

COMMON PHYSICAL PROBLEMS AMONG THE ELDERLY IN THE LIVINGSTONE DISTRICT IN ZAMBIA: OPPORTUNITIES FOR PHYSIOTHERAPISTS

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Abstract

Introduction: The study identified prevalent physical problems with regard to physiotherapy needs in elderly people in the Livingstone District in Zambia.

Objectives: To identify the physiotherapy needs of common physical problems in the elderly.

Methods: A cross-sectional study design, utilising a quantitative research method and a convenience sampling technique.

Participants: A total of 200 elderly people from the age of 60 years

Setting: Livingstone District in Zambia

Intervention: A structured self-administered questionnaire was used to collect data.

Results: The most common self-reported physical problems identified were musculoskeletal problems, physical inactivity, decreased ability to walk and the need for walking aids. Hypertension was a common cardiovascular disorder.

Conclusion: Physiotherapists are ideally suited to alleviate the discomfort, activity limitation and participation restriction associated with ageing.

Keywords: Ageing, physical problems, Zambia, physiotherapy, health promotion

Introduction

Physiotherapy is one of the disciplines in healthcare that can make a meaningful contribution towards attaining active and healthy ageing as contained in the World Health Organisation's policy framework (2002). It is thus essential for physiotherapists to be

at the forefront of promoting active ageing of the elderly members of society, lessening the burden of age-related disease that leads to activity limitation and participation restriction. According to Skinner (1993) normal biological ageing causes a reduction in the body's reserve capacity. These effects can

be seen in all body systems through the muscular, skeletal, neural, circulatory, pulmonary, endocrine and immune changes (Vandervoort, 1995; Skinner, 1993; Wicht, 1990). In addition, the number and proportion of older people in both the developed and developing world is expected to increase substantially. Thus, a major implication of population ageing is the increase in the prevalence of health problems (Amosun & Alawale, 1994). It has been predicted that greater numbers of older persons will be in need of a wider range of health services, including health promotion, illness prevention, rehabilitation, acute and chronic care and palliative care in institutions and in communities (Simelela, 2001).

This scenario poses a challenge for the African continent as a whole, as well as for individual countries in Africa (HelpAge, 2000). According to Ferreira (2004), health care services in Africa are under-resourced and often inaccessible to older clients to meet their health needs.

However, according to Smeltzer & Bare (2004), ageing is "the normal process of time-related change that begins from birth and continues throughout life" (pp. 189) and not a disease state (Moran, 1993). Cororan (1991) argues that most of the organs of the human body do not wear out. Yet, through the use of physical exercise much of the previously lost function due to inactivity can be regained. According to Mazzeo et al (1998) and the American College of Sports Medicine (1998) regular physical activity and moderate exercise can help in maintaining and enhancing function, health and psychological well-being in the older adult. The physical benefits are increased muscle strength, balance, joint flexibility, co-ordination and improved cardio-respiratory capacity. Physiotherapists could

play an important role in the care of older people as they enable them to use a number of the body's systems more efficiently to enhance mobility and independence (Briefing Paper, 1992).

While there is ongoing research about the benefits of physiotherapy for the elderly in many developed nations (Amosun & Alawale, 1994), there is a lack of information about the physical problems of the elderly in many developing African countries, particularly in Zambia (Amosun, 2001).

Objectives

To identify common physical problems in the elderly in the Livingstone District in Zambia with regard to physiotherapy needs.

Methodology

The study was part of a larger study that was carried out in the Livingstone District in the southern province of Zambia, with an estimated population of 1,500 urban elderly people. Thus, a major part of the methodology was similar to that of the earlier study published by Malambo and Marais (2006). A cross-sectional study design, utilizing a quantitative research method, was chosen to identify the physical problems relevant to physiotherapy in the elderly. Elderly people, both males and females aged 60 years and above, were recruited from the Livingstone District to participate in the study. Using a convenient sampling technique, 200 subjects were recruited for the study. The purpose of the study was explained and the participants were assured of confidentiality their responses.

The first part of the structured, self-administered questionnaire collected the participants' biographical information. In the second part the participants had to indicate from a list what physical

problems they were experiencing. Questions were close-ended and participants could indicate more than one physical problem. Other problems not on the list could be stated in the space provided. They were also asked to rate their health as perceived by them. Their perceived health rating ranged from excellent to poor. Furthermore the participants had to indicate whether they were in need of any mobility aids and whether they were physically active in the form of exercise. The questionnaire was adapted and modified using the existing literature of Oshomuvwe (1990), Cheonga (2001), Ahn and Kim (2004).

