



Original Article

## Home management of Diabetes Mellitus

### Abstract:

**Introduction:** Diabetes mellitus is a common chronic disease and is a public health problem that affects all levels of society, regardless of age, gender, ethnicity or race.

**Objectives:** To assess the pretest and post test knowledge regarding home management of diabetes among diabetic patients, to assess the effectiveness of self structured video teaching programme on the same and to find out the association between post test knowledge scores with selected demographic variables.

**Methodology:** An evaluative experimental research approach was utilized for the study with quasi experimental one group pretest post test design to evaluate the effectiveness of self structured video teaching programme on knowledge regarding home management of diabetes mellitus. This study was conducted on diabetic patients being treated in Dhamtari Christian Hospital, Dhamtari (CG). Sample size was 50 diabetic patients. Purposive sampling technique was used to select the sample. The tool developed and used for data collection was questionnaire schedule.

**Result:** The result of study indicates that the pretest knowledge score is 29(58%) had average knowledge, 21(42%) had poor knowledge and none had good knowledge. The t- test was used to find out the significant association between the experimental groups. The t value was 42.37. It shows that there was significant increase in mean knowledge score.

**Conclusion:** The finding concluded that intervention was very effective in diabetic patient.

**Keywords:** Evaluate, effectiveness, structured video teaching programme, knowledge, home management, Diabetes mellitus

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### Introduction

“Wounds that don’t heal, nerves that don’t feel  
No foods I can eat at ease, what a disease I have diabetes.”

Diabetes mellitus is a chronic medical condition which means it can last a life time. Health care workers have more responsibility to create awareness regarding Diabetes mellitus and control its prevalence. Diabetes mellitus is a disease in which the pancreas produce in sufficient amount of insulin or in which the body cells fail to respond appropriately to insulin. Insulin is the hormone that helps the body’s cells to absorb glucose so it can be used as the source of energy. Diabetes is a complex disorder affecting every system and every part of the body due to the high glucose level in the blood resulting from defects in insulin secretion, insulin action or both.<sup>1</sup>

Diabetes mellitus was found to affect 8.2% of our population. Early diagnosis aggressive treatment of Diabetes mellitus and its associate metabolic derangements (hyperglycemia, dyslipidemia,

hypertension and obesity) propend or delay the progression of the major chronic complications (coronary heart disease) and retinopathy, nephropathy, neuropathy.

The aim of patient education is for people with diabetes to improve their knowledge, skills and confidence, enabling them to take increasing control of their own condition and integrate effective self management in to their daily lives. High quality structured education can have a profound effect on bio-medical outcomes and can significantly improve the quality of life and satisfaction. Education and training of patient and their families are the foundation of good diabetes therapy. If planned teaching is imparted to clients suffering from diabetes regarding monitor diet, exercise, drugs and foot care it will be very helpful for clients to keep diabetes under control and prevent complications.<sup>2</sup>

A study was done to examine 22 years mortality, causes of death, life expectancy, and survival in a national sample of

diabetic and non diabetic adults according to age, sex and race. They concluded that mortality rates were higher for diabetic men than for diabetic women and more so for diabetic black than for diabetic whites. The study confirms the substantially higher risk of death, lower survival and lower life expectancy of diabetic adults as compared with non diabetic adults.<sup>3</sup>

A study from UK about multidisciplinary and psychosocial approaches to diabetes education. The study states that multi professional education and training in diabetes care and management should result in improve patient care and outcome and course assessment should be based on demonstrable patient outcomes in terms of risk reduction and improved quality of life.<sup>4</sup>

### Conceptual framework

It was based on health promotion model proposed by Nola J. Pender (1982).

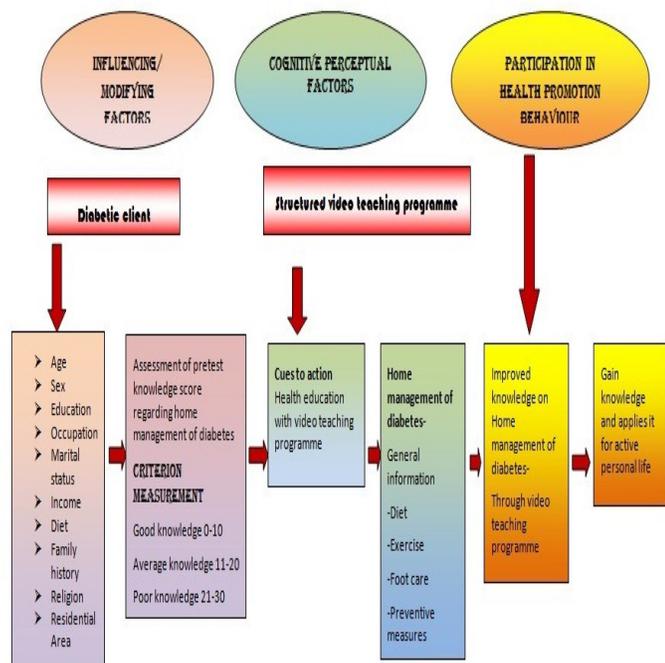


Figure-1 Conceptual Framework on Health Promotion by Pender (1996)

### Hypotheses

H1: There is significant difference in the knowledge of diabetic patient before and after administration of self structured video teaching programme.

