

Effectiveness of exercise programme on balance score



**ASSIGN
BUSTER**

This chapter deals with the summary and conclusion made from present study. It clarifies the limitations of the study, implications and recommendations given for various areas in nursing practice, nursing education, administration and research. The primary purpose of the intervention is to improve the balance score among elderly people in the age group of 60-80 years.

DISCUSSION

The present study was aimed to assess the effectiveness of exercise programme on balance score among elderly people.

One group pretest post test (preexperimental design) was adopted for this study. The sample size was 30. All the 30 subjects were participated in the study. On probability purposive sampling was used to select the samples.

The researcher conducted the study to assess whether there is any difference in balance score among elderly after the exercise programme. Based on the objectives and hypothesis of the study data were analyzed by using both descriptive and inferential statistics.

Demographic description of the subjects.

According to the age group in the 4 groups, majority of the subjects were in the age group of both (71-75) and (76-80) years that were about 30%. 23. 30% of the subjects belongs to the age group between (60-65) years, 16. 60% of the subjects were between (66-70) years.

Clinical description of the subjects

43. 33% of subjects had chronic diseases, 23. 30% of subjects were taking medication regularly.

The first objective was to assess the balance score among elderly.

The berg balance scale shows, the distribution of subjects according to pretest score 36. 6% were poor in balance and 63. 33% were good in balance. 22. 3 were the pretest mean score.

Shkuratova, N. et al.,(2004) conducted a study to assess the effectiveness of aging on balance control during walking. The study was conducted in gait laboratory in Australia. The design used was two group repeated measures design. Convenient sample of 20 healthy older adults and 20 young subjects were participated. The outcome measures used were gait speed, stride length and double -limb support duration by using foot witch system. Significant interaction between age and balance were measured by ANOVA. By conclusion, the author says that, balance strategies are specific and vary according to age and dual task conditions. Older adults walked more slowly as compared to younger people when turning or performing secondary tasks.

- Evaluate the effectiveness of exercise programme in improving balance score among elderly.

The comparison between the balance score before and after the exercise programme was statistically evaluated by using paired t test. The mean pretest score was 22. 3 and mean post test score was 39. 5. The obtained paired t value was 18. 49 which is greater than the table value and it was significant at $p < 0. 01$ level. It is evident that, there was an increase in

balance score among elderly after the exercise programme. Berg balance scale shows that, the distribution of subjects according to post test score of the subjects were present under good and excellent. There was a significant increase in balance score after the intervention.

Tony pigford et al., (2010) conducted a study to examine the effectiveness of balance training programme on balance control among elderly people with balance impairments. The design used for this study was pre experimental case design. An elderly patient with recent history of falls involved in this study, in subjects who underwent 2 weeks of balance training programme in the form of balance exercises. Pretest and post test outcome measures were recorded by using berg balance scale and activity-specific Balance. In BBS score, the score was increased by 12 points as compared to pretest. The authors concluded that, the patient shows improvements in balance outcome measures after the exercise programme.

- Associate the balance scores with selected demographic and clinical variables.

The association of balance score using ANOVA with selected demographic and clinical variables shows that, 'F' value for age was . 865 and there value were not significant at any level. Hence there is no significant association exit between the balance score and the demographic variable.

The association of balance score using t test with selected demographic and clinical variables shows that, the calculated ' t' value for education, maritalstatus, chronicdiseases, and use of medications were . 929, 1. 357, 1. 829 and. 392 respectively. These values were not significant at any level and

there is no significant association exist between the balance scores and demographic and clinical variables.

SUMMARY

The present study aimed to assess the effectiveness of exercise programme on balance score among elderly. It was conducted in St. Thomas old age home at Ramanathapuram, Coimbatore for which the following objectives were formulated.

- Assess the balance scores among elderly.
- Evaluate the effectiveness of exercise programme in improving balance scores among elderly.
- Associate the balance scores with selected demographic and clinical variables.

The exercise programme selected as independent variable and significant changes in balance among elderly were considered as dependent variable for this study.

The study tested the objectives and hypothesis and there was a highly significant difference in pre and posttest balance scores in subjects who underwent exercise programme. One group pretest post test pre-experimental design was adopted for this study. The sample comprises of total 30 elderly people in the age group of 60-80 years. Non probability purposive sampling technique was used. The tool for data collection consists of the demographic and clinical variables of elderly people, Berg Balance

Scale (BBS) to assess the balance scores among elderly people during the pre and post test.

