Who Averts School Violence?

A Jaccard Similarity Analysis of Discovery Pathways

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BACKGROUND

- Recent research has demonstrated that acts of armed school violence are prevented when individuals report behaviors of concern.
- A 2026 study of 124 incidents of averted school gun attack indicated that the following individuals were most involved in the aversion of the attack[1].
  - Students – 42%
  - School Administrator – 17%
  - School Resource Officer – 15%
  - Law Enforcement – 9%
  - Suspect's Family – 7%
  - Student's Family – 7%
  - Teacher – 6%
- These findings are consistent with the 2021 U.S. Secret Service Averting Targeted School Violence Report that found that peers were the most often the ones to observe concerning behaviors (69%), followed by a school employee (15%), or a family member (4%)[2].

Research Questions

Which actors work together the most to avert school armed violence plots?

What are the most prevalent pathways to avert school armed violence plots?

METHODOLOGY

Averted School Violence Project

- Data was collected through the Averted School Violence Database managed by Safe and Sound Schools.
- Cases were included if the person was determined by a subject matter expert to be somewhere along the pathway to violence at the time of intervention.
- All cases were either gathered from open-source data and entered by trained coders, or people directly involved in the aversion of a school armed violence plot.
- Events occurred between 1999 and 2024.
- The final sample consisted of 221 cases of averted school violence.

Interrater Reliability

- Two trained undergraduate research assistants reviewed trauma narratives and coded for actor involvement and order of involvement.
- Interrater reliability was substantial or higher across dichotomous actor variables (Cohen's Kappa =.76 – .96)[3].
- Interrater reliability was substantial for the pathway variables (Cohen's Kappa = .63 - .76).
- All disagreements were reviewed and reconciled by the principal investigator prior to analysis.

RESULTS

FIGURE 1 Jaccard Similarity

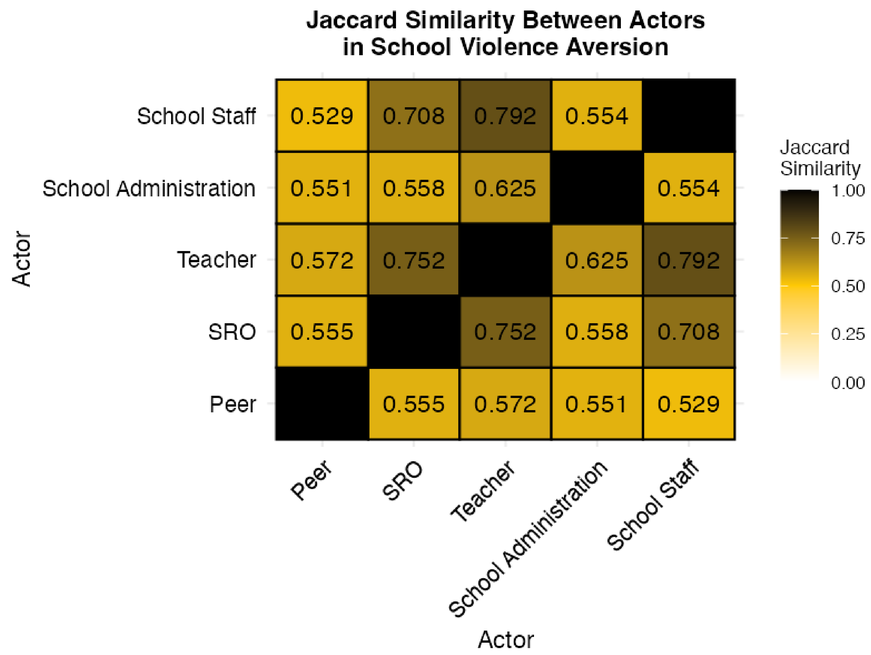

TABLE 1 Frequency of actor presence.

