International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 24s, 2025
https://theaspd.com/index.php

# A Study To Assess The Effectiveness Of Nursing Education Module On Knowledge Regarding Common Health Problem Among Elderly At Selected Rural Area Of Waghodia Taluka

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***Abstract***

***Introduction:*** *Nursing education module is a common health problems intervention aimed at promoting common health problems among elderly. This study aims to A study to assess the effectiveness of nursing education module on knowledge regarding common health problem among elderly at selected rural area of Waghodia taluka.*

*The elderly population is rapidly increasing worldwide due to advances in healthcare, improved living standards, and declining fertility rates. According to the World Health Organization (WHO), the proportion of people aged 60 years and above is expected to nearly double from 12% in 2015 to 22% by 2050. This demographic shift brings significant social, economic, and health implications.*

*Elderly individuals are more vulnerable to chronic diseases such as hypertension, diabetes, arthritis, cardiovascular diseases, chronic obstructive pulmonary disease (COPD), and dementia. Age-related physiological changes, coupled with reduced immunity, make them more susceptible to health problems. In addition, issues such as vision and hearing loss, mobility limitations, malnutrition, and psychological challenges like depression and social isolation affect their quality of life*

**OBJECTIVES OF THE STUDY:**

1. To identify common health problems of elderly in selected rural areas of waghodia.
2. To identify needs of elderly in selected rural areas of waghodia.
3. To develop and administer mass health education programme.
4. To associate common health problems with selected demographic variables.

**MATERIAL AND METHOD**

The sampling techniques adopted for the study was non probability convenient sampling technique. The convenient sampling is a specific type of non-probability sampling method that relies on data collection from population subject who are conveniently available to participate in this study.

The knowledge questionnaire consisted of 30 questions regarding common health problem of elderly at selected rural area of waghodia taluka. Questions were prepared based on blue print. Blue print includes 30 questions. All 30 questions are set based on common health problems.

**RESULT**

The analysis and interpretation of the data are organized under following headings:

**Section-1:** Distribution of socio-demographic variables of elderly people at selected rural area

**Section-2:** Analysis of data related to frequency and percentage distribution of pre-test and post-test knowledge scores of elderly people at selected rural area .

**Section-3:** Effectiveness of structured teaching programme on knowledge regarding Common health problems of elderly people

**Section-4:** Association between post-test knowledge score with selected demographic variables.

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**SECTION-A**

**TABLE 4.1: This section deals with description of socio-demographic variables of the elderly.**

| SOCIO-DEMOGRAPHIC DATA OF ELDERLY PEOPLE AT SELECTED RURAL AREA | FREQUENCY | PERCENTAGE |
|---|---|---|
| 1) AGE | | |
| A. 60 to 61 years | 10 | 17% |
| B. 62 to 63 years | 20 | 33% |
| C. 64 to 65 years | 30 | 50% |
| D. Above 66 years | 00 | 00% |
| 2) Type of Family | | |
| A. Nuclear family | 30 | 50% |
| B. Joint family | 15 | 25% |
| C. Extended family | 15 | 25% |
| 3) Religion of elderly | | |
| A. Hindu | 45 | 75% |
| B. Muslim | 0 | 0% |
| C. Christian | 15 | 25% |
| D. Other | 0 | 0% |
| 4) Education of Elderly | | |
| A. 1 to 10 | 22 | 37% |
| B. 11 to 12 | 13 | 22% |
| C. Graduate | 7 | 11% |
| D. Illiterate | 18 | 30% |
| 5) Family Income | | |
| A. 11000 to 20000 RS | 22 | 37% |
| B. 21000 TO 30000 RS | 18 | 30% |
| C. 31000 TO 40000 RS | 13 | 22% |
| D. Above 40000 RS | 7 | 11% |
| 6) Source of information regarding common health problem | | |
| A. Son | | |
| B. Daughter | 10 | 17% |
| C. Peers | 9 | 15% |
| D. All of above | 11 | 18% |
| | 30 | 50% |

| | | |
|---|---|---|
| 7) Do you know about common health problem<br>A. Yes<br>B. No | <br>16<br>44 | <br>27%<br>73% |

