

A study on occurrence of cognitive impairment among the elderly with a view to implement a need-based teaching regarding care of the elderly to caregivers

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ABSTRACT

Background: Age is the major change that comes in everyone's life that is fixed and definite for all human beings that change brings old age which comprises of later part of one's life where an individual has lots of memory, experiences, and appreciate his indeed to live with a satisfaction that he was able to achieve all the goals of life. Cognitive impairment is a condition that is related to the age of an individual and considered as an originator to lead a serious disease such as dementia Alzheimer's disease and depression. **Objectives:** The objectives of the study were to find the occurrence rate of cognitive impairment among the elderly in the selected community area and develop and implement the need-based teaching regarding the care of the elderly to caregivers. **Materials and Methods:** Quantitative research approach was adopted for the present study. A total of 246 adolescents were selected through total enumerate sampling technique. And after ethical committee permission, data were collected by administering mini mental status examination to the participants. The data were analyzed using descriptive and inferential statistics. **Results:** This study shown that the occurrence rate of cognitive impairment was found (57.3%) moderately cognitively impaired and on screening basis need-based teaching was given to the caregivers of elderly screened as cognitively impaired. There is a significant association between ages of the elderly with the level of cognitive impairment tested at 0.05 level of significance. **Conclusion:** The study concluded that majority of the elderly were screened with cognitive impairment and for home care and management of those elderly, a need-based teaching was given to their caregivers.

KEY WORDS: Occurrence Rate; Cognitive Impairment; Elderly; Need-Based Teaching

INTRODUCTION


Memories are the Keepsake to Our Life

Life is good when its new but as time changes, days passes, same as happen to human age which is unchangeable or irreversible, the age of a human being increases and reaches to an end stage, as old age comprises later part of life where an individual has lots

of memory, experiences, love and affection and appreciates his indeed, and live with a satisfaction that he was able to achieve all the goals of life, the time period after middle age at the same stage health issues are arises more and deteriorate.

Cognitive ability is one of the major areas which affects mostly the old age generation such as the ability to recognize place person and places, unable to recall, and unable to remember. Cognitive impairment can be one of the causes for most of the disease condition, that is, Alzheimer's disease, dementia, delirium, etc.

The old age is the stage of life where immune systems get deteriorated and a degeneration in neurotransmitters functionality too. As family is the basic unit for human being, same in old age stage, elderly person need love affection ad

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care from their family members who may assist and help elderly to do daily routine work. For that family needs a basic knowledge and needs to be very vigilant toward their elderly and family members should be educated enough to care and able to understand where they need assistance.

Problem Statement

A study on occurrence of cognitive impairment among the elderly with a view to implement a need-based teaching regarding care of the elderly to caregivers in selected community area of Dehradun, Uttarakhand.

Purpose

The purpose of the present study was to investigate the prevalence rate of cognitive impairment among the elderly living in a selected community area of Dehradun, Uttarakhand, and to implement need-based teaching to the caregivers of the elderly regarding home care and management of people living with cognitive impairment.

Objectives

The objectives of the study were as follows:

1. To investigate the occurrence of cognitive impairment among the elderly in selected community area
2. To develop and implement the need-based teaching
3. To find association between the level of cognitive impairment with their selected demographic variables.

MATERIALS AND METHODS

A descriptive house-to-house survey method with quantitative research approach was used as one-point data collection was done. A total of 246 elderly person were selected by total enumerative sampling technique from Thano Raipur Blocks, Dehradun district, Uttarakhand. Before the commencement of the study, formal ethical and administrative permission was obtained from concerned authorities. Moreover, prior written informed consent was taken from participants, and during data collection, assent of the adolescents was obtained. Data were collected through mini mental status examination/ Folstien test. Analysis was done using SPSS version 20, and for quality check manual, calculation was done.

