



EFFECTIVENESS OF TAILORED EXERCISE PROGRAM ON LEVELS OF PHYSICAL PERFORMANCE, MOBILITY AND FALLS EFFICACY AMONG OLD AGE HOME, IN POOVANTHI

Nursing

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ABSTRACT

The study was undertaken to assess the effectiveness of tailored exercise on levels of physical performance, mobility, and falls efficacy among old age home, in Poovanthi. The research approach used for the study was quantitative approach. The result shows that the effectiveness of tailored exercise programme on the level of Falls efficacy, physical performance and elderly mobility among elderly residing in old age home, Poovanthi. The calculated paired t test value on the level of physical performance 11.53 and on elderly mobility 10.17 and for the level of falls efficacy 10.80 was greater than table value, hence the research hypothesis accepted. It was interfered that tailored exercise program was effective in improving the level of physical performance, elderly mobility, and reduce level of falls efficacy.

KEYWORDS

INTRODUCTION

The aging process happens during an individual's lifespan. We are all involved in this process and none can escape it. When one is young, aging is associated with growth, maturation, and discovery. Many human abilities peak before age 30, while other abilities continue to grow through life. The great majority of those over age 65 today are healthy, happy and fully independent. In spite of this, some individuals begin to experience changes that are perceived as signs of deterioration or decline.

The physiological decline of the human body generated by aging can occur in several ways, including bone density and muscle mass reduction, increased postural instability, impairment of visual and auditory capacity, higher consumption of medicines, as well as environmental risks that can predispose older people to fall, decrease their level of physical performance and mobility.

A health-care professional who can tailor the type of exercise to the specific needs and abilities of the individual generally supervises these types of programs. The initial focus in these types of exercise programs should be on strengthening all major muscle groups in a seated or supported standing position until sufficient strength permits the inclusion of unsupported standing exercises that emphasize dynamic balance and mobility. In addition to the improvements in physical capacity gained, these programs also positively impact the individual's perceived quality of life.

Statement of the problem

A study to evaluate the effectiveness of tailored exercise program on levels of physical performance, mobility and falls efficacy among old age home, in Poovanthi.

OBJECTIVES

- To assess the level of physical performance, mobility and falls efficacy before tailored exercise program among elderly.
- To assess the effectiveness of tailored exercise program on the level of physical performance, mobility and falls efficacy among elderly.
- To associate the post test level of physical performance, mobility and falls efficacy and the selected demographic variables.

Hypothesis

H1: There is a significant difference in levels of physical performance, mobility and falls efficacy before and after tailored exercise program.

H2: There is a significant association between post test level of physical performance, mobility and falls efficacy and the selected demographic variables.

Assumption

- Elderly peoples are at high risk of falls
- Old ages may have decrease in the level of physical performance, mobility

- Tailored exercises helps the old ages to improve the physical performance, mobility and reduce the risk of falls.

MATERIALS & METHODS

A Quantitative Research approach, pre experimental (one group pre test and post test) design was adopted to assess the effectiveness of tailored exercise on the levels of physical performance, mobility, and falls efficacy among old age at old age home, Poovanthi. The written permission was obtained from managing director of old age home, Poovanthi. Sample size consists of 30 elderly who meet the inclusion criteria. The investigator explained the purpose of conducting study and reassured the elderly that collected data will be kept confidential. The samples were selected by purposive sampling who fulfilled the inclusion criteria.

Tools used for the study

Structured Questionnaire to assess the following demographic variables, it includes age, sex, any history of co-morbid illness, history of previous fall, if yes frequency, time of previous fall, taken any treatment for previous fall.

Falls efficacy scale, physical performance test and elderly mobility scale was used to assess the level of Falls efficacy, physical performance and elderly mobility among elderly residing in old age home, Poovanthi.

Before starting the study the researcher obtained formal permission to conduct the study from the old age home authority and the dissertation committee of RASS academy college of nursing, Poovanthi. The period of study extended for 5 weeks the researcher has introduced herself to the selected samples and verbal consent was obtained from each subject after giving assurance of confidentiality. First day pre test was conducted (It include demographic data, physical performance test, elderly mobility scale and falls efficacy scale) from 30 samples and Tailored exercise was given for 30 min on each Monday, Wednesday, Friday. After 5 weeks of period post test was conducted. The collected data was analysed by using descriptive and inferential statistics.

