



EFFECT OF NURSE LED – EDUCATIONAL INTERVENTION ON KNOWLEDGE AMONG DIABETES MELLITUS PATIENTS

Nursing

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ABSTRACT

Background: This study endeavours to investigate the adequacy of Nursing Intervention produced for Diabetes Mellitus. It is verifiable truth that Diabetes is metabolic disorder, there is no remedy for this condition except for it tends to be monitored. It tends to be overseen well through legitimate treatment, diet, exercise and other security safety measures. Diabetes patients, if not carefully observed, build up different ongoing complexities prompting irreversible disability and demise. Coronary illness, lower appendage removal, stroke are more normal in diabetics. Miniature vascular complexities like diabetic nephropathy and retinopathy are extreme medical conditions bringing about reformist intensifying of the personal satisfaction and unexpected death. **Materials and Methodology:** Pre experimental design of one group pre and post test was done in this examination. Thirty diabetic patients who met comprehensive measures were chosen purposively. An organized questionnaire had 40 MCQs to evaluate the knowledge. Content validity subjected to the experts and computed for relevancy, clarity, simplicity and ambiguity. Dependability was registered utilizing Karl Pearsons recipe through ODD-Even split half technique. Reliability was found 0.82, is reliable. **Results:** The mean post test score (22) after the intervention was higher than the mean pre-test score (8). The calculated 't' value was significant ($t_{29}=33.55$). **Conclusion:** The knowledge has significant effect in management of Diabetes Mellitus after the Nursing Intervention which improved the knowledge among patients with diabetes mellitus.

KEYWORDS

Diabetes Mellitus, Nursing Intervention, Knowledge.

BACKGROUND OF THE STUDY

Diabetes is a developing worldwide pestilence and general medical condition. Disregarding the extreme increment in both the commonness and frequency of Diabetes Mellitus around the world, they have been particularly marvelous in social orders with monetary progress. Presently the quantity of instances of diabetes internationally is extended to be around 347 million, of these more than 90% is Diabetes Mellitus, and is predominance and occurrence. WHO assesses that diabetes will be the seventh driving reason for death by 2030, it is over 80% of them winning in low-and middle income nations. Diabetes is generally far reaching in South Asia, by and large in India. In 2012, in India 1.5 million deaths were because of diabetes. In 2013 as per International Diabetes Federation, India had 65.1 million diabetics between 20-79 years. By 2030 this figure is assessed to go up to 101.1 million. In 2008, the commonness of diabetes was 18.6% in the metropolitan populace.

Diabetes is a genuine and dangerous disease; anyway it tends to be managed very well through proper treatment and controlling. Diabetes self-administration training and education assumes a crucial part in the administration of diabetes (Premkumar, D 2018). It is critical for diabetic patients to know about nature, treatment, hazard components and inconvenience of disease because of providing reasonable methodology to weaken following entanglements. In an examination to distinguish the connection between wellbeing education, inconvenience mindfulness and diabetic control among patients with diabetes mellitus, it was presumed that tolerant mindfulness scores and wellbeing proficiency was adversely identified with diabetes control (Rajasekharan, D., et.al 2015). Diabetes Mellitus is the commonest type of diabetes. The worldwide prevalence of diabetes rose from 108 million in 1980 to 422 million in 2014. There are assessed 72.96 million instances of diabetes in grown-up populace of India. The prevalence in metropolitan territories ranges somewhere in the range of 10.9% and 14.2% and prevalence in provincial India was 3.0-7.8% among populace matured 20 years and above with an a lot higher prevalence among individuals matured more than 50 years. The prevalence of Diabetes Mellitus is 2.4% in country populace and 11.6% in metropolitan populace. (WHO, 2019).

Sadly there is as yet insufficient mindfulness about the genuine part of the issue. There is likewise absence of information about the existing interventions for preventing diabetes and the administration of its intricacies. India has among the most elevated number of diabetic patients and information about diabetes is poor. The absence of inspirational demeanour could be a significant impediment for long hauls the executives of diabetes. There is a need to increase information regarding diabetes and its inconveniences as it has noteworthy advantages including increase in adherence to treatment,

accordingly decreasing the difficulties related with diabetes (Ramegowda, C., and Hulugappa, L. 2016).

Education is a cornerstone for diabetes care and except if sufficient education is given self care essential for diabetes the executives is absurd. Thus increasing admittance to determination, self care, self administration education and moderate and quality treatment are fundamental parts of the reaction (Shivashankar, M., & Dhandayuthapani, M. 2011).

