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Unintended pregnancy and intimate partner violence around pregnancy in a population-based study

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ABSTRACT

Background: Intimate partner violence (IPV) and unintended pregnancy are public health issues that can affect the health and well-being of women and their children. However, the relationship between IPV and women's ability to control their fertility has not been adequately explored.
Aim: To investigate the association between unintended pregnancy and emotional or physical violence perpetrated by partners around pregnancy.
Methods: A population-based study was undertaken, recruiting women ($n = 779$) at the hospital obstetric departments and gathering social and family data. IPV was diagnosed by using the Index of Spouse Abuse (ISA). Data were gathered by trained midwives in 15 public hospitals in southern Spain and multivariate logistic regression analysis was performed.
Findings: The pregnancy was reported to be unintended by 118 (15.1%) of the study population. Unintended pregnancy was significantly associated with: physical and/or emotional IPV around pregnancy, age, marital status, cohabitation, educational level, and employment status. After adjusting for socio-demographic characteristics, emotional IPV around pregnancy was significantly associated with an unintended pregnancy (AOR = 2.5; 95% CI = 1.5–4.3). Being in a non-committed relationship was a risk factor (AOR = 3.5; 95% CI = 1.8–6.1) and being in employment a protective factor (AOR = 0.4; 95% CI = 0.2–0.8) for an unintended pregnancy.
Conclusion: Women who report an unintended pregnancy may be experiencing emotional IPV. The risk of emotional IPV is higher if women reporting an unintended pregnancy are in a committed relationship, married, or in employment. A better understanding of the relationship between unintended pregnancy and violence can aid midwives about potential reproductive health risk factors associated with abuse.

1. Introduction

Intimate partner violence (IPV) and unintended pregnancy are public health issues that can affect the health and well-being of women and their children. The infliction of violence by intimate partners is common in many societies and affects millions of women throughout the world every year. Studies have reported high rates of abuse during pregnancy and have linked this abuse to intrauterine growth restriction, low birth weight, fetal and infant death, and other maternal complications.[1–12]

Previous studies have described a link between IPV and unintended (*i.e.*, mistimed or unwanted) pregnancy.[13] Unintended pregnancy has been associated with adverse outcomes for women, fetuses, and infants. It has been associated with shorter lactation periods, a lower likelihood of recognizing early signs of pregnancy, a greater likelihood of delayed entry into prenatal care, a lower-quality relationship between mother and child, and child abuse and neglect.[13] Most induced abortions are unintended pregnancies and have been significantly associated with abuse,[14] and unsafe abortion is one of the leading causes of maternal mortality worldwide, being more frequent in countries where abortion is illegal or severely restricted.[8,15]

The relationship between IPV and unintended pregnancy has not been sufficiently explored. Out of all of the studies that have addressed IPV during or around the time of pregnancy, only a few

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have considered the intendedness of the pregnancy as a potential influential factor.[1,16,17] Some authors specifically focused on the association between unintended pregnancy and IPV but applied only bivariate analyses to examine the empirical relationship between them.[18–23] More recently, researchers directly examined the association between IPV and unintended pregnancy in study populations from Colombia,[24] Bangladesh[25,26] and a group of low- and middle-income countries,[15] using multivariate logistic regression analysis to control for potential confounders.

Hence, further knowledge is required of the risk factors for unintended pregnancy, including those related to IPV, in different ethnic and socio-cultural settings. We analyzed the association of unintended pregnancy with IPV around pregnancy and with socio-demographic characteristics in a population-based study in Spain, a developed country. Previous studies have analyzed whether women experiencing IPV were more likely to have unintended pregnancies.[15,23–26] The hypothesis of the present study was that women who report an unintended pregnancy may be experiencing IPV.

It is widely argued that heightened levels of fear and control within abusive relationships can impair women's ability to prevent pregnancy or negotiate contraceptive methods, leading to unintended pregnancy.[13,15,18] Although emotional violence is the most frequent type of IPV, previous studies have focused on the association of physical and/or sexual abuse with unintended pregnancy.[14–26] To the best of our knowledge, this is the first exploration of the association of unintended pregnancy with emotional and physical IPV around pregnancy.

