

## **Factors influencing participation in physical exercise by the elderly in Eldoret West District, Kenya**

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### **Abstract**

Regular exercise has been recommended as a partial solution to improving health and wellness among many groups of people including the elderly. Unfortunately, information on the participation of elderly in exercise in Kenya is lacking. This study sought to explore measures for enhancing participation in exercise by the elderly in Eldoret West district, Kenya. The study utilized cross-sectional survey research design. Data were collected among the elderly people aged 50 years and above in Eldoret West district. The instruments of data collection were structured interviews, questionnaires and focused group discussions. The sample size for the study was 260 elderly from an estimated population of 2600 in Eldoret West district. These respondents were sampled through snowballing techniques. However, analysis was conducted on 241 elders. The data collected were analyzed by descriptive statistics employing frequency distributions, chi-square tests and correlation analysis using Statistical package for Social Sciences (SPSS version 16.0). Results indicated low participation (18%) of elderly in exercises even at home (8.3%). The exercises in which elderly participated were mainly jogging, walking and attending the gym, which were attended less frequently. However, the factors that affected the participation of the elderly were mainly personal value, cultural, gender, customs and traditions of the elders. It was further established that there were mainly negative attitudes to exercise, low levels of awareness, lack of facilities among other reasons cited by the elderly with some citing disability as the reasons for low participation. However, the elderly also agreed that their main reasons for engaging in exercises were: presence of finance to pay, encouragements from the family members, and high levels of education among other things. It was further established that the elderly engaged in exercises to become alert, to increase confidence, to maintain health and as a way of passing time. Finally, it was established that the elders lacked time, money and space among other things that should be availed to enhance participation in exercises. They however agreed, to be provided with opportunities and facilities and moral support for them to participate in exercises. This study established that there is low participation in exercises by the elderly in Eldoret West district, Kenya which is attributed to negative attitudes to exercise, low levels of awareness, lack of facilities and disability. However, the elderly maintained that their main reasons for engaging in exercises were: presence of finance to pay, encouragements from the family members, and high levels of education. It is thus recommended that local authorities, in collaboration with the Ministry of Youth and Sports in Kenya, take up responsibility for the funding and designing of the exercises for elderly people in Kenya as well as providing the adequate facilities and equipment for their successful implementation.

**Key words:** Exercise, participation, elderly people, Kenya.

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## **Introduction**

Aging is a normal biological process that occurs in the later part of the human life (Department of Health and Human Services, 1996; Hubert, Bloch, Oehlert & Fries, 2010). Gerontologists have classified old age into “young old” (65-74 years), “old” (75-84 years), “old old” (85-99 years) and “oldest old” (100+ years). As such, the elderly are persons who have attained and accepted the chronological age of 50 years (World Health Organization, 2005). Old age as a natural condition is a normal condition and pathologies are similar as those that occur at any age period but they are intensified by illnesses, family disorganization, unemployability, reduced income and dependency (Zaza, Briss & Harris, 2005). Ghaz (2009) observed that ageing is a complex process which is accompanied by a potential multitude of issues among the people. It is the problems felt by the elderly that always impel the greatest attention towards this assembly of populace.

The physiological and psychological benefits from participation in various physical activity programmes, of elderly adults, are well documented in the literature (Kasch, Boyer, van Camp, Verity & Wallace, 1990; Zhang, Feldblum & Fortney, 1992). These benefits incorporate improvement for example aerobic power, muscle strength, muscle mass, bone density (Kasch *et al.*, 1990; Skelton & Dinan, 1999). According to Franklin (2002), exercise should be recommended for the affected frail elders because it is a specific therapeutic intervention for the many accumulated chronic illnesses affecting the elderly. More indirect but perhaps more functionally relevant, benefits also accrue from aerobic exercise such as improved sleep, physical function and overall wellbeing of the elders (Blair, Gregory, Peters, Brodley & Kristakis, 2000). Further, older adults who receive physical activity have better balance and agility, reduced risk of falling (Department of Health, Physical Activity, Health Improvement and Prevention, 2004), lower levels of blood pressure, and lower incidence of stroke, diabetes and obesity (Elward & Larson, 1992; Balde, Figueras, Hawlins & Miller, 2010).

Psychological benefits from exercise are also important. Elderly people exhibit higher levels of self esteem (Hopkins, Murrah, Hoeger & Rhodes, 1990), increased mood (Elward & Larson, 2009), independence, social skills, through participation in organized physical activities (Schutzer & Graves, 2004). Further, participation in organized physical activity programmes is more effective through social interaction and peer support (Deforche & Bourdeaudhuij, 2008). It is believed that these programmes can motivate the participants adopting

exercise as a way of living. Unsupervised programmes, on the other hand, have been less effective in motivating the elderly to participate in physical activity (Glasgow & Rosen, 1999).

