



**LEVEL OF KNOWLEDGE AND QUALITY OF SELF-CARE PRACTICE IN THE PREVENTION OF THE DIABETIC FOOT IN USERS WITH DIABETES MELLITUS OF THE HEALTH CENTER OF THE MUNICIPALITY OF ILIATENCO, GRO**

**A. María de los Ángeles Cabañas Rosales\*, A. Colette Marie Dugua Chatagner, Lucio Diaz Gonzalez and Sabath Olivares Lucas**

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Level of knowledge, quality of practice, self-care, prevention, diabetic foot.

**ABSTRACT**

**Objective:** To determine the relationship between the level of knowledge and the quality of self-care practice in the prevention of diabetic foot.

**Methodology:** It was used a cross section of descriptive type of association in which 30 people participated. An instrument was applied that included sociodemographic data, evolution of diabetes, level of knowledge and the quality of self-care practice in the prevention of diabetic foot, the instrument consisted of 58 items.

**Results:** The level of knowledge in the prevention of diabetic foot 76.6% is regular, the quality of practice of self-care 83.3% is inadequate, in relation to the level of knowledge and quality of practice in the prevention of diabetic foot, 63.3% have a regular knowledge with an inadequate quality of practice. There is a significant association in the quality of practice of self-care and Chi-square studies. 0.033

**Conclusion:** The level of knowledge about foot care does not influence the quality of practice in the prevention of diabetic foot.

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**INTRODUCTION**

Diabetes mellitus is a chronic degenerative disease, characterized by the elevation of glucose (sugar) in the blood. As a result of this, the diabetic foot can be generated, which is defined as the infection, ulceration or destruction of deep tissues of the foot, associated with neuropathy or peripheral arterial disease in the lower extremities of patients with diabetes (The International Working Group of the Diabetic foot 2007).

Currently diabetes mellitus represents one of the main causes of morbidity and mortality, due to this it has been cataloged as a global emergency, with great impact on the health, economic, political and social system; besides causing sequels or damages to the physical integrity of the person, such as blindness, kidney damage, alkalosis, myocardial infarction, cerebrovascular accidents and diabetic foot. The World Health Organization (2014) reported the prevalence of 382 million diabetics worldwide, which is estimated to surpass 592 million before the next 25 years, "which is why it is suggested that this disease may represent the fourth cause of death in the world.

Diabetes Mellitus is a public health problem, one of its consequences is the diabetic foot which is one of the main causes of amputation generating economic and emotional problems. An undiagnosed or poorly controlled diabetes can cause diabetic foot, causing amputation of the lower extremities, blindness and kidney disease, among others, taking into account the transcendence of diabetic foot that according to the WHO (2005) affects 15% of patients throughout their illness and this same percentage, 80% ends with the amputation of one or both extremities. It is clear that despite the health actions directed at patients with diabetes mellitus, diabetic foot continues being a public health problem, as it constitutes one of the main causes of foot amputation, unleashing devastating consequences that can lead to death.

**General Objective:** To determine the relationship between Level of Knowledge and quality of practice of self-care in the prevention of diabetic foot in users of the Health Center of El Aserradero Municipality of Iliatenco, Guerrero.

**METHODOLOGY**

The research design was cross-sectional, descriptive-correlational. The study population was users diagnosed with diabetes mellitus from the El Aserradero Municipality Health Center. From Iliatenco, Guerrero, the technique for collecting the information was carried out through a survey and questionnaires, Two instruments were used: the first

\*Corresponding author: **A. María de los Ángeles Cabañas Rosales**

PTC. De la Escuela Superior de Enfermería 1 de la UAGro y Perfil PROMEP

instrument allowed to assess the level of knowledge in the prevention of diabetic foot with 17 questions and the second quality of self-care practice in the prevention of diabetic foot with 29 questions, prepared by Montero and Méndez modified by Alcalde Ch. And Clavijo P. for the analysis of the information the data were captured in the SPSS V-21 program and analyzed in the same statistical package. The univariate statistical analysis was performed for the description of the sociodemographic data and the evolution of the diagnosis, as well as the bivariate for the variables of level of knowledge and quality of self-care practice related to sociodemographic data. The association of the variables was carried out by means of the Chi square test or criteria independence and it was considered as level of significance ( $p < 0.05$ ).

