

LETTER TO THE EDITOR

THE NEED FOR EXERCISE REHABILITATION IN BOTSWANA

Sir,

Two important aspects of daily life that affect our health and wellbeing are exercise and diet (1), which, in addition to their role in the prevention of diseases, are also crucial in treatment and rehabilitation. Moore (2) states that, since the 1960s, exercise has been promoted as a method of extending life, particularly through prevention and moderation of cardiovascular diseases. In the 1980s, research and clinical applications for exercise expanded to populations with a variety of chronic diseases and disabilities, for whom exercise is more fundamentally related to quality of life. Moore (2) further states that research findings have shown that perhaps the greatest potential benefit of exercise is its ability to preserve functional capacity, freedom and independence.

The medical world is well aware of the benefits associated with exercise. These include: reduction in the risk of cardiovascular diseases; reduction in the risk of diabetes; increase in bone mass; maintenance of physical work capacity during ageing; increased longevity; increase in immune function and the conservation of lean tissue during HIV infection. In relation to the last-mentioned benefit, it has been shown that moderate interval aerobic exercise for at least 20 min 3 times a week is safe (in terms of immune function) and can lead to clinically significant improvements in cardiopulmonary fitness and psychological well-being for adults living with HIV/AIDS (3–6).

Exercise can also help lessen the effects of lipodystrophy, which is an abnormal body fat condition that is a common side-effect of antiretroviral medication (7). Antiretroviral therapy creates the challenge of managing the many side-effects of these lifesaving drugs. These side-effects include the following: metabolic complications, such as dysglycaemia, diabetes mellitus, dyslipidaemia, lipodystrophy and lactic acidosis, as well as HIV-associated bone disorders, including osteoporosis, avascular necrosis and hypertensive reactions (8). Research findings indicate that exercise can play a vital role in the management of the above-mentioned conditions as part of the management and rehabilitation regime of a patient with HIV/AIDS (9).

HIV/AIDS has spread rapidly in Botswana since the first official case was reported in 1985. The epidemic has reached crisis proportions, with 330,000 people living with HIV/AIDS by the end of 2003. This implies that, by the end of 2003, more than one in every 3 adults was infected (37.3% of adults aged 15–49 years) (10). Young women in Botswana are at disproportionately high risk of HIV infection compared with young men. Thirty-four percent of females aged 15–24 years are living with HIV/AIDS, compared with 16% of males in the same age group. However the male to female ratio for HIV infection tends towards 1:1 in the older age groups.

Botswana's capital city, Gaborone, has a population of approximately 186,000 (CSO, 2002), and the Botswana 2001 HIV Sero-prevalence Sentinel Survey of pregnant women, showed that 24,386 (13%) of women (whether pregnant or not pregnant) in Gaborone who are sexually active (aged between 15 and 49 years) were HIV-positive. The survey also revealed that 38.6% of pregnant women (aged 15 – 49 years) were HIV-positive. A rather disturbing figure of 28.8% HIV-positive result were found amongst young women aged between 15 and 19 years (whether pregnant or not pregnant). According to the World Health Organization, life expectancy in Botswana for 2002 was 40.2 years. Excluding neonatal deaths, diseases of pulmonary circulation and other forms of heart diseases and hypertension rank among the 12 major causes of patient morbidity and mortality (11).

In order clearly to establish the need for exercise rehabilitation therapy as part of the rehabilitation regime in Botswana to be supported by the Ministry of Health, a descriptive survey of patient referrals was made over a period of 5 years (2003–07). Patients were referred to the author on an advisory basis, as a lecturer and biokineticist (exercise rehabilitation therapist), at the University of Botswana. Upon presentation, detailed records were taken indicating the disease/illness/disorder/injury, age group, occupation, resting blood pressure and heart rate, medication use, and relevant information pertaining to operations undergone and family medical history.

The following summary gives an indication of the type of diseases/disorders that were presented/referred to the author over 5 years (2003–07), as well as the number of patients reporting specific disorders/illnesses/diseases/injuries for each category. Out of a total of 65 patients, 12 patients (18.5%) reported cardiovascular diseases, 6 (9.2%) were receiving antiretroviral treatment, 42 (64.6%) reported orthopaedic diseases/disabilities, and 5 (7.7%) had neuromuscular disorders, all of which were manageable through exercise rehabilitation.

The 65 cases included in this survey cover all the main categories of diseases/disorders that were identified by the American College of Sports Medicine in which exercise/physical activity plays an important role as part of the rehabilitation regime (12). Research has shown that exercise/physical activity is a vital part of the rehabilitation regime that needs to be available in order to provide every patient with the best possible care and opportunity for recovery/management of diseases/disorders (13). In this context, there is a need and place for exercise rehabilitation therapy as part of the rehabilitation regime in Botswana.

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