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PERCEIVED KNOWLEDGE OF SELF CARE AMONG FARMERS WITH DIABETES AT UNIVERSITY OF UYO TEACHING HOSPITAL, NIGERIA.

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ABSTRACT

This study assessed the perceived knowledge of self care among farmers who seek medical attention in the University of Uyo Teaching Hospital. The specific objectives of the study whereto; describe the socio-demographic characteristics of the farmers, asses level of perceived knowledge about diabetes mellitus and identify level of practice of self care. A sample size of 120 respondents were selected through a convenience sampling procedure from patients who attend clinic in the University of Uyo Teaching Hospital, data collected were analyzed using descriptive and inferential statistics. The study revealed that a fair proportion (34.20%) of the respondent were aged 40 years and above. It was observed that unexpected weight loss and excessive blood sugar level were some of the perceived knowledge levels of diabetes by the farmers in the study area. Majority of the respondents had good knowledge of diabetics self care in the University of Uyo Teaching Hospital. Chi-square analysis revealed that there was no significant relationship between age and perceived knowledge of self care at 5% level of significance with and x^2 value of 5.99. The results also showed that diabetic farmers who visit the diabetic clinic in the University of Uyo Teaching Hospital have good knowledge of signs and symptoms of diabetes mellitus such as unexplained weight loss and excessive urination.

KEYWORDS: Diabetes, Farmers, Knowledge, Perceived, Self care, Teaching hospital, Uyo.

INTRODUCTION

Diabetes mellitus (DM) also known as diabetes is a group of metabolic disorder where high blood sugar exists for a prolonged period. Diabetes mellitus is a progressive disease that can lead to debilitating complications and premature death if not controlled properly (Omar, 2017). World Health Organisation (WHO) estimated that 175 million people suffer from diabetes in the world and is more prevalent in developed countries (WHO, 2018). The prevalent of diabetes mellitus has been reported to be 70% and this condition account for up to 80% death in those with type 2 diabetes mellitus (Omar, 2017).

Nigeria has the highest population of diabetes mellitus patients in Africa. About 130 million persons suffer from the disease with high population rate among rural young adult aged 20 – 29 years (Odili & Isiboge 2011). Also, one third of all the cases of diabetes mellitus are in the rural farming communities while the rest are in the urban centres. Nigeria has the highest burden of diabetes in Africa followed by South Africa with 2.6 million, Ethiopia 1.9 million and Tanzania 1.7 million persons (Odili & Isiboge 2011). Nigeria is one of the 32 member countries of the International Diabetes Foundation in the Africa region. It is reported that 425 million people have diabetics in the world and more than 16 million people are in the African region, and by 2025 it will be around 41 million. There were 1,702,902 cases of diabetics in Nigeria in 2015 out of which the farming population constituted 65% (International Diabetics Foundation, 2016). The Nigerian government has equipped primary health care centres across the country including Uyo, Akwa Ibom State to screen rural farmers and urban dwellers of diabetes and other diseases (Nkang & Effiong, 2015); (Effiong & Aboh, 2019); (Effiong, Aboh & Aya, 2021).

Agriculture is the basis of livelihoods and development for all mankind in Nigeria and most parts of the world (Effiong & Asikong, 2013); (Effiong,

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2012a & Effiong, 2013). But in developing world in particular, majority of the population still depend on peasant agriculture as a source of income. (Effiong, 2012a; Effiong, 2012b & Effiong, 2013). This population has greatly been negatively affected by various diseases including diabetes mellitus. Agriculture is a dynamic force in human capital development, income and health status of rural farmers in Akwa Ibom in particular and Nigeria in general (Effiong, Etuk & Iyamah, 2023); (Effiong & Aboh, 2019). It is common to see rural farmers go down with health challenges ranging from malaria, typhoid, fever, body pains, headache, bacterial and virus infections, diabetes among many others. Agricultural production methods in Nigeria have not changed as much as they should; it is common to see farmers still depend on hoes and machete for agricultural production (Aboh & Effiong, 2019a). To worsen matters, rural youths have migrated to the cities and have become consumers rather than producers of food. While their elderly parents struggle to produce small quantity of foods consumed in the state (Effiong, Ijioma, Effiong, 2016) and (Effiong & Aboh, 2019); (Aboh & Effiong, 2019b). University of Uyo Teaching Hospital is located in a semi urban centre where rural farmers can easily access health care services (Effiong, 2013); (Effiong, Effiong & Udo, 2015). With this possibilities, rural farmers in Akwa Ibom State suffering from diabetes can take advantage of this opportunity to get themselves treated after being diagnosed with diabetes. According to Food and Agriculture Organisation report, Nigeria is the world largest producer of yam. In 1985, Nigeria produced 18.3 million tonnes of yam representing 73.8 percent of total crops produced in Africa (Effiong, 2013); (IITA, 2019). About 60% of the farmers participating in food crop production in Nigeria have been diagnosed with one disease or the other. This situation indeed affects the level of agricultural production in the country (Effiong 2012a and Effiong 2012b); (Effiong, 2013); (Effiong and Aboh 2018).