RESULT AND CONCLUSIONS

The findings are tabulated and analyses are interpreted as follows,

Table 1-Distribution of Samples according to their physical performance, mobility and falls efficacy

Name of the Scale	Pre Test		Post Test	
	F	%	F	%
Level of Physical Performance				
>17 – unable to function	-	-	-	-
17-24 – moderate frailty	22	73.3%	-	-
25-31- mild frailty	8	26.6%	29	96.6%
32-36- not frail	-	-	1	3.3%

Level of Mobility				
>10 – dependent maneuver	-	-	-	-
10-13 –borderline independent ADL	25	83.3%	1	3.3%
<14 - Independent ADL	5	16.6%	29	96.6%
Level of fall efficacy				
16-19 – low concern	-	-	3	10%
20-27- moderate concern	10	33.3%	8	26.6%
28-64+ high concern	20	66.6%	19	63.3%

The data presented on table 1 shows that the level of physical performance in pre test none of them in unable to function,22 out of 30(73.3%)samples have moderate frailty, and 8 out of 30 (26.6%)sample having mild frailty level,and noneof them in not frail. In post test level of physical performance none of them were below 17,none of them were in between 32-36(not fraility).

In the level of mobility in pre test,none of them in >10 (dependent maneuver), 25 out of 30 (83.3%)in between 10 -13(borderline independent in daily living activity), 5 out of 30 (16.6%) in above 14 (independent in daily living activity) and post test none of them in >10 (dependent maneuver),25 out of 30 (33%) in between 10-13 (borderline independent in daily living activity)29 out of 30(96.6%) in above 14 (independent in daily living activity).

In the level of fall efficacy in pre test, none of them in 16-19 (low concern) 20- 27 (moderate concern)10 out of 30 (33.3%) in 28-64 (high concern) 20 out of 30 (66.6%) and post test 16-19 (low concern) 3 out of 30 (10%) 20-27 (moderate concern) 8 out of 30 (26.6%) in 28-64 (high concern) 19 out of 30 (63.3%)

Table 2-Comparison of pre and post test level of physical performance, mobility and falls efficacy .

S.no	Scale Name	Pre test mean	Post test mean	Mean difference	Standard deviation	Paired “t”test
1	Physical Performance Scale	22.2	26.9	4.7	2.5	11.53
2	Elderly Mobility Scale	14.8	26.2	11.4	1.2	10.17
3	Falls Efficacy Scale	41.6	31.6	10	5.013	10.80

Significant at 0.05 level

Table 2 shows regarding the level of physical performance, in pre test mean value 22.2, post test mean value 26.9 , pre and post test mean difference 4.7 standard deviation value 2.5, paired “t” test value 11.53. In elderly mobility, pre test mean value 14.8, post test mean value 26.2 , pre and post test mean difference11.4, standard deviation 1.2 and paired “t” test value 10.17. In falls efficacy pre test mean value 41.6, post test mean value 31.6, pre and post test mean difference 10, standard deviation value 2.26 and falls efficacy & paired “t” test value 10.80 was greater than table value at 0.05 level of significant, which shows that there is significant difference between the pre test and post test level of physical performance, mobility and falls efficacy. Hence, the formulated research hypothesis was accepted. It was inferred that tailored exercise was effective in level of physical performance, mobility, falls efficacy among elderly.

CONCLUSION

The study findings provide the statistical evidence which clearly indicates that the tailoring exercise has improved the level of physical performance, mobility, and reduce the level of falls efficacy among elderly.

Limitation

The limitation of the study were:

- The sample size was 30.
- The finding can be generalized with cautions.
- The subjects can be randomized to improve the effectiveness.

Recommendations

- A similar study can be replicated with larger sample.
- A similar study can be conducted by using true experimental design.
- A similar study can be conducted on a long term basis to prove the summative effect of tailored exercise program.
- This study can be done as a comparative study in different settings.
- A follow up study can be done to find out whether the nurses are

practicing tailored exercise program on the level of physical performance, mobility and falls efficacy among the elderly

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