**Table 4.2.1: Analysis of data related to frequency and percentage distribution of pre-test and post-test knowledge scores of common health problem among elderly.**

| QUESTIONS | PRE-TEST | | POST-TEST | |
|---|---|---|---|---|
| | F | % | F | % |
| 1) What is common preventive measure for cardiovascular disease in elderly people? | 46 | 76.66 | 57 | 95 |
| 2) Which of the following is a common symptom of arthritis in the elderly? | 16 | 26.66 | 46 | 77 |
| 3) What is a primary cause of osteoporosis in elderly individuals? | 24 | 40 | 51 | 85 |
| 4) Which symptoms is commonly associated with diabetes in elderly people? | 34 | 56.66 | 56 | 93 |
| 5) Which of the following is a preventive measure for respiratory diseases in the elderly? | 27 | 45.00 | 42 | 70 |
| 6) What is a common symptom of Alzheimer disease in elderly? | 12 | 20.00 | 36 | 60 |
| 7) Which of the following is a symptom of depression in elderly individuals? | 30 | 50.00 | 51 | 85 |
| 8) What is a common cause of vision and hearing loss in the elderly? | 21 | 35.00 | 41 | 68 |
| 9) Which is a preventive measure for urinary incontinence in elderly individuals? | 16 | 26.66 | 37 | 62 |
| 10) What is the normal range for resting heart rate in adults? | 4 | 6.66 | 28 | 47 |
| 11) What is the main cause of lung cancer? | 30 | 50.00 | 47 | 78 |

| | | | | |
|---|---|---|---|---|
| 12) Which of the following tests measures the amount of air a person can inhale and exhale? | 18 | 30.00 | 51 | 95 |
| 13) What is a common symptom of lung cancer? | 9 | 15.00 | 23 | 38 |
| 14) Which of the following is a risk factor for heart disease? | 10 | 16.66 | 29 | 48 |
| 15) Which of the following is a common rick factor for hypertension? | 22 | 36.66 | 34 | 57 |
| 16) Which of the following is the most common causes of vision loss in elderly | 15 | 25.00 | 45 | 75 |
| 17) Osteoporosis in elderly is mainly due to? | 7 | 11.66 | 29 | 48 |
| 18) Which is common causes of hearing loss in elderly? | 24 | 40.00 | 51 | 95 |
| 19) Dementia is best described as; | 20 | 33.33 | 49 | 82 |
| 20) Which of the following is not a rick factor for fall in elderly? | 17 | 28.33 | 39 | 65 |
| 21) The most common cardiovascular problem in elderly is? | 10 | 16.66 | 19 | 32 |
| 22)Which endocrine disorder is common in the elderly? | 13 | 21.66 | 47 | 78 |
| 23)Constipation in elderly is often due to: | 10 | 16.66 | 32 | 53 |
| 24)Which vaccination is recommended for elderly above 65 years? | 15 | 25.00 | 43 | 72 |
| 25)Which mental health problem is common but often underdiagnosed in elderly? | 12 | 20.00 | 27 | 45 |
| 26)The primary preventive measure for vision loss due to diabetic retinopathy? | 9 | 15.00 | 30 | 50 |
| 27)A painless, gradual blurring of vision in both eyes in elderly suggest: | 16 | 26.66 | 50 | 80 |
| 28)Night blindness in elderly is most commonly associated with: | 20 | 33.33 | 50 | 80 |
| 29)What is the most common chronic respiratory disease in elderly smokers? | 26 | 43.33 | 54 | 90 |
| 30)Which vaccine is recommended for preventing pneumococcal infection in elderly? | 17 | 28.33 | 42 | 70 |