The extent of participation in physical activity is not necessarily decreased with age (Krems, Luhrmann & Neuhauser-Berthold, 2004). Vaughan, Zurlo and Ravussin (1991) stated that there are no differences in the involvement of young and elderly men in exercise activities. This fact may be explained by the different activity patterns. For example, young men have a tendency towards sports while older men prefer walking or gardening and older women spend more time in active housework and gardening (Krems et al., 2004). Further, high intensity exercise is not popular among elderly people (Schutzer & Graves, 2004). Specifically, activities with an increased heart rate, such as 30 minutes of power walking, concern only 10% of the elders (Kushi, Fee & Folsom, 1997; Schutzer & Graves, 2004). Fear of injury and reduced information from the physicians may be possible reasons (Schutzer & Graves, 2004; Chrysagis, Skordilis & Koutsouki, 2006). According to Hui and Morrow (2005), diseases are the chief barriers to an extended and long life and when they accompany normal changes associated with biological aging, maintaining health and securing appropriate health care becomes especially expensive for older people.

In Eldoret West, there are reports indicating that the town is currently recording only a few elderly people who engage in exercises in the private gyms within the town (Kitur, 2010). Causal observation also indicates that other elderly people do not regularly participate in exercises due to so many underlying factors such as personal value, cultural and gender. This therefore suggests that not all the elderly engage in exercise. It is also known that most elderly may not engage in physical exercise even if the facilities to perform the exercise are available (Bilner, 2009). Moreover, light exercises such as jogging, walking, aerobic dancing etc. do not require any specialized facilities. Yet engagement levels in exercise among the elderly remain pitiable and out rightly absent. These speculative statements concerning the reasons for non-participation of the elderly in Eldoret West district, warrants empirical investigation. Besides, given the manifold benefits of participating in exercise by the elderly, it is worthwhile examining the factors influencing the elderly participation in exercise in Eldoret West district, Kenya, as no information is available. Such information would provide the needed data, on which intervention strategies could be instituted to motivate older persons into increasing their level of participation in exercise, and thus decrease the extent of sedentary living-associated disability, illness, and need for medical care. This might enhance the quality of life of the elderly living in Eldoret West district. Therefore, the purpose of this study was to determine the factors influencing participating in exercises by the elderly in Eldoret West

district. The research question framed was: What reasons encourage or discourage the elderly in Eldoret West district from participating in exercise?

## **Methodology**

### **Research design**

The study used survey design as a method of collecting information. All surveys use descriptive statistical methods to summarize data and get description of responses from questions (Mugenda & Mugenda, 2003). It was appropriate as it considered attitudes, experiences, perspectives and opinions about exercises involved in by the elderly. Descriptive research is a process of collecting data in order to answer questions concerning the current status of the subjects in the study and it determines and reports the way things are, describes such things as behaviour attitudes, values and characteristics (Mugenda & Mugenda, 2003).

### **Target population**

The target population comprised males and females aged 50 years and above within Eldoret West district. Eldoret West district has a total population of 2600 people over 50 years both male and female (Kenya National Bureau of Statistics Eldoret Office, 2009).

### **Sample and sampling procedure**

Random sampling technique was used to provide a true representation of the elderly population in Eldoret West district. A sample size of 260 elders was drawn and interviewed as this was representative enough of the entire population. This is 10% of the population (2600) (Kothari, 2004).

### **Instrumentation**

The study used a self administered questionnaire as a tool for collecting data. Primary data were obtained using questionnaires and interviews. Interviews were found appropriate because some of the respondents were illiterate and might have provided incorrect answers as they were unable to fill the questionnaires on their own. The study also used focused group discussions enabling the researcher access more respondents and it was less costly.

### **Pilot study**

A pilot study involving 12 elderly people was conducted in Soy Division of Eldoret West district, for the purpose of pre-testing the instrument. The questionnaires were subjected to content validity test before the pilot study to

check whether the instrument measures what it was intended to measure (Kombo & Tramp, 2006).

#### Data collection procedures

The research instruments were personally delivered to respondents by the research team who were trained in handling respondents and the questionnaires. A total of 260 questionnaires were delivered. The questionnaire had both open and closed ended questions. The contents of the questionnaires were verbally explained in the local languages to the respondents for easier comprehension and understanding before filling the questionnaires.

#### Ethical considerations

Some ethical considerations when dealing with the elderly included, maintaining confidentiality whereby questionnaires did not bear the names of the respondents, instead they were coded. An assurance was made to respondents that the information obtained was purely for research purposes. The study received ethical approval from the research committee of Kenyatta University, Kenya.

