

Race is a risk factor for postoperative death in apparently healthy children

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In a new study, published in *Pediatrics*, researchers have shown that being African American was strongly associated with a higher risk of postoperative complications and mortality among apparently healthy children. In fact, compared to their white peers, apparently healthy children who were African American were nearly 3.5 times more likely to die within 30 days after surgery.

"That African American patients have poorer surgical outcomes compared to white patients has been established for a long time," says Olubukola Nafiu, MD, FRCA, pediatric anesthesiologist and vice chair for Academic Affairs and Research at Nationwide Children's Hospital and lead author of the study. "The prevailing assumption was that the disparities in outcomes were largely due to higher preoperative comorbidity burden among African American patients."

Dr. Nafiu and his team challenged that assumption and began a retrospective study analyzing the National Surgical Quality Improvement Pediatric Database from 2012 through 2017. They identified [children](#) who underwent inpatient operations and were assigned an American Society of Anesthesiologists (ASA) physical status of 1 or 2. The ASA physical status designation is a tool developed to help clinicians categorize a patient's physiological status in a way that could be helpful in predicting operative risk.

"Generally, we expect that healthier patients should do well with surgeries. Healthy kids have low [complication](#) rates," says Dr. Nafiu.

"The expectation should be that complication rates and/or mortality among healthy children won't vary based on racial category—what we found is that they do."

The team's statistical analysis of the outcomes for the 172,549 apparently healthy children studied showed that overall, about 14% of children developed postoperative complications during this time. Being African American conferred 27% relative greater odds of developing postoperative complications, relative to being white. African American children also had 8% higher odds of developing severe adverse events after surgery. Finally, compared to their white peers, African American children had 3.43 times higher odds of dying within 30 days after surgery. These results did not change significantly after adjusting for variables such as sex, age, year of the procedure, case urgency and operating time.

"Importantly, we want to highlight that these findings are from observational data. Race doesn't cause these outcomes, but it is strongly associated with them," says Dr. Nafiu. "Our next job is to look at what postoperative complications are driving the observed morbidity and mortality pattern in order to identify modifiable outcomes."

More information: Race, postoperative complications, and death in apparently healthy children, *Pediatrics* (2020). [DOI: 10.1542/peds.2019-4113](https://doi.org/10.1542/peds.2019-4113)

Provided by Nationwide Children's Hospital

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