

## Twitter Thread by Judy Melinek M.D.

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### **Cognitive Bias in Forensic Pathology Decisions was published today by Journal of Forensic Sciences**

From the abstract "We examined all death certificates issued during a 10-year period in the State of Nevada in the United States for children under the age of six." /2

We also conducted an experiment with 133 forensic pathologists in which we tested whether knowledge of irrelevant non-medical information that should have no bearing on forensic pathologists' decisions influenced their manner of death determinations. /3

The dataset of death certificates indicated that forensic pathologists were more likely to rule "homicide" rather than "accident" for deaths of Black children relative to White children. /4

"Participants read a vignette describing a not straightforward or simple case in which a 3.5-year-old child was presented to an ED with diminished vital signs and who died shortly after arrival. /5

In the vignette, the caretaker described finding the toddler unresponsive on the floor of a living room. Postmortem examination determined that the toddler had a skull fracture and subarachnoid hemorrhage of the brain. /6

By random assignment, each pathologist read one of two vignettes, which were identical apart from two pieces of information: some were told that the child was African-American and that the caretaker was the mother's boyfriend /7

whereas the other pathologists were told that that child was White and that the caretaker was the child's grandmother. To be consistent with typical medical information, the race of the child was stated, but the race of the caretaker was not explicitly stated. /8

In the Black condition, pathologists were about 5 times more likely to rule the death as a "homicide" rather than an "accident" (35.4% vs. 6.2%), but in the White condition, the results were the opposite: /9

A dataset of death certificates in NV revealed that Black children, relative to White children, were more often judged as victims of homicides rather than accidents. /10

The experimental data, along with the death certificate data, taken together, show that even highly trained professional scientists can be biased in their decisions. /11