

# DETERMINANTS OF FOOT SELF-CARE PRACTICES AMONG DIABETIC PATIENTS ATTENDING DIABETIC CLINIC AT A REFERRAL HOSPITAL, MERU COUNTY - KENYA

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**Abstract-** Foot self-care practices are regarded as fundamental in prevention of diabetic foot ulcers [2]. Globally, it is estimated that the prevalent cases of persons living with type 2 diabetes mellitus (DM) were more than 500 million [17]. Patients with type 2 DM suffer diabetic foot ulcer (DFU), one of the DM complication most costly to treat and with huge impact on global health [3]. The purpose of the study was to assess the determinants of foot self-care practices among patients with type 2 Diabetes Mellitus. This research was a descriptive cross sectional, conducted among 133 type 2 DM clients who were selected using systematic random sampling technique. Data was collected using an interviewer administered semi-structured questionnaire. Analysis of data was done using SPSS version 21. Socio-demographic characteristics such as age of the respondents ( $p=0.003$ ), level of education ( $p=0.006$  and monthly income ( $p=0.014$ ) significantly influenced foot self-care practices. 51.2% of the respondents demonstrated low level foot self-care practice while 48.8% demonstrated high level foot care practice. 61% were found to have low knowledge level while 39% had high level of knowledge on foot self-care. Low level of knowledge on foot care influenced the practice of foot self-care among the type 2 DM patients attending out-patient diabetic clinic at a referral hospital in Meru County. There was a significant association between knowledge and practice of foot self-care practice ( $p<0.001$ ). Those with high level of knowledge were 4.3 times more likely to have high level of foot self-care practice.

**Index Terms-** Diabetes mellitus type 2, Foot self-care, Knowledge on foot self-care, practice on Foot self-care.

## I. INTRODUCTION

Self-care implies to daily activities that individual person initiate and perform by their own so as to remain healthy [14]. Foot self-care by type 2 DM patients involves meticulous care of all parts of the lower limb to include the foot, toes, nails and around the ankle [17]. The standard foot care for diabetic persons involves inspection of the feet, washing the feet, oiling the feet, trimming

of toe nails, inspecting the inner parts of the shoes and use of appropriate foot wear [2].

Type 2 DM is estimated to cause 5 million deaths annually thus increasing prevalence of type 2 DM has a huge impact on global health [17]. Sub-Saharan Africa is experiencing an increasing prevalence of type 2 DM. In 2017, 15.5 million adults aged 20-79 years were estimated to be living with type 2 DM in Africa region and it is projected to increase to 23.9 million by 2030 [17]. The prevalence of type 2 DM in Kenya was 6 % in 2014, a 150 % rise as compared to 2.4 % in 1990 and the number of people who died from type 2 DM and its complications in 2014 were 12,890 [16]. Moreover, it is anticipated that every one in 17 Kenyans has DM [16]. In Kenya, Poor foot hygiene and walking bare foot were identified as among the top 5 most common predisposing factors for diabetic foot ulcers and recommended that the primary health care provides should educate patients on low cost measures that can limit diabetic foot ulcers [12].

Foot ulceration is generally preventable and relatively simple interventions such as foot self-care can reduce foot amputations by up to 80% [2]. There are strong indications that the number of amputations can be drastically reduced through the implementation of meticulous daily care of the feet. Studies investigating the effects of foot self-care reported foot ulceration and amputation reduction rates between 44 and 85% [6]. Studies have demonstrated that type 2 DM patients' socio-demographic factors such as age, educational status and average monthly income may influence foot self-care. Moreover, knowledge on foot self-care may also significantly influence the practice of foot self-care among type 2 DM patients [9]. Knowledge on foot care can strongly influence individual care of the feet and those with adequate knowledge on foot self-care are likely to take care of their feet more meticulously as compared to those with deficient knowledge [5].

## II. DATA COLLECTION METHODS

The study was conducted at Meru Teaching and Referral Hospital -Kenya. A descriptive cross-sectional study design was used. The study population was adult patients with Diabetes Mellitus Type 2; aged 18 years and above, attending out-patient Diabetic clinic. Interviewer administered semi-structured