MATERIALS AND METHOD

The study was conducted on diabetic farmers who attended University of Uyo Teaching Hospital (UUTH). The hospital is located in the semi urban area of Uyo, Akwa Ibom State. It lies between 35^{o} and 7^{o} North of equator and longitude 85^{o} and 40^{o} east of Greenwich meridian. Administratively, UUTH is divided into various clinical departments and training schools. These are: Health Information Management, Ear, Nose and Throat, Community Health, Nursing Services, Medicine and Surgery, among many others.

The various activities carried out by the different departments are geared towards the attainment of goals of the organization which include; patient care, education, nutrition, research, rehabilitation and preventive goals.

A multi-stage sampling procedure was used in selecting samples for the study. At stage one, a list of registered diabetic patients were obtained from the medical records unit of the hospital. At stage two, patients who were farmers and attended clinics on a particular day (Tuesdays and Thursdays) were selected from the list and used for the study. At stage three, sixty (60) diabetic farmers were randomly selected from diabetic farmers who attended clinic days on Tuesdays, also sixty (60) farmers were randomly selected from diabetic farmers who attended clinic days on Thursdays, making a total of one hundred and twenty (120) diabetic farmers used for the study.

Data were collected through face to face administration of questionnaire to the respondents and were retrieved on the spot. Data was analyzed using statistical package for social science (SPSS) and presented using simple percentages, mean score and chi-square test.

RESULTS AND DISCUSSION

Table 1: Distribution of respondents according to socio-demographic characteristics

S/N	Variable	Frequency	Percentage%
1.	**Gender**		
	Male	63	52.50
	Female	57	47.50
	Total	120	100.00
2.	**Age**		
	15-19	4	3.30
	20-14	11	9.10
	25-29	14	11.70
	30-34	17	14.20
	35-39	33	27.50
	40 and above	41	34.20
	Total	120	100.00
3.	**Marital Status**		
	Single	30	25.00
	Married	55	45.80
	Divorced	7	5.80
	Widowed	16	13.30
	Separated	12	10.000
	Total	120	100.000
4.	**Level of Education**		
	No formal education	4	3.30
	Primary education	18	15.00
	Secondary education	66	55..00
	Tertiary education	32	26.70
	Total	120	100.000

Source: Field Survey, Data, 2021

Socio-demographic characteristics of the respondents: Results in Table 1 showed the percentage distribution of respondents according to their socio-demographic characteristics. The result revealed that the respondents varied widely in their socio-demographic variables, specifically, it was observed that majority of the respondents were males (52.5%), within the age bracket of 40 years and above (34.2%) and were largely married (45.8%). The level of education of the respondent showed that majority (55%) had attended secondary level of education, 26.7% attended tertiary level of education, 15% attended primary level of education, while 3.3% had no formal education. The number of married respondents would increase the level of mutual relationships and care for one another when need arise. This is in line with Effiong & Effiong, (2015); Effiong & Asikong, (2013); Effiong, (2012a); Effiong, (2012b); Effiong & Aboh, (2018) who stated that couples helps themselves whenever there is a health challenge among them. The results in Table 1 also suggested that a good number of the rural farmers in the study area had various levels of educational attainments. This suggests that the diabetic farmers in the study area are not typically illiterate as it is being consistently presumed by literature. This supports the findings of Effiong, Ijioma & Okolo (2015) who observed that a good number of farmers and rural dwellers are educated.

