



Mental Efficiency of Selected Elderly

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ABSTRACT

A decline of several cognitive functions is also associated with aging. There are differences in the rate of mental decline among different individuals of same chronological age. There are also differences within the same individual in the rate of decline of different mental abilities. This study was conducted on 100 elderly people with the objective of comparing mental efficiency levels of elderly people in two different living arrangements namely, those residing with the family and living in an old age home adopting stratified random sampling. The mental efficiency of the elderly were assessed using the standardized PGI Battery (PGI-AMEE) which consisted of the Set test, Standard test, Nahar and Benson test and Geriatric Depression scale. This apart, a self formulated questionnaire also was used to elicit general information from the sample. Data collected for the study were compiled and subjected to statistical analysis using percentage and χ^2 test for testing the significance of association between attributes in the contingency tables. The major findings of the study were Inmates of old age home are having significantly poor memory efficiency compared to families. Poor mental status was prevalent in the elders residing at institutions. Inmates of families are having significantly higher perception compared to old age homes. Out of the three categories of depression elderly living in institution suffered more from moderate form of depression which may be attributed to the loneliness suffered by them.

Keywords : Mental efficiency, depression

INTRODUCTION

Aging is clearly established to be associated with a decline in functional abilities (Johnson and Keltner, 1983), contrast sensitivity (Rubin et al., 1997) and motion perception (Hills, 1975). Older people tend to be less able to perceive visual details, to detect motion or position in depth or to cope with adverse light conditions. They also show deficits in processing visual and spatial information to establish complex relationships among objects in their environment (Salthouse, 1996). Extensive data have also demonstrated a robust decline in executive and attention functions among elderly people (Crawford et al., 2000). According to Baltes and Schaie (1986) in the past few decades, the psychology of intellectual aging has been a part of the study of decline in other areas of adjustment there would automatically be decline in mental abilities as well. Salthouse (1994) indicates that poor health status and increasing age have been found to associate with decrease in perceptual speed. Salthouse (1991) explains that there is growing evidence that speed of mental processing is important to the relation between age and memory performance.

Gutman (1988) explained the importance of the family and extended social network for providing support to the completely which foster his understanding of the world around him. By the onset of senility there is a further advancement of age and thereby physical, mental and psychological deterioration levels are higher. To develop requisite policy programmes for the elderly population and to throw light on the various aspects and problems on the elderly, there is a need for a study of elderly. This study could be an aid conceptually to challenge thinking or raise awareness of important issues for working out amicable solution towards relating to mental efficiency of the elderly. The needs and problems of elderly, any study that focuses its attention on elderly becomes significant. In the present day context the study on mental efficiency in elderly holds greater significance. Evidence indicates that for an el-

derly, individual environment experiences play a large role in the level of mental efficiency.

OBJECTIVES

The specific objectives of the study were:-

- To study the back ground details of the elderly
- To compare the memory levels of elderly residing with the family and those living in institution.
- To compare the mental status of elderly residing with the family and those living in institution
- To compare the perceptuo-motor acuity scores of elderly residing with the family and those living in institution
- To compare the depression levels of elderly residing with the family and those living in institution

METHODOLOGY

The area selected for the study was Ernakulam which has quite a large number of old age homes and free living elderly. The sample comprised of 100 elderly aged from 55 and above consisting of 50 living in institutions and 50 from the community. Seventeen men were from old age home and 23 from community; thirty three elderly women from old age home and 27 from the community were selected. Stratified random sampling technique was adopted. Fifty subjects were randomly selected from the inmates of institutions. A group of fifty community dwelling elderly who freely volunteered for study and whoever was free from major disabilities were included in the study, keeping in view an almost equal distribution of sex, age, education and income. Two tools were used for the study: Tool I: PGI battery for assessment of mental efficiency in the elderly and Tool II: A self formulated questionnaire also was used to elicit general information from the sample. Data collected for the study were compiled and subjected to statistical analysis using percentage and χ^2 test for testing the goodness of fit of ratios as well as for testing the significance of association between attributes in the contingency tables.

