

## D59 Predictors of Rape Associated With Injury in Adolescent and Adult Women

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After attending this presentation, attendees will understand the importance of data collection in rape research, the significance of secondary data analysis in predictive model analysis, and implications for future rape research.

This presentation will impact the forensic community and/or humanity by demonstrating the value of data collection and research with rape victims of different ethnicities in various locations in the USA and is an initial step in model building for prediction of injury.

The purpose of the study was to identify predictors of physical injury (setting, victim characteristics, and forensic characteristics) in females over 12 years of age, adolescent and adult women, who have a medical history of rape by a male perpetrator and are examined in the emergency Department (ED). Severity of rape-related injury is linked to negative health consequences. Understanding the impact of injury severity and the associated predictors expands knowledge of the experience of rape and women who are at greatest risk for long-term negative health consequences. Variables included regional setting, victim characteristics (age, ethnicity, and known or unknown perpetrator) and forensic characteristics (time from rape to examination, weapon presence, multiple perpetrators, and use of an evidence kit). Secondary data were evaluated that were cross-sectional retrospective clinical documentation of forensic examinations of women (n = 3318) 13 to 89 years of age (mean age 26.6; SD = 11.1) from three diverse regions of the US: the northeast, the southern coast, and the west coast. The results of multiple logistic regression models included main and interaction effects, primarily involving setting and ethnicity variables. The forward stepwise model ( $X^2$  [18] = 387.26, p = .001) demonstrated adequate fit based on the Hosmer-Lemeshow X<sup>2</sup> goodness-of-fit results (X<sup>2</sup> [7] = 5.72, p = .57), and was a slightly improved fit over the backward elimination model (X<sup>2</sup> [22] 398.12, p = .001), which also had desirable Hosmer-Lemeshow X<sup>2</sup> results (X<sup>2</sup> [7] = 7.47 p = .38). The forward and backward models included 10 significant interactions: Setting C by age, Setting C by examination time of > 72 hours, Setting A by other ethnicity, Setting A by weapon presence, Setting A by examination time of 48-72 hours, Setting A by other ethnicity, Setting A by weapon presence, Setting A by examination time of 48-72 hours, and Setting A by multiple perpetrators, age by weapon presence, African American by examination time of 24-48 hours, African American by multiple perpetrators, other ethnicity by examination time of > 72 hours, and unknown perpetrators by multiple perpetrators. Conclusions are that ethnicity and location are important variables for data collection. Implications of this research 1) lead to refinement of data collection, 2) address the need for initiating research in the acute time frame, 3) inform tailored interventions for diverse victims, 4) link health and legal systems to improve overall forensic management of victims, 5) emphasize the need for multi-level funding allocation of resources for education, prevention and interventions to improve victim care.

## Rape, Research, Violence Against Women