ABSTRACT

Background

Sickle Cell Disease is a genetic, manageable but incurable condition that is common in Africa, Asia, the Mediterranean, and Arab world. It has a prevalence of about three percent in Nigeria. The magnitude of 1.6 percent of death among children less than five years in tropical Africa caused by sickle cell disease alone is enormous.¹ A way to reduce this number is sought and this generated the concerns of improving their care and health status. Socio-economic class, pain intensity, being adolescent and living in urban slum or the rural area worsened sickle cell disease quality of life as documented in previous studies. The determinants of sickle cell disease quality of life were evaluated in order to improve their optimal care.

Objective

The objective of this study is to evaluate the determinants of quality of life and its relationship with socio-demographic and clinical factors among paediatric sickle cell disease patients seen at the Federal Medical Centre, Abeokuta in order to improve the care given to them.

Method

A cross-sectional study of one hundred and seventy-five (175) sickle cell disease patients aged two to fourteen years was carried out. The quality of life in the preceding one month was noted. Data on socio-demographic and clinical characteristics and quality of life were obtained by direct interviews, examination and the use of the paediatrics quality of life tool. Data was analysed using statistical package for social sciences version 18 and the relationship between quality of life and the modifiable socio-demographic and clinical variables were evaluated.

Results
Although children with sickle cell anaemia and those from the high socio-economic class dominated this study, 78.9 percent of them had good quality of life scores. Haemoglobin genotype SC participants however had a significantly better quality of life scores when compared with their haemoglobin genotype SS counterparts ($p<0.001$). There was significant association between age, haemoglobin genotype, socio-economic class, maternal education, total number of crises and quality of life. There was also significant relationships between number of crises, gender, weight, haemoglobin genotype and quality of life with number of crises and haemoglobin genotype being the main independent predictors ($p<0.001$). These two variables accounted for 32.3 percent and 15.4 percent of the variability respectively in the quality of life of these children. Insight to the baseline packed cell volume, presence of complications and access to health insurance were provided but there was no statistically significant relationship between these independent variables and quality of life.

**Conclusion**

The quality of life among the study population was relatively high. There was significant difference in the quality of life of Hb SC children when compared with HbSS children as HbSC had better quality of life. The independent predictors of quality of life were; number of crises experienced in the previous year, genotype, weight and gender. However, age, higher level of maternal education and high socio-economic class were associated but were not retained.

It is then recommended that interventions that would reduce the total numbers of crises would significantly improve their quality of life, and these should include helping them to maintain optimal weight.