

# The Effectiveness of Structured Teaching Program of Knowledge of Diabetic Foot Care among the Diabetic Patient

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## ABSTRACT

Diabetes mellitus is a global emergency, some 415 million people worldwide, are estimated to have diabetes. People with diabetes are at higher risk of developing several disabling and life-threatening health problems. Diabetic foot is one of the major complications in diabetes patients, affecting around 10-15% of the patients at some point of time in their lives and accounting for nearly 50% hospital admissions among diabetics. Diabetic foot complications cause huge economic burden to the society. The only way to cut short this problem is patient education, regular foot care, early detection of contributing factors, tight blood sugar control and selection of proper footwear. More than one million people with diabetes lose a leg every year because of their condition. This means that every thirty seconds a lower limb is lost to diabetes somewhere in the world. Most of these amputations are preceded by a foot ulcer.

**Key words:** Diabetes, Foot ulcer, Diabetic foot

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## INTRODUCTION

Diabetes has become a global disease, it is fourth leading cause of death in most of the developed and developing countries, diabetes has been excesses more than 200 million this figure is predicted to reach 333 million by 2025 as a consequence of longer life expectancy, sedentary lifestyle and changing dietary patterns.<sup>1</sup> Diabetes is the global epidemic of 21st century, according to World Health Organization presently there are 34 million diabetes patients in India with projected increase to 79 million by 2030. World Health Organization estimated that every 5th diabetic is an Indian.<sup>2</sup>

As well as nerve damage, people with diabetes can experience problems with poor circulation to the feet, because of damage to blood vessels. These problems increase the risk of ulceration, infection, and amputation. People with diabetes face a risk of amputation that may be more than 25 times greater than that in people without diabetes. With good management however, a large proportion of amputations can be avoided. Even when a person undergoes amputation, the remaining leg and the person's life – can be saved by good follow-up care. In view of these risks, it is important that people with diabetes examine their feet regularly. Proper foot care can reduce the chances of diabetic foot and lower limb amputation.

Diabetic foot ulcer is a result of micro and macro vascular complications in diabetics. Adoption of foot care practices to reduce the foot problems in diabetic patients. Education makes the clients to improve the knowledge and practice regarding diabetic foot care. Hence, the structured teaching programme was an effective method for providing moderate to adequate knowledge regarding diabetic foot care. If regular follow up for the foot care is adopted by the diabetic patients that can be helpful to reduce the risk of foot ulcers [1-8].

## MATERIALS AND METHODS

To achieve the objectives of the study a description survey approach was used to obtain a accurate and meaningful phenomena under study, the present study was concerned with the collection of information regarding knowledge level of diabetic client regarding diabetic foot care.

Dependent variable-knowledge of diabetic clientage 40 to 60yrs). The study was conducted at nandhivaram rural area. The study population comprised of only diabetic client aged 40-60yrs Target Population. The sample size consists of 25 diabetic patients living in nandhivaram rural area at the age group of 40-60yrs.

### Sample selection

### Inclusion criteria

- Diabetic patient who was willing to participation in the study.
- Diabetic patient who can speak and understand Tamil.

- Diabetic patient who was present at the time of data collection who are between age among of 40 to 60.

**Exclusion criteria**

- Patient with other disease.
- Patient with other age group.

**Development of data collection tool**

The data was collected doing 10am to 12pm from the diabetic patient, who are living in the rural area in nadhivaram, guduvancheri, questionnaires were administered, pre-test was conducted following that structured teaching program me was given and post-test was conducted to assess the knowledge on diabetic foot care. The pre-test was done by giving questionnaires after the pre-test the research administered structured teaching by using appropriate charts, models, and handouts. Structured teaching program me contains information regarding diabetic foot care. The post-test ways conducted on the same day.

