

# SIR cooties

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## **Abstract**

Baseball is some weird and wild shit.

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# 1 Introduction

Fighting in the National Hockey League (NHL) has been an integral part of the sport since the earliest days of the league. [Explain the role of fighting in hockey]. This has led to the rise of teams carrying so called “enforcers” of their rosters. An enforcer is a player who, along with being a regular player, is tasked with fighting players on the opposing team who have broken one of the unwritten rules of hockey. While any player on a hockey team can get into a fight, enforcers are exposed to many more fights than your everyday average NHL player. As a result of being exposed to these fights, they experience additional head trauma, above and beyond the normal head trauma associated with hockey, from being punched in the head during these fights.

Popkin et al. (2023) explored the effects of being an enforcer, defined by either number of careers fights or number of career penalty minutes, on mortality. They use a matched cohort study design and identify no significant difference in the mortality rates between enforcers and controls (i.e. non-enforcers). While they find no difference in mortality rates, they do estimate that “being an enforcer was associated with dying approximately 10 years earlier and more frequently of suicide and drug overdose.”

If true, this is truly an alarming finding. However, upon examining their statistical methods and attempting to reproduce their results using a survival analysis approach, which we believe is more appropriate, we were unable to reach the same conclusions as Popkin et al. (2023).

Interesting paper: Don’t do PS matching: <https://gking.harvard.edu/publications/why-propensity-scores-should-not-be-used-for-matching>

## 2 Methods

Popkin et al. (2023)

## 3 Results

## 4 Conclusion

## Acknowledgements

## Supplementary Material

All code for reproducing the analyses in this paper is publicly available at <https://github.com/gjm112/HockeyEnforcers>

## References

Popkin, Charles A., Cole R. Morrisette, Thomas A. Fortney, Kyle L. McCormick, Prakash Gorroochurn, and Michael J. Stuart. 2023. “Fighting and Penalty Minutes Associated with Long-Term Mortality Among National Hockey League Players, 1967 to 2022.” *JAMA Network Open* 6 (5): e2311308–8.