H2: There is significant association between knowledge regarding home management of diabetes among diabetic patients and selected demographic variables.

### Methodology

An evaluative experimental research approach was utilized for the study with quasi experimental one group pretest post test design to evaluate the effectiveness of self structured video teaching programme on knowledge regarding home management of diabetes mellitus. This study was conducted on diabetic patients being treated in Dhamtari Christian Hospital, Dhamtari (CG). Sample size was 50 diabetic patients. Purposive sampling technique was used to select the sample. The tool developed and used for data collection was questionnaire schedule. Questionnaire schedule consist of two parts: part one comprised of 10 items related to demographic characteristics and part two comprised of 30 knowledge items regarding home management of diabetes mellitus. The 10 experts established the content validity of tool and SVTP. Split half method was used to find the reliability of tools. Under descriptive statistics percentage, mean and standard deviation and under inferential statistics-Chi-square and correlation co-efficient were used.

### Result

Figure:1 Assess the effectiveness of self structured video teaching programme on knowledge regarding home management of diabetes

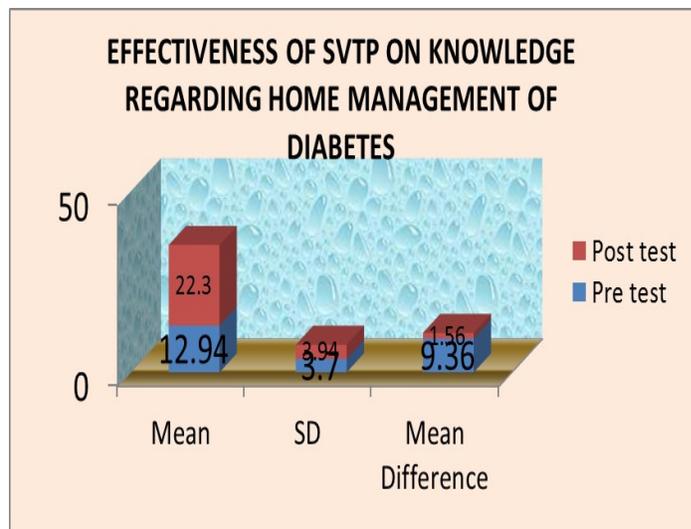


Figure 1 shows the mean; SD and mean difference of pre test were 12.94, 3.70 and 9.36 respectively while those of post test were 22.3, 3.94 and 1.56 respectively. There is a significant difference in the knowledge of diabetic patient before and after administration of SVTP. Hence H1 is accepted.

**Table:1 Association between post test knowledge score with selected demographic variables n = 50**

S. No	Selected demographic variables	Chi square	df	Critical value	Level of significance	Remarks
1	Age	2.38	1	3.84	5%	NS at 5%
2	Gender	9.20	1	3.84	5%	HS at 1%
3	Marital status	0.01	1	3.84	5%	NS at 5%
4	Religion	5.36	3	7.82	5%	NS
5	Educational status	18.28	3	7.82	5%	HS 1%
6	Occupational status	0.94	3	7.82	5%	NS 5%
7	Monthly income	2.82	3	7.82	5%	NS 5%
8	Food habit	0.11	1	3.84	5%	NS 5%
9	Residence	0.19	1	3.84	5%	NS 5%
10	Family history of diabetes	7.48	1	3.84	5%	HS at 5%

NS: Not Significant  
HS: Highly Significant

Table 1 depicts that gender and educational status are highly significant with knowledge at 1% and Family history of diabetes is highly significant with knowledge at 5%. Thus the hypothesis H2 is accepted.

### Discussion

The results are supported with the study that is apparent compliancy was reflected by the knowledge they gained during their educational programme regarding home management of diabetes. It can be concluded that nurses have a pivotal role in the treatment of the diabetic patients. They play an important role to educate and re-educate the person suffering from diabetes, which is a silent killer, by creating an awareness of the importance of good footwear, diet, exercise, foot hygiene as well as the whole care of body.

### Conclusion

Diabetes mellitus is a common chronic disease and is a public health problem that affects all levels of society, regardless of age, gender, ethnicity or race. Recently it has been recognized that diabetes has the potential to reach epidemic proportions with related implications of diabetic nephropathy, diabetic foot and visual impairment in India. This study was conducted to evaluate the effectiveness of self structured video teaching program on knowledge regarding home management of diabetes .findings of the study indicate SVTP was significantly effective in improving the knowledge score of diabetic clients about the home management of diabetes by appropriate self management of diabetes mellitus.

### Recommendation

On the basis of findings of the study, the following recommendations are being made. Similar study can be replicated on a large sample to generalize the findings. A similar study can be conducted amongst ole age group with other associated diseases. An experimental study can be undertaken with control group for effective comparison. Comparative study can be conducted between clients with type I and type II diabetes mellitus. A study can be conducted at private and government hospital and the results of the study may be compared to find the knowledge and practice of diabetics in relation to prevention of diabetic retinopathy.

### Acknowledgement

I express my sincere thanks to the Dhamtari Christian Hospital for permitting me to conduct the study. I am also thankful to my guide Prof. Mrs. J. S. Masih and co-guide Mrs. Victor, College of nursing, Dhamtari for their valuable guidance.

### Ethical clearance

Research problem and objectives were approved by research committee. Due permission from authorities was sought out and obtained. Written consent was taken from participant.

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