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Physical and sexual violence and subsequent contraception use among reproductive aged women

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Abstract

Background: Population-based data were used to examine the association between reproductive aged women's physical and sexual violence experiences in the previous 12 months and subsequent contraception use.
Study Design: This study used a representative sample of adults (2002 North Carolina Behavioral Risk Factor Surveillance System). Multivariable logistic regression analysis was used to model the associations of interest.
Results: Approximately 1 in 20 North Carolina reproductive aged women experienced physical and/or sexual violence in the previous 12 months, with physical violence as the most common. Compared to women who experienced no violence in the previous 12 months, experiences with physical violence by itself increased subsequent contraception use, while experience with sexual violence by itself decreased subsequent contraception use. Women with both experiences in the previous 12 months were less likely to be subsequently using contraception (OR=0.1; 95% CI=0.1–0.8).
Conclusions: Findings from this study provide further evidence that different experiences with violence may dictate women's subsequent contraception use.

Keywords: Contraception; Reproductive health; Physical assault; Sexual assault; Women's health

1. Introduction

Physical and sexual violence have been recognized as important public health problems. Nationally, it has been estimated that one in six women has been raped in her lifetime and approximately 2 million women are physically assaulted each year [1,2]. In North Carolina, past research has found the lifetime prevalence for physical and/or sexual violence against women is between 19% and 25% of all women [3,4]. While violence can happen to women of all ages, national data show that women are at the greatest risk for violence during their reproductive years [1].

Violence against women is not only common, but it affects women's short- and long-term health sequelae. Earlier research has linked violence to poor health outcomes such as chronic health problems [4,5], poor physical and mental health and functional limitations [3–5], unhealthy health behavior such as cigarette smoking [4], drug use and alcoholism [6], gynecological problems [7] and risky health behavior leading to HIV transmission and other sexually transmitted diseases [7–9]. Due to the coercive nature of the perpetrators and the abused women's lessened or inability to negotiate safe sex practices [10–13], in particular, violence experience has been associated with inconsistent or nonuse of contraception [10,14–18]. This is a concern for women of reproductive age (18 to 44 years old) because this form of sexual risk-taking may lead to unintended pregnancy and adverse pregnancy outcomes [19,20].

Although the results from some earlier studies have suggested that female violence victims are less likely than other women to use methods of contraception, there are some methodological limitations in this past work including small sample sizes [10,16,21], the use of convenience

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samples [10,13,17] and sampling of selected subgroups [10,15,16,21,22]. Additionally, many past research emphasized only violence perpetrated by intimate partners.

Violence perpetrated by a wider range of persons, including acquaintances and strangers, and the joint effects of having experienced physical and sexual violence have not been explored. Most importantly, no earlier research has explored the temporal association between recent experiences of physical and/or sexual violence and subsequent use of contraception in a representative adult population of reproductive age.

The primary goal of this study is to expand upon previous work by analyzing data from a representative statewide sample of women of reproductive age to examine potential links between violence and contraception use. More specifically, this study plans to (1) describe the sociodemographic characteristics of women who experienced violence within the previous 12 months and (2) estimate the association between reproductive aged women's experiences with physical violence only, sexual violence only and both physical and sexual violence in the previous 12 months and subsequent contraception use.

2. Materials and methods

Data for this study are from the 2002 North Carolina Behavioral Risk Factor Surveillance System (NC BRFSS). The national BRFSS is an ongoing, population-based telephone surveillance system funded by the Centers for Disease Control and Prevention, with each state administering its statewide surveillance system. The NC BRFSS is administered by the North Carolina State Center for Health Statistics. BRFSS is a monthly, cross-sectional, random-digit dial household telephone survey of a representative sample of noninstitutionalized North Carolina adults (18 years or older).

Questions on health risk behaviors, lifestyle, health care access and preventive practices that potentially affect health outcomes were asked during the telephone interviews, including questions concerning women's experiences with violence. Women were asked to retrospectively recall their experiences with violence during adulthood (since 18 years old), including physical violence only (defined as being pushed, hit, slapped, kicked or physically hurt in any other way) and sexual violence only (defined as being forced to have sex or do sexual things). To minimize potential problems with respondent recall, only experiences with violence that occurred within the previous 12 months (from the time of the interview), rather than over lifetime since age 18, were considered in this study. In addition, each woman who reported experiencing any form of violence was asked about her relationship with the perpetrator [e.g., current or former intimate partner (intimate partner was defined for the respondent as a husband or a boyfriend), stranger or someone known to her other than a current or former intimate partner].

Each woman was classified into one of four mutually exclusive groups, based on their responses to the questions pertaining to physical and sexual violence within the previous 12 months. These groups included (1) no violence, defined as respondents who did not experience either physical or sexual violence within the previous 12 months; (2) physical violence only, defined as respondents who experienced only physical violence but not sexual violence within the previous 12 months; (3) sexual violence only, defined as respondents who experienced sexual violence without physical violence within the previous 12 months; and (4) physical and sexual violence, defined as having experienced both physical and sexual violence within the previous 12 months.

Information on contraception use at the time of the interview was collected from heterosexual, nonpregnant women of reproductive age. We asked women with multiple partners to identify the most usual method. All forms of contraception methods (e.g., pill, condoms, etc.) were also ascertained from this group. Based on women's responses, we classified the methods as either hormonal or long-acting (pill, IUD, injectable, implant, patch and ring) or barrier or traditional (condoms, diaphragm, spermicide, withdrawal, natural family planning) [23].

Potential confounders considered included known and suspected influences on women's contraception use, specifically: women's age in years (18 to 24, 25 to 29, 30 to 34, 35 to 39 and 40 to 44); race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, Asian/other); current marital status [married, divorced/separated, widowed and single (never married)]; education (less than high school, high school graduates, some college, and college graduates and more); and annual household income (less than $25,000, between $25,000 and $49,999, and $50,000 and greater).

The 2002 NC BRFSS included a total of 4136 female respondents at least 18 years of age. Our analysis was first conducted with 1742 heterosexual women of reproductive age (18 to 44 years) to examine the prevalence of women's experiences with violence in the previous 12 months as well as the demographic and behavioral characteristics of this population by violence experience in the previous 12 months, regardless of their relationship status (with or without a partner) at the time of the interview. To examine the association of women's violence experience in the previous 12 months on their subsequent contraception use, we further restricted our analysis to only sexually active, nonpregnant women of reproductive age. We excluded those who reported having been contraceptively sterilized (i.e., tubal ligation) (n=258) because it was not possible in these data to determine the timing of sterilization with respect to violence experiences. Women who were not sexually active or had no partner (n=352), who were pregnant at the time of the interview (n=72), who did not complete the interview so for whom we were unable to collect information about her pregnancy status (n=5) were further excluded, leaving data for 1055 women in the final analysis.