

The contribution of Sport and Physical activity towards the achievement of community health objectives in the Zimbabwean context

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Abstract: *In the last two decades Zimbabwe suffered severe socioeconomic and political crisis. The crisis was characterised by unprecedented rates of inflation which were exacerbated by political instability and economic sanctions. The economic challenges led to severe brain drain of Zimbabwe health professionals. The elements of a previously well maintained health care system severely deteriorated. Community health was therefore seriously compromised. Now that Zimbabwe seem to be on the recovery path this article critiques, reviews and justifies the potential contribution which sport and physical activity can make towards the achievement of community healthy objectives in Zimbabwe in line with millennium development goal number six. The content analysis and review identified that sport and physical activity can play a significant role in improving the health of members of the Zimbabwean community. It is apparent from the review that Sport and physical activity can help reduce the incidence of obesity, cardiovascular diseases, HIV/AIDS, diabetes, hypertension and many other health problems bedevilling the Zimbabwean society today and hence contribute towards the achievement of Millennium Development Goal number six.*

Keywords: *Community health, Physical activity, Sport, MDGs, Zimbabwe*

I. Introduction and Background

The purpose of this article is to review critical and relevant literature and evidence which justify how sport can contribute towards the achievement of community health objectives in Zimbabwe. In an attempt to address the research question the article is structured as follows:

1. Introduction and background
2. Method
3. Findings
4. Summary and recommendations

Zimbabwe has had to confront a number of severe challenges in the past few years Avert [1]. These include an unprecedented rise in inflation which reached 100 000 percent in January 2008 [2] a severe cholera epidemic, high rates of unemployment, political violence, and a severe brain drain which led to a near-total collapse of the public health system [3]. Even though the situation had improved with the inception of the inclusive government in 2009 Zimbabwe is still suffering from the hangover of a decade long economic crisis [4]. The country's health sector continues to faces numerous challenges such a shortage of skilled professionals and health-care staff, an eroded infrastructure with ill-equipped hospitals, many lacking functional laundry machines, kitchen equipment and boilers, and a lack of essential medicines and commodities [4].

Sport and physical activity on the other hand are reportedly rapidly gaining recognition as simple, low - cost and effective means of achieving community development goals. Over the past decade UN agencies, international sport federations, international and national non-governmental organisations and national governments are reported to be utilizing sport as a tool for development and peace [5]. The Commonwealth Games Association of Canada (CGAC) [6] defines Sport as encompassing all types of physical activities and all levels of participation. This definition was found to be suitable for this article since it regards sport and physical activities as synonymous. It is important to note that while this definition is suitable in a development related discussion the two i.e. sport and physically can also be defined separately in other circumstances. In the realm of this article sport is regarded as an integral component of social, economic and human development and a necessary underpinning to health and well being [6]. When integrated into the broader framework of development goals, priorities, programs and activities sport can address basic needs and advance sustainable human and social development [6]. It is against this background that sport has gained popularity internationally and locally as a potential tool for development in general and in particular as a tool to help in the achievement of

the Millennium Development Goals (MDGs) including health [5].

The above recognition of the value associated with sport led to the formation of a number of non-governmental organisations (NGOs) in Zambia, and the conceptualisation of many Sport for Development (SFD) programmes in other parts of the world including Zimbabwe. The mandate of the NGOs involved in SFD is to deliver combined programmes of sport and life skills education which contributes to the broader efforts of civil society organisations in order to address HIV and AIDS and other health related issues [7]. The research question which guided this review is:

1. How can sport and physical activity contribute towards the achievement of community health objectives in Zimbabwe?

II. Method

The main method of data collection in this study was content analysis. Relevant documents such as textbooks and internet sources were used to gather relevant data in order to analyse and justify the contribution of sport/physical activity towards the achievement of health objectives in Zimbabwe. Content analysis refers “to any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” [8 p453].

III. Findings

The content analysis revealed the following key findings:

3.1 The use of sport and physical activity to achieve health objectives

Fox and Mathews [9], Davis and Butler [10], and the United Nations [11], all concur that engaging in sport is associated with significant health benefits. They argue that sport and physical activity have the potential to reduce the risk of lifestyle or non-communicable diseases such as cardiovascular diseases, cancer, diabetes and conditions such as stress, anxiety and depression. Sport and Physical activity are also believed to help prevent and reduce hypertension, control body weight, prevent and control osteoporosis and help manage chronic pain. However literature from the authors cited above indicate that not all changes caused by exercise and training are necessarily related to improvement of health. It will be the purpose here to review only those training induced changes that are closely linked to the improvement of health.