OBJECTIVES

- To assess the pre-existing knowledge of patients with diabetes mellitus.
- To develop and implement Nurse Led – Educational Intervention regarding Diabetes Mellitus among patients with diabetes mellitus.
- To evaluate the effectiveness of Nurse Led – Educational Intervention on knowledge among patients with diabetes mellitus.
- To find out the association between selected demographic variables on knowledge among patients with diabetes mellitus.

HYPOTHESIS

The study will be tested for level of significance at 0.05.

- H₁: There will be a significant difference in the pre existing level of knowledge among patients of Diabetes Mellitus.
- H₂: There will be a significant difference in the post-test level of knowledge among patients of Diabetes Mellitus.
- H₃: There will be a significant difference between pre and post-test level of knowledge among patients of Diabetes Mellitus.
- H₄: There will be a significant difference between the association of pre and post findings of knowledge among patients of Diabetes Mellitus.

METHODS & MATERIALS

An evaluative approach and pre experimental design of one group pre-test and post-test was selected to carry out the present study. The sample consists of 30 Diabetes Mellitus patients who met the inclusion criteria were selected through purposive sampling technique. The Nursing Intervention was developed and a structured closed ended knowledge questionnaire was used for the data collection. Reliability of the instrument was calculated by using Karl Pearson Correlation Coefficient formula and significance of correlation was tested using Spearman Brown prophecy formula. The 'r' value was 0.82 and the tool was found reliable. It is a part of large scale study. It is a pilot study report. Pre-test was conducted by using closed ended questionnaire to assess the level of knowledge regarding care of Diabetes Mellitus patients. The investigator personally explained the need and importance of study to the patients before data collection. The closed

ended questionnaire was distributed to the patients and 30 minutes was given to fill the answers in the presence of the investigator. Soon after pre-test the Nursing Intervention was implemented to the samples. Evaluation of post-test was conducted after 7 days of the pre-test. The post-test was conducted by using the same questionnaire and by the same method as pre-test

FINDINGS

Data analysis was done by using descriptive and inferential statistics. The data analysis was done under following headings:

1. Demographic variables of patients with diabetes mellitus.
2. Knowledge score of Pre and post-test of diabetic education on knowledge among patients with diabetes mellitus.
3. Comparison of knowledge score among patients with Diabetes Mellitus in experimental and control group.

Section – I Description of Demographic Variables of Patients with Diabetes Mellitus

Regarding age group majority of the patients (39%) were between 51± 60 years, regarding gender mostly (55%) were males. Regarding the type of family majority of the patients (56%) belonged to joint family. Regarding education majority of the patients (37%) had primary and secondary education. Regarding occupation mostly (24%) was doing business. Regarding income mostly (47%) of the patients earned Rs'. 4001 ± 6000. With regard to information obtained (63%) of the patients got information from their neighbors. Regarding type of food habits 30 (100%) was non vegetarian.

Section – II

Table-I Distribution of Statistical Value of Pretest and Post Test Knowledge Score of Patients with Diabetes Mellitus.

The hypothesis was tested using paired't' test. The value of 't' was calculated to analyze the difference in knowledge of the Diabetes Mellitus patients.

(n = 30)

S.No.	Knowledge	Mean	S.D	't' Value	Level of Significance
1.	Pretest	8	2.21	33.55*	0.05
2.	Post-test	22	1.32		

*significant

Table 1 shows that the mean score of knowledge in pretest was 8 and in post- test was 22 and the calculated 't' value was 33.55 was significant at levels. It reveals that there was significant difference between the pre and post knowledge. So the diabetic education has a significant effect in improving the knowledge of the patients with diabetes mellitus.

DISCUSSION:

Overall comparison of mean, SD and mean % of pre- and post-test knowledge scores revealed that the overall mean percentage of pre-test was 30 % whereas, in post-test the mean percentage was 70 % thus, depicting 40 % overall difference in mean percentage. Paired't' test was used to analyze the difference in the knowledge score. A significant increase in the post-test score was observed in the knowledge. Hence the researcher hypothesis “the mean posttest knowledge score will be significantly higher than the mean pre-test knowledge scores” was accepted ($t_{30}=33.55, p<0.05$). It revealed that Nursing Intervention was effective in improving the knowledge level of diabetic patients. In order to determine the significant association of pre- and post-test knowledge score with selected variables, chi-square test was used. In pre and Post-test the calculated chi square values of demographic variables like age, sex, religion, monthly income, type of family, residence and source of information is not significant at 0.05 level of significant.

CONCLUSION

The knowledge has significant effect in management of Diabetes Mellitus after the diabetic education programme which improves the knowledge among patients with diabetes mellitus.

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