A descriptive study to assess the knowledge, attitude, and practice related to diabetic foot care among Diabetic Patient in Rural Area.

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ABSTRACT:

BACKGROUND: Diabetes mellitus (DM) is a chronic disease Diabetes mellitus is a condition that over time harms the body's organs, blood vessels, and nerves. Neuropathy is the most common complication of diabetes mellitus. In developing countries like India, diabetic foot complications cause high morbidity and mortality rates. An estimated 50% of non-traumatic amputations are performed among people with diabetes. Inappropriate footwear and improper foot care are the major contributors to problems in patients with high-risk foot.

OBJECTIVES: The study is to assess the knowledge, attitude, and practice related to diabetic foot care among diabetic patients in selected rural areas of Ranipet districts.

METHODOLOGY: A descriptive study design was used to assess the knowledge, attitude, and practice related to diabetic foot care among diabetic patient. The study was carried out in the selected Rural villages of Ranipet district. The population and samples were older diabetics from selected Rural villages who fulfilled the inclusion criteria. Convenient sampling was used with a sample of 30 participants. An interview technique using a questionnaire constructed by the investigator was utilized for data collection.

RESULTS: This study shows majority 22(73.3%) the subjects are between the age group of 60- 70 years, and 17(56.7%) are female. It shows that 15(50.0%) ot the subjects are illiterate and 15 (50.0%) had primary education. Majority of them 15 (50.0%) are unemployed and 15(50.0%) are daily wage workers. 72% of the subjectes had adequate knowledege regarding diabetic foot care, 63%of them have favourable attitude,where as 81% of the subjects don't practice foot care examination even thougth the knowledge and attitude levels are adequate. This study shows that level of knowledge and practice is adequate and there is a deficiencies in the level practice of the subjects.

CONCLUSION:Diabetic foot complications are preventable with simple foot care and appropriate footwear practices. Therefore it is necessary to perform foot care and their should be an meticulous reinforcement to all diabetic patients to perform the foot care and examination

KEY WORDS: Diabetes Mellitus, Diabetic foot care,

INTRODUCTION:

Diabetes mellitus (DM) is a chronic disease that occurs when the pancreas does not produce enough insulin or when the body does not use the insulin that is produced effectively. Insulin is a hormone that controls blood sugar levels. There are two types of diabetes mellites -type 1 and type 2 diabetes. Type1 (previous known as insulin dependent, juvenile or childhood onset diabetes) is characterized by deficient insulin production. Patients with type 1 diabetes require daily administration of insulin to regulate the amount of glucose in the body. Type 2 diabetes (formerly called non-insulin dependent or adult-onset diabetes) characterized by ineffective use of insulin. Uncontrolled diabetes frequently causes hyperglycaemia, or elevated blood sugar, which over time seriously harms many bodily systems, including the neurons and blood vessels (World Health Organization, 2016)

Diabetes mellitus is one of the major health problems worldwide in the 21st century. One in ten adults (about 537 million) between the ages of 20 and 79 have diabetes. By 2030, it is expected to reach 643 million, and by 2045, it will reach 783 million. More than 80% of diabetic individuals reside in low- and middle-income nations. In 2021, diabetes caused of 6.7 million fatalities, of one in every five seconds (*IDF Diabetes Atlas | Tenth Edition*, 2021)

A total of 422 million people worldwide has diabetes, the majority of whom reside in low- and middle-income nations. Diabetes is directly responsible for 1.5 million fatalities annually. Over the past few decades, there has been a consistent rise in both the incidence and prevalence of diabetes (*World Health Organization*, 2021)

The prevalence is rapidly increasing among Asian Indians, particularly in the past two decades. Urbanization, changes from traditional healthier diet to high refined carbohydrate intake and secondary lifestyle have contributes to their steep increase in the prevalence of diabetes in India (Shah & Mohan, 2015)

Diabetes mellitus is a condition that over time harms the body's organs, blood vessels, and nerves. There are two types of complications associated with diabetes: micro vascular and macro vascular. Microvascular complications can develop from long-term high blood glucose levels damaging small blood vessels (Cade, 2008). Nephropathy, neuropathy, and retinopathy are microvascular complications. Coronary artery disease, cerebral vascular disease, and peripheral vascular disease are macro vascular complication (Suzanne C. Smeltzer, Brenda G. Bare, Janice L. Hinkle, Kerry H. Cheever, 2010) .With proper dietary habits, frequent exercise, medication, and regular monitoring and treatment for complications, diabetes can be managed and its effects can be prevented (*World Health Organization*, 2021)

The annual incidence of foot ulcers in diabetes ranges from 1.0%-4.1% to 4%-10% of the prevalence rate, implying that the lifetime incidence could be as high as 25%.(Singh et al., 2005). The important risk factors identified for high-risk foot among people with diabetes are peripheral neuropathy, peripheral vascular disease and foot deformity (Andrew J.M. Boulton, MD, FRCP; Rayaz A. Malik, MB, PHD; Joseph C. Arezzo, PHD; Jay M. Sosenko, MD, MS, 2004)

