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VIOLENCE AGAINST TEACHERS: MAGNITUDE AND ETIOLOGY. *S G Gerberich, N M Nachreiner, A D Ryan, T R Church, P M McGovern, M S Geisser, G D Watt, D M Feda, E Pinder, S K Sage (University of Minnesota, Minneapolis, MN 55455)

Compared to school violence among students, little is known about violence against teachers. To determine the magnitude of physical assault (PA) and non-physical violence (NPV) and risk factors for PA in randomly selected state-licensed, working kindergarten-grade 12 educators (n = 6469), a two-phase study was implemented: Phase 1 (mailed 12-month retrospective survey) collected demographics, personal characteristics, and violent occurrences and consequences; Phase 2 (mailed case-control survey) collected exposures: activities, others in the environment, school infrastructure and administration, and community socioeconomic status. Cases (395) reporting at least one PA are questioned about exposures in the month before and during the incident; controls (1185), are questioned about exposures on a randomly selected working month from all months during the study period, before any reported PA. We select potentially confounding variables for multiple logistic regression from directed acyclic graphs and re-weight to adjust for potential non-response and unknown eligibility biases. From initial results (78% response), rates per 100 persons per year were: PA, 8; NPV overall, 35; NPV subcategories of threat, 16; verbal abuse, 29; harassment, 3; bullying, 9. Perpetrators were: students, colleagues, parents. Consequences of PA and NPV, respectively, include treatment: 21%, 9%–18%; restricted activity: 12%, 12%–19%; change in work status: 11%, 15%–28%; highest percentages were for bullying. Many teachers experience violence, with serious consequences. Identifying associated risk factors is integral to intervention development.

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ADVERSE HEALTH IMPACTS AND INJURIES IN SURVIVORS OF COLLAPSED AND DAMAGED BUILDINGS ON 9/11 – WORLD TRADE CENTER HEALTH REGISTRY (WTCHR). *R Brackbill, L DiGrande, and WTCHR team (CDC/ATSDR, Atlanta, GA 30333)

We report findings on self-reported exposures and health outcomes from the WTCHR baseline interviews conducted 9/12/03 to 11/20/04 with 8,418 adult survivors of collapsed (n = 5,095) and damaged (n = 3,323) buildings. Sixty-two percent of survivors were caught in the dust/debris cloud from WTC tower collapse. Forty-four percent reported injuries resulting from the events of 9/11 and 57% reported experiencing new or worsening respiratory symptoms after 9/11. Twenty-four percent reported new onset heartburn/indigestion/reflux and 21% reported severe headaches after 9/11. After adjusting for mode of recruitment, psychological distress, and demographic factors, survivors caught in the dust/debris cloud were 3.9 times more likely than survivors not caught in the dust/debris cloud to report any injuries (n = 3,672 injuries); any respiratory symptom (2.7 times more likely; n = 4,763); heartburn/indigestion/reflux (1.2 times more likely; n = 1,987); hearing loss (1.7 times more likely; n = 673). Survivors of collapsed buildings had a higher risk of concussions (odds ratio (OR) = 2.8), broken bones (OR = 2.3), and burns (OR = 1.5) compared with survivors of damaged buildings. Survivors from damaged buildings were 1.4 times more likely to report any new respiratory symptoms after 9/11 (e.g. sinus problems, shortness of breath, wheezing, throat irritation, persistent cough) than survivors from collapsed buildings. Relationships between exposures and outcomes will be discussed. It is important to continue to evaluate potential health effects among building survivors, with particular attention to those exposed to the dust/debris cloud.

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WHY SOME GENERATIONS ARE MORE VIOLENT THAN OTHERS: COHORT DIFFERENCES IN THE PROGRESSION OF DEVELOPMENTAL PATHWAYS. *A Fabio, Z Yuan, D Farrington, R Loeber, S Wisniewski (University of Pittsburgh, Pgh, PA)

The purpose of this work was to assess whether developmental pathways towards violence were consistent with period or cohort effect theories of secular violence trends. In previous work we analyzed Pittsburgh Youth Study (PYS) data, a 14 year prospective study of two cohorts. GEE were used to assess whether differences of violence between the cohorts could be explained by period or cohort effects. The oldest cohort reported higher levels of violence (OR = 1.5, 95% CI: 1.2, 1.8) after adjusting for major individual-level factors such as gang participation (OR = 2.2, 95% CI: 1.7, 2.8). When period effects were included, cohort differences were rendered insignificant (OR = 1.2, 95% CI: 0.8, 1.9). We postulated that changes in violence trends are due in part to period effects that influence the developmental pathway an adolescent follows. We contend that broader social changes influence youths' decisions, increasing risk of advancing along the pathways. The current work compared progression through the overt developmental pathway towards violence between the oldest and youngest cohort utilizing multivariate regression. Proportion of entry into the pathway was similar between cohorts (23 vs. 19%). However, the oldest cohort was significantly more likely to progress from stage 2 to 3 (OR = 3.247, CI: 1.721, 6.124) and 1 to 3 (OR = 1.693, CI: 0.945, 3.036). This provides evidence of the importance of external factors (or period effects). Further work is needed to isolate possible period effects. In the future, we see a developmental model of violence based on an extended developmental pathway that includes the societal influences on the individual developmental pathway.

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TEMPORAL TRENDS IN CHILD MALTREATMENT IN MILITARY AND NON-MILITARY FAMILIES, 2000–2003. *E D Rentz and S W Marshall (Department of Epidemiology, University of North Carolina, Chapel Hill, NC)

Context: There has been no research conducted examining the relationship between deployment and the occurrence of child maltreatment in military families. Objective: To examine the temporal trends in the occurrence of substantiated child maltreatment in military and non-military families and the impact of recent increases in deployment on the occurrence of substantiated child maltreatment in military families. Design, Setting, and Participants: Ecological study of child maltreatment reported and substantiated between January 1, 2000 and June 30, 2003 in the state of Texas. Maltreatment data from the National Child Abuse and Neglect Data System was combined with state-level population estimates from the US Census Bureau and operational deployment data from the Department of Defense. Main Outcome Measures: Rate of occurrence of substantiated child maltreatment. Results: The rate of occurrence of substantiated maltreatment in military families was twice as high in the period after October 2002 (the one-year anniversary of the September 11th terror attacks) compared to the period prior to that date (RR = 2.15, 95% CI: 1.85, 2.50). It was unchanged in children of non-military families (RR = 1.05, 95% CI: 0.95, 1.17). Among children in military families, the rate of occurrence of child maltreatment increased by 28% (95% CI: 1.20, 1.37) and 31% (95% CI: 1.16, 1.48) for each 1% increase in the percentage of active personnel with dependents departing to, or returning from, operation-related deployments, respectively. Conclusions: Stress related to increased exposure to combat operations may be related to increased occurrence of substantiated child maltreatment in military families. Both departures to and returns from operational deployments impose stresses on military families, and these stresses extend beyond the soldier to the family left behind.