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EFFECTIVENESS OF VIDEO TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICE OF FOOT CARE AMONG DIABETICS IN METTUPALAYAM, PUDUCHERRY

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ABSTRACT

Background: Foot problems are a common complication in people with diabetes. Fortunately, most of these complications can be prevented with careful foot care. It may take time and effort to build good foot care habits, but self-care is essential. Though being a common problem in India, the knowledge about the diabetic foot care is not so satisfactory.

Objective: To assess the effectiveness of video teaching programme on knowledge and practice of foot care among diabetics.

Study design: Pre experimental (one group pretest and post test design) was used for the study.

Setting: The study was carried out in the community area of Mettupalayam, Puducherry

Material and Method: Quantitative research approach was used in this study consisting of 60 samples who were selected using simple random sampling method. The data was collected using structured interview schedule to assess knowledge and structured interview checklist for practice.

Statistics: The data collected was analyzed using both descriptive and inferential statistics.

Results: The result showed that the mean difference in pretest and posttest knowledge score ('t' value = 35.43 and P = 0.000) and the mean difference in pretest and posttest practice score ('t' value = 34.79 and P value =

0.000) were both highly statistically significant and thus the video teaching programme was effective on knowledge and practice of foot care among the subjects.

Conclusion: The findings highlight that, the nurses and health care providers can play a significant role in educating the diabetics regarding the importance and the significance of proper foot care to prevent further complications and for maintenance of healthy living.

Keywords: Diabetics, Foot care, Knowledge, Practice, Video teaching programme

INTRODUCTION

The human foot is a mechanical marvel. In a life time this phenomenal machine with its multiple movable parts walks seventy five thousand times to one hundred thousand miles – that is three to four times around the world and it is exposed to significant pressure with each step. In diabetic population, foot problem is a very common problem. Every 30 seconds a person loses a limb somewhere in the world due to diabetic foot problems. In India about forty thousand legs are amputated every year because of diabetes related foot complications (IDF, 2008). The total number of people with diabetes is projected to rise from 171 million in 2000 to 366 million in 2030 (WHO 2005). In India alone diabetes is expected to increase from 40.6 million in 2006 to 79.4 million by 2030 (SR Mehta 2007)

Diabetes mellitus is an increasingly serious health issue in rehabilitation population. It can lead to nerve damage in the feet and legs resulting in loss of sensation. Any trauma or injury to the foot may not be felt and could lead to more severe problems such as ulcerations. Diabetic foot disease is one of the most common, serious, feared and costly complication of diabetes. Patients with diabetes are at a 15 to 40 fold higher risk of a lower limb amputation than a non-diabetic patient. Eighty percent of lower limb amputations in diabetes are preceded by the development of a foot ulcer and it is estimated that an annual incidence of lower limb ulceration in patients with diabetes varies between 2.2% to 7.0% globally. (WHO)

In South East Asian region alone one fifth of all adults with diabetes worldwide live and 1.1 million deaths due to diabetes has occurred in this region in the year 2012. India precedes the list in the top with 63 million cases. (International diabetes federation)

The projected estimation for the year 2025 is that India may have the maximum number of diabetics (57.2 million) in the world. The international diabetic federation (IDF) has proclaimed 2006 to be the year of diabetic foot. India had 32 million diabetic subjects in the year 2000 and this number would increase to 80 million by the year 2030. Thus the study was conducted to assess the level of knowledge and practice on foot care among the diabetics

CONCEPTUAL FRAMEWORK:

The Conceptual framework of the present study is based on J.W Kenny's open system model.

METHODS AND MATERIALS:

Quantitative research approach with pre experimental design (One group pretest and post test design) was used for this study. The study samples comprised of diabetics and all the eligible samples from Mettupalayam, Puducherry available during the period of data collection were included in the study and thus the data was collected from 60 samples. Ethical clearance was obtained from the institutional ethics committee. Each individual subject was informed about the purpose of the study, their benefits and after which both oral and written consent was obtained. The individual had the freedom to withdraw from the study at any point of time.

The data collection tool was developed both in English and Tamil and consists of 3 sections i.e., Baseline Performa consisting of demographic variables, Structured Interview Schedule to assess the knowledge level of the diabetics regarding foot care and Structured Practice Checklist to assess the practice of foot care by the diabetics.

RESULT:

With regard to the demographic variables, with respect to age majority of 29 (48.3%) subjects were in the age group of 50-70 yrs, 33 (55%) subjects were males, whereas 23 (38%) subjects have had an education level from primary to secondary, In context of the occupational status 21(35%) were housewives and all 60 (100%) samples were married ,most of the subjects 46 (77%) were non-vegetarians and about 32(53%) are diabetic for more than 5 years.

