of osteopenia and osteoporosis in women; these progressive and degenerative diseases can be defined as the excessive or accelerated loss of bone mass over time, and 80% of those affected are female. Specifically, regular weight-bearing physical activity in combination with a diet that is rich in calcium may increase bone mineral density (BMD) and reduce the risk of bone disorders and fractures, especially in older women (Kannus, 1999; Nelson, 1998).

Cancer is currently the primary cause of death among women in the United States. There is substantial evidence to suggest that regular physical activity may mitigate against the pathogenesis of cancer where it has been found that environmental factors play an important role in the disease process. Specifically, the strongest evidence supports the role of exercise in decreasing the risk of lung and breast cancer, although less is known about cervical, uterine, or ovarian cancers. Although the specific mechanism has not been determined, it has been suggested that prevention may be related to the role of exercise in controlling levels of fat; it has been found that moderately active women are 20–30% less likely to develop breast cancer, and that level of risk is inversely related to the number of hours of exercise per week (Harris, 2001; Thune et al., 1997; Bernstein, 1994).

At any given time, more than half of all women in Western countries are dieting, and 40% of all nine- to 10-year old girls of “normal weight” have engaged in weight-loss attempts (Schreiber, et al., 1996). Although participation in certain aesthetic sporting activities may increase the risk of developing an eating disorder, engaging
in “non-feminine” athletic endeavours that emphasize mass, power, and positive self-esteem appears to offer a protective effect against the development of anorexia and bulimia nervosa (Hausenblas & Downs, 2001; Mosley, 1997).

There is substantial evidence, then, to suggest that participation in sport and physical activity may enhance the overall health and well-being of girls and women. However, most of the studies were carried out in North America, and caution is warranted before extrapolating the results to LMICs.

b. The role of physical activity and sport in enhancing self-esteem and self-empowerment in girls and women

Self-esteem is a psychological construct. It refers to a measurement of feelings of positive self-worth in several domains (Richman & Shaffer, 2000). Caution regarding the meaning and use of this (and related terms) was noted in the Introduction. However, a great deal of research has been carried out using these constructs, and some of the results are reviewed here. There is some evidence to suggest that girls and women who participate in sport and physical activity, in both high-income countries and LMICs, derive benefits related to self-esteem and other associated constructs, such as self-perception, self-worth, self-efficacy, and self-empowerment, and enhanced personal freedom.

For example, a large survey study in the U.S. was carried out to assess the association between sport participation and self-esteem. The significant findings showed that girls and women who participated in sport or physical activity before going to university displayed greater levels of self-worth, physical competence, and body image. Notably, non-participation had a negative impact on self-esteem (Richman & Shaffer, 2000). Similarly, the Canadian Association for the Advancement of Women in Sport and Physical Activity (CAAWS) has compiled a major review of research documenting the relationship between self-esteem and physical activity. Self-esteem is a multi-dimensional construct. Improvements in self-esteem through sport participation may be enhanced by feelings of accomplishment and perceptions of improved physical appearance, as well as demonstrating a high degree of commitment to exercise. However, evidence is provided which supports the role of sport and physical activity participation in enhancing self-esteem in girls and women (Kenan, 1987; Eickoff, Thorland, & Ansgorge, 1983; Markula, 1993; Warrick & Tinning, 1989).

Qualitative research has also shown a positive relationship between sport participation, self-esteem and self-empowerment in high-income countries. In a study of 60 elite female ice hockey players, Young (1997) found that participation was related to higher self-esteem, confidence, and body image. Similarly, girls who participated in a sports program in Norway reported enhanced levels of confidence, success, and mastery. “A feeling of belongingness,” and a sense of “being seen and confirmed” were also elements of the girls’ narratives (Lindgren, Patriksson & Fridlund, 2002, p.230).

Two studies in LMICs also provide observational support for the role of sport in fostering self-empowerment and related constructs in girls and women. Findings from “Ishraq” and “MYSA” in Egypt and Kenya, respectively (Brady, 2005; Brady &
Banu-Khan, 2002), suggest that sport for girls plays a significant role in enhancing self-empowerment, self-esteem, and personal freedom. In addition, qualitative research on female participants in “Moving the Goal Posts, Kilifi Kenya,” indicates that participation in football has significantly increased levels of self-esteem (Belewa, 2005).

Sport and physical activity participation may also influence other behaviours related to the category of self-esteem. Sabo, Miller, Melnick, Ferrell, & Barnes (2005) found a negative relationship between suicidality and levels of sport participation in adolescent girls in the United States. Specifically, girls involved in sport were less likely to both plan and attempt suicide as compared to their non-active female counterparts, although the same relationships were not observed in boys (Sabo et al., 2005). The theoretical pathway through which sport participation may deter girls from engaging in suicidal ideations is tentative at best; but, given that suicide is the third-leading cause of death among North American adolescents, the findings are significant. The authors’ interpretation is grounded in classic sociological thought – social integration, shared goals, and the community values fostered by sport participation may lead youth to be less likely to engage in deviant acts.

Although more data have been produced in high-income countries (and there are limitations associated with the use of the term ‘self-esteem’), girls who participate in sport and physical activity are more likely to experience increased self-esteem and feelings of self-empowerment. For many girls, self-esteem decreases during adolescence, and this period of transition is often characterized by reduced physical activity and sport participation, as well as increasingly restrictive gender roles in both LMICs and high-income countries (Brady, 2005; Richman & Shaffer 2000). If there are potential benefits from maintaining and enhancing girls’ and women’s self-esteem, then sport participation seems to be a key component in achieving this.

c. Sport as a means for achieving social inclusion and social integration amongst girls and women

The most significant finding in this review concerns sport, gender, and social integration. In this regard, there is substantial research evidence from both high-income countries and LMICs showing a relationship between sport participation and the social integration and social inclusion of girls and women.

Brady (2005) and Brady & Banu-Khan (2002) have documented the social outcomes associated with sports participation in both the Ishraq and MYSA girls’ football program, in Egypt and Kenya, respectively. Brady (2005) suggests that, although access to safe space is crucial for overall health and development, such space becomes increasingly confined, restrictive, enclosed, and domestic as girls approach adolescence, especially in LMICs. In addition to the role of sport in enhancing social inclusion, integration, reconstruction, friendship, and social ties, it assists in expanding access to safe social spaces for girls in LMICs, thereby allowing them to take charge and ownership of space (Brady, 2005).

Both Fabrizio-Pelak (2005) & Hargreaves (1997) have documented the social benefits of sport participation for women in the post-apartheid era in South Africa. In a country where attention to racial oppression has served to “trump” gender
inequality, football participation is serving as a vehicle for female players from diverse backgrounds to mentor one another, as well as to demonstrate care and friendship.

Reports from the Nigerian Association for Women in Sports (NAWIS) conference also underscore the crucial role of sport and physical activity in facilitating social cohesion among girls and women, friendship, and social interaction in Nigeria (Adeyanju, Aliu, & Chado, 1993).

Although the association is weaker, and findings must be interpreted with caution, sport participation may serve as a vehicle for social inclusion and integration for minority women in Europe (Walseth & Fast ing, 2004). Research evidence from high-income countries also shows that sport participation by girls and women may foster enhanced social and community cohesion. For example, training teachers to implement a “sport for peace” program in several elementary schools resulted in enhanced social development and co-operation for disengaged girls (Ennis, 1999). Similarly, Young (1997), noting the emancipatory potential of non-traditional sports, found that players who participated in ice hockey at the elite level forged unique bonds and friendships.

Overall, there is a significant research evidence to suggest that sport and physical activity participation may act as a catalyst for social inclusion, social integration, and relationship building for girls and women. Since a significant portion of this research is from LMICs, these findings are important for this review of gender, sport, and development.

d. The role of sport and physical activity in challenging and transforming gender norms

Nearly all of the physical activity and sport programs reviewed document or suggest the transformative potential of sport to challenge gender norms. Most researchers suggest that, while gender equity in sport remains an elusive goal, the continued participation of girls and women has made great strides towards achieving gender equality in certain contexts. After all, steps are being taken towards “leveling the playing field” and decreasing the restrictive nature of conventional gender roles. However, it is important to note that, in certain studies, changing gender roles for girls and women are observed outcomes of these programs, rather than empirical findings.

A few researchers from high-income countries have considered how sport serves as a site for the continual renegotiation and construction of gendered norms and roles. For example, in a study of female hockey players in Canada, Theberge (2003) explains how participation in this sport has provided athletes with a necessary forum in which to actively contest and challenge conventional notions of gendered play. Azzarito, Solomon & Harrison (2006) also discuss the role of young girls as agents who actively negotiate gender in sport as they choose, or resist, participation in certain athletic activities.

Reporting the outcomes of a physical activity intervention for young girls, Garret (2004) suggests that an active lifestyle allows girls to resist restrictive, traditional
discourses of femininity; and, in a retrospective study, Richman & Shaffer (2000) found that young women who participated in sport before going to university displayed a higher degree of gender flexibility. A study of girls who participated in a sports program in Norway showed beneficial effects on gender relations. The girls demonstrated greater awareness of the gendered nature of sport participation, and an understanding that they often participate in sports on boys’ terms and standards (Lindgren, Patriksson & Fridlund, 2002). Furthermore, a “sport for peace” program for disengaged youth had the effect of changing the way in which boys responded to girls who participated in physical activity; boys demonstrated a greater willingness to allow girls to take ownership of the program (Ennis, 1999).

Research findings also suggest that sport and physical activity participation play a significant role in dismantling gender barriers and norms in LMICs. Results from the MYSA program are the most telling: girls’ participation in the MYSA football program appears to be related to the way male football players perceive their roles. Specifically, the boys have adopted favourable and supportive attitudes towards girls’ involvement, and they “watch out” for MYSA girls in the slums of Nairobi and the broader community. In addition, participation in the MYSA girls’ program is associated with knowledge and awareness of gendered norms; the girls are clearly aware that male players have better access to coaches, equipment, playing times, and facilities (Brady & Banu-Khan, 2002). Furthermore, despite significant barriers to access, such as lack of transport, financial constraints, and residual gender binaries, Fabrizio-Pelak (2005) and Hargreaves (1997) suggest that, although football has traditionally functioned as an all male “flagship” or preserve in South Africa, female players are actively renegotiating both material and ideological constraints; they are forging new gendered identities as female footballers in post-apartheid South Africa.

Enhanced gender flexibility and changing gender norms appear to be outcomes associated with participation in sports for girls and women in both high-income countries and LMICs; sport participation creates the possibility for less restrictive and conventional gender roles. However, it is important to note that, despite their contribution to decreased gender inequalities, sport and development programs are usually run for and by men, and few are designed for women alone.

e. **The role of sports in providing girls and women with opportunities for leadership and achievement**

As part of a large and ongoing research project to explore sport participation in the lives of adolescent girls, a survey study from the U.S. Department of Education assessed occupational aspirations, occupational status, educational progress, and school attendance by prospectively following a large cohort of students after they left high school (Sabo, Melnick, & Vanfossen, 1993). Involvement in high-school sports was associated with educational and occupational attainment.

However, the salience of race and geographic region in this U.S. study are notable, in that occupational and educational attainment associated with sport participation was evident only for Caucasian and Hispanic girls from rural and suburban areas. The failure to find the same relationships for urban and African-American adolescent girls shows the need for further investigation (Sabo et al., 1993).
In LMICs, there is evidence that some sport-for-development programs provide women with access to leadership and opportunities. For example, in addition to increased participation, competition, tournaments, and the overall involvement for girls and women of all ages, the Moving the Goal Posts Kilifi football program in Kenya (MTGK) has successfully created opportunities for self-governance; the girls’ committee members organize and participate in the program at all levels of its organizational structure.

Specifically, sports and leadership training, which focuses on the development of coaching skills and participation in league organization, is a central component of the MTGK and, in the 2005 session, female participants refereed all of the football matches (Belewa, 2005). Data from participants in the MYSA girls’ football program in Kenya illustrates the benefits of participation in providing important venues for leadership development, and personal and professional growth. The girls value the opportunity for specialized training and development in the areas of coaching, refereeing, training, organizing the league, and the peer and health education that MYSA has provided. Furthermore, almost without exception, the participants speak highly of the ways that being selected for and participating in the Norway Cup international football competition has provided avenues for public recognition, international travel, athletic opportunities, leadership, and success (Brady & Banu-Khan, 2002). Finally, access to participation in sport and physical activity has been restricted for Muslim women in Tehran, Iran, for several years. The Muslim Women’s Games, however, has provided some Iranian women with a novel opportunity to engage in sport on their own terms in a gender-segregated environment, and is serving as a catalyst to increase the overall participation of Iranian women in sport as both participants and coaches (Pfister, 2006).
SUMMARY BOX:

Regular participation in sport and physical activity enhances the physical health of girls and women, and decreases the likelihood of unhealthy practices, such as illegal drug use.

Research suggests that sport and physical activity positively affect self-esteem and self-worth among girls. Specifically, sport may offer a vehicle to empower girls, particularly during the vulnerable period of adolescence. However, the mechanism by which it occurs is unclear, and researchers have questioned whether high self-esteem is beneficial.

Evidence from high-, middle- and low-income countries suggests that sport positively influences social integration and inclusion of girls and women.

The participation of girls and women in sport and physical activity offers an opportunity for successful challenges to traditional and oppressive gender relations.

Analyses of girls’ sport programs supports the idea that such programs offer important opportunities for leadership development, personal, and professional growth.
4. Current uses, best practices, recommendations

This section provides examples of “best practice” programs with a specific focus on gender. Selection of “best practice” programs or interventions was based upon carefully selected, consistent, and predetermined criteria, as outlined in the Introduction. Where available, Web links have been provided for these initiatives.

a. U-Go-Girls-Score: South Africa, Zambia, Namibia;  
http://www.score.org.za

SCORE is a sport-for-development program implemented in South Africa, Zambia, and Namibia. Using sport as a tool for development, SCORE has published the results of evaluations, and current data from feasibility studies indicate that this program has been far-reaching; SCORE has successfully enabled the participation of more than 500,000 youth in its football program. However, it is important to note that data from SCORE is difficult to access. SCORE was established after the recognition that sport has traditionally functioned as all-an-all-male terrain, and that males have dominated football in these specific geographic regions. SCORE addresses gender barriers through specifically outlined program objectives: the program aims to foster the increased participation of women in sport, and to facilitate their sport-specific leadership. In this way, SCORE strives for equity for women in football at the level of play and leadership. The specific actions that SCORE uses in order to pay attention to local needs are not explicitly outlined, and the program does not appear to have a specific disability focus.

b. Mathare Youth Sports Association: Kenya;  
http://www.mysakenya.org

MYSA is the largest football program in the urban slums of Nairobi, Kenya, and serves approximately 15,000 girls and boys between the ages of 8 and 18 years. Furthermore, it has been in operation for over 10 years. There is a clear need for such a program given the exceedingly high rates of poverty, poor health, and unemployment in this region. By operating as a local, grassroots organization that is organized and facilitated by local community members, the MYSA program strives toward a high degree of cultural sensitivity and specificity. More importantly, MYSA aims to meet the local needs of female players specifically by scheduling games and practices before dark, by being sensitive to the domestic and familial duties that female football participants engage in, by structuring programs around the broader, temporal aspects and demands of the girls’ day, and by negotiating with parents in order to ensure that the football program does not interfere with the girls’ responsibilities (Brady & Banu-Khan, 2002). More importantly, where public harassment is often a problem for young girls and women, MYSA employs football practice as an indirect means by which to teach the players how to “walk safe” in Nairobi.

MYSA was founded on the principles of using sport as a means to inculcate civic engagement, sporting and athletic skills, development, and environmental ethics. The MYSA girls’ football program has done a great deal to increase gender equality. All children and youth require access to safe spaces that are free of abuse, trauma, and harassment, and access to stable and consistent adult figures or role models.
Furthermore, girls’ access to social space is dramatically reduced during adolescence and becomes increasingly contracted and domestic (Brady, 2005; Brady & Banu-Khan, 2002). MYSA attempts to reduce gender barriers by providing girls with opportunities to take ownership and control of their own spaces. The data collected appears to support the role of the program in successfully transforming gender norms in this region, including the ways the girls perceive themselves and the ways the community responds to them. In addition, MYSA has increased the girls’ access to peer networks by providing them with opportunities for co-operation, negotiation, and communication both on and off the field of play.

c. Moving the Goal Posts Kilifi: Kenya; http://www.mtgk.org

MTGK is another football program established for girls in a region of Kenya. MTGK has been established for six years, covers several regions (including Bahari, Ganze, and Kololeni), has expanded its volunteer base, and has established several leagues that participate in numerous tournaments and friendly football matches (Belewa, 2005). The high rates of poverty, illiteracy, lack of education, HIV-AIDS, early pregnancy and marriage, as well as other gender role constraints in Kilifi, Kenya, justified the need for MTGK.

