

# Physical activity knowledge, attitudes and practices of the elderly in Bloemfontein old age homes

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## Abstract

**Background:** The aim of this study was to describe physical activity knowledge, attitudes and practices of the elderly in Bloemfontein old age homes.

**Methods:** Three hundred and ninety residents (65 years and older) from 11 Bloemfontein old age homes participated in the study. All participants gave informed oral consent before answering a structured questionnaire.

**Results:** The participants had a good general knowledge of the influence of physical activity on life quality, but had less knowledge of the influence of exercise on cholesterol, diabetes and hypertension. Most of the participants (80.5%) enjoyed exercising and 60% had a positive attitude towards exercise. Most participants (62.8%) felt that they had not received enough information about physical activity from their doctor. Few participants (3.8%) took part in prescribed exercise programmes.

**Conclusions:** The participants had a positive attitude towards physical activity, but lacked sufficient knowledge of the practice of physical fitness to be able to understand adequate physical fitness programmes. Elderly people who do not exercise because of a specific health problem may be motivated to exercise in a way that improves quality of life.  
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## Introduction

There are 600 million people worldwide aged 60 years and older, and this total is expected to double by 2050, with the largest increase in the developing world.<sup>1</sup> A longer life expectancy does not necessarily mean an increase in quality of life, but could mean an increased physical and psychological dependence on the community. The critical contributions made by the elderly to society can only be ensured if they enjoy adequate levels of health.<sup>1</sup>

The general health of the elderly can be defined as the average age at the onset of disability in relation to the average age at death. In a healthier older population, the onset of disability is postponed and the

dependency period before death is decreased.<sup>2</sup> Preliminary data show that a lack of physical activity is one of the ten leading global causes of death and disability, with an increased risk of cardiovascular disease, diabetes, obesity, colon cancer, high blood pressure, osteoporosis, depression and anxiety.<sup>3</sup>

A general misconception of modern culture is to accept that old age is a time for relaxation and that physical activity is unnecessary or even harmful. Another misconception, namely that only continuous vigorous exercise will benefit health, has set an unattainable goal for the elderly.<sup>2</sup> Many health care personnel do not prescribe or explain the advantages of regular exercise to el-

derly patients.<sup>4,5</sup> As a result, many elderly people have an inaccurate or negative idea of physical activity.

Boyette et al.<sup>6</sup> identified certain characteristics that would influence exercise behaviour in the elderly. Using an expert panel, they identified biomedical status, past exercise participation and education as the most important factors when initiating exercise participation among the elderly. Biomedical status, past exercise participation and socioeconomic status were identified as the most important factors for continued exercise participation.

The aim of this study was to determine the physical activity knowledge, attitudes and practices of the elderly in Bloemfontein old age

homes. Reasons for not participating in physical activity were also described.

### Method

In this descriptive study, participants had to be Caucasian, 65 years and older and residing in a Bloemfontein old age home. People excluded from the study were either bedridden or weak, could not speak English or Afrikaans, or suffered from impaired cognitive processes. Oral informed consent was obtained from the managers of 10 of the 11 old age homes in Bloemfontein. Each manager supplied a list of people who could be included in the study. From these lists, a proportionally stratified sample of 30% was chosen randomly. Five residents of the old age home that was unwilling to be included contacted the researchers independently and were included in the study.

A questionnaire was developed based on literature regarding the physical activity knowledge, attitudes and practices of the elderly. A pilot study of the questionnaire was done

on 10 elderly residents of old age homes known to the researchers. On the basis of the pilot study, further options were added to several questions and it was decided that interviews should be conducted rather than using self-administered questionnaires.

The researchers conducted individual interviews with the elderly after receiving informed oral consent. A structured questionnaire was used and included personal information, physical activity knowledge, attitudes towards physical activity and physical activity practice.

The Ethics Committee of the Faculty of Health Sciences, University of the Free State approved the protocol.

### Results

Three hundred and ninety residents participated in the study. Most participants were female (81.5%). Ages ranged from 65 to 101 years, with a median of 78 years. The majority (69.2%) had an education of Standard 10 or higher. The marital status

of the participants was widowed (67.2%), married (26.4%), single (4.6%), or divorced (1.8%). The participants suffered mainly from hypertension (48.5%), arthritis (48.2%), obesity (32.6%) and osteoporosis (29.2%). Practices that could influence physical activity included smoking (5.6%), alcohol use (50.5%), having no problem turning/stretching/bending (46.4%), and having no problem lifting heavy objects (40.5%).

The participants' knowledge of physical activity is summarised in **Table I**. The participants' general knowledge of physical activity was good, but they knew less about the influence of exercise on cholesterol, diabetes and hypertension. Nearly half of the participants did not know the correct average blood pressure values and 14.7% were unsure. Some participants (14.1%) were unsure if exercise would help in controlling blood pressure and 19.0% answered the question relating to this issue incorrectly. More than half (55.9%) of the participants were not aware that exercise decreases physical dependence (some of the participants found this question to be confusing). Almost a quarter (23.1%) of the participants was not aware that exercise helps in controlling diabetes and cholesterol and 11.8% were unsure.

