# Determinants of the Quality of Life of Patients with Sickle Cell Disease in Bahrain: Implications for a Patient-Centered Management Approach at the Primary Health Care

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**Background: Sickle cell disease (SCD) is one of the most common hemoglobinopathies worldwide. Complications related to SCD can profoundly affect the quality of life of patients. This study aims to deepen the knowledge about the quality of life (QoL) of SCD patients attending the primary health care centers (PHC) in Bahrain, using the World Health Organization's Quality of Life BREF instrument (WHOQOL-BREF).**

**Material and Methods: We conducted an analytical cross-sectional study among 273 SCD patients randomly recruited from the 27 PHC in the Kingdom of Bahrain between July and August 2019. Data was collected by interviews using the WHOQOL-BREF and Pain Catastrophizing Scales (PCS). Chi-square test permitted to compare categorical data. Mann-Whitney U and Kruskal Wallis tests permitted comparisons of medians. Estimation of the importance of the factors associated with the QoL was measured by crude and adjusted odds ratios estimates. The data was analyzed using IBM SPSS software statistical package, version 25.0 (SPSS Inc., Chicago, IL, US).**

**Results: Two hundred and seventy-three (273) SCD patients completed the structural interviews, of whom 78.8% had a good QoL. The mean of overall QoL scores was (63.91, SD14.24), and total scores ranged from (28.85) to (99.04). More than half of the patients (54.6%) did not use any medication to relief their pain, however, 24.9% and 26.4% are still relying on opioids and nonsteroidal anti-inflammatory drugs (NSAIDs), respectively. QoL of SCD patients was significantly associated with pain catastrophizing ($P < 0.001$), socio-economic status ($P < 0.001$), education ($P < 0.001$) and pain crisis frequency ($P = 0.021$). Multivariate analysis confirmed that only pain catastrophizing (AOR = 13.32, $P < 0.001$) and socio-economic status (AOR = 2.82, $P = 0.003$) are the predictors of the QoL of SCD patients.**

**Conclusions: Determinants of QoL are mainly socio-economic and pain catastrophizing personality traits. These findings advocate for a comprehensive approach in the management of SCD patients.**

**Key words: Quality of Life, Sickle Cell Disease, Morphine, Pain Catastrophizing, Primary Health Care, Bahrain**

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