**RESULTS AND DISCUSSION**

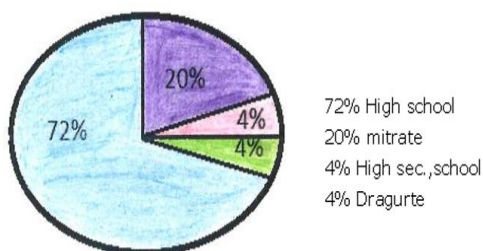
Table 1 and Figures 1 to Figure 4 shows that 20% of samples belongs 40-50yrs, and 60% belongs to 51 to 60yrs.

Regarding qualification inlet rate people 20%), 72% have completed in higher education 4%) have completed higher secondary education 4% have completed graduation. 56% of samples in male and 44%> of Samples collected in female.Shows that 16% people income is 5000/monthly, 44°/o people income 5000-10000/monthly, and 40% people Salary is above 1000/monthly.

4% of people to take the vegetarian and 96% of people take most of the subject had completed high school education in 72% 20°/o illiterate, 4% high secondary and 4% draught.

**Table 1: Frequency and percentage distribution of selected demographic variable of the samples.**

Demographic data	Frequency	Percentage
Age		
40-45yrs	5	20
46-50yrs	5	20
51-60yrs	15	60
Education		
illiterate	5	20
High school	18	72
H secondary	1	4
Graduate	1	4
Sex		
Male	14	56
Female	11	44
Income		
5000	4	16
5000-10000	11	44
10000 above	10	40
Nutrition		
vegetarian	1	4
non-veg	24	96



**Figure 1: Education.**

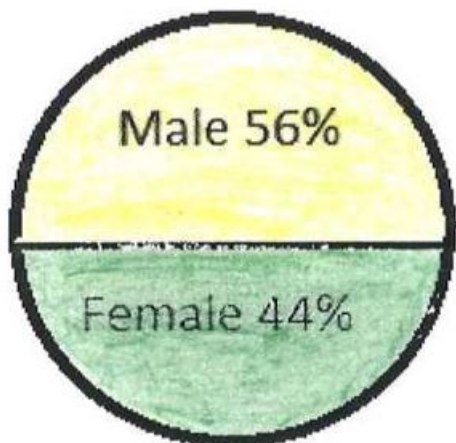


Figure 2: Sex.

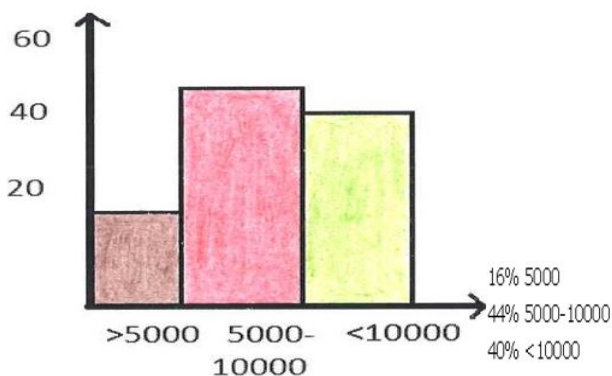


Figure 3: Income.

Table 2: Percentage distribution on level of pre-test knowledge scores on diabetic foot care.

Knowledge	Frequency	Percentage
Very poor	Nil	0
Poor	11	44
Mediate	10	40
Adequate	4	6

Table 3 shows that none have inadequate knowledge on diabetic foot care 96% of people adequate level and 4% people moderate level. percentage distribution level of

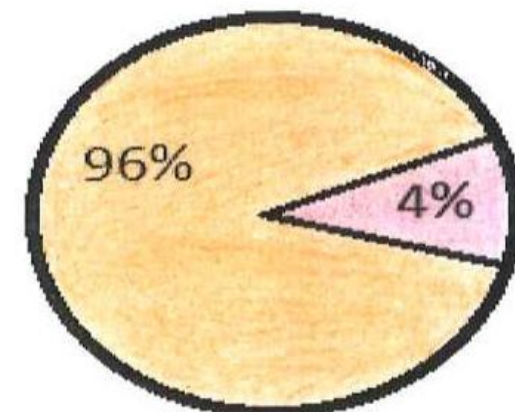


Figure 4: Nutrition.

