

An Overview on Psychoneurobic Exercise on Memory Enhancement in Humans

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Abstract – The goal of this research was to analyze the impact of Neurobic Exercise on the Memory Enhancement in the Elderly individuals experiencing Disease. Amid January to September 2012, twenty two female more seasoned grown-ups experiencing disease who were living at Mitraparpsongkoh Foundation, Pathum Thani Province in Thailand, were purposively chosen to take part in this research. Chosen participants were engaged with Neurobic Exercise Program on each 2 days continuously for about a month. The instruments comprised of a Demographic Data Form, the Mini-Mental State Examination-Thai 2002, the Memory test and a Neurobic Exercise Program. The dependability of the Mini-Mental State Examination-Thai 2002 and the memory test utilizing Kuder-Richadson 20 were .89 and .81 individually. Information were dissected utilizing elucidating insights and Paired t-test. The outcomes uncovered that the normal memory scores of the trial amass subsequent to getting the Neurobic Exercise Program were factually and altogether higher than before accepting the Neurobic Exercise Program at a dimension. The consequences of this examination could be utilized as rules by human services suppliers in improving the memory maintenance of the elderly individuals experiencing disease and postponing the weakening of the brain.

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INTRODUCTION

It has been uncovered that the quantity of elderly individuals experiencing Disease is quickly expanding in the present World. The danger of this infection happens around the age of 60 years and will be multiplied in at regular intervals by expanding 20 percent in the age of 80 years old and 35 percent in the senior citizens more than 85 years old. The memory decrease in ordinary maturing identified with the decrease of 2,000 million of neurons and 40% of the brain harm associated with shaping recollections. The Elderly individuals experiencing disease have been found of the demise of neurons at cortex and hippocampus, a zone that creates the substance acetylcholine which encourages learning and memory. Thusly, the quantity of disease patients is higher among the elderly.

The difference in the population structure of the maturing population demonstrates the quantity of individuals with disease is expanding as the population gets more seasoned. In Thailand, it is evaluated that the quantity of elderly individuals experiencing Disease is set to be multiplied inside the following 20 years, from 229,000 to 450,000 and could surpass one million inside the following 50 years. The www.sciedu.ca/jnep Journal of Nursing Education and Practice, 2014, Vol. 4, No. 3 ISSN 19 70 25-4040 E-ISSN 1925-4059 system of disease is step by step advancing. The sufferers will discover

hard to live with others because of the memory shortfall, losing their capacity to decide, identity issues and failure to complete their day by day schedule exercises.

In the long run, the sufferers turn out to be absolutely wards of their family and carers. On account of the conduct issues and the physical debilitations of the elderly with disease, they turn into a weight to the parental figures and thus the guardians frequently feel burdensome. Besides, the elderly with disease required additional season of minding from the parental figures, contingent upon their psychological status. The sufferers will require close consideration. The expense for the parental figures is assessed 4,000-6,000 showers for every month. On the off chance that one of the relatives needs to leave from occupation to be the parental figure, the loss of salary will cause a local monetary emergency. Along these lines, the disease condition significantly adds to budgetary and human expenses. In USA, the expenses are assessed at US\$604 billion every year.

Obviously the state of disease influences the personal satisfaction of the sufferers. In this manner, the counteractive action and the deferring of disease should be truly considered. The two medicines that can ease the improvement of disease are utilization of pharmacologic and non pharmacologic medications. Non-pharmacologic

techniques are reality introduction, subjective preparing and memory (Kenny, et. al., 2012). Reality introduction includes giving normal data to elderly individuals with disease about occasions, place to keep them orientated. Subjective preparing can enhance memory, dialect and problemsolving capacity among the elderly with disease. Moreover, Reminiscence improved the intellectual capacity by utilizing past encounters of the seniors, for example, pictures, music and essential people are brought into their present considerations. In addition, the investigation of the memory preparing program discovered memory preparing program was successful in enhancing memory in the older folks. Exercise or physical activity, for example, strolling, swimming, and so forth can back off the memory hindrance in the elderly with disease in light of the fact that the normal exercise builds the blood streams to the brain that supports the improvement of new brain cells. In Australia it was discovered that the physical activity gave an unobtrusive enhancement in perception over a 18-month follow-up period.