MTGK aims to reduce gender disparities by using football teams, rather than traditional forms of groups, for the purpose of empowering girls and women to occupy leadership roles and obtain education regarding both human and reproductive rights.

Gender barriers are also challenged by the direct involvement of girls and women in sports-leadership training, coaching, and the organizing of league and tournament play. Evaluations of this program, where the participants are girls and women who range in age from youth to 65, have been favourable. In addition to increasing rates of participation and competition, evaluation results indicate that MTGK participants experience less stress, fatigue, and shyness, and possess an enhanced sense of togetherness, confidence, and belonging.

By tailoring peer-education school visits to the local needs and regional health concerns of the students, the peer-education component of the MYGK intervention demonstrates a high degree of cultural relevance. Peer educators identify and document common, local problems that are raised during their visits (e.g., rape, incest, wife-beating, and sexually transmitted infections (STIs)), and have further responded by developing resource manuals.


Safe Spaces Learn to Grow and Play is designed as a research-based intervention. It has been operating for five years, in four villages in the rural areas of Upper Egypt (Brady, 2005). Traditional gender roles, severe restrictions on girls’ regional mobility, and a tradition of early marriage in this region, provided the justification for the Ishraq program. In addition to introducing recreational physical activity for girls in a traditional setting, Ishraq specifically addresses gender barriers in other ways – a functional literacy program, skill-building activities, and a reproductive
and sexual-health awareness program, are features of the Ishraq intervention. In addition, Ishraq prides itself on its consideration for local concerns and, in this way, has demonstrated a high degree of sensitivity to cultural difference. Overall, the program is a holistic and all-encompassing response to locally identified needs for health services and access to education. Reports document the success of Ishraq; however, the program gives no consideration to disability.

**e. Recommendations**

Brady & Banu-Khan (2002) outlined a number of important recommendations for planning and implementing sport and gender programs in LMICs. These include:

- *Retaining girls in the program, and setting the terms for participation:* program facilitators must allow girls to enter, exit, and re-enter the program with ease.

- *Identifying measures that will ensure the safety of girls in the program, and protect their reputations:* these include safe walking, adult chaperoning, transport, and playing games before dark.

- *Providing girls with female role models and mentors in the community:* this includes access to guidance, assistance, and problem-solving within the community.

- *Encouraging girls' self-expression, decision-making, and leadership:* in physically active settings, girls may dramatically readjust their behaviour in the presence of boys; they may retreat, avoid situations, or display inhibited behaviours (Brady & Banu-Khan, 2002). For this reason, it is essential to provide girls with access to single-sex activities and “girl only” spaces in certain athletic situations.

- *Encourage boys to be more respectful:* as noted previously, gender is a relational construct; the meanings of feminine attributes are often defined only in relation or opposition to characteristics of masculinity. It has been proposed that when girls succeed or take on new and unconventional roles, boys' perceptions of them change favourably, and there are opportunities for boys to adopt enlightened views regarding the place of girls in sport.

Additional recommendations concern the quality of research, policy, and practices in sport, gender, and development programs:

- *Gender-based sport-for-development programs are ideal for the dissemination of health-related messages and health education* (Brady, 2005). Thus, such programs should assess the health-related needs of a particular region and incorporate messages that pertain to these issues into program design. Where local and regional concerns act as structural barriers to participation, it is crucial that such factors be taken into account in the planning and design of gender-based sport-for-development programs (Brady, 2005). Following from this, efforts must be made to understand the meaning and purpose of sport and physical activity in the lives of girls and women in particular local
contexts, so that programming reflects the diverse needs, perspectives, and motives of participants, and captures the nuances and subtleties of girls and women’s involvement in such sport programs.

- This review found no research emphasizing the benefits of traditional games and sports for girls and women. However, given the widespread existence of gendered forms of physical activity, such as dance, the incorporation of such local, cultural activities requires further exploration. In addition, Brady (2005), as well as Brady & Banu-Khan (2002), have reiterated the importance of ensuring that programming is sensitive and accommodating to girls’ daily needs, and the activities in which they engage.

- At all stages, women from LMICs should have direct involvement in program design, implementation, and the organizational structure, in order to ensure their active leadership and role in decision-making processes. As well, the involvement of women from LMICs is crucial to the reconstruction of a global women’s sport movement (Hargreaves, 1999).

- The most salient recommendation concerns the need for a concerted effort to increase sustainable sport programs for girls and women in developing countries, as well as the ensuring of an innovative and culturally sensitive approach to research interventions. The results of such research are crucial for program improvement, and for identifying unwarranted and erroneous practices. For this reason, such research must be produced and disseminated widely in both readily accessible and scholarly venues, and directed to relevant agencies and sport governing bodies in order to ensure the development of evidence-based policy. Evaluation research is also required, including studies to track the health-related outcomes of such programs over time; to explore the role of sport in the lives of girls and women in LMICs; to involve marginalized groups, such as girls and women with disabilities, and older women; and to reveal perceived barriers and facilitators to participation.

**SUMMARY BOX:**

Recommendations from sport and gender programs suggest the importance of facilitating girls’ participation through program design, and encouraging girls’ leadership, development, and safety once they are involved.

More research is needed to identify how and why sport is an effective tool for facilitating girls’ and women’s health, and to determine which women are still excluded and why.
5. What we know

Based on current research evidence that documents the relationship between sport and physical activity programs or interventions for girls and women, participation is generally associated with positive results.

Specifically, benefits for girls and women in both high-income countries and LMICs relate to health, self-esteem and empowerment, social inclusion, dismantling gender norms, and providing leadership opportunities. However, the results are situation-specific, and far more research has been carried out in high-income countries. There is still a need to consider the unique and highly variable lives of girls and women in different regional contexts and, as a consequence, the results must be interpreted with caution.

6. What we don’t know and need to know

Perhaps the most striking need is for more research on gender-based sport-for-development programs. There is a notable absence of published studies, literature, and data on such programs in LMICs. Where programs do exist, independent evaluations have either not been produced or are not readily available (Brady, 2005).

Assumptions about the potential of sport to act as a tool for development, irrespective of geographical location, are also a concern. Indeed, Brady (2005) proposes that many of the common theoretical assumptions regarding the use of sport, such as its role in enhancing social integration, have not been tested empirically or consistently in LMICs; for this reason, the efficacy of these theories is unclear (Brady, 2005). Furthermore, Brady (2005) also cautions us to avoid assumptions regarding the meaning and purpose of sport and physical activity in the lives of girls and women in countries such as Egypt or Kenya. Many girls and women are active as a result of heavy, domestic labour and, lacking transport, they may spend several hours walking long distances each day. Unlike Western countries, where increased physical fitness and reduced obesity is the primary rationale for engaging in physical activity (Brady, 2005), the use of sport for these purposes in LMICs may have less relevance.

Similarly, even where there is strong correlational evidence of relationships between sport participation and beneficial outcomes, there is little evidence of causality. And while there are often strong theoretical reasons to suspect a causal relationship, the actual processes by which sport participation may result in beneficial outcomes are often not understood.

Another challenge currently affecting sport-for-development and gender programs is the need for such programs to take account of local and regional health-related concerns and cultural factors. For example, it is crucial to be aware of extreme poverty and unemployment; restrictive gender roles; domestic, family, and childcare duties; poor health; lack of access to water; and that an overall survival orientation may supersede leisure activities. In this regard, structural barriers may decrease the time that girls and women have available for sport, and the value they attribute to such activities.
This review has exposed the challenge of addressing the difference between research and programming in both high-income countries and LMICs. For example, while the social construction of gender and its contested meaning is a consistent theme in the sport and gender literature (Young, 1997), women in countries such as Iran are still struggling for increased access to sport and physical activity, as well as adequate equipment, time, and safe transport to athletic events (Pfister, 2006). Clearly, the scale of the issues in sport, gender, and development programs is vast, and the extent of gender disparities varies greatly depending on the context.

Other current challenges encountered by sport, gender, and development programs concern a lack of funding and issues of program implementation, as well as ensuring the sustainability of such interventions.

**SUMMARY BOX:**

Sport and physical activity is valuable in promoting and facilitating health, self-esteem and empowerment, social inclusion, the dismantling gender norms, and in providing leadership opportunities for girls and women.

Although correlational evidence is often strong, there is little evidence of causality in terms of beneficial outcomes of sport participation; the process by which sport participation may result in beneficial outcomes is often not understood.

Sport-for-development research and programs often overlook girls and women with disabilities, and older women.

These programs are culturally and geographically specific. Assumptions of general application should be made with caution.
7. Conclusion

Findings from this review of the literature on gender, sport, and development provide compelling, empirical support for the positive physical, psychological, and social benefits of sport and physical activity in the lives of girls and women. Although most of the research concerns programs and interventions in high-income countries, quantitative and qualitative research has documented the role of sports in enhancing health; promoting the development of self-esteem; facilitating social integration; transforming gender norms; as well as enabling leadership and achievement opportunities for girls and women. There is still a tendency in the research literature and program reports to ‘essentialize’ sport, assuming that any sport-based intervention will automatically be beneficial. However, critical research is beginning to correct that tendency.

The literature on gender, sport, and development also emphasizes the importance of considering contextual factors. In this way, the sport experiences of girls and women in LMICs are inseparable from other socio-cultural factors, such as social class, religious affiliation, regional concerns, and geographical location (Pfister, 2006). Most importantly, the research consistently points out that the significant increase in the number of girls and women in sport has done much to dismantle conventional notions of gender and to promote gender equality. However, there is still a need for research and evidence-based policy development in the area of achieving gender equity.

Development is concerned with increasing health and longevity; improving knowledge and education; ensuring an adequate standard of living (Human Development Report, 2006); and, most importantly, providing avenues for human rights, justice, and citizenship for those who have been excluded and disenfranchised from public life (Small, 2002). Girls and women continue to lack access to the same quality of life as men, especially in LMICs (Brady & Banu-Khan, 2005). The use of sport and physical activity as a tool for development, and as a means of empowering women to take strides towards achieving justice (Small, 2002), should be considered as a viable option that is well supported by research evidence.
8. Annotated bibliography

1. Title: Creating Safe Spaces and Building Social Assets for Young Women in the Developing World  
   Author(s): M. Brady  
   Year: 2005  
   Publication: Women's Studies Quarterly  
   Countries: Egypt  

   Summary: The benefits of sport participation for girls in the developing world far outweigh the costs in helping to dismantle and transform gender norms, as well as creating a safe place for girls in the public sphere. A successful program in Egypt is described along with issues relating to implementing a gender, sport and development project in the global South. Notions of gender and the history of gender, sport and development are examined.

2. Title: Letting Girls Play: The Mathare Youth Sport Association Football Program for Girls  
   Author(s): M. Brady & A.B. Khan  
   Year: 2002  
   Publication: Population Council  
   Countries: Kenya  

   Summary: This sport-development project has been established for almost 20 years. The document provides rich evidence of the benefits of sport participation in LMICs. The inclusion of gender sensitivity in sport programming, such as planning football games before dusk in order to ensure the safety of participants, as well as ensuring the involvement of girls and women in the development and leadership of the program, has occurred since its inception. This document discusses the importance of ongoing and sustainable sport programs for girls in LMICs, especially in regions where poverty, unemployment and ill health greatly threaten girls’ health and well-being. Recommendations on how to implement successful gender and sport development programs are outlined.

3. Title: Playing with Race: Right To Play and the Production of Whiteness in ‘Development Through Sport’  
   Author(s): S.C. Darnell  
   Year: 2007  
   Publication: Sport in Society  
   Countries: Canada  

   Summary: A critical analysis is applied to sport-development projects in relation to race. The study examines quotations from the Right To Play Web site and undertakes a discourse analysis of the text to explore notions of Whiteness and privilege in a post-colonial context. The results suggest that encounters and experiences in development through sport serve in the (re)construction of particular knowledge: Whiteness, as a subject position of benevolence, rationality and expertise, confirmed in opposition to marginalized, unsophisticated and appreciative bodies of colour, is theorized and discussed.
4. **Title:** Negotiating Gender/Race/Class Constraints in the New South Africa: A Case of Women’s Soccer  
**Author(s):** C. Fabrizio-Pelak  
**Year:** 2005  
**Publication:** International Review for the Sociology of Sport  
**Countries:** South Africa  

**Summary:** This article examines the inequities of men’s and women’s sport funding in South Africa. Gender inequalities in the sporting structures of the country and the strong association between sport and masculinity are discussed. The author interviewed South African women of colour who expressed their hardships and frustrations encountered when attempting to participate in sport; lack of access to participation in sport continues to be an issue for women in LMICs.

5. **Title:** Gender Equity, Sport and Development  
**Author:** Marianne Meier  
**Year:** 2005  
**Publication:** Swiss Academy for Development  
**Country:** Switzerland  

**Summary:** This article provides an excellent account of current sport, gender and development issues, and it also recommends areas for further research. Issues surrounding gender, sport and development, such as the social construction of gender; the history of gender, sport and development; transformation of gender norms; the struggles that women in ‘developing’ countries experience; and successes, challenges and future recommendations are outlined in this paper. A useful interrogation of the differences within ‘developing’ countries give a detailed account of what is useful, appropriate and effective for building gender, sport and development projects.

6. **Title:** The ‘Women’s International Sports Movement’: Local-Global Strategies and Empowerment  
**Author(s):** J. Hargreaves  
**Year:** 1999  
**Publications:** Women’s Studies International Forum?  
**Countries:** N/A  

**Summary:** The ‘Women’s International Sports Movement is characterized as a global cultural flow and links women from different countries across the world in a common cause. Empirical evidence shows that women from high income countries are in dominant positions throughout the movement, and that they have been joined by ‘neo-colonial elites’ from the developing world, facilitating complex hegemonic relations based on Western consciousness and acculturation.
7. **Title:** Women, Sport and Development  
   **Author(s):** M. Saavedra  
   **Year:** 2005  
   **Publication:** [http://www.sportanddev.org](http://www.sportanddev.org)  
   **Countries:** N/A  

   **Summary:** This document is an excellent account of current issues in the field of women, sport and development; it also provides recommendations and areas for further research. A historical approach to women sport and development is adopted, along with a relevant investigation of various policies and international conferences on women and sport. The author discusses some of the critiques of the women, sport and development movement, and cautions researchers to be gender sensitive along with taking into account the personal history of women in their respective countries.

8. **Title:** The Women’s Sports Foundation Report: Sport and Teen Pregnancy  
   **Author(s):** D. Sabo, K.E. Miller, M.P. Farrell, G.M. Barnes & M. Melnick  
   **Year:** 1998  
   **Publication:** The Women’s Sports Foundation  
   **Countries:** United States  

   **Summary:** The authors have carried out a number of studies to investigate gender- and sport-related issues. Results indicate that sport participation decreases the likelihood of unwanted pregnancy for girls between Grades 9 and 12 by 50%; furthermore, girls who participate in sport are less sexually active than their peers. Girls involved in sport are more likely to abstain from sex and have fewer sexual partners, are less likely to become pregnant, are more likely to have high self-esteem, and are less likely to abuse drugs. Overall, girls who play sports are more confident and less likely to engage in risky drug or sexual practices. This study was based on a large sample of U.S. adolescents, and results differed for boys.

9. **Title:** High School Athletic Participation and Adolescent Suicide: A Nationwide US Survey  
   **Author(s):** D. Sabo, K. Miller, M. Melnick, M. Ferrell & G. Barnes  
   **Year:** 2005  
   **Publication:** International Review for the Sociology of Sport?  
   **Country:** United States  

   **Summary:** A study of 4,505 adolescents was subdivided into girls and boys, and suicide-attempters and non-attempters. Suicide attempts in adolescent girls were associated with the belief that sport is not important for health and to non-involvement in sport as a coping style when one is in distress. However, no direct causal relations can be drawn between sport participation and non-suicide behaviours in adolescents, suggesting that while there is a significant correlation between reduced attempted suicide and sport participation, causal explanations may not be made.
Summary: This article considers the barriers to sport participation faced by women in Iran, and considers the achievements, thus far, in relation to football. The Middle East women's sport movement has been ignited in Iran, and many policies and organizations have been developed as a result of key women in Iran. A number of women's sport organizations are discussed, along with the ideologies surrounding religion and sport participation in the Islamic Republic.
9. References


Sport as a means to foster inclusion, health and well-being of people with disabilities

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1. Introduction

**Emphasis on human rights approach**

This review of literature draws attention to the work of the SDP IWG/Right To Play in achieving the Millennium Development Goals. However, even more fundamentally, the review demonstrates the ways in which sport is implicated in the achievement of basic human rights.