3.2 Health

According to Medicalnewstoday [12] the word “health comes from the old English word “Hale” meaning “wholeness, a being whole, sound or well” Medicalnewstoday [12] cite the Medilexion’s Medical dictionary as giving three definitions of health, one of which states that “Health is a state of the organism when it functions optimally without evidence of disease or abnormality”. This definition obviously does not give a comprehensive description of health since it focuses on disease and abnormality only. It should be noted that health is much broader than that. The limitations presented by this particular definition as well as by many other definitions led to the development of the most famous, and widely accepted definition of health i.e the World Health Organisation (WHO) definition. This definition was created during a preamble to the constitution of the World Health Organisation and was adopted by the International Health Conference, New York in 1946. The World Health Organisation [13 p 1] defines health as a “state of complete physical, mental and social well being and not merely the absence of disease or infirmity”. This definition has not been amended since 1948 and is embraced in this study due to its broad and holistic nature which attempts to define health from a physical, mental and social standpoint. The WHO definition suits sport and physical activity very well because sport seeks to educate people physically, mentally and socially and thereby contributing to the total health of individuals.

3.3 Intensity and duration of participation for achieving health objectives

According to Zakus, Njekesani and Darnell [14 p17] “It is important to address the question of what constitute an adequate level of intensity and duration to achieve therapeutic benefits from exercise” The above authors regard this as an area of debate and refer to the current public health guidelines which suggest that a minimum of 30 minutes per day of moderate physical activity (at approximately 50-60% of maximum heart rate) is considered optimal. The authors above point out that while these guidelines are extremely popular in the biomedical community, they are not as popular in the broader community where they are considered to be unrealistic for many people.

Davis, Butler and Husker [15], on the other hand suggest a formula which can be used to determine the quantity and intensity of exercise for healthy fitness. They call the formula “the FITT formula” and argue that, to improve fitness one needs to perform activities that make the heart, lungs and muscles work. They suggest activities like running or swimming and emphasise that the exercise should follow the FITT formula: F for

Frequency is three or four sessions each week. I for Intensity : To improve heart and lung (aerobic) efficiency, raise pulse to reach 140-160 beats per minute during exercise. T for time: they suggest exercising continuously for at least 20 minutes in order to get real benefit. T for type: the suggested best activities are running, cycling, swimming, aerobics, surfing, power walking and many others. The FITT formula, is key to improving the aerobic fitness of an athlete and is the most important formula to remember when pursuing an active lifestyle [15]. Reviewed literature reveal that there is widespread debate about what constitute the optimum quantity and intensity of exercise, with an emerging view and generalisation that any level of activity is better than no activity at all. However the Zimbabwean National Youth policy [16], observed that there is obvious lack of appropriate facilities and organisation of sport and recreation for youth in Zimbabwe. This deficiency obviously makes it difficult for youths and adults to get adequate exposure to sport and recreation in order to meet the requirements of the FITT formula or other criteria for adequate sport to meet health objectives.

3.4 Overweight and Obesity

The world fact book [17], reports that the obesity adult prevalence rate in Zimbabwe is 15.7%. This shows that Zimbabwe like many other nations also has a problem of obesity and that the 15.7% referred above are prone to the negative health effects of obesity articulated below. The review below also shows how Zimbabwe can reduce the incidence of obesity by taking part in sport and physical activity.

Zakus et al [14], Fox and Mathews [9] noted that there is a lack of clarity in defining obesity and there is also an associated problem of measurement, with concerns being raised about the lack of accuracy of the popular Body Mass Index (BMI). However the World Health Organisation attempts to define obesity as the abnormal excessive accumulation of fat that may impair health. Davis and Butler [10], opine that a person is overweight when they are ten percent above their ideal weight according to height and sex. Obesity on the other hand is when a person is 20 per cent above their ideal weight. The Body Mass Index (BMI) gives an indication of how a person's current weight rates on a scale from "Underweight" through "Healthy" to "Overweight". However it is important to note that the health of someone should not be checked simply by his or her BMI. For example if a butcher was to calculate the fat of a pig using BMI, he would certainly lose his licence. The real health problem is in visceral fat which the BMI does not take into account. However if someone has a BMI of over 40, it is a sure case that he is overweight and in such a case there may be no need to calculate his BMI to recognise it. The BMI is only indicative of obesity and useful to some extent but has inherent weaknesses that should not be entirely ignored. However other more accurate methods that can be used to measure body fat directly include have been developed. They include measurement with gun callipers, tests such as underwater body fat test, the BodPod, DEXA Scan, and Bioelectrical Impedance and others.

