New Hierarchical Model of Constraints at the Societal Level: An empirical exploration of constraints experienced by Kenyan athletes with disabilities.

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Twenty five percent of the world’s population is affected by disability, either personally or through a family member (Ingstad & Whyte, 1995).

An estimated 80% of the world’s population of people with disabilities (p.w.d.) resides in developing countries (Albrecht et al., 2000). They face limited access to education, employment, and health care.

In 1989, in Kenya, 252,000 people (~2% of the country’s population) had a disability (Kenya Society for the Physical Handicapped, 1999).

Leisure, including sport participation, provides important benefits to p.w.d. such as facilitating physical competence, developing a sense of accomplishment, and serving as means for social mobility (French & Hainsworth, 2001; Page, O’Connor, & Peterson, 2001).
Literature Review

Research on constraints to leisure and sport among p.w.d. is limited. Existing research shows that:

- P.w.d experience some of the same constraints as the general population, such as lack of time or money, ethic of care, safety, energy deficiency, and lack of opportunities, but with a magnified intensity (Henderson et al., 1995).

- Participation rates in sport among p.w.d. are significantly lower than among the general population. Finding an opportunity to participate in sport is a challenge (Sherrill & Williams, 1996).

- The main constraints on sport participation include cost, lack of transportation, health issues, unsuitable facilities, attitude of staff and other users, lack of appropriate programming, and lack of knowledge among coaches (Collins, 2003; French & Hainsworth, 2001; Sherrill & Rainbolt, 1985).
Objectives

1. To identify constraints affecting sport participation among elite athletes with disabilities.

2. To explore causes of the existing challenges.

3. To develop a new hierarchical model of constraints that would show their operation at the societal level.
Theoretical Background

- Model-centered way of thinking has been dominant in the disability studies. Four separate models of disability have been identified: religious, medical, social, and cultural (Devlieger, Rusch, & Pfeiffer, 2003).

- **Social model of disability** (SMD) adopted as a framework for this study.

  - SMD downplays the medical condition of a person and stresses that it is the society that erects economic, environmental, and cultural barriers that constrain people with disabilities (Rieser, 2002).
Methodology

- Grounded theory research design (Leedy & Ormond, 2001).

- 10 in-depth, 30-60 minute long, semi-structured interviews – 5 with athletes on the Kenya Paralympic team and 5 with administrators supporting the Kenya Paralympic team.

- Purposive sampling method used to identify interviewees.

- Open-ended questions regarding the challenges to the development of sport for elite athletes with disabilities in Kenya. Probing related to finances, facilities, equipment, and instructors.

- Interviews (all in English) tape recorded and transcribed. Data analyzed with the use of open coding, axial coding, and selective coding (Creswell, 1998).
Methodology

- **Characteristics of interviewees**
  - **Gender** - 5 men and 5 women
  - **Age** – 27-55 years old
  - **Occupations** - a shoe shiner (who also works as a hawker selling sweets on the streets as well as a masseuse), a shoemaker, a graphic designer, a tailor, and a businessman who sells used clothing.
  - **Sport disciplines represented** – power lifting, swimming, athletics (running and wheelchair racing), wheelchair basketball, and table tennis.
  - **Administrators’ duties** - coaches (table tennis, athletics, and basketball); members of the Kenya National Sports Council, the Kenya National Paralympic Committee, Amputee Sport Association, Sports for the Disability Paraplegia, Mentally Handicapped, and the Visually Handicapped, and the Africa Paralympic Sports Confederation.
Findings

Challenges to the development of sport for athletes with disabilities (a.w.d.) in Kenya:

- **Coaching**

  The coaches don’t even attend practices. I don’t think they are qualified… Just the other day I saw a man and I came to know that he was our coach and I didn’t even know his name… and he said that he didn’t know what I was doing. I also don’t understand what I am doing and I don’t know how to improve *(Milly, swimmer).*

- **Availability of equipment**

  Buying the racket [costs] a huge amount of money, like 600 shillings [$8US] or more and most of these people are jobless. They are hawkers and they normally get maybe 80 shillings [$1US] a day. So if you tell someone that we need 300 shillings [$4US], it means [that] for four days they won’t have anything to eat *(Marcus, table tennis coach).*
Findings

- **Inadequate facilities**

  Facilities are not accessible to disabled athletes, especially to the ones in wheelchairs. There is some equipment in the gym that cannot be accessed and that is a challenge. Especially for amputees, there are lots of facilities that [cannot be accessed because] you have to use two hands *(James, track athlete)*.