The participants' attitude towards physical activity is given in **Table II**. Most of the participants (80.5%) enjoyed exercising. Half of the participants (50.8%) were not satisfied with the facilities for physical exercise in their respective old age homes. Most participants (62.7%) felt that they had not received enough information about physical activity from their doctor.

The participants' type of physical activity is given in **Table III**. More than 80% of the participants took part in some form of physical activity,

**Table I:** Participants' knowledge of physical activity given as a percentage (n=390).

Question	True	False	Unsure
Aging causes a decrease in physical activity	85.6	14.4	0
Exercise causes/worsens joint swelling and pain	16.4	76.7	6.9
Exercise weakens legs, bones and joints	7.2	91.0	1.8
A blood pressure of 150/100 can be accepted as normal for the elderly	37.4	48.0	14.6
Exercise contributes to blood pressure control	66.9	19.0	14.1
Exercise contributes to a better state of mind	96.2	2.8	1.0
Exercise decreases physical dependence	42.1	55.9	2.0
Exercise contributes to diabetes and cholesterol control	55.1	23.1	11.8
The elderly do not have to undergo a doctor's examination before starting with an exercise program	24.1	72.6	3.3

**Table II:** Participants' attitude towards physical activity given as a percentage (n=390).

Question	Very little	Little	Average	Much	Very much
Do you like exercising?	11.0	8.5	21.5	30.3	27.7
Do you feel you get enough exercise?	18.7	21.5	11.0	24.6	24.1
Are you satisfied with the home's physical activity services/facilities?	39.5	11.3	13.3	27.4	8.5
Are you aware of the home's different physical activity facilities?	28.2	8.7	9.0	28.5	25.6
Has the doctor given you enough information about physical activity?	59.1	3.7	4.7	10.0	22.6

**Table III:** Participants' type of physical activity (n=318).

Activity	Percentage
Walking	91.8
Housework	34.0
Gardening	32.1
Stretching exercises	15.7
Cycling	6.0
Bowls	6.0
Swimming	4.4
Prescribed exercises	3.8
Weights	2.8
Aerobic exercise	2.5
Golf	1.6
Aqua-aerobic exercise	0.9
Dancing	0.9
Jogging	0.9

**Table IV:** Reasons for not participating in physical activity (n=72).

Reasons	Percentage
Other	51.4
Sore back	34.7
Arthritis/joint pain	26.4
Dizziness	18.1
Breathlessness	18.1
High blood pressure	8.3
Diabetes	6.9
Too old	6.8
None	4.2
Will get a heart attack	2.8

with 67.9% exercising daily. The participants exercised an average of 5.75 times a week and for a median of 20 minutes.

Participants exercised indoors (8.2%), inside the complex grounds (45.4%), outside the complex grounds (39.1%) and in a gymnasium (7.3%). Reasons for not taking part in physical activities are given in **Table IV**. The most important reasons in "other" were laziness (26.5%), lack of interest (6.1%) and sore hips (6.1%). Only 35.5% of the participants would like to improve their exercise programme with qualified help. Only 3.8% took part in a prescribed exercise programme.

## Discussion

The participants had a good general knowledge of the influence of physical activity on quality of life, but had less knowledge of the influence of

exercise on cholesterol, diabetes and hypertension. The participants' lack of medical knowledge could be ascribed to insufficient communication between doctor and patient.<sup>5,7</sup> Most participants felt that their doctor had not given them enough information about physical activity. Grossman and Stewart have noted that the elderly participants in their study would welcome more physical activity information from their doctors.<sup>8</sup>

Most participants had a positive attitude towards exercise, and half felt that they got enough exercise. However, only a third (35.5%) of the participants wanted to improve their exercise programme with qualified help. Convincing people to become more active is more difficult than convincing them that exercise is beneficial.<sup>2</sup>

Although most participants took part in some form of physical activity, few (3.8%) took part in prescribed exercise programmes. It was expected that the participants would not make use of gymnasiums because they are not used to that milieu, or because transport is a problem. Contrary to expectations, many participants did not exercise in their homes. The reason may be an adequate socialising effect in the old age homes, or that there are no hindrances to exercise (e.g. presence of a safe and known environment).

## Conclusions

In general, the participants had a positive attitude towards physical activity. This can be improved by motivation from health care workers, family members, friends and the media.

The participants lacked the knowledge to be able to understand adequate physical fitness programmes. The type of exercise, time spent exercising, the best time to exercise and the safest place to exercise depend on the individual.

Every exercise programme has to be tailored to the individual through multidisciplinary teamwork. Health care workers must take this into account when giving exercising information to the elderly. Elderly people who do not exercise because of a specific health problem may be motivated to exercise in a way that improves their quality of life.

Future research could concentrate on equipping health care workers to promote exercise participation in an attainable way for an elderly population.

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## Conflict of interest:

None declared

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