ABSTRACT

In 2011, 366 million people had diabetes worldwide and the prevalence of the disease in Africa is estimated to be 3.8% (14.7 million adults) with undiagnosed diabetes of about 78 percent. In Kenya, the prevalence of diabetes is 4.2% in the general population with prevalence of 2.2% percent in rural areas and 12.2% in urban areas. In Kisii Sub-County, the prevalence of diabetes is 11% which is higher than the national prevalence. Persons who have been diagnosed with diabetes become frustrated and worried about future complications and cost of treatment, which causes psychosocial disorders including stress, anxiety and depression. Physical activity has been shown in numerous studies to improve mental health in the general population, but less evidence is available to show if similar positive improvements in well-being can be seen in persons with Type II diabetes. The main objective of the study was to determine the influence of physical activity on psychological well-being of Type II diabetes patients. The study adopted across sectional design and a total of 202 diabetic patients out of the 400 regular patients attended to at Kisii Teaching and Referral Hospital were selected by systematic random sampling method, where every second patient was recruited to participate in the study. Data was collected using a pretested questionnaire with three sections gathering information on socio-demographic profile, physical activity, psychological well-being, and other health profile details of the patient. On psychological well-being, depression, Anxiety and Stress Scale-42 (DASS-42) was used and for physical activity, International Physical Activity Questionnaire (IPAQ short version was used. Descriptive statistics was used to summarize the data using proportions. Linear and logistic regression was applied to assess the relationship between physical activity and psychological well-being. This study revealed that the prevalence of depression, anxiety and stress in Kisii Teaching and Referral Hospital was 41.1%, 64.9% 49% respectively. Anxiety symptoms were more prevalent than depression and stress. In physical activity 7(3.5%) were inactive, 55(27.2%) were moderately active and over two thirds 140(69.3%) were very active. On the association between physical activity and psychological well-being, coefficient of determination in linear regression revealed that the adjusted R square for depression; anxiety and stress was 0.191; 0.157 and 0.126 respectively. This implied that physical activity could significantly account for 19.1% of the cases of depression (R²= 0.191, F= 48.477, p=0.000), 15.7 % cases of anxiety (R²= 0.157, F=38.543, p=0.000) and 12.6% of the cases of stress (R²= 0.126, F=29.933, p= 0.000). Binary regression revealed that socio-demographic variables as gender, age, sex, marital status, level of education and duration lived with diabetes had no influence on depression, anxiety and stress. Only increase in the level of physical activity of diabetic patients reduced the occurrence of depression, anxiety and stress. Increasing levels of physical activity was able to reduce the chances of being depressed (OR=0.201, C. I=1.104-.386, p= 0.000) anxiety (Adjusted OR= 0.161,C. I=.070-.372, p=0.000) and stress (Adjusted OR=.136 C. I=.070-.267, p= 0.000). This study is consistent with a growing body of research that supports that physical activity is a behavior that improves both physical and mental health and therefore should be used to reduce prevalence of these psychological problems among the diabetics. Management of stress, anxiety and depression will improve clinical outcomes and decrease the associated resource utilization and costs.