The right to disability rights is established in the Universal Declaration of Human Rights (1948); disability is also the subject of a specific UN Convention, namely: Convention on the Rights of Persons with Disabilities (CRPD, 2006). Sport, physical activity and play are identified specifically in the CRPD (and implicitly in the Universal Declaration), providing support for the increasingly well-recognized right to participate in sport and physical activity.

The ‘fundamental right’ to participate in physical education and sport is proclaimed in the UNESCO Charter of Physical Education and Sport (1978). Despite recent attacks on the nature and implementation of human rights, we are convinced that a human rights–based approach to this review of literature captures the intent of the contractor, the researchers, and the vast majority of the literature reviewed.

**‘Rational recreation’**

In historical terms, the idea that participation in sport has some utility (other than being enjoyed for its own sake) can be traced to the mid-nineteenth-century United Kingdom. Middle-class reformers in the areas of education and urban welfare began to develop the idea that sport participation, appropriately directed, could be involved in the development of character, work discipline, teamwork, fair play, and other socially approved characteristics.

Thus, sport began to be justified in education (physical education, organized games), in youth detention centres, and by urban agencies, such as the YMCA, in an attempt to affect the character and behaviour of participants. These ideas quickly spread to other high-income countries; they even became part of the system of colonization, where the British games tradition was often transferred to colonized populations.

Organized sport is still justified in these same terms, as evident in the mission statement of any youth sport organization – what the organization claims will be taught to the participants involves a great deal more than sport. Similarly, there has been a recent proliferation of development through sport agencies, all of which claim that the intended and unintended consequences of involving young people in low- and middle-income countries in sport will involve a great deal more than improvements in sport skills. These claims need to be treated extremely cautiously, because direct evidence of the impact of sport on character and behaviour is often missing or quite equivocal. This review applies the strictest standards in assessing the claims made.
Multidisciplinary sources of research

Reviewing multiple sources of data from different academic disciplines has a real advantage in terms of triangulation, and building evidence to determine the accuracy of claims. However, there are also disadvantages in terms of the comparability of data. Different academic disciplines, and even different branches of some academic disciplines, make different assumptions about measurement, about the meaning of data, about how research ought to be carried out, and in terms of their definitions of key concepts.

Overall, for the purposes of this review, we consider that the advantages of reviewing multiple sources of data from different academic disciplines far outweigh the disadvantages. Perhaps the greatest area of concern lies in the terminology used, and the different meanings given to specific concepts in the different disciplines.

Disputed terminology

As noted above, because of the multidisciplinary nature of the research reviewed, it was necessary for us to develop a common understanding of some specific terms for the purposes of this review. These include:

Development

The level of development of a nation was initially considered only in economic terms, and concerned the extent to which its economy depended on the agricultural, industrial and/or service sectors (the latter being considered the most ‘developed’). The level of development was measured in terms of the gross domestic product (GDP) or gross national product (GNP). The idea that economic growth determined the well-being of a country was widely challenged, culminating in the UN Declaration on the Right of Development (1986), which recognized that:

...development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and the fair distribution of benefits therefrom.

The United Nations Development Program (UNDP) followed the Declaration with a far more comprehensive measure of ‘development.’ The Human Development Index (HDI) was intended to measure improvements in the quality of life of humans, based on an index with three criteria:

1. A long and healthy life, as measured by life expectancy at birth;

2. Knowledge, as measured by the adult literacy rate (2/3 weight), and the combined gross enrolment ratio in primary, secondary and tertiary education (1/3 weight);
3. A decent standard of living, as measured by the GDP per capita in purchasing power parity (PPP) terms (measured in US$) (Human Development Report, 2006, p.394).

As with GDP and GNP measures, the latter measure suffers from ‘averaging’ – two countries may achieve a similar per capita GDP; in one country, however, it may be a result of relatively equal household income distribution, while in the other there may be marked extremes of household income distribution. This raises issues of relative deprivation or relative poverty. The ‘Gini coefficient’ has been used more recently to measure the degree of inequality in household income, with lower value coefficients indicating more equal household income distribution.

It is important to note that, under these definitions, no country ever achieves a final state of being ‘developed’ – as the UN Declaration notes, development is a process of “constant improvement.” However, key questions remain: “who determines the form of development in a country?” and “what are the appropriate roles for foreigners in the development of another country?”

Appropriate terminology for countries in receipt of development aid

The RFP prepared by the SDP IWG/Right To Play refers to “transitional and developing countries.” However, the way to refer to such countries is extremely contentious in the academic and policy communities, and has been the subject of a great deal of debate for the research teams. Among the terms in common use that were considered are: developed/developing nations; global North/global South; majority world/minority world; and countries with developing economies. For a time, “global South” achieved a great deal of support, and it is becoming more widely used in the academic and policy communities:

“Global South” is not just another name for the "South" or "the developing world." The term denotes a community of people at different geographical locations who experience a common set of problems – problems which emanate, by and large, from deep inequities of power within and between nations (Reed: [http://www.yorku.ca/ananya/Globalsouthhome.htm](http://www.yorku.ca/ananya/Globalsouthhome.htm); see also, UNDP, 2004).

However, ‘global South’ was still considered to be raising certain problems, and the term that achieved the most agreement among the research teams was ‘Low and Middle Income Countries’ (LMICs). ‘Low-income and middle-income economies’ are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status. This standard term has been applied to all of the reviews.

Sport

Perhaps even more diverse than the meaning of ‘development’ is the variety of meanings that have been given to ‘sport’ in the research reviewed. The RFP prepared by the SDP IWG/Right To Play defines sport as: “all forms of physical
activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games.” This is a slightly abbreviated version of the definition given in the European Sports Charter (2001): “Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels.”

Both are extremely comprehensive definitions, incorporating all forms of sport, physical activity and exercise. However, it should be noted that such comprehensive definitions are unusual in the research reviewed. There is invariably a focus on organized sport and physical activity in the research (because of their accessibility to researchers and their measurability in terms of participation, energy output, etc.). This, of course, neglects the considerable amount of informal, child-/youth-organized, play, games and sports in which so many participate.

It is also necessary to point out the widespread essentialized use of the term ‘sport’ throughout the literature reviewed. Rather than seeing sport as a social construction that is given meaning by the participants and by more powerful defining agents (e.g., the media, sport organizations, etc.), sport is far too often presented as an essential positive. For example, Nelson Mandela said:

> Sport has the power to unite people in a way little else can. Sport can create hope where there was once only despair. It breaks down racial barriers. It laughs in the face of discrimination. Sport speaks to people in a language they can understand.

In a recent reference to the Olympic Truce, International Olympic Committee President Jacques Rogge said: “Sport fosters understanding between individuals, facilitates dialogue between divergent communities and breeds tolerance between nations.”

Both of these statements are absolutely correct; but, so is the opposite. Sport is full of discrimination; it can be racist, divisive, and can breed intolerance and misunderstanding. We have paid careful attention to such essentialized characterizations of sport throughout this literature review, and we have dealt with them by the use of carefully contextualized examples and explanations.

**Disability**

*Disability* is a functional limitation within an individual caused by physical, mental or sensory impairment (Disabled Persons International, 2006). Although some aspects of disability are almost entirely internal to a person, others are almost entirely external, resulting from limitations imposed on Persons with Disabilities (PWD) by attitudinal, social, cultural, economic and environmental barriers (Disability KaR, 2005).
Impairment

*Impairments* include defects in or loss of a limb, organ or other body structure, as well as defects in or loss of a mental function (UN, 2004).

Persons with Disabilities (PWD)

Persons who have long-term physical, mental, intellectual or sensory impairments, which, in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (UN, 2006).

Disability sport

Sport for and including PWD, however, generally implies a sport context designed for PWD (DePauw & Gavron, 2005).

Adapted Physical Activity (APA)

The provision of physical activity services and programs to persons of all ages with special needs (Hutzler & Sherrill, 2007; Sherrill, 2007).

Inclusion

When ALL individuals are welcomed in community settings, regardless of how they may be perceived to be different. In terms of PWD, it means that they no longer need to demonstrate certain skills to gain access to contexts, such as school or recreation settings and programs (Reid, 2003).

Criteria for identifying ‘best practices’

Selection of “best practice” programs or interventions was based upon carefully selected, consistent and predetermined criteria. These include:

1. Scale – the size and sustainability of the program
2. How it addresses barriers
3. Justification – what were the criteria for establishing the program?
4. Culturally specific (needs based) – is the program sensitive to specific local needs?
5. Mainstreaming
6. Evidence/published material – availability of appropriate evidence
7. Gender – is the program open and sensitive to gender issues?
8. Disability – is the program open to and adapted for persons with a disability?
2. Understanding disability

a. Defining ‘disability’

It is important to note that definitions are socially constructed, and based on cultural and historical contexts (Reid, 2003). The definitions outlined in the Introduction are derived from current views based on a review of the current literature in the areas of sports and disability.

b. Human rights and disabilities

Sport is a cultural phenomenon and an integral part of society. It is highly visible and touches almost everyone as participants, spectators and consumers (DePauw & Gavron, 2005). Physical education and sport are essential for the full development of an individual (UNESCO, 1978), and participation in sport and recreation is considered vital for socio-cultural integration and equity (Burchell, 2006). This is of particular importance among immigrants and people with disabilities (Havana Sport for All Declaration, 2006).

Over the past five decades, there have been a number of human rights statements and national/international charters focusing on the rights of PWD, with some including the right to sport and recreation. However, it was not until the recent UN Convention on the Rights of Persons with Disabilities (2006) that a document existed urging all nations to address the rights of PWD, including equal participation in recreational, leisure and sporting activities.

c. United Nation’s Convention on the Rights of Persons with Disabilities

The Convention on the Rights of Persons with Disabilities (CRPD), when ratified by more than 20 nations, will be a legally binding standard and framework that aims to improve the lives of persons with disabilities (Schindlemayr, 2007; Wolff, Hums & Roy, 2007). The document contains 50 articles, with article 30 specifically addressing the rights of PWD in the context of recreation, leisure and sporting activities (Wolff et al., 2007). This article signifies the importance of treating PWD equally and the need for states to improve access to and encourage inclusion of PWD in recreational, leisure and sporting activities (Ogi, 2007).

The new UN convention adopts a dual-track approach, providing the expectation that PWD will not only participate in disability-specific sporting activities, but also in mainstream sports (Cevra, 2007; Schindlemayr, 2007). While the focus on disability-specific sports is important in improving the quality and availability of such sports for PWD, the inclusion of PWD in mainstream sports will allow for greater social inclusion, accessibility and sensitization of the public regarding PWD (Cevra, 2007).

Article 30 of the CPRD addresses equal participation of PWD in recreational, leisure and sporting activities. State Parties shall take appropriate measures:
• To encourage and promote the participation, to the fullest extent possible, of persons with disabilities in mainstream sporting activities at all levels;

• To ensure that persons with disabilities have an opportunity to organize, develop and participate in disability-specific sporting and recreational activities and, to this end, encourage the provision, on an equal basis with others, of appropriate instruction, training and resources;

• To ensure that persons with disabilities have access to sporting, recreational and tourism venues;

• To ensure that children with disabilities have equal access with other children to participation in play, recreation and leisure and sporting activities, including those activities in the school system;

• To ensure that persons with disabilities have access to services from those involved in the organization of recreational, tourism, leisure and sporting activities (UN, 2006).

**WOMEN AND CHILDREN WITH DISABILITIES AND SPORTS:**

Approximately 53% of PWD in high-income countries and 58% of PWD in LMICs are women (Riviere-Zijdel, 2007).

93% of women with a disability do not participate in sports or physical exercise (Burchell, 2006).

Women make up only about one-third of Athletes with Disabilities (AWD) in international competitions (DePauw & Gavron, 2005).

It is estimated that about 150 million of PWD in the world are children, with a vast majority of them living in LMICs (UNICEF, 2006); of these, only about 2–8% have access to any services, including rehabilitation or formal education (UNICEF).

Sports and play have a significant role to play in the life of children with disabilities, just as they do for all children. They can promote physical well-being, combat discrimination, build confidence and a sense of security, as well as play an important role in the healing and rehabilitation process for all children affected by crisis, discrimination and marginalization (McCarthy, 2007).
d. The potential role for sport and physical activity in disabilities

According to the World Health Organization (WHO) (2007), approximately 600 million people in the world live with some form of disability. Of these, 80% live in LMICs, are poor, and have little or no access to basic services (WHO, 2007). In many LMICs, disability, if not outright excluded, is only minimally addressed by public health and social policies, leaving PWD with few structural supports (WHO, 2007).

Living with a disability not only disadvantages these individuals and their families, but can also have an impact on the larger community and the national health and economic development of a country (Blauwet, 2007; Saka, Kuranga & Abegunde, 2005).

It has been recognized that it will be impossible to achieve the United Nations’ Millennium Development Goals without recognizing and addressing the needs of PWD (Disability KaR, 2005).

Having a disability or impairment may prevent persons from participating in their social roles and being active members of their community. The ability to be productive and to engage in activities is viewed as an essential part of life, a basic human need, and an important determinant of health and well-being (CAOT, 1997; Wilcox & Whitford, 2003).

The long-term health benefits of physical activity, including recreation and sports, have long been established for all individuals with or without disability. However, as with other marginalized members of society, PWD have also been generally excluded from activities found in mainstream society, including sports and leisure activities (DePauw & Gavron, 2005). PWD have traditionally been considered to be frail and not physically capable, and, as a result of their perceived inferior physical and mental status, excluded from sports beyond rehabilitation or therapeutic applications (DePauw & Gavron, 2005).

The benefits of participation in sports and physical leisure activities are not limited to rehabilitation for PWD. As with the general population, physical activity may reduce the risk for chronic illnesses and secondary conditions for PWD (Durstine et al., 2000; Heath & Fentem, 1997). However, even though they would derive considerable benefit from physical exercise, children and adults living with disabilities are more likely to be sedentary compared to their able-bodied counterparts (Burchell, 2006; Capella-McDonnell, 2007; Heath & Fentem). Physical activity amongst PWD may also bring numerous benefits to a community both at a social and an individual level. Participation in such activities may improve functioning in daily activities, resulting in increased independence and empowerment of PWD, increased social integration and inclusion, as well as help to change attitudes among members of the society in general (Burchell; Capella-McDonnell; Sherrill, 2004).
COMMON CAUSES OF DISABILITY (WHO, 2007):

- Malnutrition
- Injuries related to accident and trauma from road traffic, falls, landmines and violence
- Infectious diseases, such as HIV/AIDS, polio and river blindness
- Non-infectious diseases, such as cardiovascular diseases, cancer and diabetes
- Congenital diseases or complications during pregnancy and delivery, such as cerebral palsy or spina bifida
- Mental illness
3. Review of literature and evidence

The following review of the literature concerns the rights of PWD, and their participation in sports, and provides evidence of the benefits of sport and physical activity to people with various disabilities. Although most of the literature cited is from European and North American sources, it is important to note that, with some exceptions, the health benefits associated with physical activity are universal.

Over the past 20 or 30 years, greater attention to the health and well-being of PWD has gone hand in hand with greater social recognition. Coupled with increasing health care costs, this has led to an increased focus on the benefits of physical activity and participation in sport for PWD, resulting in a number of projects and studies that focus on the effects of physical activity and sport participation for this population. Although there have been numerous studies considering participation trends, factors affecting participation, and more recently the benefits of sports and physical activity in increasing the strength, endurance and social inclusion of PWD, Heath & Fentem (1997) have pointed out that there are no empirical studies considering the long-term benefits of physical activities in lowering the risks of or preventing chronic conditions in PWD. It is, however, reasonable to argue that PWD share similarities with able-bodied people. For example, in a consensus statement (based on a review of literature by a group of experts), Cooper et al. (1999) report that, in the area of cardiovascular and pulmonary health, PWD share many traits with the general population.