A pilot study was carried out using 10 subjects from the Livingstone General Hospital waiting room prior to the main study to establish content validity of the modified questionnaire. The original questionnaire was designed in English and translated by a professional translator into Tonga, the local language spoken in the Livingstone. Thereafter a different independent translator translated the Tonga version back to English in order to ensure

that the translated version had the same meaning as the original English questions.

Data was numerically coded and captured into Excel and SPSS version 12.0 software programs. Descriptive statistical analyses were carried out on the data.

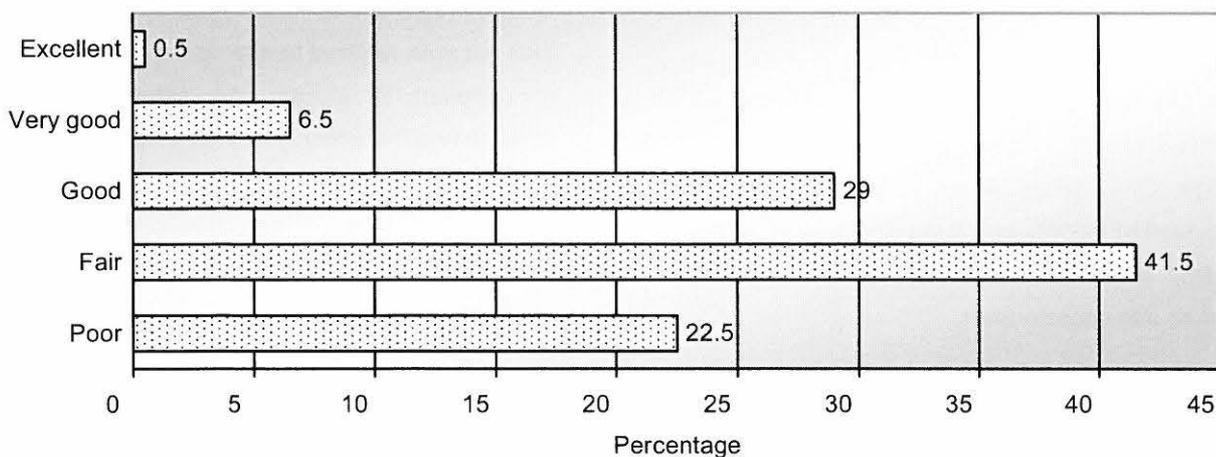
Results

A total number of 200 elderly people, with a mean age of 72.3 years, participated in the study. The sample consisted of 107 males and 93 females.

General health of the elderly

The information on the participants' general health was self-rated and was not based on specific criteria, but mainly on their own perception. The results in Figure 1 show that only 36% of the sample rated their health as ranging from good to excellent, with only one person (0.5%) indicating excellent health. The remaining majority (64%) rated their health status as ranging from fair to poor health.

