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NON-FATAL STRANGULATION IS AN IMPORTANT RISK FACTOR FOR HOMICIDE OF WOMEN

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□ **Abstract—The purpose of this study was to examine non-fatal strangulation by an intimate partner as a risk factor for major assault, or attempted or completed homicide of women. A case control design was used to describe non-fatal strangulation among complete homicides and attempted homicides (n = 506) and abused controls (n = 427). Interviews of proxy respondents and survivors of attempted homicides were compared with data from abused controls. Data were derived using the Danger Assessment. Non-fatal strangulation was reported in 10% of abused controls, 45% of attempted homicides, and 43% of homicides. Prior non-fatal strangulation was associated with greater than six-fold odds (odds ratio [OR] 6.70, 95% confidence interval [CI] 3.91–11.49) of becoming an attempted homicide, and over seven-fold odds (OR 7.48, 95% CI 4.53–12.35) of becoming a completed homicide. These results show non-fatal strangulation as an important risk factor for homicide of women, underscoring the need to screen for non-fatal strangulation when assessing abused women in emergency department settings. © 2008 Elsevier Inc.**

□ **Keywords—intimate partner violence; strangulation; risk of homicide**

INTRODUCTION

The 1993 National Mortality Followback Survey of adults (22,957 decedents aged 15 years and older) shows that the percent dying from strangulation was much higher for women (11.8%) than for men (1.9%) overall and in every age group (men vs. women, respectively, 1.1% vs. 11.7% at age 18–24 years; 1.6% vs. 11.7% at age 25–39 years; 2.8% vs. 6.7% at age 40–64 years; and 7.0% vs. 33.0% at age 65 years or older). Although there is no information about the relationship of the victim and offender in the National Mortality Followback Survey, the findings provide the context to examine strangulation as a risk factor for intimate partner attempted and completed homicide of women (1).

There is little research specifically examining strangulation in the context of intimate partner violence (IPV) or homicide. The prevalence of strangulation as a form of IPV and a risk factor for attempted or completed homicide has not been established. Wilbur and colleagues in 2001 found that 68% of a convenience sample of 62 women presenting to a domestic violence advocacy pro-

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gram reported strangulation by their abuser (2). The Chicago Women's Health Risk Study found that 24.6% of 57 adult women killed by a male intimate partner in 1995 or 1996 in Chicago were killed by strangulation or smothering (3,4). Of the 494 women sampled as they came into Chicago hospitals and clinics for any reason and who said that they had experienced IPV in the past year, 47.3% had experienced at least one incident in the past year in which her partner had tried to choke or strangle her, and 57.6% had "ever" experienced choking or strangulation by the abusive partner. There was no difference between women who were not killed and the women who were killed in having experienced prior choking or strangulation. However, strangulation was associated with lethality of incident, with 4.8% lethality in the 289 incidents in which a partner or ex-partner strangled the woman, compared to 1.0% of the 4722 incidents where the abuser used other types of violence. This finding was true across racial and ethnic groups, but did not hold for women abused by a same-sex partner. African-American women were significantly more likely than Latinas and other racial or ethnic groups of women to have experienced strangulation in the past year, or "ever," but were less likely to be killed by strangulation.

A study of 300 consecutive cases of female attempted strangulations seen in the San Diego Domestic Violence Unit of the city prosecutor's office found that in 89% of the cases there was a prior history of IPV (5). In a study in which women were directly questioned about symptoms, at least 85% of intimate partner strangulation victims experienced physical symptoms (such as sore throat, difficulty breathing, or neurological symptoms) and at least 83% reported one or more psychiatric symptom in the 2 weeks after the event (2). A different analysis of the same data found that 56% of the women had experienced more than one strangulation event (6). The frequency with which women reported some kind of symptoms, particularly neurological, increased among women who were the victims of multiple vs. one strangulation event (6). In another study using police documentation of injuries, 34% of strangulation victims reported symptoms, including pain, difficulty swallowing, and breathing changes (5). Three case studies have been reported of carotid dissection resulting in cerebrovascular accidents in women who were strangled by an intimate partner (7).

In this article, we seek to achieve the following aims: 1) describe the prevalence of non-fatal strangulation and demographic characteristics in a population-based sample of urban abused women, 2) determine if non-fatal strangulation is a risk factor for completed and attempted homicide for abused women, and 3) determine how the risk represented by non-fatal strangulation varies for women according to personal and relationship factors.

MATERIALS AND METHODS

Study Design

We performed secondary analysis of data from an 11-city case control study to identify risk factors for intimate partner homicide and attempted homicide of women (8). Institutional review board approval was obtained at each collaborating site.

Setting

Risk factor data were collected using a structured survey administered by researchers and interviewers trained in interviewing victims of violence.

Selection of Participants

Completed homicide of women cases. All consecutive police or medical examiner intimate partner female homicide records from 1994–2000 in each study city were examined for victim-perpetrator relationship. Cases were eligible if the victim was a woman aged 18 years or older, the perpetrator was a current or ex-intimate partner, and the case was designated as "closed" by the police. Records were abstracted for data specific to the homicide and to identify potential proxy informants (e.g., mother, sister, brother or friend) who might be knowledgeable about details concerning the victim's relationship with the perpetrator. Proxies were then sent a letter explaining the study and inviting their participation (9). Researcher telephone and address contact information was provided in the letter for proxies to find out more about the study or to request no further communication (9). Two weeks after the letter, study personnel made contact, either by telephone or in person (in the few cases where no phone contact was possible) with the proxies who had not requested non-contact. If the first proxy reported that he or she was not knowledgeable about details of the relationship, the proxy was asked to identify another willing potential proxy informant. Then, in-person or telephone interviews were conducted, after informed consent, with the proxy who was most knowledgeable about details of the victim-perpetrator relationship. In 373 of the 545 (68%) total intimate partner homicide cases abstracted, a knowledgeable proxy was identified and located. Proxies agreed to participate in 83% (310/373) of these cases; therefore, 310 homicides of women are included in this analysis.