Table 2: Distribution of rural farmers based on perceived knowledge level of diabetes

S/N	Variable	Yes (%)	No (%)
1.	Diabetes mellitus is a disease condition that cause excessive blood sugar level	92(76.70	28(23.33)
2.	Which of the following are signs and symptoms of diabetes mellitus?		
	a. Excessive urination	87(72.50)	33(27.50)
	b. Unexplained weight loss	100(83.33)	20(16.67)
	c. Excess thirst	39(32.50)	81(67.50)
	d. Frequent boils	45(75.00)	75(62.50)
3.	Treatment of diabetes mellitus is by eating less carbohydrate	90(75.00)	30(25.00)
4.	Stroke is a complication of diabetes mellitus	37(30.83)	83(69.16)
5.	It is necessary to adhere to diabetic medication during minor illnesses	50(41.67)	70(58.33)
6.	Disease of the eye can occur due to uncontrolled diabetes mellitus	60(57.50)	51(42.50)
7.	There is need for diabetic farmers to have eye screening annually	56(46.67)	64(53.33)
8.	Poor control of diabetes can lead to diabetic foot problems	43(35.83)	77.(64.16)

Source: Field Survey Data, 2021.

Perceived level of knowledge about diabetes: Results in Table 2 showed the distribution of respondents based on perceived knowledge of diabetes in the study area. The result in the Table indicated that unexplained weight loss recorded (83.33%). According to Effiong & Aboh (2018); Aboh & Effiong (2019a), weight loss is one of the symptoms of ill health among vegetable farmers in Akpaboyo Local Government Area of Cross River State. Diabetes mellitus is a disease condition that cause excessive blood sugar recorded (76.70%), treatment of diabetes mellitus by eating less carbohydrate had (75.00%), excessive urination recorded (72.50%) among others, where some of the agreed known knowledge of diabetes in the study area. However, other variables associated with perceived knowledge of diabetes but rarely agreed knowledge level of diabetes based on this study were that, stroke is a complication of diabetes mellitus (30.83%) and that poor control of diabetes can lead to diabetic foot problems (35.83%).

In a study conducted by, Raut and Garg. 2017 a total of 323 (84%) of the participants were aware of the necessity of adhering to diabetes medication during minor illnesses. This result indicated that diabetic farmers confirmed that diabetes mellitus is a disease condition, and that farmers needs to eat good food to maintain good health. These findings are similarly in line with Effiong, (2013); Effiong & Effiong (2015); Effiong & Aboh (2018) that rural farmers need to have balanced diet so as to maintain good and healthy conditions for effective agricultural activities at all time, Aboh & Effiong (2019b).

Table 3: Distribution of rural farmers based on perceived level of practice of self care

S/N	Variable	Yes (%)	No(%)
1.	Self monitoring of blood glucose is one of the methods of diabetic self-care	80(66.66)	40(33.33)
2.	Diabetic meal content should contain		
	a. Energy	77(64.16)	43(35.83)
	b. Protein	92(76.66)	28(23.33)
	c. Vegetables	83(69.12)	37(30.83)
	d. Fruits	80(66.66)	40(33.33)
3.	Alcohol consumption should be avoided by diabetic patients	98(81.66)	22(18.33)
4.	Regular blood sugar test should be conducted frequently by diabetic patient themselves	110(91.66)	10(8.33)
5.	Exercise is one of the methods of diabetic self-care	88(73.33)	32(26.66)
6.	Preventing obesity can reduce diabetic complications	90(75.0)	30(25.0)
7.	Self determination is insulin should be regularly carried out	85(70.83)	35(29.16)
8.	Constant foot checkup is self-care technique for diabetic	112(93.33)	8(6.66)
9.	Diabetic patients should wear padded foot wears to avoid foot inquiry	43(35.83)	77(64.16)
10.	Avoiding fatty foods is part of diabetic self-care	73(60.83)	47(39.17)

Source: Field Survey Data, 2021.

Result in Table 3 showed the distribution of respondents based on perceived knowledge of diabetic self care. Specifically, the table showed that constant foot check up is a self care technique for diabetic patients (93.33%), regular blood sugar test should be conducted frequently by diabetics patients themselves (91.66%), alcohol consumption should be avoided by diabetic patients (81.66%) and diabetic meal content should contain protein (76.66%) among others, were some of the most frequently agreed knowledge of diabetic self care, among rural farmers in the study area. Diabetic farmers should wear padded foot wears to avoid foot injury and avoiding fatty foods as part of diabetic self care were however, not seen or agreed as a known knowledge of diabetic self care systems among diabetic farmers in the study area. According to Effiong, Ijioma and Okolo (2015), women farmers in Abia State, Nigeria required certain feeding behaviors so as to manage serious chronic illness like diabetes and malnutrition, such feeding habits include taking balanced diets. Dietary measures are the most practiced self care measures worldwide. Farmers need more exercises and better food choices (Effiong, 2013). Farmers in Akwa Ibom and Cross River States have access to foods rich in carbohydrates, vitamins, fats, oil, and protein among others. These therefore give them the opportunity to have balanced diets (Nkang & Effiong, 2015).