**Table 4.2: Mean, Median, Mode, SD and range of knowledge score.**
**n=60**

| KNOWLEDGE SCORE | MEAN | MEDIAN | MODE | SD | RANGE |
|---|---|---|---|---|---|
| PRE-TEST | 9.16 | 16.5 | 10 | 9.049 | 42 |
| POST-TEST | 20.6 | 42.5 | 51 | 10.42 | 38 |

| | | | | | |
|---|---|---|---|---|---|
| DIFFERENCE | 11.44 | 26 | 41 | 1.371 | 4 |

Above table deals with mean, median, mode, SD and range of pre-test and post-test knowledge score of elderly regarding to common health problems.
The pre-test mean knowledge score was 9.16, median was 16.5, mode was 10, SD was 9.049 and range was 42. Whereas in post-test mean knowledge score was 20.6, median was 42.5, mode was 51, SD was 10.42 and range was 38. Therefore, overall difference in mean knowledge score was 11.444, median difference was 26, mode difference was 41, standard deviation difference was 1.371 and range difference was 4.

**Table 4.3: Significance of mean difference between pre-test and post-test knowledge of elderly regarding to common health problems.**

| **Knowledge score** | | | | **Mean differenc e** | **SDD** | **SED** | **t-value** | | **S** |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Tabulate d value | Calculate d value | |
| **Pre-test** | | **Post-test** | | | | | | | |
| **Mea n** | **SD** | **Mea n** | **SD** | 11.44 | 1.37 1 | 1.78 0 | 2.00 | 7.86 | S |
| 9.16 | 9.04 9 | 20.6 | 10.4 2 | | | | | | |

DF=59, P<0.05
Table no. 4.3 represents that pre-test knowledge mean score was 9.16, standard deviation was 9.049 and post-test knowledge mean score was 20.6 and standard deviation was
10.42. The mean difference of pre-test and post-test knowledge was 11.44, standard deviation difference was 1.371 and standard error was 1.780, as the calculated paired 't test value found to7.86 which was higher than the tabulated value at 0.05 level of significance. Hence, it can be inferred that the nursing module was effective and there was significant improvement in knowledge regarding common health problems among elderly. Therefore, research hypothesis H1 is accepted and null hypothesis H01 is rejected.