Figure 1 Perceived health status



Prevalent physical problems

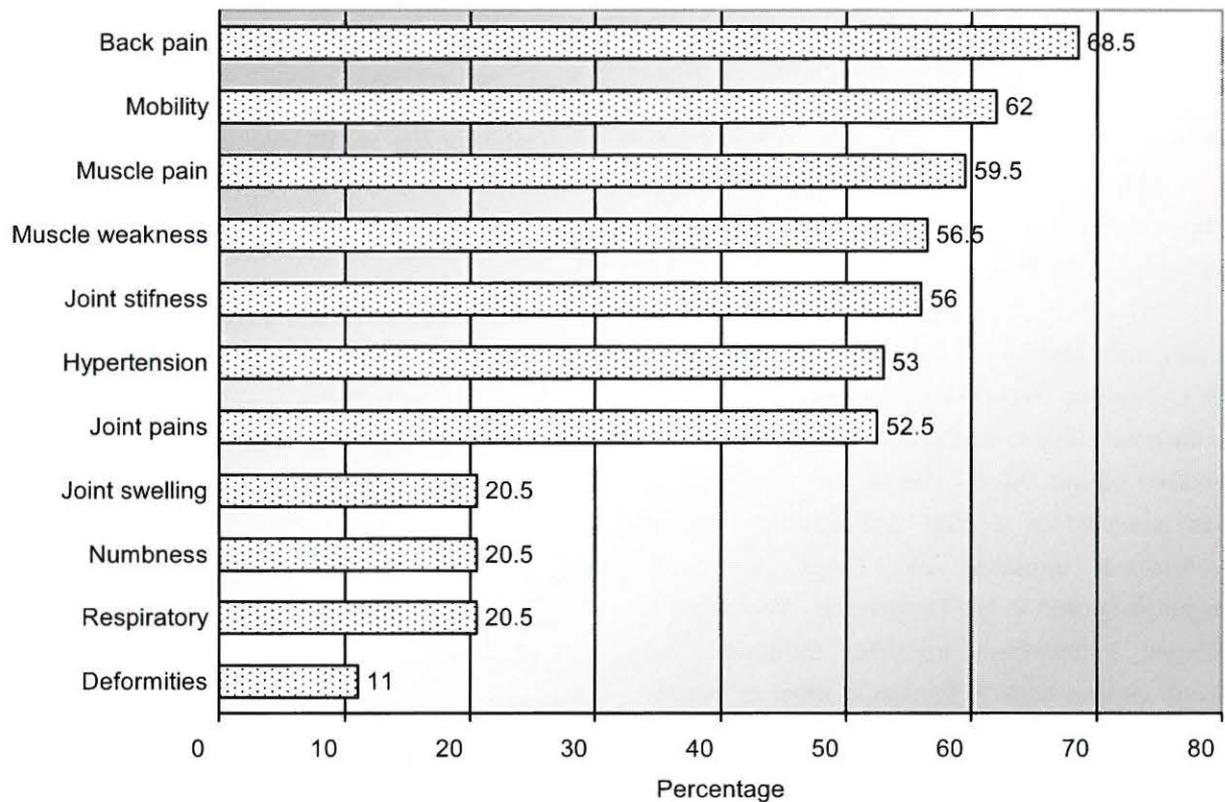
In the prevalent physical problems section, the

respondents could indicate more than one problem on the list. The results in Figure 2 demonstrate that

musculoskeletal problems were reported by most of the elderly, with 68.5% (n=137) indicating back pain, and 62% (n=124) with walking difficulties. Eye and hearing problems were also identified amongst a

small number of the participants under "other". It is noteworthy that more than 50% of the participants reported that they had hypertension. Respiratory problems were present in a minority (20.5%).

Figure 2 Health problems in the elderly



Need for walking aids

Of the 124 elderly who had problems with walking, 69.4% (n=86) indicated that they required walking aids. One would have expected more people to be in need of mobility aids if the frequencies for muscle pain, weakness, joint stiffness and mobility are taken into consideration.

Participation in physical activity

The results on regular physical activity show that only 38% (n=76) indicated that they were doing some exercises while the majority 62% (n=124) were not involved in any kind of regular exercises.

This question referred to exercise in general and did not attempt to identify the nature, frequency, duration and the intensity of the exercises.

Discussion

This study shows that the majority of the elderly people in the study reported back pain. This finding is comparable to those studies from the USA by Imamura (2002) and Zimbabwe (Allain et al., 1997). According to Ladislav (1994) pain experienced in ageing may severely alter the person's quality of life and affect physical functioning. It is the opinion of the researcher that the physiotherapists in the

Livingstone District have a lot to offer in terms of back care for the elderly. The older adult could benefit greatly from physiotherapy interventions aimed at reducing pain and restoring mobility, function and quality of life. Although degenerative changes related to the ageing process are not unusual, health promotion initiatives on back care and the prevention of injury to the back are also important for the elderly. Physiotherapists could advise on ergonomic care of the back and minimize the impact of degenerative changes through regular physical activities. However, the study showed that only 38% of the elderly were involved in doing some sort of exercise. With such prevalence of back pain one could argue that back pain is probably the reason for their limited activity. According to Ladislas (1994) a high frequency and intensity of back pain can be associated with difficulties in performing important tasks.

The elderly participants in the current study reported problems with mobility as the second major problem. This finding is supported by Moore & Rosenberg (1995) who state that multiple disabilities are much higher among older people and a very high proportion of those with multiple disabilities have impaired mobility. McCallum (1990) reported similar findings where 70% of the elderly in a UK study had mobility problems. In contrast, in Korea only 30.9% of the 97 subjects had mobility problems (Ahn & Kim 2004). It seems difficult to speculate reasons for the aforementioned differences between the countries stated in the studies without an understanding of the lifestyles and disease patterns of the different populations. Also, the small sample size makes it difficult to make comparisons between the Korean study and this study. Mobility is a basic human function essential for an individual's independence. It

enables the individual to maintain social and intellectual interaction and to perform basic activities of daily living (Eales, 1999). It is therefore argued that the elderly in the Livingstone district may have difficulty with participating in activities of daily living as 69.4% indicated the need of walking aids to improve their mobility.