According to Davis and Butler [10], to be overweight or obese is dangerous, because overweight people have decreased life expectancy and are more prone to accidents than those of normal weight. This is supported by Fox and Mathews [9] who state that obesity is related to a number of diseases including diabetes, coronary heart disease, psychological disturbances, kidney disease, hypertension, stroke, liver ailment and mechanical difficulties (particularly, back and foot problems). As a consequence, life expectancy is significantly reduced among the obese population [9]. From the literature reviewed it can be concluded that obesity is a dangerous condition which however can be prevented by adopting an active lifestyle (exercise and physical activity).

3.5 Cardiovascular diseases

The relative and absolute importance of Cardiovascular disease in countries of Sub-Saharan Africa (Zimbabwe Included) is assumed to be increasing [18]. This obviously should be a cause for concern especially to a country like Zimbabwe which is characterised by a compromised health delivery system.

According to Davis and Butler [10 p 288], "cardiovascular disease (CVD) includes all the diseases of the heart and the circulatory system, such as heart attack and stroke." Zakus et al [14] state that, 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 death. The above authors state that the most important causes of CVDs are unhealthy diets, physical inactivity and tobacco use. Zakus et al [14] cite the World Health Organisation who estimates that between 2006 and 2015, China is expected to lose \$558 billion in foregone national income due to combinations of heart diseases, stroke and diabetes. Research in this area points to an increase risk of CVD mortality as a result of low levels of physical activity or cardiorespiratory fitness. Studies of the relationship between dose and response indicate that cardiovascular health benefits occur at moderate levels of physical activity [14]. Evidence from the literature reviewed suggest that people who participate in regular exercise or physical activity are less likely to suffer from CVDs.

3.6 Diabetes

Zakus et al [14], describe diabetes as a chronic condition that occurs when the pancreas does not produce enough insulin, or when the body cannot use the insulin it produces effectively. The International Diabetes Federation (IDF) [19], suggest that there is a complex interplay of genetic, social, and environmental factors that is driving the global explosion of type 2 diabetes. Tunhira [20], reports that cases of diabetes are on the increase in Zimbabwe. He cites the Director for epidemiology and disease control in the Ministry of Health who was speaking at the World Diabetes Day campaign launch in 2013 as having said that in Zimbabwe it is estimated that 10 in every 100 people have diabetes. The Director emphasised that currently diabetes statistics represent over 100 000 visits or consultations at outpatients departments per year in Zimbabwe Hospitals.

It is apparent from the reviewed literature that Zimbabwe can reduce significantly the frightening diabetes incidence and prevalence statistics by simply taking part in sport and physical activities. This is because according to Warburton, Nicol and Bredin [21], current research indicates a strong relationship between physical activity and reduction in diabetes and that exercise both aerobic and resistive types are associated with a decrease of type 2 diabetes. For example according to Warburton et al [21], research has shown that, exercise in patients with diabetes improves glucose homeostasis. It can therefore be concluded from the literature that exercise is useful in preventing the incidence of diabetes and that exercise is particularly useful among those who are at high risk of diabetes due to being overweight.

3.7 Sport and HIV and AIDS

In Zimbabwe around 15 percent of the population lives with HIV [22] and therefore Zimbabwe is experiencing one of the harshest HIV and AIDS epidemics in the world [1]. In a country that has had a tense political and social climate over the last few decades; it has been difficult to respond to the crisis. However, regarding HIV and AIDS the country is currently experiencing some progress and improvements. Zimbabwe is one of the few countries where incidence declined by 50 percent between 2001 and 2011 [22]. This is partially due to efforts among the population to prevent the spread of HIV, some of which have been remarkable in the context of such immense challenges [1]. Efforts to prevent the spread of HIV in Zimbabwe have been spearheaded by the NAC, non-governmental, religious and academic organisations. Prevention schemes have been significantly expanded since the turn of the millennium, but remain critically under-funded [1].

