



EFFECTIVENESS OF EXERCISE PROGRAMME ON MOBILITY AMONG ELDERLY

Nursing

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ABSTRACT

The present study investigated the effectiveness of exercise programme on mobility among elderly. The study was conducted among elderly in selected old age homes in Kottayam district. The research design selected for this study was quasi experimental pre test post test control group design. The study was theoretically supported by Betty Neuman's system model. Montreal cognitive assessment test was used for screening. Data were collected using socio personal data sheet and Elderly mobility scale. The data were collected for a six weeks period. The Pilot study was conducted to assess the feasibility of the study. For the main study, researcher selected sixty elderly who met the inclusion criteria. The data were tabulated and analysed by descriptive and inferential statistics. The study revealed that exercise programme was effective in improving mobility among elderly. Findings of the study have implications in nursing practice, education, administration and research.

KEYWORDS

Exercise programme, mobility and elderly

INTRODUCTION

According to WHO, the number and proportion of people aged 60 years and above in the population is increasing. In 2019, the number of people aged 60 years and older was one billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050. This increase is occurring at an unprecedented pace and will accelerate in coming decades, particularly in developing countries.¹ The elderly in India face amalgamation of numerous physical, psychological and social health problems. As age advances there is an increased morbidity, inactivity, functional loss and diminished quality of life.²

Mobility, the ability to move freely, easily, rhythmically and purposefully in the environment, is an essential part of living. People must move to protect themselves from trauma and to meet their basic needs. Mobility is vital to independence; a fully immobilized person is as vulnerable and dependent as an infant. The maintenance of mobility is thought to be fundamental to active ageing, allowing older adults to continue to lead dynamic and independent lives. Because activity restriction is associated with numerous consequences related to physical deconditioning and reduced levels of social participation. Mobility is intimately linked to health status and quality of life.³ A survey was conducted under the Social Justice Department in association with Senior Citizen Cell and Women and Child Development Department of Kerala found that among the total number of elderly people in the State, only 33 percent are engaged in regular exercise.⁴

According to National Council of Ageing, regular activity can positively impact our physical health as well as our mental and emotional well-being. It prevents bone loss, relieves osteoarthritis pain, helps to prevent chronic disease, boosts immunity and improves mood. Exercise routines for older adults should incorporate a blend of aerobic exercise, strength/resistance training and stretching/flexibility exercises. Exercising in a group setting also provides an added layer of safety for older adults who require more supervision during activity.⁵

Exercise is important to improve mobility and activities of daily living. Considering factors from review of literature and also from the personal experience of investigator, it is identified that old age groups are facing problems related to mobility and it will affect their activities of daily living. Old age people dependent on others to meet their basic needs and it leads to decreased self esteem. Therefore, the researcher selected the present study to find out effectiveness of exercise on mobility.

Objectives

1. To assess the mobility among elderly
2. To evaluate the effectiveness of exercise programme on mobility among elderly

MATERIALS AND METHODS

The quantitative research approach was adopted for the study. The research design selected for this study was quasi experimental pre test post test control group design and the sampling technique used was

non probability purposive sampling. The participants were from selected old age homes in Kottayam district.

Montreal cognitive assessment test was used for screening. After screening, thirty samples in control group were selected first. Data were collected by socio personal data sheet and Elderly mobility scale. After completing pretest in the control group, the investigator selected thirty participants in experimental group. After the pretest, exercise programme was implemented in experimental group for 28 days. Exercise programme is a group based, supervised physical activity performed by group of elderly people. It includes walking for 5 minutes, chair based exercises performed for 20 minutes and relaxation exercise for 5 minutes in the morning for a continuous period of 28 days. Post test was carried out in both the groups using the same tool on 28th day.

The collected data were organized, tabulated and analysed by using descriptive and inferential statistics based on the objectives of the study. Analysis of socio personal data was done by frequency distribution and percentage. The effectiveness of exercise programme on mobility among elderly was assessed by Mann Whitney U test.

RESULT

Socio Personal Data Of Elderly

Among 60 sample, 56.7% of participants in control group and 70% of participants in experimental group belonged to the age group of 75-80 years. 36.7% of participants in both control and experimental group had more than 2 children. In control group 27% of participants and in experimental group 30% had no children. majority, (76.7%) of participants in both control and experimental group had primary school education. Majority of participants (66%) in both control and experimental group were worked as manual labourers. 40% of participants in control group and 43% in experimental group were staying in the old age home for less than 1 year. 46% of participants in experimental group seeks shelter in old age home due to family problems where as 40% of participants in experimental group due to the reason that no one to take care at home.

Mobility Among Elderly

This section deals with mobility among elderly. It was assessed by Elderly mobility scale. Score interpreted as dependent in mobility manoeuvres (<10), borderline in terms of safe mobility (10-13) and independent in mobility manoeuvres (≥14).

Table 8 Frequency Distribution And Percentage Of Elderly In Control And Experimental Group Based On Mobility (n=60)

Mobility	Control Group (n=30)		Experimental Group (n=30)		df	χ^2	p
	f	%	f	%			
Dependent (<10)	8	26.7	9	30.0	2	0.64	0.72
Borderline (10-13)	14	46.6	11	36.7			
Independent (≥14)	8	26.7	10	33.3			

From the table 8, it was clear that 46.7% of participants in the control

group and 36.7% of participants in experimental group were border line in terms of safe mobility. In control group 26.7% of participants were dependent in mobility manoeuvres and other 26.7% independent in mobility manoeuvres. In experimental group 30% of participants were dependent in mobility manoeuvres and 33.3% independent in mobility manoeuvres. Chi square value shows that there was no statistically significant difference between the control group and the experimental group in terms of mobility. Hence both the groups were homogenous in nature.

Effectiveness Of Exercise Programme On Mobility Among Elderly

This section deals with effectiveness of exercise programme on mobility among elderly. The following null hypothesis was formulated to test the effectiveness of exercise programme on mobility among elderly.

H_{01} : There is no significant difference in mobility among elderly between control and experimental group

Table 12 Mean Rank, Sum Of Ranks And Mann Whitney U Value Of Mobility Among Elderly (n=60)

Group	Mean Rank	Sum Of Ranks	U Value	p
Control group(n=30)	23.33	700.00	235	0.001
Experimental group (n=30)	37.67	1130.00		

Table 12 shows that mean rank of mobility among elderly in control and experimental group was 23.33 and 37.67 respectively. Obtained U value was 235 which was significant at 0.01 level. Hence null hypothesis was rejected and it can be inferred that exercise programme was effective in improving mobility among elderly.

CONCLUSION

Study revealed that 46.7% of participants in the control group and 36.7% of participants in experimental group were border line in terms of safe mobility. In control group 26.7% of participants were dependent in mobility manoeuvres and other 26.7% independent in mobility manoeuvres. In experimental group 30% of participants were dependent in mobility manoeuvres and 33.3% were independent in mobility manoeuvres.

The Mann Whitney U test was employed to compute effectiveness of exercise programme on mobility among elderly. Obtained U value was 235 which was significant at 0.01 level. Hence null hypothesis was rejected and it revealed that exercise programme was effective in improving mobility among elderly.

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