RESULTS AND DISCUSSION

Comparison of memory scores of the elderly living in institutions and in families

Table 1
Memory test

Sub test-I (score)		Old age home	Families
High efficiency (36-40)	Memory	10	10
Normal Range (30-35)		10	20
Low efficiency (24-29)		6	14
Poor efficiency (below 24)		24	6

Category	χ^2	df	p-value
a) High efficiency (36-40)	0.1	1	p>0.05
b) Normal range (30-35)	3.333	1	p>0.05
c) Low memory efficiency (24-29)	3.200	1	p>0.05
d) Poor memory efficiency (below 24)	10.800	1	p<0.001

No significant difference between the two types of houses in the entire category. Inmates of old age home are having significantly poor memory efficiency compared to families. Both the elderly living in institutions and in the community showed poor memory scores which indicate that memory decline is a part and parcel of the aging process.

Comparison of mental status of the elderly living in institutions and in families

Table 2
Mental status

Sub test-II (score)	Old age home	Families
High (10)	8	9
Normal (9)	5	15
Low (8)	6	11
Poor (below 7)	31	15

Mental status	χ^2	df	p-value
a) High (10)	0.059	1	p>0.05
b) Normal (9)	5.000	1	p<0.05
c) Low (8)	1.471	1	p>0.05
d) Poor (7 & below)	5.565	1	p<0.05

No significant difference between inmates of old age home and families. Inmates of family are having significantly higher than that of old age home. No significant difference between the two types of homes. Inmates of old age home are significantly higher compared to families. Poor mental status was prevalent in the elders residing at institutions as indicated by the sources obtained. Cognitive impairment, neurological status and education level may be the reasons leading to the same.

Comparison of mental status of the elderly living in institutions and in families

Table 3
Perception

Sub test-III (score)		Old age home	Families
High	(0-1 error)	7	18
Normal	(2-3)	14	18
Low	(4-5)	11	12
Poor	(6-8)	18	2

Perception	χ^2	df	p-value
a) High (0 to 1 cm)	4.840	1	p<0.05
b) Normal (2 to 3)	0.500	1	p>0.05
c) Low (4 to 5)	0.040	1	p>0.05
d) Poor (6 to 8)	10.889	1	p<0.001

Inmates of families are having significantly higher perception compared to old age homes. No significant difference between the two types of houses. Inmates of old age home are significantly higher in poor perception compared to families. The scores indicated that elderly living in institutions have significantly poor perception levels compared to the allotted family dwelling elderly. Out of the four score ranges higher level of perception score was significantly higher for those residing with their families, where as there was no significant difference in the other two scores. The obtained results depict the fact that level of perception decreases with the age and it is significantly higher among institutionalised elderly which may be due to decline in sensory abilities.

Comparison of depression levels of the elderly living in institutions and in families

Table 4
Depression scale (Score)

	Old age home	Families
Normal (0-6)	15	29
Moderate (7-13)	33	16
Severe (14-20)	2	5

Depression Scale	χ^2	df	p-value
a) Normal (0-6)	4.455	1	p<0.05
b) Moderate (7-13)	5.898	1	p<0.05
c) Severe (14-20)	1.286	1	p>0.05

Members in families are significantly higher in number with regard to normal depression. Members of old age home are significantly higher in members compared to families. No significant difference between the two types of houses. Observation of the scores indicates that elderly living with their family and in an institution have depression. Out of the three categories of depression elderly living in institution suffered more from moderate form of depression which may be attributed to the loneliness suffered by them. However there is no significant difference between the groups.

CONCLUSION

The study has brought to light on the various aspects of the mental efficiency of the elderly. It is hoped that the result of the study will be helpful for the new generation to draw up realistic plans for solving the emerging problems of the elderly in connection with improving and maintaining their mental efficiency. At the government level it would help to recognize ageing as a developmental issue and to plan out strategies to meet the challenges in the light of the findings of this study and various studies done on these aspects of elderly.

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