Table 1: Demographic variables of the study sample (n=60)

DEMOGRAPHIC VARIABLES	FREQUENCY (F)	PERCENTAGE (%)
AGE (IN YEARS)		
30-50 yrs	20	33.3
50-70 yrs	29	48.3
>70 yrs	11	18.3
SEX		
Male	33	55
Female	27	45
EDUCATIONAL STATUS		
Illiterate	9	15
Primary – Secondary school	23	38
Secondary - Higher secondary	18	30
Graduate	10	17
OCCUPATIONAL STATUS		
Sedentary workers	14	23
Heavy workers	13	22
Housewife	21	35
Retired/ unemployed	12	20
FAMILY INCOME		
< 3000	4	7
3000 - 6000	25	42
6000 – 10000	15	25
> 10000	16	26
MARITAL STATUS		
Married	60	100
PERSONAL HABITS		
Smoking	11	18
Alcohol	13	22
Tobacco Chewing	5	8
No unhealthy habits	31	52
DIETARY HABITS		
Vegetarian	14	23
Non- Vegetarian	46	77
FAMILY DIABETIC HISTORY		
Parents	16	27
Siblings	10	17
No history	34	56
DURATION OF ILLNESS		
< 2years	9	15
2-5 years	19	32
> 5 years	32	53

Table 2: Distribution of Knowledge on Foot Care among Subjects in Pretest and Posttest

LEVEL OF KNOWLEDGE	INADEQUATE KNOWLEDGE		MODERATELY ADEQUATE		ADEQUATE KNOWLEDGE		TOTAL	
	No.	%	No.	%	No.	%	No.	%
PRE TEST	32	53	28	47	0	-	60	100
POST TEST	-	-	31	52	29	48	60	100

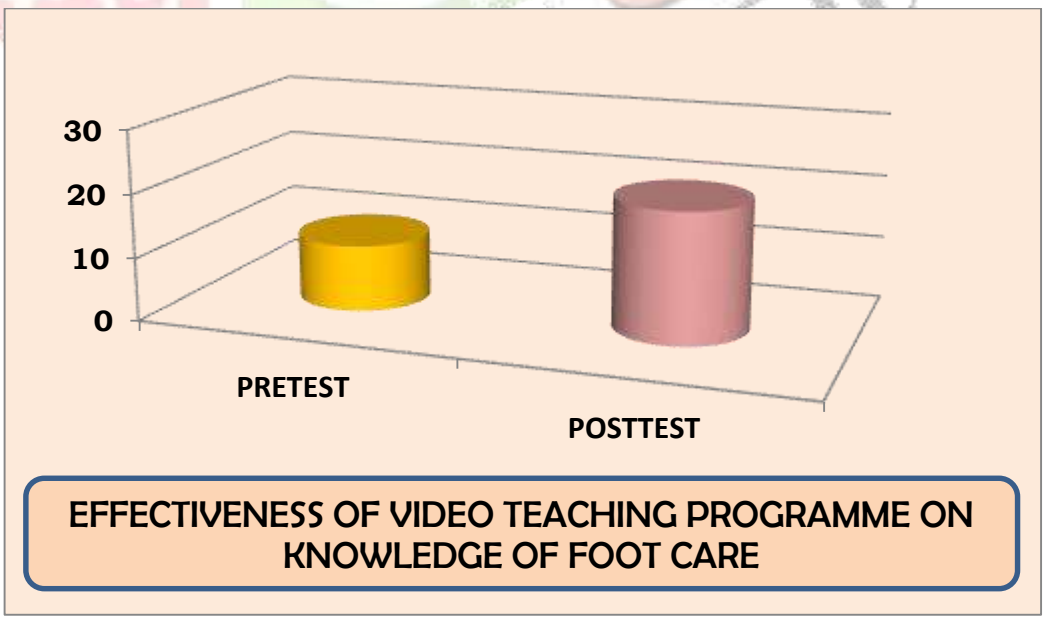
The above table shows that in the pretest out of the 60 subjects, 32(53%) had inadequate knowledge, 28 (47%) had moderately adequate knowledge and none had adequate knowledge. In the posttest 31(52%) had moderately adequate knowledge, 29(48%) had adequate knowledge and none had inadequate knowledge.