An in-depth literature search in the area of disability and sport participation revealed a number of studies focusing on the benefits of physical activity and sports for PWD. Among the literature reviews, of particular note is Heath & Fentem (1997), which is the most comprehensive. The review not only explores the extent to which PWD engage in regular physical activity in the United States, United Kingdom and Canada, it also reviews the disabling effects of inactivity, and the benefits of physical activity within different categories of disabling conditions, with particular reference to achievement and maintenance of functional independence and quality of life. The review provides support that physical activity and sport participation result in improved functional status and quality of life among persons with selected impairments and disabilities. These conclusions are supported by the Cooper et al. (1999) consensus statement, and by a review of literature discussing the need for health promotion interventions for adults with visual impairments (Capella-McDonnell, 2007).

Aside from the above literature reviews, a number of other studies were also identified on the topic of disability and the benefits of sport participation for PWD. Depending on how disability is defined, the use of physical activity, sports and exercise to achieve increased health, well-being and inclusion for PWD may be grouped into three categories: improvements in physical health; improvements in mental health and psychological well-being; and increased integration and inclusion into society.
a. Physical health and well-being

In a meta-analysis of research on physical fitness training and stroke patients, Saunders, Greig, Young & Mead (2007) concluded that, although there are few data to draw reliable conclusions, fitness training may result in improved walking ability in stroke patients. Similarly, recognizing that living with HIV/AIDS can result in some forms of disability, due to secondary illnesses and conditions, O’Brien, Nixon, Glazier, and Tynan (2007) conducted a meta-analysis of research on progressive resistance exercise interventions in adults living with HIV/AIDS. The results show that progressive resistive exercise, or a combination of progressive resistive exercise and aerobic exercise, are not only safe, but also appear to be beneficial for adults living with HIV/AIDS (O’Brien et al., 2007).

In an earlier review of literature, on the history and outcomes of horseback riding and its use/benefits for PWD in the context of rehabilitation (medical benefits) and education, DePauw (1986) found that this activity provided numerous benefits to various groups of PWD, with the exception of children with Down’s Syndrome. The many benefits include, but are not limited to, improvements in coordination, improved postural alignment, normalization of muscle tone, improved sitting balance, and strength and rhythmical movements of the upper body (DePauw, 1986).

Other studies providing evidence of improved physical status related to participation in physical activity by PWD include a randomized single blinded clinical study comparing aerobic exercise and resistance exercise with a health education program in older adults with knee osteoarthritis (Ettinger et al., 1997). The results showed that older individuals disabled by osteoarthritis of the knee showed improvements in measures of disability, physical performance and pain from participating in either an aerobic or a resistance exercise program (Ettinger et al., 1997).

In another randomized control study, Petajan et al. (1996) found that people living with multiple sclerosis who engaged in an exercise program showed improvements in their fitness level and factors related to their quality of life. Similarly, in another randomized study, children and adolescents with cerebral palsy showed significant improvements in strength and ability to walk, run, jump and climb stairs after participating in a strength-training program (Dodd, Taylor & Graham, 2003).

Finally, in a study of the effects of aerobic dance on cardiovascular endurance of adults with intellectual disabilities, results indicated that the experimental group performed better on a fitness walking test than controls at the end of the trials (Cluphf, O’Connor & Vanin, 2001).

Common limitations identified in all of the above studies included small sample sizes, the limited time frame during which the trials took place, and variations in the level of disability or impairment within each group.

b. Mental health and psychological well-being

Although most studies of physical activity and sports participation of PWD infer improved mental and psychological well-being as a secondary outcome of participation, few have focused specifically in this area as an outcome measure.
Meyer & Broocks (2000) reviewed the literature on various exercise training programs and their impact in various psychiatric disorders. They reviewed 15 studies of depression, anxiety, addiction and schizophrenia. Aside from fitness gains, the results indicated that aerobic (endurance training) exercise is effective in improving general mood and depressive and anxiety disorders in select psychiatric patients, and that there is no harm associated with participation in physical activity and exercise in these populations (Meyer & Broocks, 2000). No other studies were found on the effects of sport participation for people with mental illness.

Other studies of mental well-being include the review by DePauw (1986) on the benefits of horseback riding for PWD and a study by Sorenson (2003). DePauw found that, in addition to improvements in physical activity, improvements were evident in emotional control, social awareness, self-confidence, self-esteem and self-concept; there was also increased motivation and independence among PWD. Sorenson’s (2003) study involved both a qualitative (five athletes participated in semi-structured interviews) and a quantitative component (where both athletes with and without disabilities completed a survey). The results indicated that participation in sports has the potential to be a mechanism for empowerment, for individuals with a disability, by contributing to positive identity formation and group identity, increasing self-esteem through achievements, and providing a learning arena for goal-directed work.

Again, the major limitations in these studies concern small sample sizes, and the short-term nature of the studies.

c. Social interaction and inclusion of Persons with Disabilities (PWD)

Many studies of sports and PWD tend to infer increased social interaction and inclusion with few actually attempting to evaluate integration and inclusion as an outcome. This has resulted in some controversy, specifically related to the participation of persons with intellectual disabilities in sporting activities and the Special Olympics. Special Olympics is an international non-profit organization dedicated to empowering individuals with intellectual disabilities to become physically fit, productive and respected members of society through sports training and competition (Special Olympics, 2007). The focus is on participation and skill development for athletes with cognitive and developmental disabilities (DePauw & Gavron, 2005). It is important to note that the controversies in this area are related to the structure and organization of Special Olympics – particularly, that they concern the segregation rather than the inclusion of athletes with intellectual disabilities (Storey, 2004). Storey does not take into consideration the overall benefits of participation in sports and physical activity by this group of individuals beyond the context of Special Olympics.

Dykens & Cohen (1996) found that participation in Special Olympics was linked to social competence in persons with “mental retardation”. Their results were derived from use of the triangulation approach over three studies. Study 1 related behaviour to athletes’ length of time in Special Olympics. Study 2 compared Team USA to an appropriately matched group of non–Special Olympians. Study 3 assessed Team
USA before and four months after their participation in the Special Olympics held in Salzburg, Austria.

In addition to the previously cited study by Sorenson (2003), which also indicated increased empowerment and ability to develop group identity through participation in physical activities by PWD, Blinde & Taub (1999) found that sport participation increased social integration and inclusion by PWD. They completed in-depth interviews with 28 male university students with physical and sensory disabilities and found that participation in sports and physical fitness activities was associated with three empowerment outcomes: perceived competence as a social actor; facilitation of goal attainment (including setting and pursuing goals, determination, competitiveness); and social integration (including bonding, broadening social skills and experiences, and increased social inclusiveness). The salient factor affecting empowerment seemed to be the participation experience rather than the nature of the activity (Blinde & Taub, 1999).

Unlike the other categories, increased social interaction and inclusion for PWD was the only category where attempts have been made to determine if there are benefits of sport participation for PWD in LMICs. Even though there are many examples where sport is claimed as a means to increase integration and inclusion of PWD in LMICs, two projects provided documented evidence based on results from pilot projects. In the final report of the Sporting with Visual Impairments project, an initiative to develop sports activities for persons with visual impairments in Uganda, Sentumbwe & Kahrs (2001) provide examples of the introduction of a number of programs for people with visual impairments; the increase in the number of people participating in the programs since the inception of the pilot project was seen as an indication of the effectiveness of the project.

In another project, described in a handbook entitled Fun Inclusive! Sports and games as means of rehabilitation, interaction and integration for children and young people with disabilities, the authors provide detailed descriptions of activities and recommendations based on the outcomes of pilot projects implemented in Angola and Cambodia (Ikelberg, Lechner, Ziegler & Zollner, 2003). The pilot projects aimed to strengthen children living with either physical or mental disabilities by promoting their rehabilitation, social integration and capacity for self-help. Although the project faced a number of challenges, the overall outcome included successful sensitization of the population to children with disabilities, the development of mutual support amongst the children, increased participation irrespective of disability, and the successful use of sports or games as a means for both rehabilitation for people with disabilities and as an indicator for social integration (Handicap International, 2007).
COMMON BARRIERS TO INCLUSION OF PWD IN SPORTING ACTIVITIES: (DePauw & Gavron, 2005; Hutzler & Sherrill, 2007)

- Lack of early experiences in sports
- Lack of understanding and awareness of how to include PWD in sports
- Limited opportunities and programs, including training for PWD
- Lack of accessible facilities, such as buildings and transportation
- Limiting psychological and sociological factors
- Limited access to information and resources
4. Current uses, best practices, recommendations

This section provides four examples of best practices where sports and participation in physical activity have been used for the advancement of health, well-being and inclusion of PWD, internationally, nationally and locally. Selection of “best practice” programs or interventions was based upon carefully selected, consistent and predetermined criteria, as outlined in the Introduction.

a. International Paralympic Committee (IPC): International

Description and purpose

Formally established in 1989, IPC is the international governing body for Athletes with Disabilities (International Paralympic Committee [IPC], 2007). It organizes the Winter and Summer Paralympic Games and serves as the International Federation for 12 sports, for which it supervises and coordinates the World Championships and other competitions (Blauwet, 2007; IPC 2007).

Although its main focus is on performance and the achievement of sporting excellence by Athletes With Disabilities (AWD), IPC is also committed to developing sport opportunities for all persons with a disability, from beginner to elite, at local and national levels, and to the recruitment of elite athletes with disabilities at an international level (Blauwet, 2007; IPC, 2007). Its worldwide recognition allows IPC to promote the Paralympic values, which include courage, determination, inspiration and equality (IPC, 2007), as well as act as an advocate for disability rights, globally.

Target population

All athletes with disabilities.

Programs

- Organize the Summer and Winter Paralympic Games
- Supervises and coordinates other world championships and competitions
- Supports the development of athletes across all performance levels at local and national levels
- Recruits elite athletes with disabilities at an international level

Outcomes/impact

Currently, IPC consists of 162 national paralympic committees from five regions of the world and four disability-specific international disability sport federations. IPC’s growth and publicity has significantly contributed and continues to increase the recognition of PWD and their potential for achievements around the world.

Further information [http://www.paralympic.org](http://www.paralympic.org)
b. Variety Village, the flagship project of Variety Children’s Charity: Canada

Description and purpose

Established in 1945, Variety Village is a world-renowned fitness and life skills facility that provides an inclusive and accessible environment, bringing disabled and able-bodied people together as part of an integrated community (Variety Village, 2007). The organization aims to be the leading charity for children and young people of all abilities (and their families) and is committed to improving quality of life and successful integration into society (Variety Village, 2007). It also attempts to address individual barriers, based on physical, attitudinal and societal situations (Variety Village, 2007).

Target population

All people with disabilities and their family and friends.

Programs

- Inclusive sport, fitness and leisure programs/events
- Training and life skills for people of all ages/abilities
- Fundraising and awareness-raising programs
- Training in adapted physical activity
- Outreach programs
- Several athletic teams

Outcomes/impact

Variety Village has been successful in providing an inclusive environment for people of all abilities and family members to participate in sporting and leisure activities, provide training in Adapted Physical Activity (APA) as well as raise awareness at the local level. According to Variety Village’s 2005 annual report:

- 580 students took part in its Adapted Physical Education program over a 36-week period
- The outreach program attracted more than 250 groups and 6,000 participants
- Approximately 3,000 young people of all abilities and their families participated in its healthy sports programming each week
- It had more than 4,500 active fitness members, with 1,952 participants in fitness classes (of which 63% had special needs)
- It had 190 active members on its athletic teams
- It was involved in publicity to raise awareness and housed various games, including: The annual Police Children’s Games (300 children of all ability levels) and the Sunshine Games, an Olympic-style day of competition (the single-largest fundraising event for the Village)

Further information [http://www.varietyontario.ca](http://www.varietyontario.ca)
c. Cambodian National Volleyball League Disabled (CNVLD): Cambodia

Description and purpose

Recognizing the unique ability and power of team sport programs, CNVLD was established in 2002 to assist the physical, physiological and socio-economic well-being of landmine survivors in Cambodia, as well as other Cambodians with disabilities (CNVLD, 2007). The organization, modelled on the structures and promotions of the Australian Football League, is managed by Cambodians. In an attempt to avoid encouraging dependency, athletes are given subsidies for training and transport instead of salaries (Smith, 2006).

Target population

Men and women athletes with physical disabilities, mostly due to landmine, polio or traffic accidents.

Programs

- Standing volleyball
- Wheelchair racing
- Children's sports

Outcomes/impact

Since its inception, CNVLD has grown to include 18 volleyball teams from various provinces around the country, and five Wheelchair Racing Teams nationwide, including a female wheelchair racing league (CNVLD, 2007).

It has received international recognition as “a role model for cost efficiency, transparency and impact with disabled people” (Smith, 2006), and has been recognized by the United Nations as one of the "Best Practices – Sport and Development."

The organization also succeeded in organizing the 2007 Volleyball World Cup in co-operation with the Royal Government of Cambodia and the WOVD (World Organization for Volleyball Disabled), to be hosted in Phnom Penh, from November 24 to December 2, 2007. The event is the first-ever team sports world cup event to be hosted in Cambodia (2007 WOVD Volleyball World Cup, 2007).

d. **Afghan Amputee Bicyclists for Rehabilitation and Recreation (AABRAR): Afghanistan**

**Description and purpose**
AABRAR is a local non-profit, non-political, charitable, grassroots NGO that was established in 1992 to work with PWD toward their physical rehabilitation and socio-economic integration in society (Afghan Amputee Bicyclists for Rehabilitation and Recreation [AABRAR], 2007). The organization originally began as a bicycle-training program for amputees to improve functional mobility and independence, enabling them to travel to and from work, and to save on transportation costs (AABRAR). Since then, it has expanded and offers a wide range of programs. The programs aim to improve the mobility and independence of people living with disabilities, to raise social awareness of disability within Afghanistan, and to display the tremendous physical and emotional strength of people with disabilities (AABRAR).

**Target population**
Women, men and children who are at least eight years of age, with physical disabilities.

**Programs**
- Physiotherapy and health care
- Bicycle Rehabilitation Program for disabled men and boys (training on how to repair and ride bicycles according to individual disabilities)
- Vocational training
- Disabled Cyclist Messenger Service (hiring disabled men as full-time couriers to deliver parcels and food for businesses and restaurants)
- Sporting activities and tournaments (volleyball tournaments and an annual bicycle race)
- Numeracy and literacy classes
- Landmine awareness and health education training

**Outcome/impact**
AABRAR uses sports and recreation in a number of ways to achieve its development goals and objectives, as indicated by the types of programs it offers. It has also played an active role in raising the profile of disabled Afghan people internationally. Starting in 1994, disabled cyclists were sent to Pakistan to participate in the Golden Jubilee Cycle Race. Following that event, AABRAR sent teams of PWD to participate in the Cycle Messenger World Championships (CMWC) in London in 1994, in Canada in 1995, in San Francisco in 1996, and in Barcelona in 1997. In 1996, cyclists with disabilities were also sent to participate in the Paralympic Games in Atlanta, in the United States. More recently, in 2003, AABRAR sent messengers with disabilities to Germany to participate in a ‘Cycling for Peace’ event and a mine-awareness exhibition; it also sent two athletes to the 2004 Paralympic Games in Athens (AABRAR, 2007).

**Further information** [http://aabrar.org/](http://aabrar.org/)
e. Recommendations

A collective effort between national and international organizations is required to increase opportunities and access of PWD to sporting and physical activities. Governments may play an important role in supporting such initiatives and opportunities. The following is a list of recommendations that, if implemented, would facilitate the safe use of sports and physical activity participation in improving the health, well-being and inclusion of PWD.

1. Implementing a monitoring and evaluation system to track progress and outcomes of programs and strategies at local, national and international levels.

2. Providing more choices and programs for participation in physical activities and sporting programs to address the many barriers/factors that result in limited participation of PWD in physical activities and sports.

3. Increasing support and training of individuals in Adapted Physical Activity programs.

4. Development of affordable technologies, and increasing accessibility and universal designs in both the environment and the structures/rules of sports.

5. Increasing support of the elite disability sport movement and the Paralympic movement to further increase publicity and recognition by media.

6. Pressuring the media to cover disability sport in the sport section as opposed to the “human interest” sections of newspapers to further support the recognition of PWD as individuals and athletes capable of achieving excellence.