#### Data analysis and presentation

The data obtained were analyzed using descriptive statistics. Data analysis were done using SPSS version 16.0. Chi-square test was used to compare the differences between categorical frequencies. Spearman correlations were used to analyze the strengths of cross-tabulated significant relationships. Apart from Chi-square test, percentage rank score was used to compare the response to variables under study. All data were analyzed at 95% confidence level or  $\alpha = 0.05$  and degree of freedom depending on the particular case as was determined. The findings were presented in tables, charts, percentages, means and central tendencies.

### Results and Discussion

This study explored the factors for participating or not participating in exercises among the elderly in Eldoret West district, Kenya. There were up to 5% of the elderly who never participated in exercise, although higher proportion participated occasionally. The elderly were asked what they believed contributed to their lack of participation in exercises. The results are shown in Table 1. For most of the elderly, the factors cited as causing lack of participation in the exercises were mainly negative attitudes to exercise, low awareness level and lack of facilities. It was established that there were mainly low attitudes to exercise, low level of awareness, lack of facilities and disability as the reasons

for low participation. Additionally, there were cognitive perceptual factors, including perceived 'pros' and 'cons' of exercise, self-efficacy of exercise, stages of change and perceived barriers to exercise, all of which were influential determinants contributing to engagement in physical activity. Thus, attitudes and beliefs may also play a part in affecting the level of participation in physical activity and exercise among elderly people.

The finding of the study also revealed that the elderly engaged in exercises to become alert, to increase confidence, to maintain health and as a way of passing time. Apparently, the association between the cognitive-perceptual dimension and physical activity participation provided a window to signify the applicability of the Trans-Theoretical Model in modifying behavioural change and promoting physical activity and exercise (American College of Sports Medicine, 1998). However, to demonstrate a causal relationship between changing behaviour and beliefs and the attainment of higher levels of participation in physical activity and exercise, would require a more elaborate research design.

**Table 1:** Factors contributing to lack of participation of the elderly in exercise in Eldoret West

Reasons	Frequency	Percentage
Negative attitude towards exercise	201	83.4
Levels of education	101	41.9
Socialization problems	61	25.3
Busy schedule	54	22.4
Low levels of awareness	199	82.6
Lack of exercise facilities	227	94.2
Unemployment	78	32.4
Disability	25	10.4
No apparent reason	36	14.9

The elders were also asked whether they believe that exercise is important to them. The results indicated that up to 80% believed that exercise is important to them. The elders were then asked what factors motivate them to engage in exercise (Table 2). Some of the most prominent reasons for engaging in exercises according to the elderly were: presence of finance to pay, encouragements from the family members and high level of education. The physiological and psychological benefits of engaging in various exercise programmes such as mental alertness by the elderly are well documented by

Kasch et al. (1990) and Zhang et al. (1992). Furthermore, the reasons for participation varied to a wide extend. Specifically, most of the elderly participated in exercises to improve their mood and health, have a good time, be with other people and take advantage of their free time. It appeared, therefore, that these elderly, mainly with lower incomes (80.28% with an income of Ksh. 6000) and low education status were looking for social outlets and investment of their free time.

The results of the study also indicated that the elderly participated more in exercise to improve their appearance and some were unhappy with the content of the programmes they were attending. The present findings are in agreement with Chrysagis et al. (2006) who reported that adult Greeks were: (a) not satisfied with the content and the organization of the exercise programme, and (b) not satisfied with the equipment used. Further, Anastasiadis et al. (2003) reported that 50% of the participants in the exercises programmes, in a sample of urban Greeks, perceived that the equipment used was not appropriate.

Additionally, the present findings suggest that the elderly participate to a wider extent in the exercises programmes where they can afford. This is in agreement with Chrysagis et al. (2006) study which examined the views of Greek adult females towards the exercises. The study supported that urban women participated more hours/week compared to their suburban/rural counterparts.

The elderly participated in the exercise programmes to have a good time, improve their mood, health and physical conditioning. This finding is, however, corroborated by previously reported findings involving elderly people, which found that exercise improves mood, sleep and self esteem of the elderly people (Emery & Blumenthal, 1990). Similarly, Chrysalis et al. (2006) and Stavrou and Kakkos (2002), found that the major reason for participation of elderly in exercises were to improve their health and mood, while Zervas (1999) stated that physical activity is an important factor for peoples' psychological health.

