

Characteristics and Impact of Student Aggression and Violence Against K-12 Teachers: An Egocentric Network Analysis

Authors: Ella Rho, M.S. & Chunyan Yang, Ph.D.

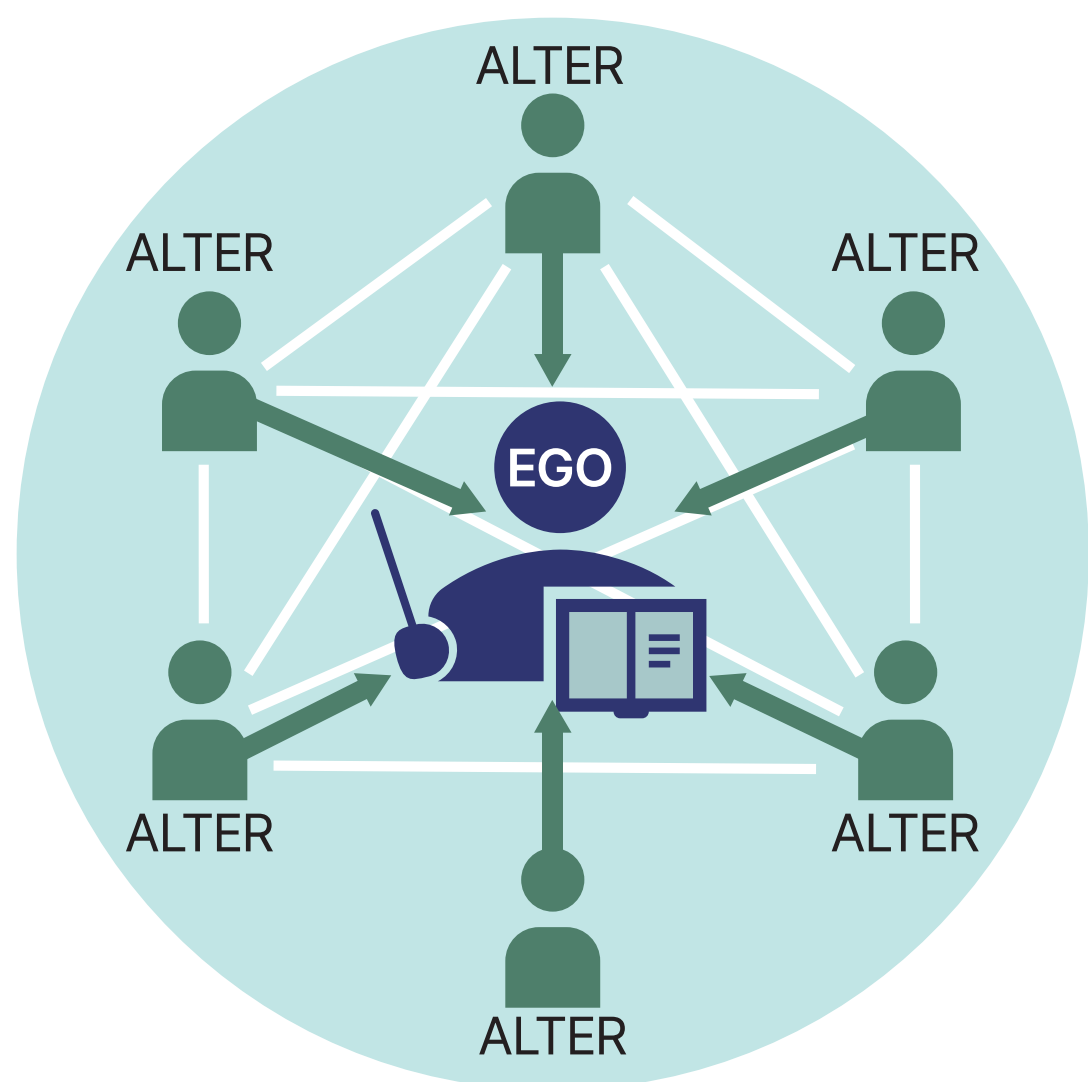


Introduction

- A significant increase in threats and aggression toward teachers (**Teacher Victimization**; TV) has been noted, with incidents nearly doubling from 4.8% in 2009-2010 to 9.8% in 2019-2020 (NCES, 2022).
- However, no study has yet used network theory to examine TV and the impact of teachers' network with aggressive and violent students on psychological distress and burnout, as well as turnover intentions.

Methods

- We adopted a quantitative egocentric network analysis and path analysis.
- Our sample included 507 K-12 teachers in the U.S. (74.56% female, 24.85% male, 0.59% non-binary).
- Data collection occurred between the Spring and Summer of 2023.



- Centrality** - The number of alters tied to an ego (Freeman, 1979)
- Density** - The number of ties in a network among alters (alters-alters) as a ratio of the maximum ties (Chung et al., 2005)
- Homophily** - EI index (Newman, 2002) was used to calculate the homophily. -1 means complete homophily and 1 means heterophily.

Results



90.1% of our participants noted having at least one student displaying violent and aggressive behaviors directed at teachers.

1,703 students who showed aggressiveness and violence toward teachers were reported.

3.35 The Number of Students Displaying Violent and Aggressive Behaviors Toward Teachers (Centrality):

0.24 The Degree of the Mutual Connections Among Students Identified by Teachers (Density):

0.15

Racial and Ethnic Homophily:
(no tendency of homophily)

1.6

Perceived Severity
(1-10):

8.28

Perceived Frequency
(1-10):

Centrality of Aggressive and Violent Student Network

Aggressive and Violent Student Network Density

Racial Homophily

Severity

Frequency

Depression, Anxiety, and Stress

Burnout

Depression, Anxiety, and Stress

Burnout

Turnover Intention

Demographic Factors
(Gender, Race)

Turnover Intention

Demographic Factors
(Gender, Race)

.05***

.08***

.13**

.19***

.32***

.28***

.30***

.23***

.33***

Discussion

Network Characteristics

- Prevalence:** TV is widespread; 90.1% encountered aggressive students.
- Centrality and Density:** Teachers typically face around 3.35 aggressive students, often acting individually rather than in groups.
- Homophily:** Aggressive students rarely share teachers' racial backgrounds, indicating diverse origins of behavior.
- Frequency and Severity:** TV is pervasive but not intensely severe.

Impact of Centrality

- Linked the size of aggressive student networks to increased teacher burnout, and distress, subsequently turnover.
- This finding aligns with previous studies on TV and broader research on workplace bullying (Yang et al., 2022; Kollerova et al., 2023), indicating the negative mental health impacts of victimization.

Impact of Network Traits

- Density and homophily were not significant factors in teacher burnout or psychological distress.
- This contrasts with student bullying studies (Rigby et al., 2020), indicating group bullying has a more significant impact than individual acts. → Teacher context may differ due to school-level support for collective issues.
- Addressing the frequency of aggressive incidents is crucial for managing teacher burnout and distress, subsequently turnover intention.

References

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