METHODOLOGY:

A descriptive study using quantitative approach was done to assess the knowledge, attitude, and practice regrading diabetic foot among diabetic patients from selected rural villages of Ranipet district. Diabetic patients who are diagnosed with diabetes mellitus for than 5 years and diabetic with 35 years and more are included in the inclusion criteria. Diabetic patients who had foot ulcer and amputation were included in the exclusion criteria. Participants were selected using convenient sampling based on the selection criteria. Oral consent was obtained from the participant. After obtaining the consent questionnaire was administered by interview technique. Confidentiality was maintained throughout the data collection. The collected data were arranged and analysed using the SPSS package version 21. Descriptive statistics such as frequencies, percentages, mean and standard deviation were used to describe the socio demographic of the study subjects.

FINDINGS OF THE STUDY:

Table -1

Distribution of subjects according to their selected demographic variable

Demographic variable	Frequency	Percentage
Age		
60 – 70 years	22	73.3
71 – 80 years	7	23.2
>81 years	1	3.3
Gender		
Male	13	43.3
Female	17	56.7
Education		
Illiterate	15	50.0
Primary education	15	50.0
Secondary education	0	0
Graduate	0	0
Occupation		

Unemployed	15	50.0
Skilled worker	0	0
Unskilled worker	0	0
Daily wages	15	50.0

This study shows majority 22(73.3%) the subjects are between the age group of 60- 70 years, and 17(56.7%) are female. It shows that 15(50.0%) ot the subjects are illiterate and 15 (50.0%) had primary education. Majority of them 15 (50.0%) are unemployed and 15(50.0%) are daily wage workers.

Distribution according to their knowledge regarding foot care among diabetic patients

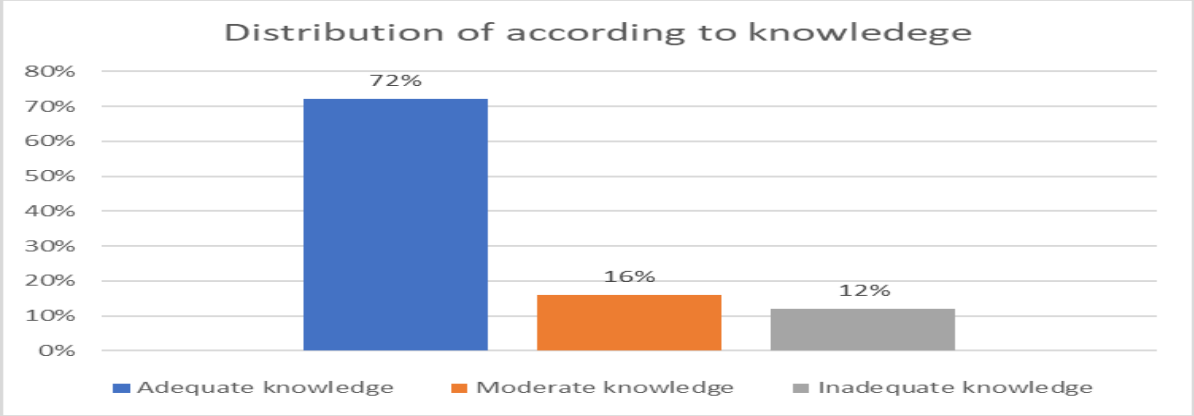

Figure 1 : Distibution according to their knowledge regarding foot care among diabetic patients

The above figure reveales that (72%) of the subjectes had adequate knowledege regarding diabetic foot care, where as (16%) of the subjects had moderate knowledge and (12%) had inadequate knowledge.

Distribution according to their attitude regarding foot care among diabetic patients

