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Effectiveness of Structured Teaching Programme on the Knowledge and Practice of Homecare Management of Diabetes among Elderly Diabetics

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Abstract: ***Diabetes is the global epidemic of the 21st century and is now the fourth leading cause of death in most developed countries. It is now thought to be in excess of 200 million. Aim of the study was to assess the effectiveness of structured teaching programme on knowledge and reported practice of homecare management of elderly diabetic clients. The research approach adopted for the study was one group pre-test post-test design. The collected data was analyzed using descriptive and inferential statistics. The findings of the study revealed that there is a significant difference between the pre-test and post-test knowledge score in home care management of diabetes mellitus after implementation of the structured teaching programme. The pre-test mean knowledge score was 18.77, whereas the post-test mean score was 25.18. Similarly the pre-test mean score of knowledge on reported practice was 28.21 whereas the mean post-test knowledge on reported practice score was 37.21. The study concludes that there is a need to educate elderly diabetics regarding home care management of Diabetes. Thus a structured teaching programme was implemented and there was a significant improvement in the post test knowledge score compared to pretest knowledge score.***

Keywords: Diabetes, knowledge, practice, home care management

1. Introduction

Good health is a major resource and an important dimension of the quality life. But in the present time, changes in lifestyle and dietary pattern stemming from rapid modernization have favored an increase in the occurrence of non-communicable yet chronic and degenerative diseases. Good health is a pre-requisite of human developmental process and is essential for economic and technological development. The world is facing a massive increase in the levels of death and disability resulting from chronic diseases. Health personnel of all category, especially community health personnel and nurses have to proactively engage themselves in washing away this threat. Healthy society will be productive in nature and there will be a balance between the number of elderly and younger population. The elderly are very fragile as far as their health is concerned. They succumb too many health problems, Diabetes is one such condition with a prevalence of 10.9 million in the year 2010.

Patient education is integral part of any diabetes therapy. But elderly patients are not able to follow the variety of topics comprising standard treatments and teaching programmes, primarily due to impaired neuropsychological function. This leads to deficits in diabetes knowledge and hindered ability for diabetes self-management.14

The investigator in her own experience came across elderly diabetic clients during home visits in a rural area. The clients and their family members experienced need of knowledge regarding home management of diabetes mellitus. Diabetes can be treated successfully by homecare management before the complications engrave.15

2. Problem Statement

A study to assess the effectiveness of structured teaching programme on the knowledge and reported practice of homecare management of diabetes among elderly diabetic clients attending Community Health Training Centre at Mugalur, Bangalore Urban District.

3. Methodology

3.1 Research Design

The research design selected was one group pre-test post-test design.

3.2 Setting

The study will be conducted at the 'Community Health Training Centre" of St. John's National Academy of Health Sciences, which is located at Mugalur. There are 16 villages covering a population of 9594.

3.3 Population

The population of the present study comprised of 80 Elderly diabetic clients who are attending geriatric Clinic Community Health Training Centre at Mugalur, of Bangalore urban district.

3.4 Sample Size

Sample size of the study comprised of 80 elderly diabetic clients will be selected purposively who are attending geriatric clinic Community Health Training Centre at

Mugalur, of Bangalore urban district.

3.5 Sampling Technique

Sampling refers to the process of selecting a portion of the population to represent the entire population. Samples consist of elderly diabetic clients attending geriatric clinic Community Health Training Centre at Mugalur, of Bangalore urban district. Purposive sampling technique is employed in this study.

3.5.1. Inclusion Criteria

Elderly, over the age of 60 years, diagnosed do have diabetes mellitus and willing to participate in the study.

3.5.2. Exclusion criteria

The elderly person who is not able to comprehend the structured teaching programme.

3.6 Instrument

On the basis of the objectives and the conceptual framework of the study, the following instruments were developed to collect data.

Section-I : Performa for baseline data of elderly diabetic clients
Section-II: Interview schedule
Section-III : Structured teaching programme on homecare management of diabetic clients (Elders).

Knowledge questionnaire consisted of 26 choice items in order to measure the knowledge of home care management of diabetes mellitus. The various content areas are general concept of diabetes mellitus, diet management, foot care, physical activity and medication.