## RESULTS

In relation to gender with the level of knowledge in the prevention of diabetic foot, it can be seen that 56.7% of women and 20% of men have regular knowledge.

Level of knowledge and Gender of the respondents							
Genero de los Encuestados							
Level of knowledge		Man		Woman		Total	
		FC	%	FC	%	FC	%
		Deficient	1	3.3	4	13.3	5
Regular	6	20.0	17	56.7	23	76.7	
Good	1	3.3	1	3.3	2	6.7	
<b>Total</b>	<b>8</b>	<b>26.7</b>	<b>22</b>	<b>73.3</b>	<b>30</b>	<b>100.0</b>	

Source: applied questionnaires 2018.

Relating the level of knowledge in the prevention of diabetic foot and age, it is observed that the majority has a regular knowledge 23.3% corresponds to the group of 32 to 47 years, 36.7% is 48 to 62 years and 16.7% from 63 to 80 years.

Level of Knowledge and Age of Users									
Age									
Level of Knowledge		Between 32 and 47 years old		Between 48 and 62 yearsold		Between 63 and 80 yearsold		Total	
		FC	%	FC	%	FC	%	FC	%
		Deficient	1	3,3	2	6,7	2	6,7	5
Regular	7	23,3	11	36,7	5	16,7	23	76,7	
Good	0	0,0	1	3,3	1	3,3	2	6,7	
<b>Total</b>	<b>8</b>	<b>26,7</b>	<b>14</b>	<b>46,7</b>	<b>8</b>	<b>26,7</b>	<b>30</b>	<b>100,0</b>	

In relation to the level of knowledge in the prevention of diabetic foot and the degree of study, 3.3% of users without studies have deficient knowledge, 20.0% regular and 3.3% good, in comparison to 3.3% of users with technical career that show a poor knowledge.

The level of knowledge in the prevention of diabetic foot related to occupation, found that those who are engaged in household chores 43.3% have regular knowledge, 10.0% deficient, and 3.3% good, retired 3.3 % have poor knowledge and 3.3% regular.

Source: applied questionnaires 2018.

In relation to gender with the quality of practice in the prevention of diabetic foot it is seen that 23.3% are men and 60.0% women who perform an inappropriate practice. With an adequate quality of practice 3.3% are men and 13.3% women. Highlighting that there is an inadequate quality of practice in both genders.

Source: applied questionnaires 2018.

The relationship between the qualities of practice with age, it is observed that 20.0% corresponds to the group of 32 to 47 years, 36.7% is 48 to 62 years and 26.7% from 63 to 80 years with an inadequate quality of practice.

Source: applied questionnaires 2018.

There is an association in the quality of self-care practice and degree of study

Source: applied questionnaires 2018.

## DISCUSSION

Our results coincide with those of Cotí Lux Jaime Rolando (2013). In his research work "Knowledge, attitudes and practices on diabetic foot and diabetic foot staging. Diabetic Club-Maxeña Clinic, Santo Tomas La Union, Suchitépéquez, Guatemala, "found that most patients had adequate knowledge, the majority shows adequate attitudes, and less than half of the patients evaluated perform adequate practices in relation to diabetes and diabetic foot complication. Like the results found by Chapa, Clavijo, Eugenio (2013). "Level of Knowledge and Quality of Self-care Practice in the Prevention of Diabetic Foot in Adults Hospital Belén de Trujillo", found that the majority has regular knowledge. In the quality of self-care practice more than half of patients had inadequate level.

