

The Association Between School Violence and Sexual Activity by Gender Among US High School Students

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Purpose: Peer-related school violence and victimization have significant negative consequences, including depressive symptoms, suicidal ideation, and suicide attempts (Hertz, Everett Jones, Barrios, David-Ferdon & Holt, 2015; Litwiller & Brausch, 2013; Moon, Karlson, & Kim, 2015; and Van Ouytsel et al. 2016). Researchers have also investigated the association between sexual activity and school violence using data from the Youth Risk Behavior Survey (2011). These results provided evidence for a gender-related "sexual double standard," for bullying: Sexual activity was significantly associated with bullying victimization among females but not among males (Dunn, Gjelsvik, Pearlman, & Clark, 2014). This research aims to extend the research of Dunn and coworkers, and explore the association between sexual initiation and school violence measures by gender with more recent data from the National Youth Risk Behavior Survey (YRBS).

Methods: This research is a secondary analysis of four waves of data (2009, 2011, 2013, 2015) from the National YRBS (N = 61,042), to estimate measures of additive interaction between sexual initiation and gender on school violence measures among a nationally representative sample of US high school students (CDC, 2016). The five self-report dependent variables were bullied on school property, electronically bullied, threatened or injured with a weapon on school property, possession of a weapon on school property, and involvement in a fight on school property. Data were analyzed using multivariate logistic regression and additive interaction measures with SPSS 24 Complex Samples™, which correctly incorporates the three-stage sampling design and sampling weights to enable nationally representative estimates of standard errors and confidence intervals.

Results: Results showed that male and female students both had a significant positive relationship between the initiation of sexual activity and four of the five violence measures: electronic bullying victimization, being threatened or injured with a weapon, involvement with a fight on school property, and possession of a weapon on school property. Female students only had a significant positive relationship between sexual initiation and school bullying. The magnitude of the association between sexual initiation and school violence varied significantly by gender depending on the type of violence. In order to measure additive interaction we estimated the Relative Excess Risk due to interaction (RERI), [95% CI] (Ahlbom & Alfredsson, 2005; Andersson, Alfredsson, Källberg, Zdravkovic, & Ahlbom, 2005). Results showed that the relationships between initiation of sex and both types of bullying victimization were significantly greater for females than for males: school-bullying victimization RERI=0.64 [0.47, 0.81] and electronic bullying victimization RERI=2.45 [1.93, 2.97]. However, the relationships between initiation of sexual activity and the other violence measures were significantly greater for males than for females: threatened or injured with a weapon at school, RERI=1.37 [0.91, 1.82], involved in a fight at school, RERI=2.82 [2.14, 3.50], and carrying a weapon at school on school property, RERI=4.87 [3.17, 6.57].

Conclusion: Results provide limited support for the sexual double standard. Consistent with the sexual double standard, the association between sexual initiation and school bullying or electronic bullying was significantly greater among females than among males. Inconsistent with the sexual double standard, the association between sexual initiation and receipt of threats or injuries with a weapon was significantly greater among males than among females. In addition, there was inconsistent support for the hypothesis that for male students, sexual initiation was not a risk factor for violence victimization. Although there was no significant relationship among males between sexual initiation and school bullying, there were significant associations among males between sexual initiation and electronic bullying victimization and the receipt of threats or injuries with a weapon. Current violence prevention programs have seen some

success, but further research is needed to explore the relationship between sexual activity and school violence among adolescents, and the upstream measures to mitigate it.

Title:

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References:

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Abstract Summary:

This secondary analysis of the Youth Risk Behavior Survey (2009-2015) examines relationships between sexual activity and school violence by gender among US high school students.

Content Outline:

- I. Introduction
 - A. Prevalence and gender differences of school violence among US high school students

- B. Previous research and the gender-based, "Double standard," associated with school violence and sexual activity.
- II. Body
- A. Purpose of the Study
 - 1. Exploration of the association between sexual activity and school violence on gender using nationally representative data.
 - 2. Use measures of additive interaction to estimate effect sizes by gender between sexual activity and school violence.
 - B. Research Methods
 - 1. Data set: National Youth Risk Behavior Survey 2009 – 2015 (N = 61,042)
 - 2. Variables
 - a. Independent Variable: initiation of sexual activity ("Ever had sex")
 - b. Dependent Variables
 - i. bullied on school property
 - ii. electronically bullied
 - iii. threatened or injured with a weapon on school property
 - iv. possession of a weapon on school property
 - v. involvement in a fight on school property
 - 3. Analysis: Secondary analysis using multivariate logistic regression and additive interaction measures
 - 4. Results
 - a. Significant positive association between sexual activity and school bullying in females only.
 - b. Significant positive association between sexual activity and four other measures of school violence in both males and females.
 - c. Effect sizes vary by gender depending on the type of violence.
- III. Conclusion
- A. Paradox of the, "Double standard."
 - B. Future research needed to further investigate the relationship between sexual activity and school violence.
 - C. School violence prevention programs with broad, "upstream." approaches to prevention are needed.

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Professional Experience: Nancy Pontes is an Assistant Professor of Nursing at Rutgers University, Camden since fall, 2015. She received her PhD from Columbia University in 2003. Dr. Pontes has worked in a variety of university-based roles as a nurse practitioner, educator and administrator. Her practice has taken her to a broad range of settings to work with vulnerable populations in the United States and abroad. She received a Department of Education grant to enhance current international studies and Spanish language education in Guatemala, Bolivia, Cuba. Her research focuses upon social determinants of health and well-being among youth and families, especially in the area of violence, victimization and psychological distress.

Author Summary: Nancy Pontes is an Assistant Professor at Rutgers University, School of Nursing-Camden. She has been family nurse practitioner for 25 years, working with vulnerable populations in a variety of settings. Through a recent Department of Education grant, she works with current international studies and Spanish language education in Bolivia, Guatemala and Cuba. She is passionate about

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Author Summary: Manuel Pontes has been a Professor of Marketing at Rowan University for more than 15 years. Prior to Rowan University, he was an Assistant Professor at Fairleigh Dickinson University. For his research, he works with large nationally-representative data sets in health care and higher education. These include the Medical Expenditure Panel Survey (MEPS), the National Ambulatory Medical Care Survey (NAMCS), the National Health Interview Survey (NHIS), and the Behavioral Risk Factor Surveillance Survey (BRFSS).