ACTOR	COUNT	PERCENTAGE
Law Enforcement	217	98.20%
Peer	94	42.50%
School Administration	81	36.70%
School Resource Officer	43	19.50%
School Staff	36	16.10%
Teacher	16	7.20%

FIGURE 2 Actor Frequency by Position in Pathway

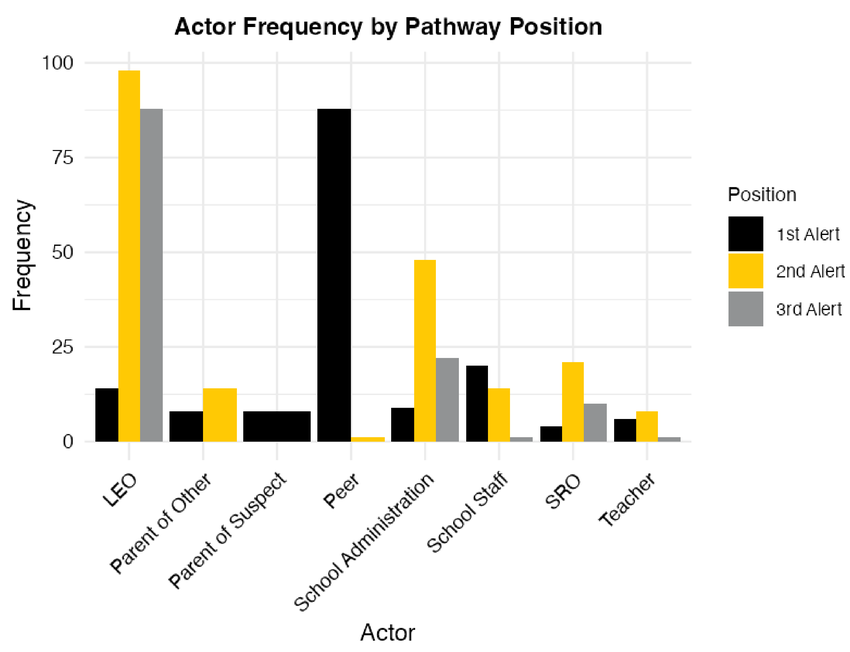

TABLE 2 Most Common Pathways

Top 7 Pathways to Prevention	N	%
Direct Law Enforcement Intervention	56	25.00%
Peer → School Admin → Law Enforcement	25	11.20%
Peer → Law Enforcement	14	6.20%
School Administration → Law Enforcement	14	6.20%
School Staff → Law Enforcement	12	5.40%
Peer → Parent of Other → Law Enforcement	10	4.50%
Peer → School Resource Officer → Law Enforcement	8	3.60%

CONCLUSION

- According to results from the Jaccard similarity, school-based actors demonstrated the strongest collaborative patterns in the prevention of school violence plots. Teachers and other school staff almost always worked together (J = .79), followed by teachers and SROs (J = .75), and SROs and other school staff (J = .71). These findings demonstrate that schools that successfully avert threats work as a cohesive unit.
- Law enforcement was found to be involved in almost all the averted cases (98.20%). While this is understandable given the risk of harm, future studies should evaluate how behavioral threat assessment team involvement in assessment and intervention reduces the need for law enforcement intervention.
- In 25% of the cases law enforcement directly intervened, without collaboration with school personnel. Follow up studies will investigate whether anonymous tips and online monitoring contribute to these sole law enforcement interventions, and whether different expressions of leakage warning behavior result in different actors intervening.
- The most prevalent multi-actor pathway involved peers reporting to school administration, leading to law enforcement intervention (11.2%). Future studies should evaluate how to increase students' willingness to report concerns to school-based personnel.

REFERENCES

- [1]Hamlin, D., Naab, S., & Riedman, D. (2026). Stopping Violence Before It Starts: An Analysis of How Potential School Gun Attacks Are Exposed. *Journal of Interpersonal Violence*. https://doi.org/10.1177/08862605261429532
- [2]United States Secret Service National Threat Assessment Center. (2021). *Averting targeted school violence: A U.S. Secret Service analysis of plots against schools*. U.S. Department of Homeland Security https://www.secretservice.gov/sites/default/files/reports/2021-03/USSS%20Averting%20Targeted%20School%20Violence.pdf
- [3]Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*(1), 159–174. https://doi.org/10.2307/2529310

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