Table 4: Distribution of respondents based on the relationship between age and perceived knowledge of diabetic self care in the study area

Self Care	Yes/No	Young	Middle	Old	Total	Chi-square	Level of Significance
Self blood sugar test	Yes	45(41.3)	30(27.0)	15(14.3)	90	3.65	NS
	No	10(13.9)	6(9.0)	4(4.75)			
Constant foot check	Yes	35(34.2)	36(35.0)	29(29.0)	100	0.299	NS
	No	6(6.83)	8(7.0)	6(5.83)	20		
Avoiding alcohol consumption	Yes	21(23.1)	40(33.8)	20(22.5)	75	0.17	NS
	No	16(13.1)	13(29.3)	16(13.5)	45		
Wearing padded foot wears	Yes	29(25.7)	16(177.1)	12(14.3)	57	1.65	NS
	No	25(21.4)	20(18.9)	18(15.8)	63		
Avoiding fatty food	Yes	39(38.0)	26(27.2)	21(20.8)	86	0.11	NS
	No	14(15.2)	12(10.3)	8(8.2)	34		

Source: Field Survey Data, 2021.
X^2 tab@ 5% DF 2= 5.99, NS = Not significant

Results in Table 4 showed the relationship between age of diabetic farmers and their perceived knowledge of diabetic self care. The results revealed that all the computed X^2 value of blood sugar test by the farmers (3.65), constant foot check (0.299), padded foot wears (1.65) and avoiding fatty foods (0. 11) are less than the tabulated X^2 value of (5.99) at 5% significant level. Therefore the null hypothesis is accepted, that there is no significant relationship between age of diabetic farmers and the perceived knowledge of self care practices. This implied that age does not influence the knowledge of diabetic self care in the study area. This result is in line with the study of Odili et al, 2011, who posited that age does not significantly influence the knowledge of diabetic self care in Nigeria. These indicates that the respondents were aged and experienced enough to participate in self care activities. This study is in agreement with Effiong, (2012a); Effiong, Effiong & Udo (2015); Effiong & Aboh (2018) who asserted that age is an important factor in agricultural production, nutrient sourcing and health care services in Etim Ekpo Local Government Area, Akwa Ibom State. This study also agreed with Effiong, (2012b); Effiong, (2013); Effiong & Effiong (2015) who stated that age is a major factor in self realization, knowledge of self care and decision making process. The study therefore opined that age is an important factor in knowledge and education about self care of diabetes among diabetic farmers taking medications in the University of Uyo Teaching Hospital.

HO_1: There is no significant relationship between age of diabetic farmers and perceived knowledge of diabetic self care.
The age of diabetic farmers ware however classified into: young, middle and old age.

CONCLUSION:
The study showed that a larger proportion of the diabetic rural farmers taking medications and treatment in the University of Uyo Teaching Hospital, Uyo, Akwa Ibom State had adequate knowledge of the signs and symptoms of diabetes mellitus, such as; excessive blood sugar and unexplained weight loss. The study concluded that large number of rural farmers in the study area had good working knowledge of diabetes mellitus self care.

RECOMMENDATIONS

The study revealed that greater majority of the respondents were married, therefore agricultural extension worker and health professionals should encourage married diabetic farmers to cooperate with each other in giving diabetic medications and care. Diabetic management is easier when supporting each other.

In view of the high level of knowledge of self care among diabetic rural farmers, there is need for mainstreaming of self care practice and orthodox medications by health worker through agricultural extension officers working in the field so as to avoid conflicts between the two practices in the study area.

To enhance effective self care, there is need for training and retraining of health extension workers and the Agricultural extension workers who have first aid experience and have contacts with rural farmers. This will enhance regular blood glucose check and blood sugar check among others whenever health issues arise in the rural farming communities.

REFERENCES

Aboh, C.L. and Effiong, J.B. (2019a) Adoption of Different Weed Management Techniques among Cocoa Farmers in Akamkpa Local Government Area, Cross River State, Nigeria. Global Journal of Pure and Applied Sciences 25(1), 7-12.

Aboh, C.L. and Effiong, J.B. (2019b) Assessment of Indigenous Weed Management Techniques Utilized by Cocoa Farmers in Akamkpa, Cross River State - Nigeria. European Journal of Scientific Research 154(1), 134-141.

Akpabio, I.I and Ebong, F.S., 2015. Research methodology and statistics in health and behavioral science 2nd ed. Glad Tiding press Limited, Calabar Cross River state. 307 – 320.

