

A Survey of Recreational Facilities in Southern Botswana Schools for Children with Disabilities

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Abstract This study surveys the existing recreational facilities in Southern Botswana schools for children with disabilities. All the 14 schools for individuals with disabilities in Southern Botswana were used for the study. The recreational facilities considered included archery, bowling and goal-ball facilities, swimming pools, badminton, basketball, handball, net-ball, tennis and volleyball courts, soccer and softball pitches. Using the statistic for the test for significance of proportions, at 0.05 alpha level, it was observed that the proportion of archery, bowling and goal-ball facilities; badminton, handball, net-ball and tennis courts and softball pitches in the schools were not significantly provided for by the schools' managements. However, the proportion of basketball and volleyball courts, soccer pitches, swimming pools and table tennis boards provided were not significantly different from the 0.5 (50%) chosen as the expected proportion. Hence these were accepted as having been adequately provided for. The researchers recommend assistance from individuals, non-governmental organisations and the government of the Republic of Botswana for the provision of more recreational facilities for these children with special needs.

Introduction

Programme planners of recreational activities for individuals with disabilities are usually guided by mission statements geared towards great improvements in the individuals with disabilities. For instance, it is very easy for these programme planners to focus on the outcome they expect to achieve from their programmes. Most of these programmes seem to be targeted towards achieving the philosophy of "a sound-mind in a sound body" as re-echoed by Cross (1980). This philosophy embodies the

development of the total human being (despite their disabilities) – physically, mentally, emotionally and socially, through participating in well designed physical activities that are facilitated by adequate provision of facilities; either for recreation, competition or both. Such programmes lead to great benefits in the health of all participants.

In reviewing findings from various studies on the health benefits of regular exercise, Raglin (1990) contends that regular exercise is associated with improvements in mental health; including mood state and self esteem. He further states that 20 – 40 minutes of aerobic activity results in improvements in state anxiety and mood that persist for several hours. Regular recreational exercises, particularly those involving running, have been found to correlate with better weight control (Marti, 1991). This finding was corroborated by that of Corbin and Lindsey (1997) which states that a good deal of aerobic exercise is beneficial in weight reduction in individuals.

Commenting further on the benefits of regular exercise, most of which could be recreational in nature, Allsen, Harrison and Vance (1993) agree that the efficiency of the circulo- respiratory system is enhanced through regular exercises. This they say is due to the improved fitness attained by this system in regularly, well-exercised individuals. Similar reports were given by several authors including Bruess and Richardson (1995), McGlynn (1993), Powers and Howley (1994), Robbins, Powers and Burgess (1994), Seiger and Hesson (1994), Teague and McGhee (1992) and Williams (1993).

In a study by Huonker, Schmid, Koenig, Mrosek and Keul (1996), it was concluded that the decrease in cardiovascular fitness among paraplegic wheelchair users, after the occurrence of the paraplegia, could be prevented by regular physical activity. They further add that physical exercise is beneficial, in a preventive way, with regards to a reduction of atherosclerotic diseases. In fact, Compton, Eisenman and Henderson (1989) had earlier noted that there was growing support for the premise that physical exercise has a role to play in breaking the debilitating cycle – which is what is needed most by individuals with disabilities.

Following a content analysis of the interview-responses by participants with physical disability in a study by Blinde and McClung (1997), it was agreed upon that participation in recreational activities impacted upon four aspects of their physical self. These included the following: experiencing the body in new ways, enhancing perceptions of physical attributes, redefining physical capabilities and increasing perceived confidence to pursue new physical activities.

There is no need to further stress the issue of whether regular physical activities, particularly of a recreational nature, have positive effects on individuals who take part in them or not. These have been established by researches conducted over the years. Individuals with disabilities were also known to have benefitted from these same exercises (Blinde & McClung, 1997;Foret, Loeffler & Carter, 1993).

Statement of the problem

Preliminary studies (Molosiwa, 1998; Onyewadume & Suarau, 2000) show that little is done by the Botswana government , well-spirited individuals and non-governmental organisations to meet the needs of Batswana children with disabilities. Molosiwa (1998) observed a gross inadequacy in this area in the Physical Education Curriculum, while Onyewadume and Suarau (2000) concluded that at present, trained Adapted

Physical Educators are almost non-existent in Southern Botswana schools for the disabled; and that little is being done to address this issue. It is pertinent to note, however, that the problem areas stated above viz: lack of governmental and non-governmental support, inadequate physical education curriculum and lack of trained Adapted Physical Educators could hamper any plans to provide suitable and adequate recreational facilities for the use of these children with disabilities.