7. Supporting the completion of peer reviewed empirical studies by the scientific community on the topics of disability sport and adapted physical activity.
SOME NOTEWORTHY TRENDS:

Since the 1970s, there has been a dramatic increase in the number of international organizations/associations serving athletes with disabilities (DePauw & Gavron, 2005).

By the 1980s, there were over 20 Adapted Physical Education and Adapted Physical Activity textbooks in the United States alone (Hutzler & Sherrill, 2007).

There are least 47 periodicals and journal resources on physical education and recreation for PWD, in addition to newsletters of many disability sport organizations (DePauw & Gavron, 2005).

There are now more than 17 international games for Athletes with Disabilities [AWD], not to mention organizations at local, state and national levels in many countries (DePauw & Gavron, 2005).

Advances in technology, ranging from wheelchair design and prostheses to novel designs in adapting various leisure equipment, and rules of games make participation in physical activity (or sharing of the experiences) even more inclusive (DePauw & Gavron, 2005).
5. What we know

1. In the area of cardiovascular and pulmonary health, PWD share many traits with the general population, suggesting that the positive effects of physical activity on cardiovascular diseases are also attributable to PWD.

2. Individuals disabled by osteoarthritis of the knee may benefit from aerobic and/or resistance exercise programs in the areas of physical performance and pain management (Ettinger et al., 1999).


4. Children and adolescents with cerebral palsy may benefit from physical activity through improvements in strength and ability to walk, run, jump and climb stairs after participating in a strength-training program (Dodd, Taylor & Graham, 2003).

5. Aerobic dance may affect cardiovascular endurance of adults with intellectual disabilities (Cluphf, O'Connor & Vanin, 2001).

6. Physical activity may lead to improvements in physical health and well-being. Specifically, improvements have been noted in coordination, postural alignment and normalization of muscle tone, improved sitting balance and strength and rhythmical movements of the upper body (DePauw, 1986).

7. Aerobic (endurance training) exercise is effective in improving general mood and depressive and anxiety disorders in select psychiatric patients. There is no harm associated with participation in physical activity and exercise in these populations (Meyer & Brooks, 2000).

8. Participation in sports and physical fitness activities has been associated with three empowerment outcomes: perceived competence as a social actor; facilitation of goal attainment (including setting and pursuing goals, determination, and competitiveness); and social integration (including bonding, broadening social skills and experiences, and increased social inclusiveness) (Blinde & Taub, 1999).

6. What we don’t know and need to know

1. We need more studies to evaluate integration and inclusion as an outcome of sport participation.

2. We need further studies of mental health and psychological well-being as an outcome of sport participation.
3. We need more exercise physiology research for PWD, specifically athletes with disabilities.

4. We need more research with larger sample sizes, more standardization, and more mixing of different disability levels, groups and genders.

5. We need longitudinal studies to determine the potential long-term benefits of physical activity and sport participation for PWD, both at an individual and societal level.

6. We need empirical studies, and published evidence-based practice, on the impact of sporting activities in development and disability projects.

7. We need studies on effective strategies to increase participation in sports and physical activities for PWD.
7. Conclusion

The ability to participate in physical activity not only provides PWD with the same health benefits as non-disabled individuals, but also ensures that PWD have the opportunity to play a more complete part in all aspects of society (Burchell, 2006). Participation in sports may provide an important opportunity for PWD to increase self-esteem, confidence, teamwork, interpersonal skills and character (Blinde & Taub, 1999; DePauw, 1986; Dykens & Cohen, 1996; Meyer & Brooks, 2000; Sorensen, 2003); to gain more control over their body and lives, which not only helps to change their self-perceptions of their disabilities (Heath & Fentem, 1997), but also others’ attitudes toward them, allowing for increased inclusion and integration. Participation in sports may also help to provide people with the physical and mental skills to seek and maintain employment, increase productivity and contribute to their communities (Blauwet, 2007).

The variations in the types of programs available to PWD demonstrate that opportunities for PWD to participate in physical activities and leisure does not necessarily have to be limited to disability-specific activities and sporting events, or require high-tech equipment. Low-tech adaptations, including the use of strategies in Adapted Physical Activity programs, may facilitate participation in recreational activities (Longmuir & Axelson, 2005). There are numerous advantages to including PWD into mainstream activities. These benefits include: reducing the negative factors associated with disability and gaining an increased understanding of disability, as PWD are more likely to be perceived as individuals or athletes first, and not as disabled beings requiring pity or charity (Burchell, 2006; Ogi, 2007). Also, using the same facilities for all people will not only reduce costs, due to minimizing duplication of services, but will also allow for a greater variety of service users, including the elderly and families with children (with or without disabilities) (Burchell, 2006; Ogi, 2007).

Even though, over the past few decades, PWD have experienced greater inclusion in many societies, this has not been an easy process. PWD continue to face many challenges and much resistance, due to political, economic and socio-cultural factors. In countries such as Canada and the U.S., the integration and increased human rights of PWD has largely been facilitated by federal legislation and political pressure (DePauw & Gavron, 2005); in LMICs, however, even if policies exist, implementation of them is often lacking (Hashemi, 2006). The passage of the UN Convention on the Rights for Persons with Disabilities is a great step towards ensuring the rights of PWD – including participation in sports and recreational activities – around the world. The MDGs cannot be achieved without addressing the needs of PWD (Disability KaR, 2005), and the UN has identified sport as having a role in achieving the MDGs (Burchell, 2006). Sporting events provide an important way to increase awareness and to promote the capabilities of PWD.

Sport and play have been used to provide rehabilitation for child landmine survivors and other children with disabilities, to advocate for and break down barriers promoting increased public awareness and knowledge, as well as to prevent further accidents due to conflict-related threats (McCarthy, 2007).
This review, and the examples of best practices, provides evidence in support of the benefits of sport for PWD and also points to the possibilities of using sports for PWD in various parts of the world. However, the review also highlights a number of gaps in our knowledge of the part that sport plays in the achievement of such benefits.
8. Annotated bibliography

1. **Title:** Progressive Resistive Exercise Interventions for Adults Living with HIV/AIDS  
   **Author(s):** K. O'Brien, S. Nixon, R.H. Glazier & A.M. Tynan  
   **Year:** 2007  
   **Publication:** Cochrane Database of Systematic Reviews  
   **Countries:** United States

**Summary:** Recognizing that, due to medical advancements, HIV infection can now present as a chronic illness, with an uncertain natural disease history, leading to a potential increase in the prevalence of disability or impairment, and that the use of exercise as a management strategy is used by health care professionals to address impairments, activity limitations and participation restrictions, the authors carried out a meta-analysis to study the effects of progressive resistive exercise in patients living with HIV. Seven articles were identified and used to complete the analysis. The results indicate that progressive resistive exercise or a combination of progressive resistive exercise and aerobic exercise appear to be safe and beneficial for adults living with HIV/AIDS by improving cardiopulmonary fitness and increasing body weight and composition. They conclude that a better understanding of the effectiveness and safety of progressive resistive exercise will enable people living with HIV/AIDS and their health care workers to practice effective and appropriate exercise prescription, thus contributing to improved overall outcomes for adults living with HIV/AIDS.

Recognizing that the limitations of their study related mostly to the small sample size, the authors suggest that future research would benefit from including participants at various stages of HIV infection, a greater proportion of female participants, and participants in a variety of age groups to increase the generalizability of results.

2. **Title:** Sport in the United Nations Convention on the Rights of People with Disabilities  
   **Author(s):** International Disability in Sport Working Group and the United Nations Office of the Special Advisor to the Secretary General on Sport for Development and Peace  
   **Year:** 2007  
   **Publication:** Center for the Study of Sport in Society, Northeastern University  
   **Countries:** N/A

**Summary:** This is a collection of 18 essays and position statements addressing the significance of the UN’s Convention on the Rights of Persons with Disabilities and the right to sport. The collection provides perspectives from UN organizations, international disability organizations and international sport organizations, and some personal accounts.

Three themes are addressed: the meaning of the right to sport within the Convention; specific recommendations and strategies; and the potential future impact of the convention and use of sport within communities.
3. **Title:** Disability Sport  
   **Author(s):** K. DePauw & S. Gavron  
   **Year:** 2005  
   **Publication:** Human Kinetics  
   **Countries:** Canada, United States  

   **Summary:** This book focuses primarily on competitive disability sport and athletes with disabilities in North America; however, it also provides a great resource and reference. It covers every aspect of disability sport, from history to performance and management, current trends and challenges, to the future of disability sport. It provides a listing of various resources and organizations around the world as well as examples of achievements and accomplishments.

4. **Title:** Fun Inclusive: Sports and Games as Means of Rehabilitation, Interaction and Integration for Children and Young People with Disabilities  
   **Author(s):** J. Ikelberg, I. Lechner, S. Ziegler & M. Zöllner  
   **Year:** 2003  
   **Publication:** Handicap International, Gesellschaft für Technische Zusammenarbeit GmbH, and Medico International  
   **Countries:** Angola, Cambodia  

   **Summary:** This handbook reports the results of pilot projects completed by Handicap International and Gesellschaft für Technische Zusammenarbeit in Cambodia and Angola. The booklet provides a description of the projects and makes recommendations on developing inclusive sport camps for children and youth with disabilities in a developing context. It provides detailed information that makes implementation of activities clear, as well as ideas about what worked, what challenges were faced and what factors need to be considered when implementing similar programs in other LMICs.

5. **Title:** Physical Activity Among Person’s with Disabilities – A Public Health Perspective  
   **Author(s):** G.W. Heath & P.H. Fentem  
   **Year:** 1999  
   **Publication:** Exercise and Sport Science Reviews  
   **Countries:** Canada, United Kingdom, United States  

   **Summary:** This article provides a detailed review of the literature related to physical activity participation and PWD in the United States, Canada and the United Kingdom. The article explores trends, and also reviews the disabling effects of inactivity, and the benefits of physical activity within different categories of disabling conditions.

   The authors provide a comprehensive overview of the effects of exercise on this population based on data available, identify gaps in the research, and provide recommendations.
6. **Title:** Therapeutic Impact of Exercise on Psychiatric Diseases – Guidelines for Exercise Testing and Prescription  
**Author(s):** T. Meyer & A. Broocks  
**Year:** 2000  
**Publication:** Journal of Sports Medicine  
**Countries:** N/A

**Summary:** This article provides a review of the literature on various exercise training programs and their impact on different psychiatric disorders (depression, anxiety, addiction, schizophrenia and chronic fatigue syndrome). The results indicate that, in addition to increased fitness, aerobic (endurance training) exercise is effective in improving general mood and depressive and anxiety disorders in select psychiatric patients, and that there is no harm associated with participation in physical activity and exercise. The review is limited by the small sample sizes in each of the articles reviewed.
9. References


C. Blauwet, “Promoting the Health and Human Rights of Individuals with a Disability Through the Paralympic Movement.” In Higgs & Vanlandewijck (eds.), Sports for Person’s with a Disability – Perspectives, Volume 7 (ICSSPE, 2007).


Peace, sport and development

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1. Introduction

A growing number of sports persons and sports organizations have sought to intervene in situations of political and military conflict in recent years, to contribute to the cessation of hostilities, to encourage reconciliation between the conflicting sides, and to bring support and the benefits of sport and physical activity to victims of conflict. These interventions have ranged from the declarations of truce at the time of the Olympic and Winter Olympic Games by the International Olympic Committee and United Nations, and the educational exchange programs conducted for Jewish and Arab children in Israel by groups such as Football 4 Peace, to the coaching development programs conducted by Right To Play in refugee camps in Africa, the Middle East and Asia. There is considerable evidence that these programs are highly valued by those who enjoy them. Yet, the overwhelming majority of these efforts are directed at able-bodied boys and young men – the absence of girls, women and persons with disabilities is striking, particularly when they bear the brunt of the ravages of war and conflict. Very few of these programs have been critically monitored and evaluated, and the literature that does exist has largely been written without reference to the large body of literature on peacekeeping and peace-building. Nevertheless, many of the sport-for-peace programs do work in ways that the peace-building literature suggests can be effective – especially those that focus on relationship (re)building after conflict.

This review will examine current interventions in light of the available literature, identifying what we know, what we do not know, and ‘best practices’; it will also make recommendations for policy, research and practice.

Emphasis on human rights approach

The reviews of literature draw attention to the work of the SDP IWG/Right To Play in achieving the Millennium Development Goals. However, even more fundamentally, the reviews demonstrate the ways in which sports are implicated in the achievement of basic human rights. The right to peace is established in the Universal Declaration of Human Rights (1948). The right to participate in sport, physical activity and play is identified implicitly in the Universal Declaration, providing support for the increasingly well-recognized right to participate in sport and physical activity. The ‘fundamental right’ to participate in physical education and sport is proclaimed in the UNESCO Charter of Physical Education and Sport (1978). While the focus of these reviews is upon the evidence base, we believe that a human rights–approach provides the starting point for any such review. It captures the intent of the contractor, the researchers, and the vast majority of the literature reviewed.

The need for caution

In historical terms, the idea that participation in sport has some utility (other than being enjoyed for its own sake) can be traced to the mid-nineteenth-century United Kingdom. Middle-class reformers in the areas of education and urban welfare began to develop the idea that sport participation, appropriately directed, could be involved in the development of character, work discipline, teamwork, fair play, and other socially approved characteristics. Thus, sport began to be justified in education
Organized sport is still justified in these same terms, as evident in the mission statement of any youth sport organization – what the organization claims will be taught to the participants involves a great deal more than sport. Similarly, there has been a recent proliferation of development through sport agencies, all of which claim that the intended and unintended consequences of involving young people in low- and middle-income countries in sport will involve a great deal more than improvements in sport skills. These claims need to be treated cautiously, because direct evidence of the impact of sport on character and behaviour is often missing or quite equivocal. This review applies the strictest standards in assessing the claims made.

Multidisciplinary sources of research

Reviewing multiple sources of data from different academic disciplines has a real advantage in terms of triangulation, and building evidence to determine the accuracy of claims. That is what we have done in this review. However, there are also disadvantages in terms of the comparability of data. Different academic disciplines, and even different branches of some academic disciplines, make different assumptions about measurement, about the meaning of data, about how research ought to be carried out, and in terms of their definitions of key concepts. Overall, for the purposes of this review, we consider that the advantages of reviewing multiple sources of data from different academic disciplines far outweigh the disadvantages. Perhaps the greatest area of concern lies in the terminology used, and the different meanings given to specific concepts in the different disciplines.

Disputed terminology

Because of the multidisciplinary nature of the research reviewed, it was necessary for us to develop a common understanding of some specific terms for the purposes of this review. These include:

Development

The level of development of a nation was initially considered only in economic terms, and concerned the extent to which its economy depended on the agricultural, industrial and/or service sectors (the latter being considered the most ‘developed’). The level of development was measured in terms of the gross domestic product (GDP) or gross national product (GNP). But, by the 1980s, the idea that economic growth determined the well-being of a country was widely challenged, culminating in the UN Declaration on the Right of Development (1986), which recognized that:

development is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and
meaningful participation in development and the fair distribution of benefits therefrom.

The United Nations Development Program (UNDP) followed the Declaration with a far more comprehensive measure of ‘development.’ The Human Development Index (HDI) was intended to measure improvements in the quality of life of humans, based on an index with three criteria:

1. A long and healthy life, as measured by life expectancy at birth;

2. Knowledge, as measured by the adult literacy rate (2/3 weight), and the combined gross enrolment ratio in primary, secondary and tertiary education (1/3 weight);

3. A decent standard of living, as measured by the GDP per capita in purchasing power parity (PPP) terms (measured in US$) (Human Development Report, 2006, p.394).

As with GDP and GNP measures, the latter measure suffers from ‘averaging’ – two countries may achieve a similar per capita GDP; in one country, however, it may be a result of relatively equal household income distribution, while in the other there may be marked extremes of household income distribution. This raises issues of relative deprivation or relative poverty. The ‘Gini coefficient’ has been used more recently to measure the degree of inequality in household income, with lower value coefficients indicating more equal household income distribution.

It is important to note that, under these definitions, no country ever achieves a final state of being ‘developed’ – as the UN Declaration notes, development is a process of “constant improvement.” However, key questions remain: “who determines the form of development in a country?” and “what are the appropriate roles for foreigners in the development of another country?”