**Table 2:** Factors for participation in exercise among the elderly in Eldoret West district

Factor	Frequency	Percentage
Ease of access to the facilities	77	32.0
Have the finance to pay for the facilities	111	46.1
Doctor's recommendations	39	16.2
High levels of education	32	13.3
Environment dictates exercise	42	17.4
Encouragements from the family members	104	43.2
Influence from the media	21	8.7
Popularity/promotion/role models	11	4.6
Sportsmanship	41	17.0
Tradition/culture	9	3.7

The elderly were asked about what benefits they derived from participation in exercise. The results are shown in Figure 1. The benefits of participation in exercise differed significantly among the respondents ( $\chi^2 = 39.334$ ,  $df = 1$ ,  $p = 0.000$ ). Some of the underlying benefits that the elderly derived from participation in exercise were: to become alert (36.9%), increase confidence (82.6%), maintain health (94.2%) and as a way of passing time (32.4%). The present findings contrast the findings of some previous authors including Hui and Morrow (2001) who, in a larger study than this, found older Chinese adults considered exercise as the least important factor contributing to their health. Similarly, Schutzer and Graves (2004) stated that Americans are not aware of the benefits of exercise to disease prevention. The researchers supported that lack of knowledge of the relationship between exercise and health acts as an important barrier for participation in organized physical activity among the elderly.

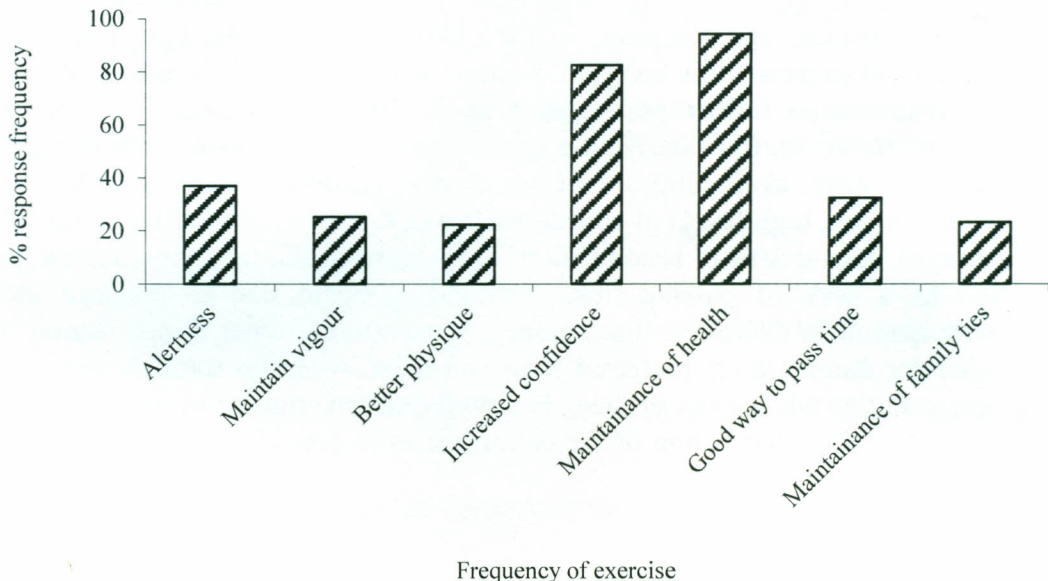


Figure 1: Importance that the elders derive from participation in exercises

### Limitations of the study

Studies of this kind have their limitations. Physical activity participation is self-reported at the point of influence and self-reporting of data. The cross-sectional study design did not allow for the determination of cause and effect. In addition, since the female gender and more lowly educated subjects were over-sampled, interpreting the findings requires extra attention by the government so as to address the inequalities. The present study incorporated objective functional measures in assessing the effects of physical activity and exercise in the elderly respondents. Moreover, as the distribution/availability of regulated/habitual physical activity in the present study was uneven, a larger sample size and

examination of activities other than sports could be of help. Also, the use of questionnaires and interview schedule to collect primary data also meant that any other opinion from respondents willing to share experiences could not do so hence limited information. The use of focus group discussion with the elders may have generated unnecessary information that was meant to solicit for sympathy than to provide real problem of the elderly. The scope of the study may not allow for generalizations as it was only conducted within Eldoret West district. Nevertheless, this is the first study on the elderly in this region which information is scarce. As such, the results of this study can be compared with previous studies carried out elsewhere.

## Conclusion

The findings of this study indicated that factors affecting participation of the elderly in exercise in Eldoret West district are mainly personal value, cultural, gender, customs and traditions of the elders. It was established that negative attitudes to exercise, low levels of awareness, lack of facilities and disability are the main reasons for low participation in exercise by the elderly in Eldoret west district. However, the elderly also agreed that their main reasons for engaging in exercises were: availability of finance to pay, encouragements from the family members, and high levels of education. It was further established that the elderly engaged in exercises to become alert, to increase confidence, to maintain health and as a way of passing time. The elders stated that to enhance elderly participation in exercises, time, money, space among other things should be in place for them. Others preferred government interventions through provision of opportunities while most of the elders preferred government to provide facilities as well as the intervention of the communities to provide moral support for the projects.

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