RESULTS

Table 1 reveals the frequency and percentage distribution of sample characteristics of participants, that is, the majority 153 (62.6%) of the elderly were from the age of 60 to 74 years, half 128 (52.0%) of the elderly were male, majority 153 (62.2%) of the elderly were having primary education. Majority 151 (61.4%) of the elderly were employed, majority 167 (69.9%) were having their own source of expenses, majority

Table 1: Characteristics of participants

Socio-demographic variables	Frequency (n=246)	Percentage
Age (in year)		
60–74	153	62.6
75–84	72	29.3
85 and >85	21	8.1
Gender		
Male	128	52.0
Female	118	48.0
Education		
Primary	153	62.2
Secondary	93	37.8
Past occupation		
Unemployed	95	38.6
Employed	151	61.4
Source of expenditure		
Own	167	69.9
Dependent	79	32.1
Types of family		
Nuclear	188	76.4
Joint	58	23.6

188 (76.45%) of the elderly were from nuclear type of family, and half 130 (52.8%) of the elderly belongs to the family who were having income in between 15,000 and 31,000 per month.

Table 2 shows that majority 141 (57.3%) of the elderly were having moderate cognitive impairment, less than half 67 (27.2%) elderly were having mild cognitive impairment, least 15 (6.1%) of the subject with severe cognitive impairment, and out of 246 subjects, 23 (9.3%) were screen with no cognitive impairment. The frequency percentage table also revealed that the prevalence rate of cognitive impairment among the elderly was 57.3% which suggested that most of the elderly will be on the risk of having severe cognitive impairment.

DISCUSSION

In the present study, collected data about the occurrence of cognitive impairment shows that out of 246 elderly, 23 (9.3%) were not having cognitive impairment, 67 (27.2%) were having mild cognitive impairment, 141 (57.3%) were having moderate cognitive impairment, and only 15 (6.1%) had a severe level of cognitive impairment.

The result of the present study was supported by a study done by Kamalzadeh *et al.* (2019) showed that out of 205 elderly, 63.4% were not having any cognitive impairment and 36.6% were having several degree of cognitive impairment.^[1] A similar study was done by Rana and Sharma (2017) in which they stated that the overall occurrence rate of cognitive dysfunction was 35.71% which is more prevalent among (36.41%) women.^[2]

Table 2: Occurrence rate of cognitive impairment among the elderly in the selected community area

Degree of impairment	Score category	Frequency <i>n</i> =246	Percentage
No cognitive impairment	24–30	23	9.3
Mild	19–23	67	27.2
Moderate	10–18	141	57.3
Severe	0–9	15	6.1

To Develop and Implement the Need-based Teaching Regarding Care of the Elderly to Caregivers

The need-based teaching was given to family members of the elderly who were found to be cognitively impaired. A supporting study was done by Waghmare and Muniyandi (2016) to assess the effectiveness of the planned sessions of informative teaching on knowledge and outlook regarding dementia among family members of the elderly. In the post-test, out of a 100 subjects, the majority of subjects had excellent information about dementia. The designed teaching was proved efficient in improving the knowledge and attitude of the family members of the elderly and effectiveness was determined on the basis of post-test knowledge score which showed increases in knowledge.^[3]

The Significant Association between the Level of Cognitive Impairment with Selected Demographic Variables of the Elderly

In the present study, the level of cognitive impairment was having significant association with age of the elderly, the findings were supported by a study done by Krishnamoorthy *et al.* (2019) in which researchers revealed that there is a significant association of cognitive impairment with the age of the elderly, their gender, and any substance use, that is, tobacco and alcohol with the mild cognitive impairment revealed that there is a significant relation of age with the cognitive impairment of the elderly and ethically.^[4]

Strength and Limitations

Strengths of the study were as follows: (i) The researcher was taken a standardized tool for identifying the occurrence

rate of cognitive impairment among the elderly and (ii) the researcher had used the house-to-house research method in research design and limitations of the study were as follows: (i) The researcher had given need-based teaching but did not assess the knowledge of caregivers and (ii) the researcher was taken a standardized tool for identifying the occurrence rate of cognitive impairment among the elderly.

CONCLUSION

Based on the study findings, it was concluded that the occurrence rate of cognitive impairment among the elderly is moderate (57.3%) and the study also revealed that there is a significant relation of age with the cognitive impairment of the elderly, and ethically, the need-based teaching was given to the caregivers of all the participants in the current study.

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