Effiong, J.B (2013) Prospects and Constraints of Indigenous Agricultural Practices among Rural Farmers in Itu Local Government Area, Akwa Ibom State, Nigeria. Agricultural Journal 8(1), 22-25.

Effiong, J.B. and Aboh, C.L. (2019) Utilization of ICT Tools among Final Year Students of Agriculture and Medical Sciences, University of Calabar - Nigeria. Kasmera 47 (2), 24-31, 2019

Effiong, J. B. and Asikong, A.B., 2013. Mid-term Assessment of the activities of Fadama III Development Project in Cross River State, Nigeria. Global Journal of Agricultural Sciences 12 (1), 31-35.

Effiong J. B., 2012a. An Analysis of Agricultural livelihood activities prevalent among Rural farmers in Itu L.G.A. Akwa Ibom State, Nigeria. African Journal of Agricultural Research and Development 5(3), 31-45).

Effiong, J. B., 2012b. Youth participation in community development: evidence from Yakurr Local Government Area, Cross River State, Nigeria. International Journal of Social Science Tomorrow 1(6)

Effiong J. B. and Aboh, C. L., 2018. Rubber Production Technological and the related Socio-economic environments in Akwa Ibom State, Nigeria. Global Journal of Agricultural Sciences 17 (i), 15-22.

Effiong J.B, Effiong, G. B. and Udo, U. A., 2015. Socio-economic determinants of Production of pro-vitamin A cassava varieties by farmers in Etim Ekpo Local Government Area, Akwa Ibom State, Nigeria. Global Journal of Pure and Applied Sciences 21(2), 105-111.

Effiong, J.B., Ijioma , J. C. and Effiong, M. O., 2016. Endogenous determinants of adoption of improved Rubber Production Technologies among Farmers in Akwa Ibom State, Nigeria. Asian Journal of Agricultural Extension, Economics and Sociology 8(4), 2-7. www.journalajaees.com

Effiong, J.B., Etuk, E. A. and Iyamah, D. A., 2023. Perceived determinants of oil spillage on agricultural lands in Ibeno Local Government Area, Akwa Ibom State, Nigeria. African Journal of Food, Nutrition and Development 23(2) 22397 – 22409. www.ajfand.net

Effiong, J.B., Aboh, C. L. and Aya, C. F., 2021. Perception of Farmers on the Contribution of Vegetables to Livelihoods in Yakurr Local Government Area, Cross River State, Nigeria. Global Journal of Pure and Applied Sciences 27(2), 85 – 91.

Effiong, J.B., and Aboh, C. L., 2019. Effect of Agrochemicals on the Health of Farmers in Akpabuyo Local Government Area, Cross River State, Nigeria. European Journal of Scientific Research 154(1), 142-147.

Effiong, J.B. and Effiong G. B., 2015. Adoption of improved rubber production technologies by farmers in Akwa Ibom State, Nigeria. Global Journal of Agricultural Sciences 14(1), 37-44.

Effiong J. B, Ijioma, J.C. and Okolo, L.C., 2015. Participation of Women Farmers in rice production in Bende Local Government, Abia State, Nigeria. International Journal of Agricultural Extension and Rural Development.

Effiong, J. B., 2013. Challenges and prospects of rural women in Agricultural Production in Nigeria. Lwati: A Journal of Contemporary Research 10(2), 183 -190 International institute for Tropical Agriculture (IITA, 2019), yam (Dioscorea species) Retrieved from IITA website.

International Diabetes Foundation, 2016. The diabetes Atlas (3rd ed. Available at https://www.diabetesatlas.org/content.economicimpacts.diabetes.

Nkang, M.O and Effiong, J.B. (2015) The Influence of Consumer's Perception on Pork and Poultry Meat Consumption in Calabar South Local Government Area, Cross River State. International Journal of Agricultural Science Research 4(5), 86-91.

Odili. V. and Isiboge, p., 2011. patient's knowledge of Diabetes Mellitus in Nigerian city. Journal of pharmaceutical Research 2011 (10)(11): 637- 742.

Omar. B. G., 2017. Assessment of the Level of knowledge of self care practice and glycemic control among patients with type 2 diabetes attending the diabetes clinic at knyatta Nationl Hospital, Kenya (unpublished doctoral dissertation) Kenyatta University Kiambu, Kenya

Raut, D. K, Grays., 2017. Knowledge of diabetes among diabetic patients in government hospitals of Delhi. Int J. Non. Commun. Dis (2) 8 -10.

World Health organization (WHO,2018), Diabetes factsheet. Retrieved from https://www.who.int/media centre/factLects/s