

Domestic Violence and Gynecological Morbidity Symptoms among Women in North India

There is substantial evidence from developed countries documenting a relationship between domestic violence and gynecological morbidity. The range of gynecological morbidities experienced by women include sexually transmitted infections, vaginal bleeding and infection, fibroids, genital irritation, chronic pelvic pain, decreased sexual desire, pain during intercourse and urinary tract infections. Koss *et al* (1991) report evidence of a dose-response relationship between the severity of domestic violence and the risk of gynecological morbidity; while other researchers note that the combination of physical and sexual abuse puts women at a greater risk of gynecological morbidity, than women who experience only physical violence (Coker *et al* 2000; Collett *et al* 1998; Campbell 2002).

Evidence from developing countries on the links between domestic violence and gynecological morbidity remain few in number. The present study contributes to the existing literature on the health effects of domestic violence through an examination of the relationship between male-to-female domestic violence and gynecological morbidity using data from a large, representative population-based sample of women. The data for our analysis comes from the 1995-96 PERFORM System of Indicators Survey (MEASURE Evaluation 1995). As a component of this survey, interviews were completed with 45,262 reproductive-aged women residing in 40,633 households. The Male Reproductive Health Survey (MRHS) was a companion study undertaken to obtain

detailed information on husbands' knowledge and behavior related to their wives' and their own reproductive health (EVALUATION Project 1997; Singh *et al* 1998). The sampling frame for the MRHS was all husbands in households identified in the first stage sample in five of the original twenty-eight sampled districts, representing all five regions of Uttar Pradesh. Eligibility criteria for men included being currently married, between 15-59 years of age, and currently residing with their wife. The enumeration led to the identification of 8296 eligible husbands through the household listing. Of these, 6,727 husbands were successfully contacted, and interviewed during the period November, 1995 to April, 1996. The husband's survey included a series of detailed questions on the husbands' perpetration of physical and sexual violence against their partners. Husbands were asked whether they had ever physically hit, slapped, kicked, or tried to hurt their wife, the initial and most recent timing of such incidents, and the total number of times such violence had occurred. Husbands were also asked whether they ever had sex with their wife when she was unwilling, and if so, whether they had ever physically forced their wife to have sexual relations, as well as the timing of the most recent occurrence. Questions on symptoms of gynecological morbidity were included in the women's survey for only those women who had a birth in the three years prior to the survey. These women were asked whether they had experienced symptoms of gynecological morbidity in the three months prior to the survey. Women were asked if they had experienced abnormal vaginal discharge; women who reported abnormal vaginal discharge were then asked if they experienced a) itching or irritation with the discharge, b) unusual odor with the discharge, c) severe lower abdominal pain with the discharge, or d) fever along with the discharge. Women were then asked if they experienced pain or burning while

urinating, pain in the abdomen or vagina during intercourse, or blood after sex when not menstruating. Data from the women's survey could be matched with 5,553 husbands interviewed (83%), with no significant differences in the socio-demographic characteristics between matched and unmatched husbands and wife pairs. Exclusion of those cases where no live birth had occurred during the three years prior to the survey (N=1770) or for whom there was missing data on either the gynecological symptoms and domestic violence questions (N=141) resulted in a final analysis sample of 3642 married women aged 15-45 years.

A logistic regression model was fitted to a binary outcome, coded as 1 if the woman reported any of the eight symptoms of gynecological morbidity (abnormal vaginal discharge, itching or irritation in the vaginal area, unusual odor associated with the discharge, severe lower abdominal pain with the discharge, pain or burning while urinating, pain in the abdomen or vagina during intercourse, and/or blood after sex when not menstruating), and 0 if no morbidity was reported. Of central interest in our analysis is the relationship between domestic violence and women's self-reported gynecological morbidity. The model includes a categorical variable measuring whether the husband reports physical and/or sexual violence towards his wife in the 12 months prior to the survey. Physical violence included whether the husband reports that he physically hit, slapped, kicked or tried to hurt his wife, sexual violence included whether the husband reports that he physically forced his wife to have sex. The variable has four categories: no violence, physical violence only, sexual violence only, and both physical and sexual violence. The model also controls for the following independent variables: woman's

experience of an obstetric complication during her last pregnancy, current use of contraception, woman's level of education, husband's level of education, parity, spousal age difference, marital duration, whether the husband reports one or more extramarital sexual relationships, rural residence, and a household assets index as a proxy for the socioeconomic status of the household.

Women whose husbands reported only physical violence were not significantly different in their odds of reporting gynecological morbidity than women whose husbands reported no violence during this period. In contrast, women whose husbands reported sexual violence only had significantly higher odds of reporting symptoms of gynecological morbidity relative to the no violence group (OR 1.42 95% CI 1.04, 1.75). Relative to this reference group, the highest likelihood of reported gynecological morbidity was found among those women whose husbands reported perpetrating both recent sexual and physical violence (OR 1.72, 95% CI 1.05, 2.58).

This study contributes towards a better understanding of the impact of domestic violence on gynecological morbidity, and presents some of the strongest evidence to date from a developing country setting on this relationship. A unique feature of our analysis has been the consideration of sexual as well as physical intimate partner violence, with the former emerging as a particularly important risk factor for women's reports of gynecological symptoms. A second strength of our study is that data on domestic violence and gynecological symptoms were collected separately and independently (the former from husbands and the latter from their wives).