Prior research has primarily focused on student-on-student school violence; yet, school educators are also at risk nationally and internationally. A two-phase study was designed to identify risk factors for assaults against educators (kindergarten-grade 12). Educators (n=26,000) were randomly selected from the Minnesota license database and screened for eligibility (6180, eligible) by mailed questionnaire. Phase I (12-month recall) identified eligible cases (n=290) and controls (n=867) and violent event characteristics; Phase II (case-control – 1-month recall prior to assault and randomly selected month, respectively) enabled identification of numerous exposures. Confounders were selected for multiple logistic regression analyses using directed acyclic graphs; reweighting adjusted for response and eligibility biases. For each study phase, response was 84%. Assault perpetrators were primarily students (95%). Risks (ORs; 95% CIs) increased for educators working in: special education (3.66, 2.46 to 5.44) and speech pathology (2.34, 1.08-5.10); urban (vs suburban) schools (1.96, 1.39 to 2.77); schools with <50 (4.33, 1.69 to 11.06) and 50–100 (1.89, 1.01 to 3.54) versus 500–1000 students; schools with inadequate resources (always/frequently vs sometimes: 1.89, 1.22 to 2.95), inadequate building safety (always and frequently vs sometimes: 6.34, 2.01 to 20.02 and 2.29, 1.14 to 4.61, respectively), soft light versus bright as daylight (1.40, 0.96-2.04) and with physical barriers (1.54, 1.10 to 2.15). Decreased risks were identified for having: routine locker searches (0.50, 0.29 to 0.86); school sizes 1000+ versus 500–1000 students (0.52, 0.33 to 0.80) and easily accessible exits (0.35, 0.16 to 0.67); and never (vs sometimes) having inadequate building safety (0.59, 0.37...
to 0.94). Results suggest opportunities for targeted interventions and further research to decrease assault risk to educators with benefits to others in school environments.