Children in Zimbabwe are currently taught about HIV and AIDS in schools. In 2006 the Ministry of Education, Sport and Culture, and UNICEF initiated an in-service training scheme of primary and secondary school teachers in HIV and AIDS life-skills and counseling [1]. Outside of school, efforts to educate and inform people about HIV and AIDS (which are often organised by NGOs) have used a number of different means to convey prevention messages, including leaflets, [23] television and radio, drama, and community groups [1]. Sport has also joined the bandwagon with the Youth Education through Sport and the Community Sport Development Project in Zimbabwe taking a prominent lead. These two major Sports for Development projects have also attracted the attention of many NGOs in Zimbabwe who have partnered the Sports and Recreation Commission in a big way in implementing the projects. Banda, Lindsey, L, Jeans, R and Kay, T. [7] highlights the contribution that sport can make to the four pillars of effective HIV / AIDS programming, namely knowledge, life skills, the provision of a safe and supportive environment and access to services. Earlier studies focused more on prevention of the spread of HIV and AIDS in sport and the creation of sport policies governing practices by participants [14]. More recently, HIV and AIDS has become a significant focus for the "sport for development" movement, in an attempt to harness the pulling power of sport and use it as a vehicle to convey vital information about HIV in a non discriminatory, non threatening and age appropriate manner [14].

While the use of sport for prevention has been recognised and is commendable there is obvious need for programs focusing on how sport and physical activity may be used for the benefit of HIV positive individuals [15]. Smit, Crespo, Semba, Jaworowicz, Vlahov, Ricketts, Ramirez-Marrero and Tang [24], state that several studies on exercise in HIV positive people which were carried out before the era of highly active antiretroviral therapy (HAART) found out that exercise was beneficial. These findings are supported by Mustafa, Sy, Macera, Thompson, Jackson, Selassie and Dean [25], who explain that engaging in exercise three or more times a week has been associated with slower progression of AIDS, and by Bopp, Phillips, Fulk, Dudgeon, Sowell and Hand [26], who claim a reduction in viral load as physical activity increases. The United Nations (UN) [27], argues that sport can be a useful tool in the fight against both the spread and impact of HIV and AIDS. The UN identifies knowledge, life skills, provision of a safe and supportive environment and access to services as the four pillars necessary for effective HIV and AIDS programming. The nature of sport and the benefits derived when it is incorporated into development initiatives makes it well suited to support these four pillars [27].

Literature reviewed highlighted some of the current uses or best practices of the use of sport to fight HIV and AIDS. One of the most popular initiatives in existence today is the Kicking AIDS Out (KAO). The United Nations [27] and Banda, Lindsey, Jeans and Kay (7) describe Kicking AIDS Out as a regional network

of organisations in Southern Africa that uses sport to fight HIV and AIDS in communities. The KAO concept has been used in the Youth Education through Sport programme in Zimbabwe for some time now. It is evident from the literature that for a long time now, sport and physical activity have been associated with prevention of HIV and AIDS. However it is also apparent that there is lack of corresponding research focusing on how physical activity can benefit HIV positive people. (14) The literature reviewed above lead to the conclusion that sport plays an important role in HIV and AIDS prevention and can also benefit significantly the health of HIV positive individuals.

IV. Summary and Recommendations.

The content analysis and review revealed that sport and physical activity for individuals can be a strong means for the prevention of diseases and for nations it can be a cost-effective method to improve public health across populations. Zimbabwe therefore stands to benefit from sport and physical activities considering its compromised health delivery system. In summary the health – related benefits which can be derived from sport and physical activity include:

- Improvement of endurance so that one can carry out everyday life activities without undue fatigue
- The lowering of blood Pressure and maintenance of blood sugar levels and cholesterol levels
- Reduction of the risk of developing diabetes
- Reduction of stress related disorders
- Reduction of depression, anxiety and other psychological disorders
- Improvement of overall quality of life
- One's organs will function effectively and efficiently

Against the above background this study therefore strongly recommends that the newly created Ministry of Sports, Arts and Culture should work strategically towards the meaningful promotion of sport and physical activities in order to improve the health of its citizens and also reduces health related costs of the nation.

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