A Study to Assess the Knowledge regarding Awareness of Early Identification and Self-Care Management of Foot Complications among Patients with Type II Diabetes Mellitus at SVMCH & RC Puducherry

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Abstract: *A study to assess the knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus at SVMCH&RC Puducherry". Objectives: 1) To assess the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus. 2) To find out association between the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus with the selected demographic variables. 3) To find out association between the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus with the selected clinical variables.* <u>*Methodology:*</u> *The research approach selected for the study is quantitative approach with descriptive design. Through non probability Sampling Technique 60 patients were selected, Demographic variables were collected by using a structured questionnaire and the awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus was assessed by self-structured. Questionnaire the collected data were analysed based on the above-mentioned objectives using descriptive and inferential statistics.* <u>*Result and Discussion:*</u> *A descriptive survey design was used to assess level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with Diabetes Mellitus at SVMCH &RC Puducherry. 60 Diabetes Mellitus patients with the age group of 30-50 were selected for non-Probability sample convenient sampling technique. Samples selected from Sri Venkateswara Medical College and Research Institute, the data was collected and to assess the level of knowledge regarding awareness of early identification and self-care management of foot care by using structured questionnaires.*

Keywords: Diabetes mellitus, Foot care, Early Identification, Self-management,

1. Introduction

Diabetic foot ulcers are caused by peripheral neuropathy, peripheral vascular disease, and infection, which can lead to gangrene and amputation. Peripheral neuropathy, on the other hand, is primarily to blame for more than 80% of diabetic foot ulcers. This is no longer only important for neurological exams because the first criterion for screening patients at risk for foot ulcers is the nurse's role in performing a diabetic foot examination with monofilament and collaborating with other diabetic foot team members, but it is also emphasized in a roundabout way on the nurse's role in performing a diabetic foot examination with monofilament and collaboration with other diabetic foot team participants. **(Inshrah Roshdy Mohammad, Eman Mawed Fahim and Eman Hessien Heggy, 2021)**

Statement of Problem
A study to assess the knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus at SVMCH&RC Puducherry".

Objectives
- To assess the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus
- To find out association between the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus with the selected demographic variables.
- To find out association between the level of knowledge regarding awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus with the selected clinical variables.

Hypotheses:
H1: There will be significant between the level of the awareness of early identification and self-care management of foot complicationsamong patients with Diabetes Mellitus.

H2: There will be significant association between the level of the awareness of early identification and self-care management of foot complications among patients with demographic variables.

H3: There will be significant association between the level of the awareness of early identification and self-care management of foot complications among patients with clinical variables.

2. Material and Methods

The research approach selected for the study is quantitative approach with descriptive design. Through non probability Sampling Technique 60 patients were selected, Demographic variables were collected by using a structured questionnaire and the the level of knowledge regarding the awareness of early identification and self-care management of foot complications among patients with type II Diabetes Mellitus was assessed by self-structured. Questionnaire the collected data were analysed based on the above-mentioned objectives using descriptive and inferential statistics

3. Results and Discussion

Table 1: Distribution of samples according to demographic variables, (N=60)

S. No	Demographic variables	Frequency (N)	Percentage (%)
	Age		
1	a) 30-35yrs	19	31.7
	b) 36-40yrs	17	28.3
	c) 41-45yrs	11	18.3
	a) 46-50yrs	13	21.7
	Gender		
2	a) Male	29	48.3
	b) Female	28	46.7
	c) Transgender	3	5
	Religion		
3	a) Hindu	33	55
	b)Muslim	17	28.3
	c) Christian	10	16.7
	Marital status		
4	a) Single	11	18.3
	b) Married	38	63.3
	c) Divorced	5	8.3
	d) Widow	6	10
	Educational status		
	a) Non-Formal	19	31.7
5	b) Primary	13	21.7
	c.) Higher Secondary	15	25
	d) Graduate	11	18.3
	e) PG	2	3.3
6	**Occupational status**		
	a) Government Employed	14	23.3
	b) Private Employed	26	43.3
	c) Self Employed	17	28.3
	d) Unemployed	3	5
	Type of Family		
7	a) Nuclear	28	46.7
	b) Joint	32	53.3
	Family monthly Income		
	a) Rs.5000	7	11.7
8	b) Rs.5001-Rs.10000	18	30
	c) Rs.10001-Rs.15000	23	38.3
	d) Rs.15000	12	20
	Dietary Pattern		
9	a) Veg	18	30
	b) Non-veg	42	70

Table 2: Frequency and Percentage Distribution of the Clinical Variables, (N=60)

S. No	Clinical Variables	Frequency (N)	Percentage (%)
1.	**Duration of Diabetes Mellitus?**		
	One Year	15	25.0
	Two Year	23	38.3
	More Than Two Year	22	36.7
2.	**Are you taking treatment for Diabetes Mellitus?**		
	Yes	47	78.3
	No	13	21.7
3.	**Family history of Diabetes Mellitus?**		
	Yes	30	50.0
	No	30	50.0
4.	**Do you take any natural herbal medications for Diabetes Mellitus?**		
	Yes	27	45.0
	No	33	55.0
5.	**Do you have any history of foot complications**		
	Yes	40	66.7
	No	20	33.3
6.	**Are you doing daily exercise?**		
	Yes	30	50.0
	No	30	50.0

40(67%) of samples had history of foot complications and 20(33%) of samples does not had history of foot complication. In view of doing daily exercise, 30 (50%) of samples answered yes and 30(50%) of samples does not doing daily exercise.