Neurobic exercise, a novel brain exercise program dependent on the latest discoveries of logical research (Katz & Rubin, 1999). The brain exercise program is exhibiting the mixes of physical faculties, including vision, hearing, taste, smell, contact and also a passionate sense with changing the everyday schedule routinely. It animates neural activity to fortify and develop brain cells continuously. Neurobics enact neural frameworks to work and expands blood supply to the brain. Neurobic exercise includes specifically with the cortex and hippocampus, situated at average fleeting flap that goes about as a brief store for new data and afterward bit by bit exchanges to perpetual capacity in the cortex. The feeling of smell is engaged with enthusiastic memory and store data to enhance the memory. Moreover, Neurobic exercise animates example of neural activity that makes coordinate associations between various brain zones, particularly cerebral cortex. Cerebral cortex is the most elevated grown piece of the human brain. It comprises of an expansive number of various zones, each particular to recover, encode and store data from all detects. Besides the associations in the regions of cerebral cortex comprise of many neural pathways, which can store recollections in boundless blends, which is because of the intricate framework and the quantity of conceivable mixes of brain's tremendous way ways. Neurobic exercise invigorates the nerve cells to create characteristic brain supplements, called neurotrophins that can expand the size and multifaceted nature of dendrites to remain more youthful, and more grounded, and enhance memory maintenance.

CONSIDERATION CRITERIA

1. Ability to convey and comprehend correspondence

2. No noteworthy history of psychotropic operators something like multi week before the examination
3. Not associated with an exercises
4. Meeting criteria for disease; scoring not exactly or square with 14 in the senior citizens who uneducated, scoring not exactly or rise to 17 in the older folks who graduated elementary school and scoring not exactly or approach 22 in the older folks who graduated higher than grade school on the Mini-Mental State Examination - Thai 2002.
5. No burdensome symptoms which would make solid appraisals troublesome, assessed by burdensome assessment shape which ought to be under 5 out of 9.
6. Willing to take an interest in the trial.

Instruments

The instruments utilized in this research were information accumulation instruments and research instruments:

1. Data accumulation instruments comprised of a Demographic Data Form, the Depression test, the Mini-Mental State Examination-Thai 2002 and the Memory test.
2. Research instrument comprised of a Neurobic Exercise Program.

Validity and reliability

The legitimacy of Neurobic Exercise Program was checked by specialists. The amendment was done as proposed by them. The program was trialed a short time later with the senior citizens like the example assemble at Thanyaburi Home for the Destitute (Women) to assess the genuine application and objectivity of the dialect. Kuder-Richadson: KR 20 indicates reliability of the Mini-Mental State Examination-Thai 2002, the Memory test at .89 and .81 individually.

Information gathering methodology

1. Preceded the information gathering by choosing the example bunch by a purposive examining strategy from the more seasoned females experiencing disease that fitted the consideration criteria of the experimental gathering.
2. The researcher clarified the reason and points of interest of the research and asked for their collaboration in the research

utilizing the affirmation of support in the research and educated the experimental gathering of the security of their privilege in taking part in the research.

3. The research clarified that the MMSE – Thai 2002 and the Memory tests would be performed on the senior citizens preceding Neurobic Exercise Program.
4. Divided the experimental individuals into 2 bunches with 11 individuals in each gathering.
5. Members in each gathering got Neurobic Exercise Program by utilizing 6 faculties, for example, seeing, hearing, tasting, smelling, contacting and enthusiastic sense in joining at least two detects multi day.
6. Neurobic Exercise Program was given to the experimental gathering on each 2 days continuously for about a month by researcher. The researcher directed the instructional meeting for an hour.
7. After the consummation of the Neurobic Exercise Program, the MMSE – Thai 2002 and the Memory tests were performed.

Information investigation

The information were dissected as pursue:

1. Using distinct statistics in a Demographic Data
2. Compare the distinctions of means scores when accepting Neurobic Exercise Program of the experimental gathering with Dependent T-Test for Paired Samples.

RESULTS

The outcomes uncovered that: After accepting the Neurobic Exercise program, the normal memory scores of the experimental gathering were factually and significantly higher than before getting as introduced in Table 1, 2, 3 and 4.

Table 1. Contrasting the Difference in Mean Memory Score for the Experimental Group Using the Mini-Mental State Examination.

Experimental group	Memory score		t	P
	\bar{x}	S. D		
Before receiving the Neurobic Exercise Program	14.77	4.36	-6.876	.000***
After receiving the Neurobic Exercise Program	20.14	3.99		

***p < .001.

The information on table 1 uncovers that the normal memory scores of the experimental gathering

subsequent to accepting the Neurobic Exercise were measurably and significantly higher than before getting the Neurobic Exercise Program at a dimension of $p < .001$.

Table 2. Comparing the Difference in Mean Memory Score for the Experimental Group Using the Memory Test.

Experimental group	Memory score		t	P
	\bar{x}	S. D		
Before receiving the Neurobic Exercise Program	27.68	8.68	-7.750	.000***
After receiving the Neurobic Exercise Program	35.95	5.62		

***p < .001.

The information on Table 2 uncovers that the normal memory scores of the experimental gathering in the wake of accepting the Neurobic Exercise Program were measurably and significantly higher than before getting the Neurobic Exercise Program at a dimension of $p < .001$.

Table 3. Looking at the Differences in Mean Memory Score on Memory Aspects for the Experimental Group Using the Memory Test.