- **Transportation problems**

  Most of the matatus [public buses] are not used to carrying people with wheelchairs. They tend to think that it will take a lot of space and that they will need to charge more and it is quite hard *(Marcus, table tennis coach)*.
Findings

- **Lack of financial resources**

  There are a lot of difficulties because you don’t know whether the players have eaten anything or they just come on empty stomach. Sometimes I just look at their face and I can see. Then we just practice half (Peter, wheelchair basketball coach).

  We train and train and sometimes go without lunch... you can take a cup of tea for lunch that costs 10 shillings [$0.13 US] and a chapati for lunch, yet most of us cannot even afford that (Milly, swimmer).

- **Negative attitudes toward people with disabilities**

  We are put aside. We are always taken as a second choice... People think your disability is all the way up to your brain... what we need is an opportunity to prove that we can do something (Matthew, wheelchair basketball athlete).
The Hierarchical Model of Constraints at the Societal Level

The model is divided into three levels:
- **Fundamental Constraints**
- **Intermediate Constraints**
- **Basic (Immediate) Constraints**

These levels are further categorized into:
- **Attitudes**
- **Cultural Beliefs**
- **Employment**
- **Legislation**
- **Nutrition Coaches Equipment Facilities Transportation**

The diagram shows the hierarchy of importance and ease of intervention, with Possibility of negotiation at the individual level indicated.

Participation as viewed by athletes and administrators is depicted with low/high hard/easy indicators.
Types of Constraints at the Societal Level

- **Basic (or immediate) constraints** involve barriers that are most proximal, that affect the daily lives on the most personal level, and that participants can negotiate at the individual level (e.g., lack of adequate nutrition, coaches, equipment, facilities, or transportation).

- **Intermediate constraints** involve barriers that are more imbedded in the structures of the society, that participants or potential participants have fewer possibilities of negotiation at the individual level, that are more difficult to overcome, and that have an effect on the first layer of constraints – immediate constraints (e.g., economic structure that hinders opportunities for employment or ineffective legislation protecting rights of p.w.d.).

- **Fundamental constraints** represent barriers that are most ingrained in the structures of the society, most difficult to negotiate at the individual level, and hardest to overcome (e.g., attitudes and cultural beliefs).
Propositions

- **Proposition 1: Ability to negotiate at the individual level.**
  Basic constraints are experienced on a daily basis and can be most readily negotiated by participants or potential participants at the individual level.

- **Proposition 2: Hierarchy of importance and difficulty of intervention.**
  Fundamental constraints are the most important and the most difficult to overcome as they are embedded into the social fabric of a society, often have deep historical roots, and filter down into the lower levels of the constraints hierarchy.
Constraints should be considered not only from an individual, but also from a societal perspective.

Simultaneous interventions at all levels of the constraints hierarchy are necessary in order to provide long-term and sustainable solutions to problems experienced by p.w.d. Targeting only basic constraints will not alleviate underlying problems, while tackling fundamental barriers only will not help in providing for the immediate, short term needs of the population.

Application of the model can be extended to other constraints, other populations and other settings (e.g., constraints on sport and leisure experienced by members of racial/ethnic minorities, gays and lesbians, women, and older adults living in developed and developing countries).
Conclusions

■ Study limitations
  ■ Short time spent in the field
  ■ Limited exploration of cultural contexts of sport participation
  ■ Focus on elite athletes only

■ Suggestions for future research
  ■ Focus on grass-roots sport participation
  ■ Extension to other leisure activities and other populations
  ■ Testing of the model in developed and developing countries
Thank You!

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