With respect to the general objective, whose purpose was to determine the level of knowledge and the quality of self-care practice in the prevention of diabetic foot in people with Diabetes Mellitus, the result shows a deficient level of knowledge with an inadequate quality of practice, being well-known that regular knowledge was the one that stood out the most and in which the majority performs inadequate practice and only a minimum part carries out an adequate quality of practice, noting also that none of those who had a good level of knowledge obtained an adequate quality of practice. Highlighting that the grade of study does not determine the level of knowledge in the prevention of diabetic foot, since the majority of the population has basic studies, revealing a level of regular knowledge. In comparison, the level of schooling at the upper secondary level did determine the quality of appropriate practice. These results indicate that despite having adequate knowledge and attitudes, there is a clear deficiency in the practice of prevention activities to avoid diabetic foot complications.

## CONCLUSION

The level of knowledge about the prevention of diabetic foot is regular in the majority of users diagnosed with diabetes mellitus, with an inadequate quality of self-care practice for the prevention of diabetic foot. According to the sociodemographic conditions, it was found that there were more women diagnosed with diabetes mellitus, the age group that most prevailed was 48 to 62 years old, with a basic level of study in the majority, and being the occupation of peasant and housework the most outstanding with what they have an income less than a minimum wage. Regarding the level of knowledge of users diagnosed with diabetes mellitus on the prevention of diabetic foot in relation to sociodemographic data, it can be seen that the female gender, the age group between 48 and 62 years, dedicate themselves to household

chores, receive a family income less than a minimum wage, highlighting that the grade of study does not determine the

schooling does determine the quality of self-care practice in the prevention of diabetic foot.

**Level of Knowledge and Grade of Studies**

		Grade of Studies													
		Without study		Primary		High school		Preparatory		Technical career		Degree		Total	
		FC	%	FC	%	FC	%	FC	%	FC	%	FC	%	FC	%
Level of Knowledge	Deficient	1	3.3	2	6.7	0	0.0	1	3.3	1	3.3	0	0.0	5	16.7
	Regular	6	20.0	8	26.7	5	16.7	3	10.0	0	0.0	1	3.3	23	76.7
	Good	1	3.3	0	0.0	1	3.3	0	0.0	0	0.0	0	0.0	2	6.7
	<b>Total</b>	8	26.7	10	33.3	6	20.0	4	13.3	1	3.3	1	3.3	30	100.0

**Level of Knowledge and Occupation**

		Occupation											
		Professional		Retired		Employee		Farmer		Housework		Total	
		FC	%	FC	%	FC	%	FC	%	FC	%	FC	%
Level of Knowledge	Deficient	0	0.0	1	3.3	0	0.0	1	3.3	3	10.0	5	16.7
	Regular	1	3.3	1	3.3	1	3.3	7	23.3	13	43.3	23	76.7
	Good	0	0.0	0	0.0	0	0.0	1	3.3	1	3.3	2	6.7
	<b>Total</b>	1	3.3	2	6.7	1	3.3	9	30.0	17	56.7	30	100.0

**Quality of Self-care and Gender Practice**

		Gender					
		Man		Woman		Total	
		FC	%	FC	%	FC	%
Quality of Practice	Inadequate	7	23.3	18	60.0	25	83.3
	Adequate	1	3.3	4	13.3	5	16.7
	<b>Total</b>	8	26.7	22	73.3	30	100.0

**Quality of Practice and Age**

		Age							
		Between 32 and 47 years old		Between 48 and 62 years		Between 63 and 80 years		Total	
		FC	%	FC	%	FC	%	FC	%
Quality of Practice	Inadequate	6	20.0	11	36.7	8	26.7	25	83.3
	Adequate	2	6.7	3	10.0	0	0.0	5	16.7
	<b>Total</b>	8	26.7	14	46.7	8	26.7	30	100.0

Variable Crossing Chart With Ch<sup>2</sup> Association of Sociodemographic Variables with Quality of Self-care Practice