The RFP prepared by the SDP IWG/Right To Play refers to “transitional and developing countries.” However, the way to refer to such countries is extremely contentious in the academic and policy communities, and has been the subject of a great deal of debate for the research teams. Among the terms in common use that were considered are: developed/developing nations; global North/global South; majority world/minority world; and countries with developing economies. For a time, “global South” achieved a great deal of support, and it is becoming more widely used in the academic and policy communities:

“Global South” is not just another name for the "South" or "the developing world." The term denotes a community of people at different geographical locations who experience a common set of problems – problems which emanate, by and large, from deep inequities of power within and between nations (Reed: www.yorku.ca/ananya/Globalsouthhome.htm; see also, UNDP, 2004).

However, ‘global South’ was still considered to be raising certain problems, and the term that achieved the most agreement among the research teams was ‘Low and
Middle Income Countries’ (LMICs). This standard term has been applied to all of the reviews. Low-income and middle-income economies are sometimes referred to as developing economies. The use of the term is convenient; it is not intended to imply that all economies in the group are experiencing similar development or that other economies have reached a preferred or final stage of development. Classification by income does not necessarily reflect development status.

**Sport**

Perhaps even more diverse than the meaning of ‘development’ is the variety of meanings that have been given to ‘sport’ in the research reviewed. The RFP prepared by the SDP IWG/Right To Play defines sport as: “all forms of physical activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organized or competitive sport, and indigenous sports and games.” This is a slightly abbreviated version of the definition given in the European Sports Charter (2001): “Sport means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels.” In both cases, an extremely comprehensive definition is given, one that incorporates all forms of sport, physical activity and exercise. However, it should be noted that such comprehensive definitions are unusual in the research reviewed. There is invariably a focus on organized sport and physical activity in the research (because of their accessibility to researchers and their measurability in terms of participation, energy output, etc.). This, of course, neglects the great amount of informal, child-/youth-organized, play games and sports in which so many participate.

It is also necessary to point out the widespread essentialized use of the term ‘sport’ throughout the literature reviewed. Rather than seeing sport as a social construction that is given meaning by the participants and by more powerful defining agents (e.g., the media, sport organizations, etc.), sport is far too often presented as an essential positive. For example, Nelson Mandela said:

> Sport has the power to unite people in a way little else can. Sport can create hope where there was once only despair. It breaks down racial barriers. It laughs in the face of discrimination. Sport speaks to people in a language they can understand.

In a recent reference to the Olympic Truce, International Olympic Committee President Jacques Rogge said: “Sport fosters understanding between individuals, facilitates dialogue between divergent communities and breeds tolerance between nations.”

Both of these statements are absolutely correct; but, so is the opposite. Sport is full of discrimination; it can be racist, divisive, and can breed intolerance and misunderstanding. We have paid careful attention to such essentialized characterizations of sport throughout this literature review, and we have dealt with them by the use of carefully contextualized examples and explanations.
2. Understanding peace and conflict resolution

a. The history of sport and war

The history of competitive games, sport and conflict is a cautionary tale. At some moments, athletic activities have provided the occasion and vocabulary for peaceful communication – and even understanding – across the divides of difference and hostility. Commendably, the modern Olympic Movement is committed to fostering sport as a dialogue of intercultural communication. But, games and sports have contributed to and are deeply associated with the very difference, inequality and conflict they are sometimes recruited to address. The classic Olympic Truce, upon which the modern Olympic Truce is modelled, is an example. The ancient Olympic Truce required warring armies to give safe passage to anyone travelling to the Olympic Games, and forbade any state from invading the sacred precinct at Olympia at the time of the Games. For most of the ancient Games’ 1,100-year history, this Truce was respected. But, in protecting the Olympic Games, the Truce protected the rehearsal and celebration of the skills and predatory spirit of early warfare, which enabled the creation of class societies as well as the subjugation of the majority of the eastern Mediterranean population, and virtually all girls and women, into slavery. In the words of Homer, “athletics was preparation for war, war for athletics.” Even after athletics lost their direct connection to the military arts, the Olympic Games (and other sacred games) celebrated the political power of the ruling classes that controlled the means of organized warfare in the ancient world (Kidd 1984). While modern sport is much less rooted in violence than its earlier counterparts (Elias, 1972), it is replete with similar contradictions. Some scholars argue that sports were extended to many parts of the world as an explicit strategy of imperialism and conquest (Mangan, 1986). Whereas sport has been evoked in deeply moving ways to reduce conflict and restore communication between antagonists, such as during the 1971 US-Chinese ‘ping pong diplomacy’ and the visits of Mohamed Ali and Pele to war-torn west Africa, it has also been employed or associated with acts of violence and aggression. Although British and German troops played soccer together amid the trenches in the magical Christmas truce of 1914, World War I provides far more examples of sport being used as a means of recruitment, training and motivation for going over the trenches with fixed bayonets. The ‘Soccer War’ between El Salvador and Honduras broke out during a hotly contested football game. One group of sport fans became the vanguard of genocide during the Yugoslavian civil war (Foer, 2005). Moreover, while sport has often contributed to cross-class and cross-ethnic communication among boys and men, it has celebrated, and continues to celebrate, male power at the expense of girls and women.

Two lessons can be drawn from this historical overview. First, caution should be taken not to ‘essentialize’ sport and the role it plays in societies – in fact, it would be preferable to think of ‘sport’ as a plurality of forms that have different results in different contexts. Any examination should consider the particular form that any sport takes and the specific social context in which it is conducted. Second, care must be taken regarding the biases inherent in forms of sport, and the way that they privilege certain groups over others.
Despite more than a century of creative and courageous feminist and developing world interventions and inspirational performances, sports are still inherently masculinist, i.e. they privilege males and masculine ways of thinking and Europeanist forms of cultural expression. This does not lead us to reject the benefits of sport, but rather to be mindful of the limitations of sport.

b. Peace-keeping and conflict resolution

Peace studies, which is inclusive of ‘conflict resolution’ and ‘peace-building’, is a new and emerging field. As in the development of any scientific field, investigation and explanation have prompted active debates over definitions. The first efforts at definition stem from the early 1990s, when Boutros Boutros Ghali, the UN Secretary General, released “An Agenda for Peace” that set out four main terms: preventive diplomacy, peacemaking, peacekeeping, and peace-building. For Boutros Boutros-Ghali, ‘peace-building’ was an exclusively post-conflict activity, focusing on the support of peace accords and the rebuilding of war-torn societies (Fisher et al., 2000). More recently, scholars such as Lederach (1997, 2005) have argued in favour of a broader time frame and a more ambitious definition of ‘peace-building.’ Lederach believes that relationship building can also contribute significantly to ‘peace-building’ activities, and that ‘peace-building’ can and should occur during as well as after conflict. He states that ‘peace-building’ is:

a comprehensive concept that encompasses, generates, and sustains the full array of processes, approaches, and stages needed to transform conflict toward more sustainable, peaceful relationships...activities that both preceded and follow peace accords (Lederach, 1997, p.20).

As the term ‘peace-building’ is forging new roots with an emphasis on relationships, a new term, ‘conflict transformation’ has emerged. Whereas ‘conflict resolution’ refers to ‘strategies that address open conflict in hopes of finding an agreement to end violence, as well as resolution of some of the incompatible goals underlying it,’ Fisher et al. (2000) have proposed the term ‘conflict transformation’ to refer to efforts that ‘address the wider social and political source of a conflict and seek to transform the negative energy of war into positive social and political change’ (p.217–218).

This review of literature follows these emerging definitions of peace-building and conflict transformation. With a focus on sport for peace programming, the review examines efforts to (re)build relationships as well as if and how sport for peace programming addresses some of the wider sources of conflicts.

c. The changing nature of war

It is important to note the changing nature of conflict. As the nature of conflict changes or varies, peace-building responses must also adapt. The Cold War between the superpowers was framed as much by the ideological battle between capitalism and socialism as the struggle for security, territory and resources. The ever-present threat of mutual nuclear annihilation created considerable deterrent. While the superpowers financed proxy wars and indigenously initiated wars of liberation in
LMICs, they often disciplined their allies and client states to refrain from aggression that could trigger another world war.

Moreover, the received opinion on all sides was that the boundaries of nation states should be respected. Today, the majority of conflicts may be described as ‘intra-state’ or ‘intra-national’ conflicts with little apparent connection to the United States and the powerful states of Europe and Asia. In many conflicts, rival groups seek autonomy or some form of self-government or control over resources for a group or region within a nation state. Conflicts may become international when, for example, opposition movements invade/inhabit neighbouring countries, weapons and money fuelling the conflict flow in from both the surrounding region and more distant locations, and displaced refugee populations cross both immediate and distant borders (Lederach, 1997). Still, the root of most conflicts is the rivalry between/among groups within countries. At least half of present-day wars have to do with the redefinition of territory, state formation or control of the state (Lederach, 1997).

With the emergence of intra-state conflicts, scholars are re-examining and revising peace-building techniques developed during the Cold War. Lederach (1997) argues:

> We persist in relying on traditional statist diplomacy, despite its inadequacies in responding to the nature of conflicts today... The history and culture of international diplomacy are tooled in, and emerged out of, the formation of the state system. Yet, at issue in many of today’s conflicts in the very nature of the existing state, as contested by disputing internal groups (p.16).

Scholars examining the new relational nature of conflicts have urged the peace-building community to reduce tension and violence with a ‘relational’ response; that is, cultivating relationships that lead to reconciliation.

Paradoxically, they (conflicting groups) live as neighbors, and yet are locked into long standing cycles of hostile interactions. Deep-rooted, intense animosity, fear, and severe stereotyping characterize the conflicts. These dynamics and patterns, driven by real-life experiences, subjective perceptions, and emotions, render rational and mechanical processes and solutions aimed at conflict transformation not only ineffective but also in many settings irrelevant or offensive.... [P]eace-building must be rooted in and responsive to the experiential and subjective realities shaping people’s perspectives and needs.... [T]his paradigmatic shift (away from traditional framework and activities that make up statist diplomacy) is articulated in the movement away from a concern with the resolution of issues and toward a frame of reference that focuses on the restoration of issues and toward a frame of reference that focuses on the restoration and rebuilding of relationships.... The framework must address and engage the relational aspects of reconciliation as the central component of peace-building (Lederach, 1997, p.24).
d. Women and war

Clearly the nature of war has changed. It is being fought in homes, communities and on women’s bodies – in a battle for resources and in the name of religion and ethnicity. Violence against women is used to break and humiliate women, men and families. No matter what side they are on. Women have become the greatest victims of war – and the biggest stakeholders of peace (Rehn & Sirleaf, 2002, p.1).

These powerful words emphasize both the vulnerability of women during conflict and post-conflict situations and the crucial nature of women’s involvement and voice in peace-building. It is important that the efforts to recruit sport for peace-building be explicitly and emphatically linked to the efforts to make sport an ally in the effort to realize the United Nations’ Millennium Development Goals for gender equality.

“All peace building initiatives must consider the gender impacts of and incorporate women in their policies and projects...if peace building is to be effective and just, it must involve women in ways that work towards their empowerment” (Mazurana & McKay, 1999, p.91

Please refer to Larkin’s review on “Gender and Sport” for further guidance.

e. Sport, war and disability

The violent nature of war has dramatically increased the number of persons with disabilities (PWD), especially persons with amputations. Moreover, even after violent conflict has been sedated, the widespread risk of landmines still poses a life-ending or disabling effect. No program of sport for peace and the rebuilding of war-torn societies can be inclusive or comprehensive without addressing the needs of PWD. It is important that the efforts to recruit sport for peace-building be explicitly and emphatically linked to the efforts to extend sport to persons with disabilities.

Please refer to Parnes’ review of ‘Sport as a means to foster inclusion, health and well-being of people with disabilities’ for further discussion.

f. Cultural violence: invisible and visible

Galtung (1998) has encouraged scholars in peace studies to recognize the inter-relationship between visible and less visible violence, as well as the necessity to address less visible violence in order to begin conflict transformation and achieve sustainable peace. The following diagram developed from Galtung’s work shows the relationships between direct physical violence, structural or institutional violence, and sources of violence.
Interventions that seek to reduce visible violence are extremely important. Yet, in order to promote positive peace, it is essential to stress that action on all three dimensions must be taken (Fisher et al., 2000). Sport can play a role in addressing the sources and structures of violence.

**g. Nested paradigm: a sub-system approach**

The work of peace researcher and theorist Marie Dugan provides us with another helpful framework to understand the potential interventions of sport. Her ‘nested paradigm’ links the narrow challenges of conflict resolution to the broader necessity of peace-building.
For example, consider two students fighting in a South African school. The fight is the immediate issue, provoked by the relationship between the two students. But, the antagonism that led to the fight could also be connected to the social structures that create and perpetuate racism. A conflict resolution approach of diffusing immediate face-to-face tensions between the fighting children has value in repairing a broken relationship, but may do little to address broader inequities. The system-level approach offers few pathways for dealing with the immediate crises, however, and seems distant from the particularities of the actual relationships. In such situations, Dugan proposes a ‘sub-system’ approach – for this example, an intervention in the students’ school. At this level, a peace-building strategy could be designed to address both the systemic concerns and the problematic issues and relationships (Lederach, 1997). The sub-system approach allows one to shape both grassroots relationships, as well as contribute to wider systematic change.

h. The ‘3 Rs’: reconstruction, reconciliation, resolution

For Galtung (1998), peace-building requires the ‘3 Rs’: reconstruction of people and places, reconciliation of relationships, and resolution of issues and animosities.

Reconstruction... is aimed at solving problems, and immediate issues in the short-term.... [R]econciliation is a long term process that aims to (re) build positive relationships between antagonistic groups. Reconstruction is aimed at rebuilding the political, economic, ecological, physical, cultural and social infra-structures and includes rehabilitation of people affected by war (Lea-Howarth, 2006, p.12).

Building positive social networks through relationships is central to many of the processes underpinning each of the ‘3 Rs.’

i. Web approach – social theory of peace-building

Lederach (2005) has theorized a ‘web approach’ to peace-building. He encourages interventions that explicitly focus on strategic networking or ‘web-making,’ a term used to describe the building of relationships. Web-making is especially relevant for NGOs working in the field of sports. As they are middle-level actors, they are ideally located to bring people together and weave dialogue, ideas and programs across boundaries. By capitalizing on key social spaces, they are able to spin a web of sustainable relationships:

The goal is to create a web that has a capacity to receive blows and even structural damage to one part without those points of damage destroying the rest of the web. The structure of the web combines interdependent connections with localized independence. Strength is built by creating coordination at the hub without centralization (Lederach, 2005, p.83).
The above diagram demonstrates a social web. Strands represent the building of relationships that intersect throughout multiple levels. Middle-level actors from NGOs are situated in key social spaces, where they are able to build and utilize hubs to interconnect the peace-building process at all levels.

j. Ritual identity

Schirch (2005) has pioneered the use of rituals as a process to transform identities in and among antagonistic people who have dehumanized each other through a protracted violent conflict. It is essential in peace-building that conflicting groups be able to ‘re-humanize’ their vision of each other as part of a reconciliation process that aims for sustainable co-existence. Rituals, Schirch argues, create spaces and opportunities to ‘re-humanizing’ the other. Through rituals, participants are able to both see and understand their own and the other’s full humanity, as well as mark the creation of shared identities. Schirch emphasizes that success in the use of ritual is embedded in sensitivity and awareness of culture. Reconciliation rituals should be constructed by participants, and they should use symbols that are meaningful to all involved in the reconciliation process. Rituals can take a variety of forms, from a shared meal, to dancing, to ceremony, to sport participation (Schirch, 2001).
It is clear from the foregoing that, the extent to which sport can accomplish the following, sport can make a contribution to peace-building: (1) help people ‘re-humanize’ each other through its ritual ceremonies and ethics of ‘fair play’ and sportsmanship; (2) help people (re)build relationships in the organization and conduct of events; and (3) help build webs and relationships at the sub-system level. We conclude this section with two final observations:

First, the evolving nature of peace-building work and literature requires ongoing review and analysis. New interventions, new studies and ongoing debates in conferences and at meetings on the subject of sport for peace are being reported almost every week. While the authors have attempted to be as comprehensive and exhaustive as possible, this review will need to be updated regularly.

