



A STUDY TO ASSESS THE EFFECTIVENESS OF AGILITY EXERCISE ON ACTIVITIES OF DAILY LIVING AMONG YOUNG OLD ADULTS AT SELECTED OLD AGE HOMES MANGALORE

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ABSTRACT

Aim: To assess the effectiveness of agility exercise on activities of daily living (ADL) among young old adults at selected old age homes Mangalore.

Materials and methods: An evaluatory approach with one group pre test post test design study was conducted from February 1st to February 28th. A purposive sampling technique was used to select 44 young old adults who are residing in old age homes. Informed consent was obtained from the subjects. On the first day pretest was conducted. An activity of daily living scale was administered to the subjects. On the same day, agility exercise was administered to each subject. The subjects were made to continue the exercise for two weeks under the supervision. The post test was conducted after two weeks with same tool. The pretest and post test scores were compared and analyzed through descriptive and inferential statistics.

Results: The mean post interventional ADL (39.02) was higher than the mean pre interventional ADL score (36.31). The computed 't' value (12.6) was higher than the table value (t43= 2.00) Conclusion : There was significant improvement in ADL among young old adults after the administration of agility exercise.

KEYWORDS

ACTIVITIES OF DAILY LIVING, AGILITY EXERCISE, YOUNG OLD ADULTS.

INTRODUCTION

Physical activity is defined as bodily movement that is produced by skeletal muscle contraction and that substantially increases energy expenditure. Exercise a type of physical activity, is defined as a planned, structured and repetitive bodily movement done to improve or maintain one or more components of physical fitness. Certain types of exercise may be particularly beneficial for specific population and age group (50-70yrs). Agility exercise have been found to improve activities of daily living among young old adults.¹

OBJECTIVES

- To determine the activities of daily living among young old adults as measured by activities of daily living scale.
- To evaluate the effectiveness of agility exercise on activities of daily living among young old adults.
- To find the association between the pretest score on activities of daily living and selected baseline variables.

HYPOTHESES

All the hypotheses will be tested at 0.05 level of significance

H₁-The mean post intervention activities of daily living score will be significantly higher than pre intervention score.

H₂ – There will be significant association between pretest score on activities of daily living and selected baseline variables

MATERIAL & METHODS

An evaluatory study was conducted from February 1st to February 28 among 44 young old adults who are residing in old age homes Mangalore. The inclusion criteria of the study was subjects within the age group of 50-70yrs and who were re-

siding in old age homes. Exclusion criteria of the study was young old adults who were bed ridden, reported of severe visual problem, who were undergone amputation and knee replacement. A purposive sampling technique was used to select 44 young old adults. An evaluatory approach with one group pre test post test design was used. Data collection instruments used were Baseline proforma, Activities of daily living Scale. The tool consisted of two parts:

Section 1: It is comprised of baseline proforma consisted of 9 items pertaining to age, gender, marital status, educational qualification, dietary pattern, interest to do the regular exercise, chronic illness, any difficulty to perform activities, regarding joint pain and stiffness while doing activities.

Section 2: It consists of 6 items and the items were developed so as to cover 6 different areas: personal hygiene, dressing, eating, toileting, locomotion and works around the house.

Data collection process: Formal permission was obtained from the concerned authority prior to the data collection. The purpose of the study was explained to them and written consent was obtained. The subjects were selected by purposive sampling. Once the subjects were ready, the activities of daily living scale were administered on first day. One the same day, after collecting the activities of daily living scale, agility exercise was demonstrated. Post test was conducted after 15 days. Average time taken for the post test was 20-25 min.

RESULTS

Table- 1: Determine the activities of daily living based on activities of daily living scale scores.

Majority of the subjects 65.9% had little difficulty(score 29-

42) in performing activities of daily living, 18.2% subjects had no difficulty(score 43-56) in their activities, whereas 13.6% subjects had moderate difficulty in activities and 1 (2.3%) subject had severe difficulty in activities of daily living.

Table- 2: Effectiveness of agility exercise on the activities of daily living.

Shows that most of the subjects 29 (65.9%) had a little difficulty in activities of daily living during pre-test whereas only 20 (45.6%) subjects had a little difficulty in activities of daily living during post-test. In the pretest 8 (18.2%) subjects had no difficulty in activities of daily living and during posttest majority 18 (40.9%) had no difficulty in their daily activities

Table- 3: Mean, Mean difference, Standard deviation and 't' value on pretest and posttest scores on Activities of daily living score.

Shows that the mean post test activities of daily living score (39.02) was higher than the mean pretest activities of daily living score (36.31) The computed 't' value (12.6) is higher than the tabled value (t_{43} , 2.00, $p < 0.05$). This indicates that agility exercise was effective in increasing the activities of daily living. There was no significant association between the pretest score on activities of daily living and selected base line variables.

DISCUSSION

Previous reviews show that the present study is congruent with the findings of the study conducted in France to assess the effectiveness Of targeted exercise program on ability to perform ADL. The 't' test value t_{158} was .24 which is greater than table value and study concluded that the exercise programs can improve ADL.²

These findings are supported by the findings of the study conducted in Nagoya university graduate school of medicine, Japan. To evaluate the changes in activities of daily living, physical fitness after six-month periodic well-rounded exercise programs for older adults in nursing homes. The significant improvement in ADL of the hand manipulation domain and borderline significant improvement in ADL of the mobility domain were observed (McNamara test $p = 0.011$ and 0.072 , respectively).³

CONCLUSION

The results of the present study show that there was significant improvement in activities of daily living among young old adults after the administration of agility exercise. Hence it can be concluded that agility exercise is a cost-effective, non-invasive method to improve activities of daily living.⁴

Table 1: Determine the activities of daily living based on activities of daily living scale scores.

n=44

ADL score	Grading	Frequency (f)	Percentage (%)
1-14	With great difficulty	1	2.3
15-28	With moderate difficulty	6	13.6
29-42	With a little difficulty	29	65.9
43-56	Without difficulty	8	18.2

Maximum score: 56

Table 2: Effectiveness of agility exercises on the activities of daily living.

n=44

ADL scores	Grading	Pre test		Post test	
		f	%	f	%
1-14	With great difficulty	1	2.3	-	-
15-28	With moderate difficulty	6	13.6	6	13.5

29-42	With a little difficulty	29	65.9	20	45.6
43-56	Without difficulty	8	18.2	18	40.9

Maximum score: 56

Table 3: Mean, Mean difference, Standard deviation and 't' value on pretest and posttest scores on Activities of daily living score.

n=44

	Mean	SD	Mean Difference	t value	p value
Pretest	36.31	8.51			
Post test	39.02	8.65	2.704	12.6	<0.0001

$t_{43} = 2.00$

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