**Table 4.5: Association between post-test knowledge score with selected demographic variables.**

| **Socio- demographic variables** | **Post-test knowledge score of Elder** | | | | | | **Total** | **Chi square test** |
|---|---|---|---|---|---|---|---|---|
| | **Inadequate** | | **Moderate** | | **Adequate** | | | |
| | **F** | % | **F** | % | **F** | % | | |
| 1) Age | | | | | | | | |
| A. 60 to 61 years | 0 | 0% | 3 | 5% | 7 | 11.66% | 10 | X2=9.32 |
| B. 62 to 63 years | 0 | 0% | 10 | 16.66% | 10 | 16.66% | 20 | Df=6 NS |
| C. 64 to 65 years | 0 | 0% | 16 | 26.66% | 14 | 23.33% | 30 | |
| D. Above 66 years | 0 | 0% | 0 | 0% | 0 | 0% | 00 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2)Type of Family | | | | | | | | |
| A. Nuclear Family | 0 | 0% | 13 | 21% | 17 | 28.33% | 30 | X2=2.746 |
| B. Joint Family | 0 | 0% | 6 | 10% | 9 | 15% | 15 | Df=4 |
| C. Extended Family | 0 | 0% | 10 | 16.66% | 5 | 8.33 | 15 | NS |
| 3) Religion of elderly | | | | | | | | |
| A. Hindu | 0 | 0% | 21 | 35% | 24 | 40% | 45 | X2=0.198 |
| B. Muslim | 0 | 0% | 0 | 0% | 0 | 0% | 00 | Df=6 |
| C. Christian | 0 | 0% | 8 | 13.33% | 7 | 11.66% | 15 | NS |
| D. Other | 0 | 0% | 0 | 0% | 0 | 0% | 00 | |
| 4) Education of elderly | | | | | | | | |
| A. 1 to 10 | 0 | 0% | 12 | 20% | 10 | 16.66% | 22 | X2=2.06 |
| B. 11 to 12 | 0 | 0% | 4 | 6.66% | 9 | 15% | 13 | Df=6 NS |
| C. Graduate | 0 | 0% | 4 | 6.66% | 3 | 5% | 7 | |
| D. Illiterate | 0 | 0% | 9 | 15% | 9 | 15% | 18 | |
| 5) Family income | | | | | | | | |
| A. 11000 to 20000 INR | 0 | 0% | 12 | 20% | 10 | 16% | 22 | X2=2.33 Df=6 NS |
| B. 21000 to 30000 INR | 0 | 0% | 6 | 10% | 12 | 20% | 18 | |
| C. 31000 to 40000 INR | 0 | 0% | 7 | 11.66% | 6 | 10% | 13 | |
| D. Above 40000 INR | 0 | 0% | 4 | 6.66% | 3 | 5% | 7 | |
| 6) Source of information regarding common health problem | | | | | | | | X2=0.669 Df=6 NS |
| A. Son | 0 | 0% | 6 | 10% | 4 | 6.66% | 10 | |
| B. Daughter | 0 | 0% | 4 | 6.66% | 5 | 8.33% | 9 | |
| C. Peers | 0 | 0% | 5 | 8.33% | 6 | 10% | 11 | |
| D. All of above | 0 | 0% | 14 | 23.33% | 16 | 26.66% | 30 | |
| 7)Do you know about common health problem | | | | | | | | X2=1.013 |
| A. Yes | 0 | 0% | 9 | 15% | 7 | 11.66% | 16 | Df=2 |
| B. No | 0 | 0% | 20 | 33.33% | 24 | 40% | 44 | NS |

Table 4.5, represents the association between post-test knowledge score with selected demographic variables.

**Age:** The chi- square value 9.32 at $p<0.05$ showed significant association of age with post-test knowledge score of elder.

**Type of Family**: The chi- square value 2.746 at $p<0.05$ showed no significant association of type of family with post-test knowledge score of the elder.

**Religion of Elderly:** The chi- square value 0.198 at $p<0.05$ showed no significant association of religion of elder with post-test knowledge score of the elder.
**Education of elderly:** The chi- square value 2.06 at $p<0.05$ showed significant association of education of elderly with post-test knowledge score of the elder.
**Family income:** The chi- square value 2.33 at $p<0.05$ showed significant association of post family income with post-test knowledge score of the elder.
**Source of information regarding common health problem:** The chi- square value 0.669 at $p<0.05$ showed significant association of source of information regarding common health problem with post-test knowledge score of the elder.
**Know about common health problem:** The chi- square value 1.013 at $p<0.05$ showed significant association of know about common health problem with post-test knowledge score of the elder.

## DISCUSSION

### 5.1.1. To assess the knowledge regarding common health problem among elderly before and after nursing education module.

In the present study, majority 40(67%) of elderly were having poor knowledge score, whereas 19(32%) of them had moderate level of knowledge score and no one had adequate level of knowledge regarding use of common health problem in the pre-test. After the administration of nursing education module, in the post-test none of them were having poor knowledge score 29(48%) of them had moderate level of knowledge score and majority 31(52%) of them had adequate level of knowledge score.
Similar cross-sectional study was carried out in rural area. Undertook a study on 'Elderly Women of Kachhi Basti' Jawahar Nagar Kachhi Basti of Jawahar Nagar, Jaipur, Rajasthan. One hundred and fifty aged women (age ranging from 60-85 years) were selected randomly for this study. Information was collected to find out socio-economic and psychological problems with the help of an interview schedule especially designed for this purpose. Among the main deprivations or aspirants reported the subjects were: Proper food (47%) and clothes (44%). About 53 % of the subjects stated not having good health. Some of the reported health problems were difficulty in walking and doing some work as they 67 get fatigued. Poor eye sight (52%), blood pressure (51%), asthma, arthritis and gastric trouble were some of the other main problems.