Table 3: Distribution of Practice of Foot Care among subjects in Pretest and Posttest

LEVEL OF PRACTICE	FAVORABLE		UN FAVORABLE	
	No.	%	No.	%
PRE TEST	6	10	54	90
POST TEST	51	85	9	15

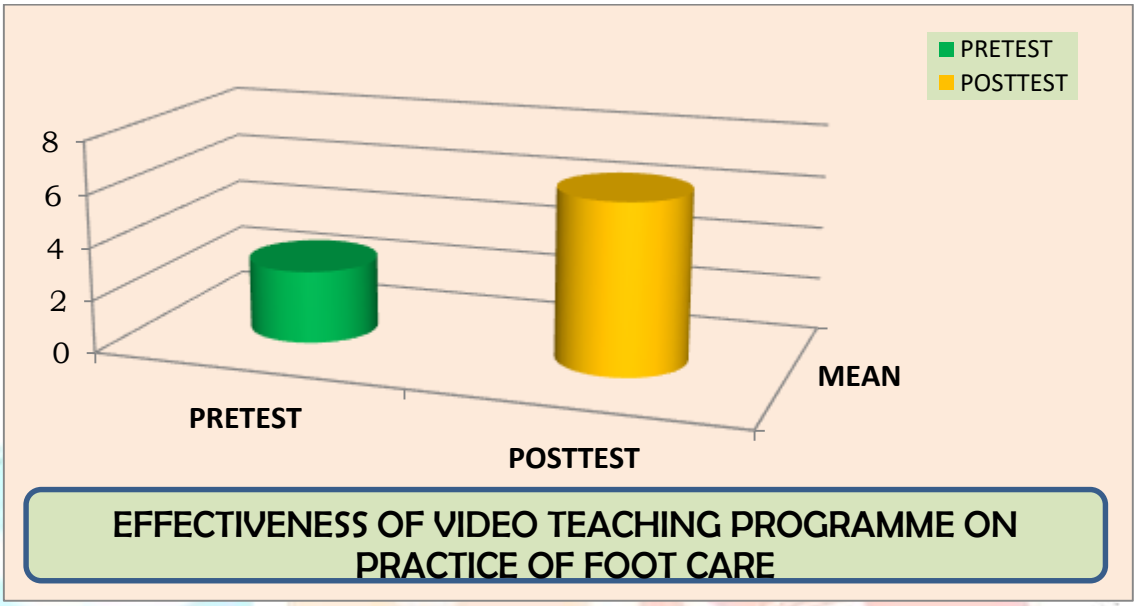
In the pretest out of the 60 subjects, 6(10%) had favorable practice and remaining 54 (90%) had unfavorable practice. Whereas in the posttest 51(85%) had favorable practice and only 9(15%) had unfavorable practice.

Figure 1: Effectiveness of Video Teaching Programme in Posttest Level of Knowledge.



The mean pretest level of knowledge among the subjects was 10.55 with S.D 2.79 and the mean posttest level of knowledge among the subjects was 20.53 with S.D 2.87 and the obtained 't' value was 35.43 and P of 0.000 (P<0.001) shows that it is highly significant.

Figure 2: Effectiveness of Video Teaching Programme in Posttest Level of Practice.



The mean pretest level of practice among the subjects was 2.77 with S.D 1.19 and the mean posttest level of practice among the subjects was 6.43 with S.D 0.91 and the obtained't' value on comparison was 34.79 with P value of 0.000 shows that it is highly significant.

The correlation co-efficient between the level of knowledge and level of practice in post test on foot care among the subjects was (r) 0.55 with an obtained p-value of 0.000 (P<0.001) which is highly significant and there by both knowledge and practice are positively co-related in this study.

The chi-square computed to assess the influence of demographic variables on knowledge and practice showed a significant association with the educational level of the diabetics. Samples who were educated had a better knowledge and practice of foot care.

DISCUSSION:

In the present study, 32(53%) had Inadequate knowledge, 28 (47%) had moderately adequate knowledge and with regard to practice, 6(10%) had favorable practice and remaining 54 (90%) had unfavorable practice.

The present study findings are supported by the study findings of **Rabi I. Eroke (2010),** who reported that awareness of foot care measures is very poor among known diabetic patients and this is largely due to lack of education of patient.

The findings of the study showed that the mean pretest level of knowledge of subjects was lower than the mean post test level of knowledge which is statistically highly significant (P<0.001). Similar findings are reported by **Ward. A et al., (2009)** who reported that those who adhered to the foot care education program were more knowledgeable and satisfied with their foot care than they were prior to the programme.

CONCLUSION:

The study concludes that the video assisted teaching programme was effective in increasing the knowledge and practice of foot care among diabetics. Thus the nurses and health care providers can play a significant role in constructing a video assisted teaching programme which can play a significant role in educating the diabetics and creating awareness on foot care.

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