Table 2 shows that 44% of diabetic patient how's poor knowledge for diabetic foot care 40% of people mediate knowledge and 4% of people adequate knowledge. Percentage distribution on level of pre-test knowledge scores on diabetic foot care among diabetic patients.

post-test knowledge scores of diabetic patients on diabetic foot care.

Table 3: Knowledge scores.

Knowledge	Frequency	Percentage
Inadequate	Nil	nil
Moderate	1	4
adequate	24	96

Figure 5 reveals that in the post test, 96% of the samples had acquired adequate knowledge and 4% had acquired moderate knowledge and none of them had inadequate knowledge about diabetic foot care.

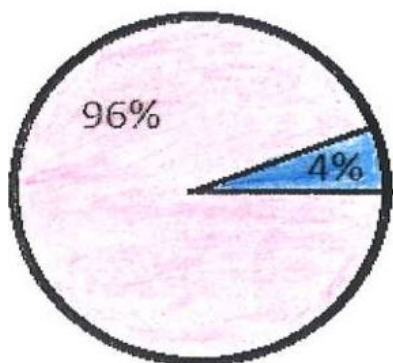


Figure 5: Post-test.

Table 4 and figure 6 shows that on comparing pretest and posttest knowledge score the knowledge level was improved adequate from 4 to 24, moderate from 10 to 1 and poor from 11 to nil.

Table 4: Comparing pre-test and post-test knowledge on diabetic foot care among diabetic patient.

Knowledge	pre-test frequency	%	post-test frequency	%
very poor (0-5)	nil	nil	nil	nil
poor (6-10)	11	44	nil	nil
Moderate (11-15)	10	40	1	4
adequate	4	6	24	96

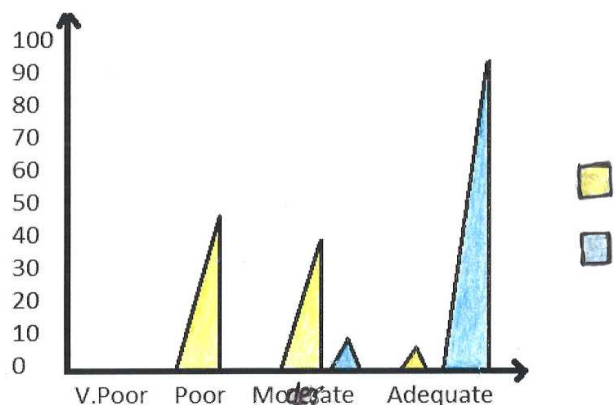


Figure 6: Comparing pre-test and post-test knowledge on diabetic foot care among diabetic patients.

This chapter deals with the discussion of results of the data analyzed based on the objective and hypothesis of the study, the problem stated was "a study to assess the effectiveness of structured teaching programme on knowledge of diabetic foot care among diabetic patient living in nandhivarsam rural area. A total number of 25 sample were selected for the study and the study was conducted by using structure teaching programme.

Before the structured teaching Program, the pre -test was conducted for 25 diabetic patients. Data analysis showed that 11(44%) have poor knowledge for diabetic foot care 10(40%) of people moderate knowledge and 4% of people adequate knowledge.

To assess the knowledge on diabetic foot care among diabetic patient after administering a structured teaching programme. After the structured teaching programme, a post-test data analysis showed that none have inadequate knowledge on diabetic foot care 24(96%) of people

adequate and 1(4%) of people moderate levels of knowledge.

On comparing pre-test and post-test knowledge scores 44% of poor knowledge in pre-test, post-test show none of them have poor knowledge. 40% of moderate knowledge in pre-test and 4% moderate knowledge in post-test and 6% of adequate knowledge in pre-test 96% of adequate knowledge in post-test.

**CONCLUSION**

The following conclusions were made from the study findings. The structured teaching programme given to the study showed group improvement the knowledge level on diabetic foot care, it is highly significant.

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**ETHICAL APPROVAL**

The study was approved by the Institutional Ethics Committee.

**CONFLICT OF INTEREST**

The authors declare no conflict of interest.

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