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Title: Health Related Quality of Life of Ugandan Children Following Valve Replacement Surgery for Rheumatic Heart Disease

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Background & Aims: Valve replacement surgery (VRS) improves clinical outcomes in patients with severe rheumatic heart disease (RHD). However, lifelong anticoagulation and frequent monitoring are required, which potentially impacts health-related quality of life (HRQoL). In this study, we assessed the HRQoL of people with RHD in Uganda following VRS.

Methods: This was a hospital-based, cross-sectional study conducted between March and August 2021. Eligible participants were individuals who had VRS before the age of 18 years. The Pediatric Quality of Life Inventory-Cardiac Module (PedsQL-Cardiac module) was used to evaluate HRQoL. A total mean score of ≥ 80% was considered as optimal HRQoL.

Results: Of the 83 eligible participants, 52 (60.5%) were female, with a median age of 18 (interquartile range: 14-22) years. Most participants had NYHA I functional status (n=79, 92%). Most (n=73, 92.4%) surgeries were performed outside of Uganda, and 61 (72.6%) were single mechanical valve replacement. Almost half (n=45, 54%) expressed no concern about being on life-long warfarin therapy. However, 24 (29.3%) feared bleeding. The optimal mean score of cardiac-specific HRQoL was achieved in 50 (60.2%) of participants. Factors associated with optimal HRQoL were body mass index (BMI) (adjusted odds ratio (aOR), 1.2, 95% Confidence Interval: 1.1-1.3, p=0.006), being afraid of bleeding or bruising (aOR: 1.5, 95% CI: 1.21-2.47, p=0.004), acceptance of having an artificial valve (aOR: 2.7, 95% CI: 1.64-3.81, p<0.001).

Conclusions: HRQoL was optimal in about three in five participants following VRS. Increasing BMI and acceptance of artificial valve were significantly associated with optimal HRQoL.