### 5.1.2. To compare the pre-test and post-test knowledge score of common health problem among elderly before and after nursing education module.

In comparison to mean and standard deviation between pre-test and post-test knowledge score regarding use of common health problems among elderly of rural area analysis of the result reveals that pre-test knowledge mean score was 9.16 with the standard deviation of 9.04 and post-test knowledge mean score was 20.6 and standard deviation was 10.42 The Mean difference between pre-test and post-rest knowledge score was 11.44 and it was statistically very high significant. Paired 't' test value was 7.86 which were highly significant at 0.05 level of significance. So, the nursing education module was effective and there was significant improvement in knowledge regarding use of common health problems among elderly of rural area.
The study finding was supported by the similar study. Undertook a study on Health Problems and Health Seeking Behaviour of the Rural Aged. The study aims to find out the prevalence of self-reported health problems and health seeking behaviour among rural elderly population. A cross-sectional study was conducted in an intensive field practice area of Comprehensive Rural Health Services Project Ballabgarh in district Faridabad, Haryana. The data was collected using semi-structured interview schedule it is a rural field practice area of Centre for Community Medicine, All India Institute of Medical Sciences, New Delhi. The sample was selected using stratified random cluster sampling. The duration of recall was one month for acute problems and one year for chronic problems. Out of the 1117 aged (60 yrs. of age) a total of 987 (88.4%) could be interviewed. Among these 490 (49.6%) were males and 497 (50.4%) were females. About

four-fifth of the males and half of the females were widowed. 1% of men and 4.2% of women lived alone. Most (78.2% males and 86.1% females) of the aged were having one or the other health problems. Fever (28.6%), joint pain (22.4%), cough (19.6%) followed by palpitation (15.1%), cold 44 (11.3%), decreased vision (10.3%) was reported as acute problems by majority of them. Chronic problems reported were joint pain (53%), cataract (32.6%), lung diseases (20.9%) and high blood pressure (15.2%). Four-fifth (83.2%) of the sick aged had received some health care in last one month. The study highlights the need for proper health facilities to be made accessible and affordable to the elderly. In response to an open-ended question about any health problem experienced in last one month, 86.1% females and 78.2% males reported having had at least one problem and this difference was statistically significant. The most common reason for not using these aids (vision, hearing, walking and dental) was non-affordability followed by carelessness (vision, hearing, walking). The other reasons given were fear, wrong belief and shyness.

**5.1.3. To association between post-test score with selected socio-demographic variables of elderly of selected rural area such as age, gender, monthly income, religion etc.**

The statistical results of 'chi' square analysis reveals that there was no significant association between post-test knowledge scores and their selected demographic variables gender, marital status, age, religion, family income source of information. The calculated chi square value is than tabulated value at 0.05 level so there so there was no significant association between post-test knowledge score with socio demographic variables.

Similar study was conducted a study on 'Hopelessness, Alienation and Life Satisfaction among Aged', with the objective to see the difference, if any, between 65 married vs. widowed group on psychological variables like hopelessness, alienation and life satisfaction. A sample of 109 including 60 females and 49 males was taken from Adarsh Nagar area of Delhi. It was noted that mean value of hopelessness was higher for married females whereas life satisfaction score was found to be higher for married males. It was also observed that married differ significantly from widowed sample on hopelessness at

0.05 level of significance and on life satisfaction at 0.01 level of significance. The study revealed that female married significantly differ from female widows on alienation and life satisfaction

## CONCLUSION

In pre-test there was lack of adequate knowledge regarding use of nursing education module among the elderly but after the administration of nursing education there was significant improvement in knowledge of use of common health problem, it can be concluded that nursing education is found to be an effective and feasible method of teaching strategy to improve knowledge of common health promotion.

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