The study was conducted in St. Thomas old age home at Ramanathapuram, Coimbatore. After the pretest, the researcher involved the study subjects in the exercise programme to improve the balance. Based on the hypothesis and objectives, data were analyzed by using both descriptive and inferential statistics to document the effectiveness of exercise programme on balance score among elderly. The exercise programme had a significant effect in improving the balance scores, which was assessed through post test. The present study tested and proved the hypothesis

MAJOR FINDINGS OF THE STUDY

The pretest and post test results showed that exercise programme helps to improve the balance scores among elderly. It was an effective intervention to decrease the balance problems among elderly.

- The calculated mean pretest balance score of elderly was 22.3 and post test balance score was 39.5
- In the pretest, 36.6% of elderly people were in poor balance score and 63.33% were in good balance score.
- In the post test, 50% of elderly people were in good balance score and 50% were in excellent balance score.
- The obtained paired t test value for balance score was 18.490, which is greater than the table value and was highly significant at ($p < 0.01$) level. It is evident that there is a significant improvement in balance

scores of elderly people after the exercise programme. Hence the formulated hypothesis was accepted.

- The association of balance scores with age using ANOVA reveals that the calculated ' F' value was . 865 and it was statistically not significant at any level, there was no association exist with the balance score and demographic variable.
- Test with balance score and selected variables had no association.

CONCLUSION

The following conclusions were drawn from the study.

Based on statistical analysis, formulated hypothesis is accepted and evidence supports that, there is a significant improvement in balance scores among elderly after exercise programme. So, exercise programme is an effective intervention in improving the balance score among elderly.

IMPLICATIONS

Older adults are more prone to get injuries due to physiological and psychological changes, so nurses have an important role to take care of elderly. Fall related injuries are most common among older adults, So effective intervention is necessary for the proper management.

NURSING PRACTICE

- Nursing staffs can explain about the exercise programme, to the older adults and to the family members.

- Implication of this intervention will develop awareness in staff nurses to take adequate safety measures while taking care of elderly.

NURSING EDUCATION

- Nursing students can learn the different types of balance exercises with the findings of the study and also they can assess the balance impairments among elderly in a good manner.
- Nurse educators can arrange simulation classes on balance exercise programmes to teach about the types of exercises.

NURSING ADMINISTRATION

- Nursing administrator can teach the staff nurses regarding exercise for elderly, thereby improving standard of nursing care.
- Nurse administrator, can encourage the staff nurses, to teach the patients about exercises programme.
- Nurse administrator can conduct in-service education regarding exercise programme.
- Nurse administrator can make guidelines for exercise programme especially in case of elderly.

NURSING RESEARCH

- The present study provides support to the further studies.
- The study, favours for evidence based practice.
- The results of this study can disseminate through the conferences, seminars publication in national and international journals.

LIMITATIONS

- Numbers of samples were limited to 30.
- The study was limited to females.
- The study was limited to single setting

RECOMMENDATIONS

- A comparative study can be done with control group.
- A longitudinal study can be done with large sample size.
- A quasi-experimental study can be done with more types of exercises.

ABSTRACT

The present study aimed to assess the effectiveness of exercise programme on balance score among elderly people. The study was undertaken by RegNo: 301210453 during the year (2013-2014) in partial fulfillment of the requirement for the degree of Master of Science in nursing at KMCH College of Nursing, Coimbatore. Objectives of the study was to assess the balance scores among old age people in the age group of 60-80 years, determine the effectiveness of exercise programme in improving balance scores among elderly, identify the association between the balance scores with selected demographic and clinical variables. The study was conducted in St. Thomas old age home, at Ramanathapuram, Coimbatore. Conceptual frame work adopted for this study was based on Ernestine, Wiedenbach's theory (1970). The research design used for this study was one group pretest post test design. A non-probability purposive sampling technique was used to select the samples and the sample size of the study was 30. Pretest balance score of the study subjects were collected using a standardized scale (berg balance scale) from elderly in the age group of 60-80 years who were staying

in St. Thomas old age home at Ramanathapuram, Coimbatore. Then study subjects were given, the recommended exercise programme and the post test score was done at the end of the intervention. The findings of the study revealed that exercise programme was effective to improve the balance scores among elderly.