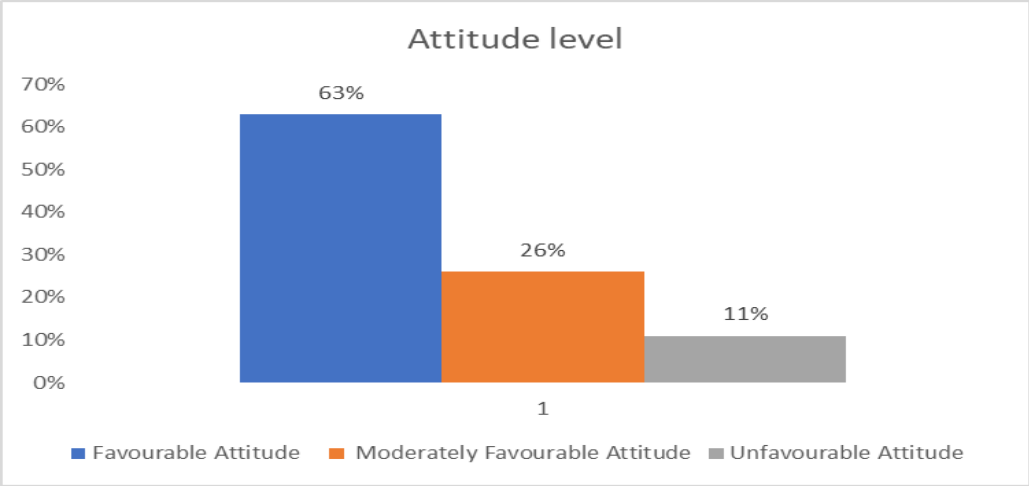

Figure 2: Distibution according to their attitude regarding foot care among diabetic patients

The above figure shows that (63%) of them have favourable attitude toward the foot care , (26%) of subjects have moderately favourable attitude and (11%) of them have unfavourable attitude towards the diabetic foot care.

Distibution according to their practice on foot care among diabetic patients:

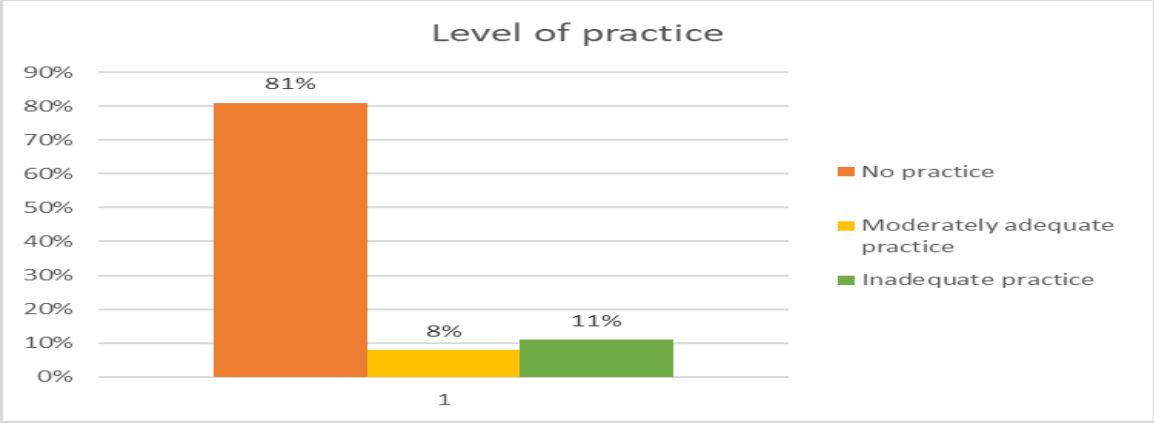

Figure 3: Distibution according to their practice on foot care among diabetic patients

'The above figure shows that 81% of the subjects don't practice foot care examination on the daily bases and 11% have inadequate practices whereas 8% of the subjects have moderately adequate practice.

DISCUSSION:

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF DIABETICS:

In this study, majority 22(73.3%)of the subjects are in the age group of 60- 70 years, 7(23.2%) are in 71- 80 years and 1(3.3%) are in >80 years. An study done by (SW Naomi Nancy et.al., 2020) shows that 4.6% of subjects are in the age group of 41- 60 years and 45.7% were more than 60 years.

Among the participants majority (56.7%) are female and (43.3%) are male based on the gender, the similar study shows that majority of them are female population (Taksande et al., 2017)

KNOWLEDGE, ATTITUDE AND PRACTICE – DIABETIC FOOT CARE:

This study shows that (72%) of the subjectes had adequate knowledege regarding diabetic foot care, where as (16%) of the subjects had moderate knowledge and (12%) had inadequate knowledge. Similar study shows that most of the diabetic patients have good knowledge regarding diabetic foot care (Tuha et al., 2021)

Most of them (63%) have favourable attitude toward the foot care , (26%) of subjects have moderately favourable attitude and (11%) of them have unfavourable attitude towards the diabetic foot care. According to (Taksande et al., 2017) it shows majority of them have 86.7% have favourable attitude towards diabetic foot care.

According to this study majority of them have 81% of the subjects don't practice foot care examination on the daily bases and 11% have inadequate practices whereas 8% of the subjects have moderately adequate practice. The similar study by (Chandalia et al., 2008) in mumbai shows that most of the Indian people are ignorant of the good foot care and footwear practices.It is also highlighted that most of the Indian people with foot complication suffer from peripheral neuropathy which can be easily prevented.

CONCLUSION:

The study found that majority of the subjects have adequeate knowledge and favourable attitide towards foot care wheres the practice of foot care is inadequate.

Health care professional should take effort to educate and demonstrate on diabetic foot care and continous reinforcement is needed to make a behavioural change and to practice diabetic foot care on daily basis

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