Knowledge of Diabetes and Diabetic Retinopathy among a Rural Population

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Introduction: Diabetes as well as diabetic retinopathy have currently become global epidemics.[1] Unfortunately, the burden is more in developing countries compared to the developed countries.[2] Diabetes is associated with significant morbidity and mortality. Diabetic retinopathy is one of the major complications of diabetes and is associated with visual impairment. Early detection and prompt treatment remain the gold standard for the prevention of visual impairment from diabetic retinopathy.[1] The effectiveness of this is however dependent on the baseline knowledge regarding these disease conditions which in turn has been shown to influence practice.[3,4] The aim of this study is to determine the knowledge regarding diabetes and diabetic retinopathy among a rural population in Enugu.

Methods: This was a cross-sectional descriptive study carried out in Umuaga community of Enugu State in September 2017. An interviewer-administered questionnaire was used to assess their knowledge regarding diabetes and diabetic retinopathy (DM and DR). Participants' responses were graded into 'good/poor' knowledge using pre-defined scores. Eleven questions with a total of 26 options were used to assess knowledge of DM while 4 questions with a total of 14 options were used to assess knowledge of DR. The former was scored from 0 to 26 and a score of ≥ 13 was regarded as poor knowledge while the score was regarded as good knowledge. Similarly, knowledge of DR was scored from 0 to 14 and a score of ≥ 7 was regarded as poor knowledge while the score was regarded as good knowledge. IBM-SPSS version 21 was used for data analysis. Multivariate regression analysis was used to determine the predictors of good knowledge with $p \leq 0.05$.

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Results: A total of 539 participants consisting of 227(42.1%) males and 312(57.9%) females were interviewed. The mean age of the participants was 40.9±16.9 (range: 18 to 87years). Approximately 73.0% of the participants had good knowledge of diabetes but only 39.9%had good knowledge of diabetic retinopathy. Younger age, formal education and white-collar occupation were statistically significant predictors of good knowledge of diabetes (p = 0.001, 0.001 and 0.015 respectively) while formal education alone was predictive of good knowledge of diabetic retinopathy (p = 0.002).

Conclusion: The poor knowledge of diabetic retinopathy with good knowledge of diabetes observed in this study may be due to the fact that that diabetic retinopathy is not an obvious complication of diabetes; people will be more conversant with the term blindness which it causes than diabetic retinopathy itself. This finding is similar to the finding by other researchers[5] and the poor knowledge of diabetic retinopathy was attributed to illiteracy. Hussain et al[6] however observed good knowledge of diabetic retinopathy in their study and attributed it to high female literacy, although there were more diabetics among their participants.

It is not surprising that younger age, formal education and white-collar occupations were predictive of good knowledge of diabetes. Younger people are likely to be more inquisitive; formal education and white-collar occupation are

associated with exposure to educative materials, learning and training opportunities.

There is need to channel more effort towards educating the populace on diabetes and its ocular complications particularly diabetic retinopathy in order to contribute to curbing the menace of visual impairment arising from these disease conditions.

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