Muscle aches and pains were reported by nearly 60% of the participants of the Livingstone District. This is consistent with the findings of the Canadian study by Sabourin (1993) which showed that 60.4% of the elderly in the study had muscle pain.

Muscle weakness was also a common problem reported by the elderly in the current study. This finding is supported by a similar study in Canada where McCallum (1990) found that 76% of the elderly had muscle weakness. It is documented that muscle wasting occurs with age if the muscles are not kept active (Skinner, 1993). This weakness leaves a muscle more prone to injury and the likelihood of falling is increased even when exposed to light activity (Simpson, 1993). It is therefore argued that the elderly in the Livingstone District could be avoiding participation in physical activities, partly due to their fear of falling, but also because of their lack of knowledge about the benefits of regular exercise (Braithwaite, 1998; Banata, 2003). On the contrary, the developed countries and scientific studies report that aerobic exercise training can improve the ability of ageing skeletal tissues to withstand injuries (Skinner, 1993).

Furthermore, what seems to prevail in this district is that people still uphold their traditional way of life, where being physically active means carrying on with their daily chores. Therefore it is inferred that the elderly people who are involved in routine

activities such as gardening, walking to the fields, shopping and selling in the markets may view such activities in the same light as exercise.

It is also the researcher's experience with African culture that older people in the villages are not expected to do manual activity in the presence of the young ones. The elderly are encouraged to rest, as it is considered a privilege for older people. Thus, the cultural norms of societies should be taken into consideration by physiotherapists and other health professionals in the planning of interventions such as exercise programmes for the elderly.

Joint stiffness and joint pains were also a common problem reported by the elderly in the Livingstone District. Similar trends were reported by McCallum (1990), Imamura (2002), and Allain et al. (1997). A clear link is noted between the musculoskeletal problems, mobility problems and physical inactivity. In contrast, there was lower prevalence of joint problems in Nigeria as reported by Amosun & Alawale (1994) and in Zimbabwe by Amosun, Mazarire & Mawere (1995). The lower prevalence could be as a result of the retrospective study design that surveyed the hospital records to determine a profile of the elderly who attended physiotherapy treatment over a certain period. However, the study from the Livingstone District surveyed elderly people beyond the boundaries of a hospital environment and was therefore more representative of the elderly members of the community

More than 50% of the elderly participants in the Livingstone District study reported they had hypertension. According to Sowers (1987) the prevalence of hypertension in the geriatric

population is high and is a significant determinant of cardiovascular risk in this group. It is also one of the major non-communicable diseases that can cause stroke. Thus, the elderly could be at a greater risk of suffering from the chronic diseases of lifestyle, considering the prevalence of hypertension and physical inactivity among this age group. There is scientific evidence that regular, moderate physical activity can have a blood pressure lowering effect (Stewart et al, 2005).

Conclusion

This study identified the prevalent physical problems with regard to physiotherapy needs in a sample of elderly people in the Livingstone District in Zambia. Based on the results of the study the researchers argue that physiotherapists are ideally suited to alleviate the musculoskeletal and functional problems in the older adult. These results are a clear indication to physiotherapists on where they should focus their efforts.

Recommendation

Based on the results of the study the following recommendations are made.

- Most of the age-related impairments and disabilities are Primary Healthcare concerns. Thus physiotherapists should become actively involved at this level of health service rendering in order to bring the service to the people, closer to their homes (Malambo & Marais, 2006).
- Physiotherapists should promote their profession and its role in the elderly among other health professionals and the general public. This will ensure that the elderly people with physical problems are referred for physiotherapy timeously.

- Home-based carers could be identified and trained by physiotherapists to offer physical exercises to the elderly in their communities. These carers can also be taught techniques for improving mobility in the elderly.
- Prevention of ill-health and disability should be started in the early years. However, it is not too late to implement health promotion and physical activity programmes in old age.
- Health professionals such as nurses, physiotherapists, occupational therapists and biokineticists should be proactive in order to meet the challenges of the ageing sector in communities.
- Communities, with the help of training institutions, should keep a database of their elderly residents. This information can aid in ensuring that every elderly person has access to health promotion and health services in accordance with primary health care principles.
- Students in training should be seen as an invaluable resource in performing such tasks. They will, in turn, gain invaluable experience in building a core of future health professionals who are ready to face the challenges of population ageing.

What now remains is the implementation of the policy on active ageing and the time is now.

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