A final caution arises from the extent of current global conflict. Ploughshare reports that there are 32 wars or conflicts raging in over 27 countries (Ploughshares, 2007). These conflicts disproportionately ravage “developing” countries, constantly jeopardizing their development progress and goals. One out of four African countries is in a state of conflict, and there are more than 300,000 child combatants currently engaged in conflict. Women and children have invariably been the greatest victims of war. This grim landscape should remind us that the challenges are enormous, far greater than the sports community is able to address by itself. Sportspersons must coalesce with progressive people in every other sphere of society, including international governments, corporations and NGOs, if the ongoing human and environmental destruction of war and conflict are to be halted and overcome.

<table>
<thead>
<tr>
<th>SUMMARY BOX:</th>
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<tbody>
<tr>
<td>Sport has historically been implicated in conflict; therefore, careful and critical consideration of its utility for peace is required.</td>
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<tr>
<td>The burgeoning ‘peace studies’ literature focuses on social relationships and holds potential for the analysis of sport as a peace-building activity.</td>
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<tr>
<td>The changing nature of conflict means that most contemporary wars are intra-national as opposed to international in the tradition of the superpower nations.</td>
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<td>Women and persons with disabilities continue to bear a disproportionate brunt of the negative impacts of armed conflict around the world.</td>
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<td>New models (such as the ‘visible/invisible’ and ‘nested paradigm’) offer theoretical tools to understand the social and relational structures that spur and support armed conflict.</td>
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<tr>
<td>The 3 Rs – reconstruction of people and places, reconciliation of relationships, and resolution of issues and animosities – are essential for peace building.</td>
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3. Review of literature and evidence

As Sugden has argued, ‘if projects...are locally grounded, carefully thought out, and professionally managed they can make a modest contribution to wider efforts to promote conflict resolution and peaceful co-existence’ (Sugden, 2006, p.221).

a. Relational aspects of sport

Most of the programming identified in this review focuses on the relational aspects of sport. In these programs, sport is seen as a tool for (re)building relationships between antagonistic groups. Sport-for-peace initiatives, such as the Football 4 Peace program, SCORE in South Africa, and the Open Fun Football Schools, are examples of sport as a site for relationship building. Keim’s (2003) study from post-apartheid South Africa suggests that these efforts can be successful – i.e., that they significantly increase the number of friendships among participants from different backgrounds. She also found that intercultural friendships at school developed more easily when children were involved in integrated team sports. This approach is consistent with Lederach’s view that contemporary peace-building should focus on relationships. It may well be that the social aspects are some of the most salient gifts that sport can offer the field of peace-building.

b. Sports as social spaces

Sports programs, when properly supported, may be crucial in creating opportunities for social contact that have long been suppressed. Lederach (2005) stressed the importance of creating safe and accessible social spaces or ‘relational spaces,’ and encourages the peace-builder to draw attention to:

Markets, hospitals, schools, street corners, cattle dips...youth soccer clubs – the list is interminable and different in every context. Think social spaces where people cross in natural ways. These are locus resources, the ‘strategic where’ of a geography...finding the location where relationships and platforms hold potential for affecting the whole...Peace-building lives in an unpredictable environment. The challenge is how to transcend what exists while creating innovative responses to the needs the real world presents. Such transcendence arises from relational spaces, understanding connections, and being smart flexible (p.86).

The use of these social spaces can be innovative in broadening and deepening peace-building efforts.

Sport-for-peace programming creates or builds upon sport as a safe and supportive social space. Sport spaces seem to have the advantage of being cross sectional, or tied to multiple levels of society. ‘The interest of Sierra Leonean youth in soccer crosses most social divisions in the country. Rich and poor, Muslim and Christian, women as well as men, all enjoy the game. Soccer pitches are found in the remotest villages as well as the urban areas’ (Richards, 1997, p.150).
Armstrong’s case studies in Liberia, and Keim’s research in South Africa, also reinforce the power of sport to create ‘relational spaces’ across wide and diverse populations.

It is, therefore, important to pay attention to the quality and quantity of sports spaces. It is clear from Keim’s (2003) work in South Africa that children wanted to participate in joint or multi-cultural sporting activities, but political, economic, and social conditions often made it difficult to act in accordance with that wish. The existence of safe, accessible facilities, from open play spaces to specialized fields and equipment, as well as affordable transport is of crucial importance to the success of these programs.

**c. Professional/trained and committed volunteers**

Keim (2003), Armstrong (2002, 2004a & 2004b), Gasser & Levinsen (2004) and Sugden (2006) applaud and emphasize the importance and value of thoughtful, committed volunteers. In their research, they highlight both the importance of training and the selection of volunteers or coaches to run the programs. Peace-building is a complex process and demands highly skilled peace-builders. As Sugden (2006) notes: “The most successful ‘off-pitch’ programs were those led by knowledgeable, sympathetic and skilled facilitators and tended to be activity rather than classroom based” (Sugden, 2006, p.228).

**d. Community partnerships: building a web**

As middle-level actors, Lederach (2005) notes, NGOs occupy key strategic positions to build cross-sectional relationships. Several sport-for-peace projects were able to show success by interconnecting with other partners in their community. The following example from Liberia demonstrates an innovative partnership between a Child Protection Unit managed by the Don Bosco Missionaries and a popular, strongly managed youth football league:

> The outreach workers employed by the project actively seek children at risk, and their work is supplemented by football teams, and neighborhood activist and organizers who run the leagues...What the children of Liberia have now is some form of protection thanks to football clubs made up primarily of young men who know it is their duty to report the abuse of children to the project who in turn will send personnel to visit the alleged perpetrators and discuss the situation (Armstrong, 2004, p.205).

Open Fun Football Schools in Bosnia and Herzegovina are noted for building a web of relationships between the football leagues, parents and schools.

As the ones most invested in the welfare of the children, and as community members and constituents, parents are an important vector for the program’s impact on the community. They too are drawn across lines when they come to watch their children play and have fun; once there, they find themselves cheering with former enemies who have children playing for the same team (Gasser & Levinsen, 2004, p.465).
Sport programming seems to show success when it interconnects with other layers and levels of society, rather than functioning in isolation.

e. Soldiers and reintegration

One of the most difficult challenges for peace-building is creating environments for the successful reintegration of former combatants, especially child soldiers, into their former or new communities. Often, communities are wary and unwelcoming of their presence, and may perceive them as a threat. Richards (1997) studied these challenges in Sierra Leone, where he emphasizes the cross-sectional social space that soccer offers and notes that soccer is regularly used to link local populations with outsiders. Richards emphasizes soccer as an unspoiled peacemaking resource, a place for shared experience:

...a shared enthusiasm for soccer is an interesting resource for peacemaking, because it is one of the relatively few widely enjoyed but ‘neutral’ items of cultural common property – unspoilt by war – through which these alienated youngsters might begin to experiment with the direct reconstruction of their social identity... offers a neutral space through which combatants and society at large might begin to seek some mutual accommodation in a ‘shared space’ before getting down to the hard tasks of re-forming specifically Sierra Leonean social identities and social understandings (Richards, 1997, p.149).

Armstrong (2002b) also draws attention to the value of football as a means of obtaining social capital in Liberia:

The game is providing an avenue for linking local populations and groups of displaced outsiders.... [I]n the absence of any other opportunities...running and managing football competitions may be one way of building quickly and constructively on such tenuous social capacities. What can best be hoped for is that football might provide a network of neighborhoods which, having learned to co-exist via football fixtures, should the call to arms come again, those called will hopefully refuse to go running to join militias (p.491).

Although Richards and Armstrong provide some intriguing insights into the role of sport in post-conflict community reintegration, it is important to note that much of this research is speculative, and not based on empirical findings.

f. Sport and reconciliation

While sport can make an important contribution to relationship (re)building, which, in turn, contributes to reconciliation, reconciliation also involves the components of truth and justice. According to Lea-Howarth (2006), sport seems incapable of playing a role in reconciliation. Nor have sport programs been shown to successfully address structural violence and the urgent tasks of environmental reconstruction, such as the removal of landmines. Sport may have a role to play though, by linking with advocacy groups, for example, and recruiting popular stars as advocates for peace.
g. The limits of sport

Researchers have cautioned against false and elaborate expectations associated with sport for development and peace programs:

...we need to be cautious of making false claims for sport or raising expectations that cannot be met. On its own sport cannot reverse poverty or prevent crime or violence, solve unemployment, stop corruption and respect human rights (Keim, 2006, p.103).

As Armstrong (2004a) points out, “Football itself cannot possibly solve the multifarious problems that Liberia currently faces” (p.206). Sports themselves are unable to address problematic political structures, employment, access to land, an egalitarian distribution of income, elementary health provision, affordable housing, educational opportunities, clean water and campaigns to address AIDS. Simply put: “Rehabilitation and reintegration projects are doomed to fail if there is no better life offered to the disaffected de-militarized” (Armstrong, 2004b, p.498).

h. Sport as a social construct

Sugden (2005) reminds us that “Sport is neither essentially good nor bad. It is a social construct and its role and function depends largely on what we make of it and how it is consumed” (p.251). While sportspersons often assume that the activities they love constitute a universal language, Sugden warns against the over-essentializing of sport, and reminds us to recognize it as a social construct. What then becomes most important is how to construct sport to meet peace-building needs.

i. Community commitment and participation

Sugden’s research on the Football 4 Peace programming in Israel and Palestine acknowledges the vital role of community commitment and participation in shaping the projects. He highlights the need for cultural sensitivity and awareness; he relates how important it is for volunteers and leaders to have a shared commitment to the program; and he stresses the need for local partners to be involved in all important evaluations, decision making, planning and implementing processes (Sugden, 2006). In a situation where an outside agency is leading the implementation of a program, they must actively consult the people on the ground.
SUMMARY BOX:

Since sport offers important opportunities for social networking and relationship building, it may complement peace-building strategies based on relational spaces.

Research suggests that committed and trained volunteers/staff, as well as strong community networks, are key to successful sport-for-peace initiatives.

Evidence also points to the utility of sport in facilitating post-conflict reconciliation and reintegrating child soldiers, although sport can be only one part of a larger project.
4. Current uses, best practices, recommendations

a. Catalogue of interventions

Given the relative paucity of research attending specifically to sport and peace initiatives, the following ‘catalogue of interventions’ is provided to document the range of interventions that fall under the sport-for-peace movement.

Truce/cessation of hostilities

The Olympic Truce asks for the safe passageway of athletes during the Olympic Games. Utilizing their international leverage and the prestige of the Olympic Truce, the IOC, IPC and the United Nations have been able to bring about a temporary pause in fighting in conflict regions during the Olympic and Paralympic Games. For example, a cease-fire in Bosnia during the 1994 Olympic Winter Games in Lillehammer allowed for the vaccination of an estimated 10,000 children (Reid, 2006).

Child protection

A community football league in Liberia, with a strong educational program about the importance of child safety, conducted by the Don Bosco missionaries, has been able to protect children from domestic and physical abuse (Armstrong, 2004a).

Post-conflict reconstruction

In the UNICEF-created ‘Spirit of Soccer’ campaign in the former Yugoslavia, soccer games were combined with education on the perils of landmines. The International Red Cross has also used high-profile soccer celebrities in awareness and fundraising activities to help clean up landmines (Armstrong, 2004a)

Rehabilitation of victims of war (refugees, child soldiers, IDS camps)

Right To Play (RTP) brings the psycho-social and health benefits of sport to refugee populations and, in some cases, former child soldiers, in some 21 countries (retrieved April 2, 2007, from http://www.righttoplay.com)


Remembrance

In Rwanda, the annual Great Lakes region invitational basketball tournament is hosted in memory of Gisembe Ntarugera Emmanual, a star basketball player killed during the 1994 genocide. The tournament attracts men’s and women’s teams from neighbouring Burundi and the Democratic Republic of Congo, and serves as a remembrance activity with community theatre performances, visits to genocide...
museums, and public speeches. The tournament strives to bring together inter-
ethnic teams to compete in a friendly environment, while using the time as a
memorial to the atrocities of the Rwandan genocide and as a lesson that the horrors
of the past should not be repeated. Community theatre is performed at half-time; the
teams are taken to visit genocide memorial sites and hear confessions from genocide
perpetrators (MacDonnell, personnel communication, 2007;
Similar tournaments have been hosted in Burundi.

Peace education

The Fight for Peace Sports and Education Centre in Mexico targets low-income
urban youth. The Centre gives youth the opportunity to participate in sports
activities such as boxing, wrestling and capoeira. Coupled with the sports training is
an educational program focusing on citizenship and conflict resolution (retrieved
luta-pela-paz.htm).

ASCIANA, in Kabul, operates resource centres for street children. By
incorporating sport activities into programming, ASCIANA helps children
and coaches to develop the skills and experience of conflict resolution, and to
raise awareness of health-related issues (retrieved March 25, 2007, from
centres-in-kabul-through-sport.htm).

Giving back to the community

The Kenyan running star Tegla Loroupe has created a foundation to raise money to
support peace-building initiatives – specifically, programming for women – around
the Great Lakes region of east Africa. According to the Web site, the Tegla Loroupe
Peace Foundation also addresses issues such as HIV/AIDS, poverty reduction and
peace-building (retrieved March 25, 2007, from

Relationship building

Playing for Peace operates in South Africa, Northern Ireland and Israel. Basketball,
the sport of choice, is used to bring together groups from different ethnic
backgrounds to play on mixed teams. Children practise together as well as join in

SCORE, in South Africa, recruits volunteers to organize sports events, mini-
festivals, and inter-school or community soccer matches for children, youth and
adults in disadvantaged communities. The program aims to build bridges between
people on a community level, breaking down barriers and negative stereotypes

Sarvodaya and the Swiss Academy for Development work together in Sri Lanka to
use sports and games as tools to promote peace among different ethnic and religious
groups and to promote social integration (retrieved March 26, 2007, from

The United Nations High Commissioner for Refugees encourages sport programming in Burundi to bring together youth from antagonistic communities (Koss & Alexandrova, 2005).

The following programs are recommended as examples of ‘best practice.’ This designation was based upon carefully selected, consistent and predetermined criteria, including:

1. Scale – i.e., the size and sustainability of the program
2. How it addresses barriers
3. Justification – what were the criteria for establishing the program?
4. Culturally specific (needs based)? Is the program sensitive to specific local needs?
5. Any evidence of mainstreaming
6. Evidence/published material? Availability of appropriate evidence?
7. Gender – is the program open, and sensitive to gender issues?
8. Disability – is the program open to and adapted for persons with a disability?

b. Football 4 Peace:

Football 4 Peace (F4P) is a sport-based coexistence project for Jewish and Arab children and adults in northern Galilee, Israel, organized by the University of Brighton in partnership with the British Council. Since 2001, Football 4 Peace (F4P) has been conducting sports programs for Jewish and Arab children in towns and villages of the Galilee region of Northern Israel. ‘The work of F4P builds upon the experiences of South Africa and Northern Ireland in that it seeks to make grassroots interventions into the sport culture of Israel and Palestine while at the same time making a contribution to political debates and policy development around sport in the region.’ F4P creates opportunities for social contact between divided communities. Strengths of the program include peace-building/conflict resolution training provided for local staff; training in cultural sensitivity and awareness for international volunteers; and the incorporation of ‘off pitch’ programming in community relations, led by local leaders. As of 2004, the program involved 700 children from 16 communities throughout northern Israel. F4P is conscious of the lack of female athletes in its programming and is working to create welcoming space for female participation. The organization is open to and conscious of obtaining feedback and evaluation and, each year, demonstrates programming changes to incorporate lessons learned. In addition, the program has produced a Coaching 4 Peace manual.

c. Open Fun Football Schools (OFFS)

Open Fun Football Schools in south eastern Europe are supported by the Danish NGO, Cross Cultures Project Association (CCPA) in co-operation with the Norwegian Football Association (NFF), and with administrative assistance from the Gerlev Sports Academy. OFFS organizes grassroots children’s football programs
during school vacations in Bosnia and Herzegovina. Through games, the schools promote social cohesion and co-operation between otherwise antagonistic population groups. As of 2003, there were 99 OFFS active in the country – conducted by 1,700 trainers, reaching out to 20,000 children, and maintaining an ethnic balance. OFFS employs an entirely national staff. Though funded by international donors, OFFS is credited for maintaining a balance between local and international control. Through its programming, it creates a welcoming place for children, volunteers and parents, while preserving an apolitical and informal forum. The inclusion of local and national groups, at all stages of planning and implementation, has fostered local ownership. Finally, an emphasis on fun, rather than competition, is the foundation of their pedagogical method (Gasser & Levinsen, 2004).
5. What we know

a. Gender-inclusive programming

Contemporary conflicts are ravaging the bodies of women. Peace-building programming needs to be inclusive, supportive and give voice to women and girls. Women and girls must be recognized as key stakeholders in the peace process, and programming must build around or be shaped to this specific population. “This means identifying women’s specific concerns, approaching peace building from the perspective of women, and welcoming their pluralistic voices and diverse methods” (Mazurana & McKay, 1999).

b. The importance of professional/trained and committed volunteers

Nearly all research points to and confirms the importance of selection and training, and committed volunteers who are culturally aware and sensitive (Keim, 2003; Donnelly & Coakley, 2002; Sugden, 2006; Gasser & Levinson, 2004). Current and future programming must invest in and value program leaders, who are in key and demanding positions.

c. Constructing sport for peace

It is essential to recognize sport as a social construct. Which constructed forms and contexts allow for effective peace-building and which do not? Here, we also recommend examining coaching manuals, such as the one the Football 4 Peace project has produced, to find practical examples of how sport can be constructed for the purposes of peace-building.

d. Employ community-based development approach

In situations where outside groups either establish a program, or are influential in the program due to their donor positions, it is essential that they are guided by community-development approaches. Outside groups must avoid creating donor-client relationships (Hognestad, 2006) Instead, organizations should work as ‘allies’ and support and provide space for community-owned initiatives.