This study was therefore designed to find out the adequacy of the provision of recreational facilities for individuals with disabilities in Southern Botswana schools for the disabled. It also afforded the researchers the opportunity of finding out how significant the available facilities were. These enabled suggestions and recommendations to be made on the issue of provision of recreational facilities for children in Southern Botswana schools for disabled individuals, in particular, and the whole of Botswana in general.

Methods and Procedure

Research Design

The study was a survey research design that made use of the descriptive research method. The descriptive research method, according to Thomas and Nelson (1996), is a study of status, or a state-of-the-art study. This is most commonly achieved through the survey method of which the various observation techniques are an integral part.

Sample and Sampling Procedure

A total of fourteen (14) schools/centres for individuals with various disabilities - ranging from mental retardation, physical-handicap, hearing impairment and visual impairment, to multiple handicaps were used for this study. Permission was not granted to list the names of the schools in this paper; hence they are not named. They were all chosen based on a cluster procedure that considered all such schools in Southern Botswana. This was necessary to reduce cost since the researchers used the observation technique of data collection. As a result, the northern part of the country could not be surveyed due to the very tight budget with which this study was carried out. However, there is every reason to believe that the situation could be similar nationwide.

Data Collection Procedure

On arrival at the schools, the researchers were taken round the recreational facilities by either the head teacher/unit heads or teachers delegated by them. Notes were then taken of number and types of recreational facilities available in the schools using a prepared Observation Schedule. It is important to note here that efforts were not directed at identifying facilities of high standards only. No matter what the standard was, the important issue to the researchers was whether or not such facilities were, at the time of collecting data, being used by the schools for the purpose for which they were provided.

Data Analyses

Simple percentages and tests for significance of proportions were used to analyse data collected in this study. The inferential test of significance was computed at the .05 alpha level.

Determination of Expected Proportion

In order to compute the test for significance of proportions, it was necessary to first determine or fix what the expected proportion would be. This procedure was advocated

by Bruning and Kintz (1977) and Kachigan (1986) when they stated that it is always necessary to know the proportion to be expected before the test of significance can be executed. To this end, the researcher chose 0.5 as the expected proportion. This expected proportion of 0.5 was chosen because experts in the field of Adapted Physical Education agree that it is unlikely that a school has all the sports facilities it needs without recourse to the use of community recreational facilities. For instance, while Sherrill (1998) advised that schools should complement their sport facilities with those in the recreation centers, Wiseman (1994) advised that school authorities should continue to renovate existing facilities and build new ones. These suggestions indicate that a school could go ahead with the teaching of a good deal of adapted physical education even when it does not have all the facilities needed. It was with the support of the suggestions of the above experts that these researchers considered a 50% availability of sport facilities acceptable for the sake of statistical computations. It was therefore expected that, at least, half of the facilities listed should be in the schools before they could be considered as adequately having an acceptable number of sport facilities. Anything lower than 0.5 was considered not adequate and not significantly provided for by the school authorities.

Results

Table I shows simple percentages and frequencies of the facilities. Of the thirteen recreational facilities listed, soccer pitches ranked as the most frequent facility provided by the schools (50%), followed by volleyball courts, table tennis tables, basketball courts, swimming pools and goal-ball Facilities.

Table 1 Percentage of schools for the disabled with the observed recreational facilities.

Facilities	Number of schools sampled	Number with facilities	Percent with facilities
Archery	14	0	0
Badminton courts	14	0	0
Basketball courts	14	5	35.7
Bowling	14	0	0
Goal-ball	14	2	14.3
Handball courts	14	0	0
Netball courts	14	0	0
Soccer pitches	14	7	50
Softball pitches	14	0	0
Swimming pools	14	4	28.6
Table-tennis tables	14	5	35.7
Tennis courts	14	0	0
Volleyball courts	14	6	42.9

Table 2 shows the test of significance of proportions computed on the available facilities. The proportions of the archery, bowling and goal-ball facilities; badminton,

handball, netball and tennis courts; and the softball pitches in the selected schools were tested and found to be significantly different from those of the expected proportion. Therefore, the provision of these particular recreational facilities was significantly inadequate. Table 2 on the other hand, also reveals that basketball and volleyball courts, soccer pitches, swimming pools and table-tennis tables in the selected schools were not significantly different from those of the expected proportion. This therefore means that there was significantly adequate provision of these particular recreational facilities

Table 2 Analyses of test of significance on the proportion of each of the facilities in the schools sampled

Facilities	Number of schools	Number with facilities	Proportion with facilities	Test of significance of proportions	Significance at 0.05
Archery facilities	14	0	0.0	3.74	*
Badminton courts	14	0	0.0	-3.74	*
Basketball courts	14	5	0.36	-1.05	**
Bowling facilities	14	0	0.0	-3.74	*
Goal-ball facilities	14	2	0.14	-2.69	*
Netball courts	14	0	0.0	-3.74	*
Soccer pitches	14	7	0.50	0	**
Softball pitches	14	0	0.0	-3.74	*
Swimming pools	14	4	0.29	-1.57	**
Table-tennis tables	14	5	0.36	-1.05	**
Tennis courts	14	0	0.0	-3.74	*
Volleyball courts	14	6	0.43	-0.43	**

Z-value at .05 level of significance and for a 2-tail test/hypothesis = ± 1.96 .

