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Original Article

EFFECTIVENESS OF PLANNED TEACHING PROGRAMME (PTP) ON SELF-CARE FOR PATIENTS WITH DIABETES MELLITUS IN A SELECTED COMMUNITY AT GWALIOR, MADHYA PRADESH

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ABSTRACT:

Introduction: This Sanskrit slogan of Charaka gives overall concept of diabetes mellitus. This means diabetes mellitus comes in the form of death to those who are obese, live without exercise and eat more, especially sweet items.

Material and methods: a quantitative approach was adopted. The research design used in this study is quasi experimental, non-equivalent control group design. Quasi experimental studies are designed. In this study population consists of all the patients with diabetes mellitus. In this study the sample consisted of 30 patients who were diagnosed to have diabetes mellitus.

Results: It can be interpreted that there is no significant association between practice and selected variables.

Conclusion: Diabetes mellitus is and will be a major public health problem in India and given the level of awareness among people and the meagre health services at places, especially in rural and semi-urban areas the burden of diabetes is great with an increasing population of ill people.

Key words: Effectiveness, Diabetes Mellitus

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INTRODUCTION:

Diabetes mellitus is a disease known during the period of 1500 BC and it was described by Ebers Papyrus of ancient Egyptians. In 1000 BC Sushruta, the father of medicine in India, diagnosed diabetes mellitus. The disease was explained by Charaka in 400 BC and the same concept was described in 200 AD by Aratenus Cappadocia.

The term “diabetes mellitus” is derived from the Greek word, “diabetes” meaning “to go through” or a siphon and the word “mellitus” is derived from the Latin word “mel” meaning honey describing the sweet odour of urine.

According to WHO (1994) diabetes mellitus is characterised by hyperglycaemia and disturbance of the carbohydrate, fat and protein metabolism that is associated with the absolute or relative deficiencies of insulin action or secretion.

The different types of diabetes mellitus as adopted by the WHO (1995) include Type 1 - insulin dependent diabetes mellitus (IDDM), Type 2 - non-insulin dependent diabetes mellitus (NIDDM) and gestational diabetes mellitus.

The American Diabetes Association uses the acronyms **DIABETES** and **CAUTION** to help identify the warning signs of diabetes.

Prevalence of diabetes in adults world-wide was estimated to be 4.0 % in 1995 and to rise to 5.4% by the year 2025. It is higher in developed than in developing countries. The number of adults with diabetes in the world will rise from 135 million in 1995 to 300 million in the year 2025. A major part of this numerical increase will occur in developing countries. There will be a 42% increase, from 51 to 72 million, in the developed countries and a 170% increase, from 84 million to 228 million, in the developing countries. Thus, by the year 2025, more than 75% of people with diabetes will reside in developing countries, as compared with 62% in 1995. The countries with the largest number of people with diabetes are and will be in the year 2025, India, China, and the US. In developing countries, most people with diabetes are in the range of 45–64 years. In the developed countries, most people with diabetes are aged above 65 years.



Diabetes is a global problem. It ranks as the sixth leading cause of death in the United States, being listed as the primary cause of death to about 200 Americans every day. Plus, diabetes is listed as “contributing factor” in almost 400 more deaths per day in the US. Thus, diabetes helps kill about 600 Americans per day.

Diabetes, i.e., higher glucose level is a slow, silent, stealthy, and lethal killer. It does such an intensive and extensive damage to our body than any other ailment.

MATERIALS AND METHODS:

A quasi-experimental research approach was adopted for the studies. Research design selected for the study was pre-test, post-test control group design. The study was conducted at Gwalior under PHC. The population for the study included all the patients with diabetes mellitus.

The sample was selected based on the pre-determined criteria. By using purposive sampling technique, first 15 patients were selected for Group I (experimental group) who received individual planned teaching programme and next 15 for Group II (control group) who did not receive

individual planned teaching programme, with a sample size of 30 patients.

Tools used for the study.

- Baseline proforma for collecting information about sample characteristics.
- Clinical information.
- Knowledge and practice questionnaire.