A checklist was prepared by the investigator to assess the reported practice of home care management of diabetes mellitus. The following are the content areas.

- General concept
- Medication
- Diet
- Physical activity
- Foot care

There were 14 steps to evaluate the practice on home care management of diabetes mellitus in relation with the above mentioned content areas.

4. Data Analysis

Data was analyzed by using descriptive and inferential Statistics.

Descriptive statistics: Frequency, percentage, mean and Standard deviation were used to describe the baseline variables, level of knowledge and practice of diabetic clients

Inferential Statistics: Paired t test was used to determine the effectiveness of intervention

- Chi -square used to determine the association with pre-test knowledge score with selected base line variables.

5. Results

Table 1: Comparison of overall pre-test and post-test knowledge score of elderly clients with diabetes mellitus: (N=80)

Knowledge	*Mean*	*SD*	*"t" test & p value*
Pretest	18.7 mm	3.56	2.414
Posttest	25.2	1.03	0.05

p<0.05 level of significance.

The table 1 shows that the mean of the post-test score of knowledge of homecare management (25.1875) with SD of (±1.0323) is greater than mean of pretests score (18.775). The findings depict that obtained 't' value (2.414) was found to be statistically significant at p<0.05 level.

Table 2: Comparison of overall pre-test and post-test knowledge score of reported practice of elderly clients with diabetes, (N=80)

Practice	*Mean*	*SD*	*"t" test & p value*
Pretest	28.2 mm	3.37	2.71
Posttest	37.2	2.03	0.05

S- Significant at p<0.05 level of significance.

The table 2 shows that there is a significant increase in the mean post-test knowledge score of reported practices .The findings depict that the obtained't' value (2.713) was found to be statistically significant at p<0.05 level.

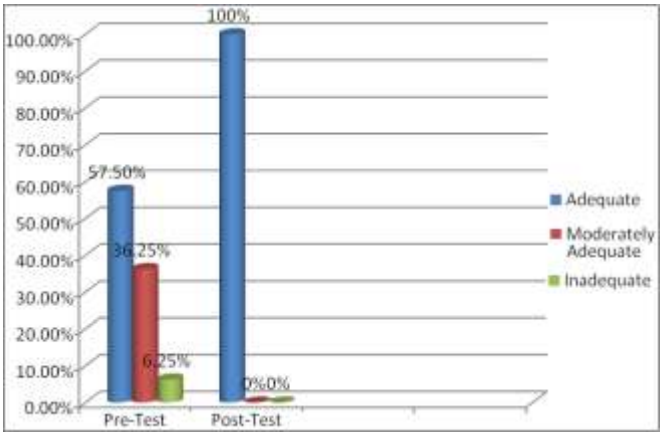

Figure 1: Percentage distribution of elderly diabetic clients according to the pre-test and post-test knowledge level score

Figure 1 depicts that there was an increase in the level of knowledge of elderly diabetic clients compared to pretest knowledge level (57.50%). All (100%) of them had adequate knowledge after the implementation of the teaching programme.

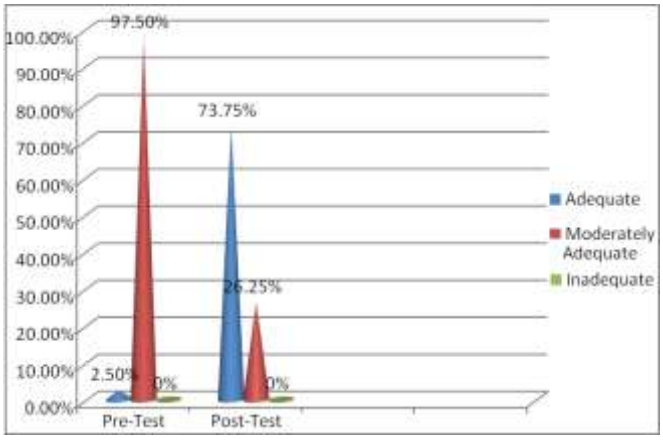

Figure 2: Percentage distribution of elderly diabetic clients according to the pre-test and post-test knowledge of reported practice score

Figure 2 depicts that there was an increase in the level of knowledge of reported practice of elderly diabetic clients compared to pretest knowledge level of reported practice (2.50%). Seventy three point seven five of them had adequate knowledge after the implementation of the teaching programme.