Table 3: Frequency and Percentage Distribution of Awareness on Early Identification and Self- Management of foot complications

Variable	Adequate Knowledge		Moderately adequate knowledge		Inadequate Knowledge		Mean	SD
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)		
Early identification of foot complication	5	8.3	34	56.7	21	35.0	3.116	1.56
Self –Management	4	6.7	25	41.7	31	51.7	4..8	2.42

The table shows the frequency and percentage wise distribution of awareness on early identification of foot complications indicates that the majority 34(57%) samples were having moderately adequate knowledge whereas 5(8.3%) sample were having adequate knowledge eand21(35%)samples have inadequate knowledge.

Among the self-management of the foot complications, it indicates 31(52%) having Inadequate knowledge whereas 25 (42%) were having Moderately Adequate knowledge and 4(7%) samples have Adequate Knowledge.

Table 4: Association of awareness on early identification and self-management of foot complications among patients with type II Diabetes Mellitus with demographic variables

Demographic variables	Knowledge regarding awareness			x^2	p-value
	Inadequate Knowledge (f)	Moderately adequate knowledge (f)	Adequate Knowledge (f)		
Age in years					
a) 30-35yrs	9	10	0	6.218	0.399
b) 36-40yrs	5	11	1		NS
c) 41-45yrs	1	9	1		
d) 46-50yrs	3	9	1		
Gender					
a) Male	11	17	1	2.213	0.997
b) Female	6	20	2		NS
c) Transgender	1	2	0		
Religion					
a) Hindu	10	22	1	1.428	0.839
b) Muslim	6	10	1		NS
Marital Status					
a) Single	2	9	0	8.933	0.177
b) Married	12	23	3		NS
c) Divorced	0	5	0		
d) Widow	4	4	4		
Educational status					
a) Non-Formal	3	16	0	11.31	0.185
b) Primary	5	8	0		NS
c) Higher Secondary	7	7	1		
d) Graduate	2	7	2		
e) Post Graduate	1	1	0		
Occupational status					
a) Government	4	8	2	7.797	0.253
b) Private	6	19	1		NS
c) Self Employed	8	9	0		
d) Unemployed	0	3	0		
Type of family					
a) Nuclear	6	20	2	.2.10	0.35
b) Joint	12	19	1		NS
Family monthly income					
a) Rs.<5000	2	5	0	5.819	0.44
b) Rs.5001-10000	7	11	0		NS
c) Rs.10001-15000	7	15	1		
d) Rs.>15000	2	8	2		
Dietary pattern					
a) Veg	7	10	1	1.046	0.593
b) Non- Veg	11	29	2		NS

p < 0.001 highly significant

Table No 5: Association of Association of awareness on early identification and self-management of foot complications among patients with type II Diabetes Mellitus with Clinical variables.

Clinical variables	Knowledge regarding awareness			x^2	p-value
	Inadequate Knowledge	Moderately adequate knowledge	Inadequate Knowledge		
Duration of diabetes mellitus?					
a) One Year	4	9	2	3.80	0.433
b) Two	8	14	1		NS
c) More than two year	6	16	0		
Are you taking treatment for Diabetes Mellitus?					
a) Yes	13	31	3	1.25	0.534
b) No	5	8	0		NS
Family history of diabetes mellitus?					
a) Yes	9	21	0	3.23	0.199
b) No	9	18	3		NS
Do you take any natural herbal medications for diabetes mellitus?					
a) Yes	10	17	0	3.29	0.192
b) No	8	22	3		NS
Do you have any history of foot complication					
a) Yes	9	29	2	3.28	0.193
b) No	9	10	1		NS

Are you doing daily exercise?					
a) Yes	11	19	0	3.91	0.141
b) No	7	20	3		NS

NS-Non-Significant: Level of Significance=0.05

4. Conclusion

The study to assess the awareness on Early Identification and Self-Management of foot complications among patients with Diabetes Mellitus in SVMCH&&RC Puducherry. The result of study showed that there are association between level of awareness regarding early identification and self-management of foot complications among diabetic mellitus patient. Hence Hypotheses H_1 was accepted.

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