Aspects of Memory	Scores	
	Before experiment	After experiment
Face and name recall (5 marks)	1.41	3.95
Digits recall (5 marks)	3.77	4.86
The words clustering (5 marks)	4.09	4.68
Drawing the assigned (5 marks)	2.32	2.32
Scanning main ideas from reading(10 marks)	3.91	5.87
Scanning main ideas from listening(10 marks)	3.82	4.50
Items storing (10 marks)	8.36	9.77
Average scores	27.68	35.95

The information on Table 3 uncovers that the normal memory scores of the experimental gathering in parts of face and name review, digits review, the words bunching, filtering principle thoughts from perusing, examining primary thoughts from tuning in and things putting away in the wake of getting the Neurobic Exercise were higher than before accepting the Neurobic Exercise Program.

APPLICATIONS

1. Nursing care– attendants are required to be prepared in Neurobic Exercise Program by applying six physical faculties and additionally non-routine encounters consistently while they given nursing care to the elderly individuals who are experiencing disease.
2. Nursing administration– the consequences of this examination can be built up as a nursing standard in enhancing memory weakening and furthermore in a multidisciplinary group to make a consideration delineate a clinical pathway that could guarantee the quality control in nursing care.

3. Nursing academy– these discoveries might be incorporated to the elderly consideration subject in showing nursing understudies in upgrading memory weakness the disease older folks.
4. Future research– this could be utilized as construct data in light of further research in the elderly with disease or others experiencing similar disarranges in enhancing an incredible quality.

CONCLUSION

Speculation: Memory scores of the experimental gathering in the wake of accepting the Neurobic Exercise to be higher than before getting the Neurobic Exercise. This speculation has been bolstered as the average memory scores of the experimental gathering in the wake of getting the Neurobic Exercise Program were factually and significantly higher than before accepting the Neurobic Exercise Program at a dimension of $p < .001$. Moreover, the researcher thought about the distinctions in mean memory score on memory angles for the experimental gathering utilizing the Mini-Mental State Examination technique - Thai 2002 and the Memory test. As the consequences of a large portion of the memory scores on memory parts of Mini-Mental State Examination were observed to be higher except on written command, composing and visuoconstruction. The memory scores in memory parts of the Memory test too were observed to be higher except on illustration the allocated. In the Neurobic Exercise Program, the experimental gathering was urged to utilize six faculties of sight, hearing, smelling tasting, contacting and passionate sense and breaking a normal activity in an unforeseen method to reinforce of nerve cell incitement.

REFERENCES

- [1] Jriangprasert C. (2006). Alzheimer and Disease (2nd ed). Bangkok: Natangsulokkwang Publisher; 2006.
- [2] Sriwatanakul K. (2002). How to keep away from disease (1st ed). Bangkok: Siam sport syndicate; 2002.
- [3] Myers E.C. (2006). Memory loss and the brain. The new letter of the Memory Disorders Project. 2006. Available from URL: <http://www.memorylossonline.com/glossary/memory.html>.
- [4] Kairith O., Chansirikan R. (2009). Thai people are vulnerable for Disease. The Newsletter Post 2009 March (vol. 3).
- [5] Pinquart M., Sorensen S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: A meta-analysis. *Journal of Gerontology*. 2003; 58 (2): pp. 112-128.
- [6] Health Information System Development Office 2009. Thaihealth Report 2007. Available from: <http://www.hiso.or.th>.
- [7] World Health Organization. 10 Fact of disease. WHO, 2012. Available from: www.who.int/features/factfiles/disease/en/index.html.
- [8] Kenny T., Kenny B., Allen H., Bonsall M.A., Cox P.J., Draper R., et. al. (2012). Memory Loss and Disease 2012. Available from: <http://www.patient.co.uk/health/Memory-Loss-and-Disease.htm><http://dx.doi.org/10.1093/geronb/58.2.P112>
- [9] Tadaka E, Kanagava K. (2004). A randomized controlled trial of a group care program for community-dwelling elderly people with disease. *Japan Journal of Nursing Science*. 2004; 1: pp. 19-25.
- [10] Chaiwong W. (2005). Effectiveness of the Memory Training Program for the Elderly [dissertation]. Chiang Mai: ChiangMai Univ., 2005.
- [11] Nicola T.L., Cox L.K., Flicker L., Foster K.J., Bockxmeer M.F., Xiao J., et. al. (2008). Effect of physical activity on cognitive function in older adults at risk for alzheimer disease: A Randomized Trial FREE. *JAMA*. 2008; 300(9): pp. 1027-1037.
- [12] Katz C.L., Rubin M. (1999). Keep your brain alive: 83 Neurobic Exercises to help prevent memory loss and increase mental fitness. New York: Workman Publishing Company; 1999.

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