Quality of Self-care Practice	Gender		.136	.712
	Age		2.229	.328
	Grade of studies		12.120	.033
	Occupation		7.294	.121

level of knowledge in the prevention of diabetic foot, since the majority of the population has basic studies, revealing a level of regular knowledge. In the quality of practice on the prevention of diabetic foot in relation to sociodemographic data highlighted that the female gender, the age group between 48 and 62 years, to devote to housework, receive a family income less than a salary minimum are the majority of the population with an inadequate quality of practice, emphasizing that the grade of schooling does determine the quality of practice since a higher level affects an adequate quality of practice. With the above it is observed that the grade of

And therefore this finding shows that the majority of the population has a regular knowledge and a quality of inadequate self-care practice in the prevention of diabetic foot so their sociodemographic conditions make them more vulnerable to presenting diabetic foot, by not making an adequate practice and not having the necessary conditions to carry out a good control and treatment of their diagnosis.

Concluding and reaffirming the importance of educating and also evidencing the need to redefine the role of health personnel in teaching diabetic patients and consider the importance of context and propose effective educational proposals that contribute to potentiate teaching to these patients.

**Recommendations**

Investigate the risk factors that affect the prevalence of diabetes mellitus, particularly among women, to follow up on this research

**Bibliographic References**

1. Alcalde Chapa, B. J. (2013). Nivel de Conocimiento y Calidad de Practica de Autocuidado en la Prevención de pie Diabético en Adultos del Hospital Belén Trujillo. 1-65. Trujillo, Perú. Recuperado en <http://repositorio.upao.edu.pe/handle/upaorep/232>
2. Almonaad, M.N. (2015). Pie Diabético – Prevención y Promoción Cuidado de los pies de pacientes diabéticos de las áreas programáticas de los CAPS “Jardín Residencial” y “Faldeo del Velazco Sur”- La Rioja (tesis grado de licenciatura). Instituto Universitario de Ciencias de la Salud. Facultad de Medicina. La Rioja.
3. Castillo Tirado R.A., FernándezLópez J.A., Castillo Tirado F.J. (2014). Guía de Práctica Clínica en el Pie Diabético. Archivo de Medicina 10:21. pp.13.recuperado de:

- <http://www.archivosdemedicina.com/medicina-de-familia/gua-de-prctica-clnica-en-el-pie-diabtico.pdf>
4. Castro Almeida, H. (2015). Nivel de Conocimiento en la Prevención del Pie Diabético en Personas con Diabetes Mellitus Tipo 2 en un Hospital de Lima Perú 2014. 1-84. Lima, Perú. Recuperado en <http://cybertesis.unmsm.edu.pe/handle/cybertesis/4165>
  5. Coliman K. (1978). pp5. Niveles de Prevención. Disponible en: <http://issuu.com/viejo03/docs/nameb7c044>.
  6. Consejo General de Colegios Oficiales de Podólogos. (2011). Guía de protocolos de pie diabético. 1ª Edición. España. Disponible en: [http://www.icopcv.org/wp-content/uploads/2013/09/PROTOCOLOS\\_PIE\\_DIABETICO1.pdf](http://www.icopcv.org/wp-content/uploads/2013/09/PROTOCOLOS_PIE_DIABETICO1.pdf)
  7. Cotí Lux, J. R. (7 de Agosto de 2013). Conocimientos, actitudes y prácticas sobre pie diabético y estatificación de pie diabético. Club de diabéticos-Clinica Maxeña, Santo Tomás La Unión, Suchitepéquez, Guatemala, mayo - junio 2013. 1-54. Guatemala.
  8. Del Castillo Tirado R. A., Fernández López J. A., del Castillo Tirado F. J. (2014). Guía de práctica clínica en el pie diabético. Pp. 17. Disponible en: <http://www.archivosdemedicina.com/medicina-de-familia/gua-de-prctica-clnica-en-el-pie-diabtico.pdf> Disponible en: <http://www.unne.edu.ar/unnevieja/Web/cyt/cyt2006/03-Medicas/2006-M-139.pdf>

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