* Inadequate at a significant level

** Adequate at a significant level

Discussion

The findings in this study revealed that there were significant inadequacies in the availability of recreational facilities provided for individuals with disabilities in schools for disabled individuals in Southern Botswana. Eight out of fourteen facilities were grossly inadequate (see table 2). The implications of this situation are numerous for the teaching, learning, acquisition, internalization and utilization of recreational skills for future participation in recreational physical activities by individuals with disabilities. Furthermore, according to O'Fallon (1995), the actual activities that are taught to individuals are limited by the facilities that are available in their schools and communities. Many pupils may not be exposed to recreational facilities in the schools. In fact, the short and long term negative health implications of inadequate provision of recreational facilities for individuals with disabilities have been strongly supported by literature (Blinde & McClung, 1997; Compton et al., 1989; Huonker et al., 1996).

There is a need for more diversified recreational facilities to meet the varied needs occasioned by the numerous disabilities of these individuals. Literature (Bruess & Richardson, 1995; Powers & Howley, 1994; Robbins et al., 1994; Seiger & Hesson, 1994) is replete with the health and fitness benefits that abound for both able-bodied and

people with disabilities. In fact, Compton et al. (1989) insist that regular physical exercise has a role to play in breaking debilitating cycles; and this is what is needed by most individuals with disabilities. The provision of recreational facilities in adequate quantities and variations is therefore of paramount importance for individuals with disabilities. Foret, Loeffler and Carter (1993) observe that the key factors in creating recreational opportunities for children with disabilities include: the abilities of the children, selection of appropriate activities and making other adaptations to ensure safety and success.

In a situation where recreational facilities are grossly inadequate, it is difficult to readily have a choice. This creates a problem in the ability of persons with disabilities to select appropriate activities based on their abilities and interests.

Writing on the abilities of persons with disabilities, as one of the factors to be considered in the provision of numerous and varied recreational facilities, Lieberman (1993) opines that because individuals with disabilities could have sensory and or multiple disabilities, it is pertinent to remember that their abilities are unique. Therefore, since each person can be successful in any game or activity depending on various factors, it is desirable for school authorities to provide varied recreational facilities in institutions for persons with disabilities. For instance, a child may be identified as deaf-blind yet have some usable hearing and vision which may contribute to success in skills being taught. Varied abilities of persons with disabilities can only be catered for if recreational facilities are variedly and adequately provided.

Leme (1993) notes that the types of recreational activities that should be taught to individuals with disabilities are such that should be:

- Functional (of interest and aid learning)
- Useful (appropriate for various developmental levels)
- Non-threatening (guarantee success) (Leme, 1993:71).

However, these noble objectives cannot be achieved if facilities are very limited in number and variation. Very important is the fact that with limited facilities, like were obtained in this study, appropriate levels of skill development are hampered for the various types of disabilities. If numerous skills are acquired due to the availability of adequate recreational facilities, they would be able to transfer them to, and find them useful in, other aspects of their life as dictated by their daily living requirements.

Corroborating this view, Foret et al. (1993) confirm the fact that appropriate development of skills facilitate appropriate community placement. The implication of this is that with adequate provision of varied recreational facilities, individuals with disabilities are taught varied skills leading to a reduction in the adjustmental problems they are likely to face while transiting from their school/home-school settings to the community during integration. In her own contribution, Rubtsova (1998) emphasises that physical activities promote the integration of an invalid into social life by means of the social contacts with other people. But again, this is difficult to achieve in a condition of inadequate provision of recreational infrastructure.

Conclusion

From the foregoing, the community at large stands to reap the benefits of building the requisite recreational skills into persons with disabilities if adequate provision (in

quantity and diversity) of recreational facilities is made. Apart from freedom from dependence on friends, family members and the government of Botswana, individuals with disabilities would be better able to live an independent and a healthy lifestyle devoid of incessant ill health.

Based on the findings of this study, the researchers wish to recommend to well-spirited individuals, non-governmental organisations and the government of the Republic of Botswana to assist the various schools for persons with disabilities in the provision of adequate recreational facilities.

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