Preparation of the tool was done based on review of literature, content validation, pre-testing, and establishment of reliability. Reliability of the tool was established by using Cronbach’s coefficient alpha was $\alpha = 0.871$. Reliability of the equipment was tested by using test retest and inter-rater method. Planned teaching programme was prepared based on the review of literature and content validity.

Pilot study was conducted to confirm the feasibility of conducting the main study. The obtained data was analyzed by using both descriptive and inferential statistics. The analysis was based on the objectives and hypothesis of the study. The level of significance for the hypothesis was at 0.05. Frequency and percentage were used to analyse the baseline proforma. Frequency, percentage, mean, standard deviation, mean



percentage score and paired ‘t’ test were used to analyse the effectiveness of individual planned teaching programme. Chi-square test was done to find out the association between the knowledge and practice with selected variables.

RESULTS:

Table 1: Chi-square value showing association between pre-test knowledge score and selected variables.

N=15+15

Sl. No.	Selected variables	Pre-test knowledge score		df	χ^2	Inference
		< Mean	> Mean			
1	Sex					
	Male	10	6	1	0.0055	NS
Female	8	6				
2	Education					
	≤ primary	16	5	1	5.56	S
≥ secondary	2	7				
3	Monthly income (in Rs.)					
	≤ 4000	13	8	1	0.0066	NS
	> 4001	5	4			
Duration of illness						
4	< 5 years	15	6	1	2.089	NS
	> 5 years	3	6			
5	Age of onset					
	≤ 40 years	4	4	1	0.063	NS
	> 40 years	14	8			

$\chi_1^2 = 3.84$, $P < 0.05$, S = Significant

The data in Table 1 shows that the chi square value computed between pre-test knowledge score and selected variables (sex, income, duration of illness and age of onset

of diabetes mellitus) was not significant at 0.05 level. The computed chi-square value for education was 5.56. Thus, it can be interpreted that there is significant association between knowledge and education.

Table 2: Chi-square value showing association between pre-test self-care practice score and selected variables

N=15+15

Sl. No.	Selected variables	Pre-test practice score		df	χ^2	Inference
		< Mean	> Mean			
1	Sex					
	Male	7	9	1	0.1024	NS
Female	6	8				
2	Education					
	≤ primary	11	10	1	1.27	NS
≥ secondary	2	7				
3	Monthly income (in Rs.)					
	≤ 4000	11	8	1	3.003	NS
> 4001	2	9				
4	Duration of illness					
	< 5 years	9	12	1	0.079	NS
> 5 years	4	5				
5	Age of onset					
	≤ 40 years	2	6	1	0.648	NS
	> 40 years	11	11			

$\chi_1^2 = 3.84$ $P > 0.05$

The data in Table 2 shows that the chi-square value computed between pre-test and



practice score and selected variables (sex, education and income, duration of illness and age of onset of diabetes mellitus) were not significant at 0.05 level. Thus it can be interpreted that there is no significant association between practice and selected variables.

Table 3: Chi square value showing association between pre-test knowledge and practice score

Selected variables	Pre-test practice score		df	χ^2	Inference
	< Mean	> Mean			
Knowledge					
≤ 32	11	7	1	4.123	Significant
> 32	2	10			

$$\chi_1^2 = 3.84 \quad P < 0.05$$

The data in Table 3 shows that the chi-square value computed between pre-test knowledge and self-care practice score was significant at 0.05 level. Thus it can be interpreted that there is significant association between knowledge and self-care practice score.

CONCLUSION

The nation will have to pay heavily through treatment costs of its citizens and loss of man-days and productivity and this will ultimately reflect upon the development of India. Key elements in successful management of diabetes are awareness of the disease and learning self-care with planned and scheduled teaching at appropriate time aimed at patient empowerment. A holistic approach is necessary through dietary adjustment, exercise, medication and self-care measures. The present planned teaching programme was developed and administered with an aim of improving the knowledge and self-care practices of patients with diabetes.

The conceptual framework of the study was based on Orem's self-care theory. The concept of Orem's theory is that man has the ability to care for himself. Nurses are an agency of healthcare.

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