Organizations must conduct community-wide consultation projects (Donnelly & Coakley, 2002). External agencies must be empowering in all of their practices and inclusive of participatory decision-making at all decision levels (Boutlier, Cleverly & Labonte, 2000).

Donnelly & Coakley (2002) also stress the importance of ‘agency’ in programs, referring to the ability of an individual to be involved in creating and transforming the nature of their physical activity.
e. **Programs must be accessible**

Donnelly and Coakley (2002) advise that programs should be appropriately timed and scheduled; programs should be welcoming and accessible; and social supports must be made available for isolated groups. Keim (2003) reinforces this recommendation from South Africa by highlighting the importance of infrastructure, from access to play spaces and equipment to affordable transport, as being of crucial importance to the success of the program.

f. **Caring for the participants**

The following guideline from Donnelly & Coakley (2002) would contribute to creating positive and inclusive sport spaces. Participants should feel “physically safe, personally valued, socially connected, morally and economically supported, personally and politically empowered, and hopeful about the future.” (p.16).

g. **Sport as part of a whole**

‘We can not over-emphasize the point that these recommendations will have a much larger positive impact if implemented in conjunction with a broad population approach dealing with major determinants of social inequality and social exclusion’ (Donnelly & Coakley, 2002, p.16). Research from the Football 4 Peace project emphasizes these points. Lea-Howarth (2006) quotes Lambert on the value and potential of F4P:

...simply playing the game in the midst of conflict is unlikely to have a long lasting impact on peace. Meaningful sport-based peace projects need to be seen as part of a long game, a series of carefully structured sporting experiences that, alongside a wide variety of cultural, educational, economic and political interventions, can make an important contribution to the peace process (p.32).

h. **The field as a classroom – chances for peace education**

Lea-Howarth (2006) places value on the conflicting moments that can occur in sport. “Football’s ability to generate conflict on the pitch can provide ‘teachable moments’ that those skilled in peace-building can use to educate the participants” (p.26). Such transformation of a conflict requires well-trained and capable facilitators. Sport programming should avoid emphasizing the scoreboard outcome; instead, it should focus on the continued process of participation and utilize these teachable moments.

i. **External agencies**

External agencies that parachute workers, volunteers or celebrities into nations or communities in the name of development and/or peace must take extreme care if they actually wish to facilitate such well-intentioned goals. External agencies must be aware of their role in “insider-outsider” power dynamics, focus on supporting and collaborating with the initiatives of the local community as well as recognizing and building upon the communities’ assets. As outsiders, they must build relationships with locals in order to properly understand and value the cultural context of the
community in which they are working. They should faithfully employ participatory practices. While these recommendations are relevant in all sport-for-development work, they are especially relevant in sport-for-peace work involving an intra-state form of conflict. Where peace-building requires open, cordial relationships between formerly antagonistic groups, it must also involve direct participation from the community. Although transformative strategies and sensitivities may be facilitated by an outside agency, the outside agency alone cannot build those relationships. As Richard Soloman, president of the US Institute of Peace, states: “external intervention is most effective when it empowers indigenous actors to create a self-sustaining infrastructure that promotes reconciliation” (Lederach, 1997, p.xi).

**SUMMARY BOX:**

Sport programs can be part of comprehensive peace-building initiatives. Evidence suggests that such programs should be accessible, community-based, culturally sensitive, and part of a comprehensive peace-building strategy.

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6. What we don’t know and need to know

It is important to first note that there is little published, peer-reviewed literature about sport for peace. Despite a growing number of interventions, research in the area is quite limited. Moreover, few of the studies on sport for peace are grounded in peace-building theory or frameworks. While, at times, authors refer to key concepts or ideas that overlap with peace studies, the sport-for-peace literature does not employ the same language, models or frames that would allow the two areas to speak to each other as well as build upon their respective bodies of knowledge.

It is essential for the study of sport for peace to draw upon and address the theoretical frameworks, insights and debates in the larger peace studies literature. As we have shown in our use of the relationship-building framework that has emerged from peace studies, such integration can only strengthen understanding and, ultimately, the success of interventions.

Peace-building literature also stresses the importance of women and girls as stakeholders in any successful peace-building process. Most of the published literature on sport-for-peace projects, with the exception of Keim, examines programming that seems to be dominated by boys or young men. There is a glaring lack of research on women’s and girls’ participation, and research that specifically analyzes barriers and consequences to their lack of participation. Furthermore, there is a lack of published research examining the participation of persons with disabilities in sport-for-peace programming, or analyzing their lack of participation. This large gap should also be urgently addressed.

Further research in the area of sport for peace is needed to guide or shape programming. In particular, formal research, as well as the monitoring and
evaluation of programs, should draw upon and address the developments and debates in peace studies. To follow in the strides made by Lea-Howarth (2006), research should be incorporating theories and frameworks from peace studies, such as Galtung’s (1998) visible and invisible violence, Lederach’s (1997, 2003, 2005) work on the relational aspects of peace-building as well as the ‘Web’ approach, Dugan’s (1996) Nested Paradigm, Schirch’s (2005) work on ritual identity formation, and Galtung’s (1998) ‘3 Rs’ of reconstruction, rehabilitation and reconciliation, sport-for-peace researchers and interveners may work with a much richer strategic understanding of the issues. Some key questions in the area of sport-for-peace research are:

- What factors (dis)allow for the transcendence of relationships beyond the field of sport?
- Focusing on sport as a relationship building tool, how would it fit into a larger reconciliation, reconstruction and rehabilitation framework?
- Is there an appropriate time frame for sport-for-peace projects in the conflict cycle?
- What are the context-specific influences guiding those recommendations?
- In terms of financial cost, how do sport initiatives compare to other peace-building initiatives?

**SUMMARY BOX:**

More research specifically examining sport and peace is needed, both in terms of program evaluation and policy development.

Future research should begin to make connections between theory and findings from peace literature and contemporary understandings of sport and sporting practices.

In particular, research should attend to those populations disproportionately affected by war, as well as women and persons with a disability.
7. Conclusion

Sport can be imagined as one instrument in an orchestra of multi-level peace-building efforts required to produce harmonious peace. As one instrument, it can make a positive, valuable and modest contribution. Yet, we must always be cautious to avoid essentializing the nature of sport. It is a social construct, and the value of its contribution will always be related to how it is constructed. This how must be contextual and culturally sensitive. Learning from Lederach’s web, by linking with multi-level actors, as we have seen in Liberia, as sport partnered with child protection services, its sounds can be amplified. Sport-for-peace initiatives should be rooted in and cultivated by their respective communities, as we have seen in the OFFS program, so that the program thrives from the valued local knowledge. The absence of the integral contribution of women and girls remains an important issue to be addressed. Much more research is demanded in this area, in order to both build and share this body of knowledge. The changing nature of conflicts has placed an emphasis on relationship building. It is here, where we see sport properly constructed to focus on the relationship aspects of teamwork, as having a potential impact. Yet, as we recognize its strengths, we must also acknowledge its limits in producing truth and justice necessary for reconciliation, or addressing macro-level economic, security or political concerns. As Sugden concluded from his own study and interventions:

The 18th century British philosopher Edmund Burke believed that ‘It is necessary only for the good man to do nothing for evil to triumph.’ For those of us who might seek to make a difference we should do what we can and I believe that in both Northern Ireland case and in Israel it can be demonstrated that sport, if handled sensitively, can make some proportionate contribution to peace...Sport alone will not change the world. Neither will it be a key factor in any Middle East peace settlement, but as Baghdad smolders, doing nothing may no longer be an option (Sugden, 2005, p.251).
8. Annotated bibliography

1. **Title:** Talking Up The Game: Football and the Reconstruction of Liberia, West Africa  
   **Author(s):** G. Armstrong  
   **Year:** 2002  
   **Publication:** Cochrane Database of Systematic Reviews  
   **Countries:** Liberia

2. **Title:** Life, Death, and the Biscuit: Football and the Embodiment of Society in Liberia, West Africa  
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   **Year:** 2004a  
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   **Author(s):** G. Armstrong  
   **Year:** 2004b  
   **Publication:** Sport in Society  
   **Countries:** Liberia

   **Summary:** In the above three articles, Armstrong examines the role of football in Liberia, West Africa, where it has been used as a tool for reconstruction, as well as child protection. The author critically examines the rhetoric that the game can be used to build social cohesion among antagonistic groups, and post-conflict national reconstruction. While providing a glimpse into a variety of different political and celebrity-endorsed schemes, the author reserves his praise for a grassroots organization which creates an innovative partnership between community football leagues and a child-protection unit run by the Salesian missionaries. At the same time, the author raises the concerns over the limits of sport in addressing broader social, economic and political concerns, such as the creation of jobs for former combatants.

4. **Title:** Breaking Post-War Ice: Open Fun Football Schools in Bosnia and Herzegovina  
   **Author(s):** P. Gasser & A. Levinsen  
   **Year:** 2004  
   **Publication:** Sport in Society  
   **Countries:** Bosnia, Herzegovina

   **Summary:** Gasser and Levinsen explore the Open Fun Football Schools (OFFS), created in Bosnia and Herzegovina, to create post-conflict social cohesion. OFFS is a grassroots youth football programme, which aims to promote the reintegration of divided communities that have survived the conflict of Bosnia and Herzegovina. The authors, in explaining the success of this project, point to several key factors, such as the employment of all local staff, a strong relationship with their donor (where OFFS has decision-making power), and collaborative work with schools and parents,
both stakeholders in child development. For the future of OFFS, the authors place responsibility with the national football body and its ability to preserve its commitment to grassroots initiatives that also preserve inter-ethnic balance, and beneficial social and pedagogical values.

5. **Title**: Soccer and Violence in War-Torn Africa: Soccer and Social Rehabilitation in Sierra Leone
   **Author(s)**: P. Richards
   **Year**: 1997
   **Publication**: Entering the Field: New Perspectives on World Football
   **Countries**: Sierra Leone

   **Summary**: Richards’ study concerns Sierra Leone, a small, resource-rich country in West Africa that has been deeply troubled by conflict. Richards suggests that soccer, which he regards as a culturally neutral resource untainted by war, may be utilized as a peacemaking tool. In addition, the author argues that soccer is advantageous, as the game is both inexpensive and has global popularity. Because interest in soccer crosses most social divisions in the country, and it is regularly used to link outsiders with local populations, it has the potential to create spaces in which combatants and society at large may seek mutual accommodation and forge cooperative skills. Organizing and participating in soccer leagues may also offer opportunities for former combatants to quickly build social capital in their new lives.

6. **Title**: Nation Building at Play: Sport as a Tool for Social Integration in Post-Apartheid South Africa
   **Author(s)**: M. Keim
   **Year**: 2003
   **Publication**: Nation Building at Play: Sport as a Tool for Social Integration in Post-Apartheid South Africa
   **Countries**: South Africa

   **Summary**: Keim examines the role that sport may play in social integration in post-apartheid South Africa. She outlines the successes that multicultural sports events and physical education classes may have in the social integration of otherwise divided groups, and points out how these resulted in friendships among students. As well, Keim speaks to the broader social challenges and educational barriers that limit the potential of sport programs. Keim offers several recommendations for creating beneficial programs, such as: training of volunteer leaders; cultural awareness and gender-sensitive programming and design; continuous evaluation; and the creation of extracurricular opportunities for voluntary sport participation, for teachers, social workers, coaches, and others interested in community work, on how to shape sport to achieve ambitious goals.
7. **Title:** Football 4 Peace: A Coaching Programme for Conflict Prevention and Peaceful Co-existence  
**Author(s):** J. Lambert  
**Year:** 2006  
**Publication:** Unpublished  
**Countries:** Israel, Palestine

**Summary:** This coaching manual, currently in use by the Football 4 Peace initiative in Israel, is a great practical resource book, outlining activities, drills, lesson plans, etc. that aim to foster social cohesion and conflict resolution through football.

8. **Title:** Building Peace: Sustainable Reconciliation in Divided Societies  
**Author(s):** J.P. Lederach  
**Year:** 1997  
**Publication:** Building Peace: Sustainable Reconciliation in Divided Societies  
**Countries:** Rwanda, Ethiopia, Sudan and Somalia

**Summary:** This is a landmark publication from one of the leading figures in peace studies. In analyzing the nature of contemporary conflict, Lederach explains the need to move beyond traditional statist diplomacy, where the focus is on top-level leaders and short-term objectives, to a multi-level holistic approach, focusing on restoration and rebuilding of relationships. Within this shift, Lederach points to the multiplicity of peacemakers, and emphasizes working within realistic long-term time frames. As well as maximizing contributions from outside in peace-building efforts, Lederach points to essential participation of community and harnessing local resources for empowerment. These concepts are examined with specific case studies in Rwanda, Ethiopia, Sudan and Somalia.

9. **Title:** The Moral Imagination: The Art and Soul of Building Peace  
**Author(s):** J.P. Lederach  
**Year:** 2005  
**Publication:** The Moral Imagination: The Art and Soul of Building Peace  
**Countries:** Ghana, Columbia, Kenya, Somali

**Summary:** As a sequel to *Building Peace*, Lederach brings together both the art and the skill of building peace. Informed by rich example from his personal mediation and training work, he shares his insights and personal experience from places such as Ghana, Columbia, Kenya and Somalia. Lederach expands upon his work in *Building Peace* to offer new frameworks for peace-building, such as the Social Web Approach, as well as deepening his previous frameworks by contextualizing them to specific cultural beliefs and values.
10. **Title:** Teaching and Playing Sport for Conflict Resolution and Co-existence In Israel  
**Author(s):** J. Sugden  
**Year:** 2006  
**Publication:** International Review for the Sociology of Sport  
**Countries:** Israel, Palestine

**Summary:** Sugden, a co-founder of the Football 4 Peace program implemented in Israel, is in a unique position to share the history of Football 4 Peace. He draws upon field interviews and records to identify key issues in sport-based interventions in such complex situations as Israel. Sugden suggests that sport may make a modest contribution to wider efforts to promote peace and conflict resolution, if programs are properly shaped and constructed, if they encourage local ownership, if they emphasize the importance of trained volunteers, and if they provide culturally sensitive programming.

11. **Title:** Sport and Conflict: Is Football an Appropriate Tool to Utilize in Conflict Resolution, Reconciliation or Reconstruction?  
**Author:** J. Lea-Howarth.  
**Year:** 2006  
**Publication:** MA Dissertation, posted on : http://www.ccpa.dk/english/OFFS/Reports/default.asp?body=../  
**Countries:** Israel, Sierra Leone, Liberia, Eastern Europe, Middle East

**Summary:** Lea-Howarth brings together peacebuilding concepts and frameworks with example of sport for peace programming in Israel, Sierra Leone, Liberia, Eastern Europe, and the Middle East. The author argues that team-sports are transcultural and can provide an apolitical environment that can be used as a tool to address cultural violence, engender reconciliation, and aid rehabilitation through building social networks and providing access and opportunities for education. Lea-Howarth concludes that sport can play a part in a holistic peace-building strategy.
9. References


Web sites