6. Discussion

Effectiveness of structured teaching programme on knowledge and reported practice of homecare management of elderly diabetic clients.

In the present study the post mean score on knowledge was 25.18. This shows that there was an improvement of 6.41, in the post-test score at p 0.05, after the implementation of structured teaching programme.

Place table titles above the tables.

The association between the pretest and post test knowledge and reported practice regarding homecare management and selected demographic variables.

The association of knowledge score and baseline variables were done by using the test of ANOVA and 2 sample 't' test. It was found that the mean score on knowledge of young old (65-74years) is 19.16, which is significantly higher than old (75-84yeary), 18.15 and oldest old (85+years), 17.6 at p 0.05 level of significance.

The mean score of knowledge on religion was significantly higher among the Muslims (21.66) when compared to Hindus (18.72), Christians (14) and any other (0), at p0.05 level of significance. In the present study, it was revealed that, the mean score on knowledge and marital status was found significantly associated i.e., the mean score among the married was 18.98, which is higher than unmarried, widowed (10.5), divorced and separated, at p0.05 level of significance. The study also revealed the significant association between knowledge scores and independent income. Those who had independent income were significantly higher in knowledge (19.02), when compared to those who had no independent income (12), at p0.05 level of significance. Significance association also seen between knowledge and source of income. The mean score of knowledge among those who were having houses for rent were found significantly higher(20) than those who were earning salary (19.4), those who had land (19.03), those who had pension (18.16) and any other (12), at p0.05level of significance. It was also found that the mean scores on knowledge on the type of treatment, i.e., clients using both tablet and injection were found significantly higher (19.4) when compared to those using tablets only(18.87) and those using injection (16.25) at p0.05 level of significance. The mean score on knowledge and place of treatment was found significantly higher among those who are going to hospital (21) when compared to those going to health centers (19.04), nursing homes (17.23) and any other at p0.05 level of significance. In the study conducted on the effectiveness of structured teaching programme on home care management of diabetes mellitus at Apollo hospital Chennai revealed that there was no significant association between the selected base line variables and level of knowledge on home care management of diabetes mellitus. There was no significant association between pre-test knowledge score and other baseline variables like sex, living arrangement, educational status, and occupation, duration of illness and duration of treatment. In the present study there was no significant association between the post-test knowledge score of the elderly diabetics and selected base line variables.

7. Nursing Implication

7.1. Nursing Practice

Nurses working in the community setting will be able to find various opportunities to teach and improve the knowledge and practice of the patients regarding home care management of diabetes mellitus. Nurses should place health in the hands of the patients, especially for the diabetic patients, as they are in need of long term care. The teaching programme developed by the researcher can be used effectively by the nurses to educate the diabetic patients.

7.2. Nursing Education

The nursing educator should emphasize on a curriculum which include the various strategies for educating the diabetic clients in the community. As nurse educator, there is ample opportunity for the nursing professionals to motivate the diabetic clients regarding good practice and provide care in the community health care setting.

7.3. Nursing Administration

The nursing administrators influence the quality of nursing care through formulation of various should policies and developing protocols. The nursing administrators should concentrate on the proper selection, placement and effective utilization of the nurses in all areas, giving opportunities for creativities, creating interest and enhance ability in educating diabetic patients. Nurse administrators should organize and co-ordinate with other organizations to

provide mass education on diabetes mellitus and remedial measures to manage its complication.

7.4. Nursing Research

This study helps the nurse researcher to develop insight into the development of teaching module and materials for diabetics towards promotion of quality life and prevention of diabetes related problems. Research can be conducted in larger scale to educate the elderly about home care management of diabetes mellitus.

8. Conclusion

The present study is descriptive and was undertaken to identify the effectiveness of structured teaching programme on the knowledge and reported practice of home care management of diabetes among elderly diabetic clients attending Community Health Training Centre at Mugalur, Bangalore urban district.

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