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EFFECTIVENESS OF CRITICAL THINKING EXERCISE ON LEVEL OF COGNITION

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INTRODUCTION

“The cognition of brain; Add the experience to the soul”

The term cognition comes from the Latin word ‘cognosco’ which means “to know”. It is a natural or artificial process. It refers the mental function. As people grow older, the level of cognition declines. So the cognitive changes are more common in older adults. It can be reversible through proper assessment and early treatment before the onset of cognitive problem occurs.

NEED FOR THE STUDY

Health promotion is important for elderly although 80% of people older than 60 years are more prone for cognitive impairment. Investigator found that the cognitive assessment may reveal a treatable, reversible intellectual status. Cognitive changes may be reversible when the condition is assess and treated. These positive changes may achieve through interventions like cognitive exercises. There for the investigator have decided to impart critical thinking exercise to improve level of cognition among geriatrics.

STATEMENT

A quasi experimental study to assess the effectiveness of critical thinking exercise on level of cognition among geriatric women in Maduravoyal, Chennai.

OBJECTIVES OF THE STUDY WERE

1. To assess the level of cognition before critical thinking exercise.
2. To assess the level of cognition after critical thinking exercise.
3. To compare the level of cognition between before and after critical thinking exercise.
4. To associate the level of cognition with their demographic variable.
Based on these objectives, the formulated null hypotheses were

$H_01$ – there is no significant difference in the level of cognition among geriatric women between before and after critical thinking exercise.

$H_02$ – there is no association between level of cognition and their selected demographic variable.

The study was done in a sequential manner by using a conceptual framework based on Modified Roy’s Adaptation Model, which has three components in it, i.e., input, throughput and the output.

**METHODOLOGY DESIGN:**

Pre Experimental Design (One Group Pre Test and Post Test)

$\begin{align*}
G1 & \quad O1 \quad X \quad O2 \\
O1 & \text{- Pre-Test level of cognition} \\
O2 & \text{- Post-Assessment level of cognition} \\
X & \text{- Formal critical thinking exercise}
\end{align*}$

Setting: The study was conducted at Maduravoyal, Chennai

Target Population: All geriatric women at Maduravoyal, Chennai

Sampling Method and Technique: 30 geriatric women fulfilling the inclusive criteria were selected using non probability convenient sampling technique.

**TOOLS FOR DATA COLLECTION:**

Section A: Demographic Data

Section B: Questionnaire to assess the level of cognition which had 11 different tasks to perform.

Tools were validated by 4 research experts and reliability was obtained by using Test-Retest method. The “r” value was 0.7 and considered as reliable.

**PILOT STUDY:**

Pilot study was conducted with 10% of the samples and feasibility was obtained to do the main study.

**DATA COLLECTION PROCEDURE:**

The subjects were asked to respond to the questionnaires which took 20 – 30 minutes for each individual on an average. Followed by critical thinking exercises
were administered on the same day. On the seventh day, post assessment was done with the same questionnaires.

**MAJOR FINDINGS OF THE STUDY**

The data analysis was done using descriptive and inferential statistics. Regarding knowledge, in the pre-test most of the geriatric women all had mild cognitive impairment. In post-test 3 geriatric women had mild cognitive impairment and 26 geriatric women had improved level of cognition (Fig.1). No one had severe cognitive impairment in the post test, which indicated that the post level of cognition had increased to a significant level. Respect to level of cognition in pre-test overall mean of level of cognition was 24.5 with SD of 1.25. In the post-test, overall mean of level of cognition was 27.9 with SD of 1.29, the paired “t” test value of level of cognition (11.33) is highly significant at p<0.05 level.

![Fig.1: Percentage Distribution of Overall Level of Cognition](image)

**CONCLUSION**

The study finding revealed that there was a significant improvement in level of cognition among geriatric women after critical thinking exercise. This highlights that periodic cognitive assessment of geriatrics is to be conducted by the health personnel.
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