The purpose of this study was to explore the potential association between unintended pregnancy and emotional and physical IPV around pregnancy, controlling for socio-demographic characteristics in a population-based sample of women who have recently given birth.

2. Methods

2.1. Study subjects, population, and sample size

A population-based study was designed based on statistics published in 2009 by the health service for all public hospitals in the region, including data on the number of deliveries in each type of hospital (regional, specialist, or district). Details of the calculation of the population for this study of IPV during pregnancy have been described elsewhere.[12] A cluster sampling approach was adopted, considering the hospitals as clusters and grouping by hospital type. A sample size of 750 women was estimated to provide an accuracy of ±2.5% with 99% confidence for IPV detection. The sample size was reached by enrolling samples of 50 women from each of 15 hospitals, which were randomly selected to represent the proportion of deliveries in each hospital type in the region. The study included women admitted to the Obstetrics Departments for delivery or early symptoms of delivery, risk of premature birth, or metrorrhagia in the third term and who completed the delivery within the study period. Exclusion criteria were: delivery of dead fetus, inability to communicate in the Spanish language, and the presence of disease/disability preventing collection of the study data. A total of 779 women participated in this study, which was approved by the research ethics committees of all participating hospitals.

2.2. Data collection procedure

Data were gathered by midwives at each hospital who had received specific training for participation in the study. The women were recruited on consecutive days until the sample size (n = 50) was reached, avoiding any day without sampling. One hundred fifty-three women did not participate in this study due to difficulties with the Spanish language, mobility problems, or refusal to take part. Data were gathered in a one-to-one interview in a room other than the ward in which the woman was hospitalized, when the study objective was explained and the strict anonymity and confidentiality of the information provided were guaranteed. Women accepting study participation were asked to sign their informed consent. If the questionnaire responses evidenced gender violence, the women were given comprehensive information on the police, judicial, and social resources available.

2.3. Data collection instruments

Socio-demographic questionnaire. The questionnaire contained items on: age, marital status, schooling history, employment, nationality, cohabitation with partner/family, and the availability of kin support (a relative who could be turned to when needed). A "non-committed" relationship was considered to be one between individuals who may have casual sex without demanding or expecting the commitment of a formal relationship.

2.3.1. Index of Spouse Abuse (ISA)

The ISA is a 30-item self-report instrument measuring the severity and frequency of physical and nonphysical abuse by using weighted items.[27] It includes assessments of emotional abuse, psychological threats, coercive tactics, and physical and sexual abuse. Two severity scores (ranging from 0 to 100 points) are computed, one for physical abuse (ISA-P) and the other for nonphysical abuse (ISA-NP). Recommended cutoff scores are 10 for physical abuse and 25 for nonphysical abuse. In the instrument employed in the present study, which has been validated for application in Spain,[28] the wording of items was modified to explore abuse during the 12 months before the delivery.

2.3.2. Pregnancy Intendedness

The women were asked: "At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, did you want no (more) children, or did you not mind either way?" A pregnancy was considered unintended if the respondent stated that at the time she became pregnant she would have liked to have waited until later to become pregnant (mistimed pregnancy) or that she did not want any (more) children (unwanted pregnancy). Throughout the paper, the term "pregnancy intendedness" refers to the intendedness of pregnancies resulting in a live birth.

2.4. Statistical analysis

The prevalence and 95% confidence interval (CI) were calculated for IPV around the pregnancy. The Student's t-test was used to compare differences in continuous variables and the Chi-square test to compare differences in categorical variables, calculating crude odds ratios (CORs) and 95% CIs. Multiple logistic regression multivariate analysis was performed to determine the variables associated with unintended pregnancy, considering unintended pregnancy as outcome variable and IPV as predictor variable. The model was controlled for age, marital status, educational level, employment status, nationality, cohabitation, and kin support. The results were presented as adjusted odds ratios (AORs) and 95% CIs.

3. Results

The study sample included 779 women. Their mean age was 29.9 ± 5.6 years (63% aged between 25 and 34 years); 64% were married at the time of the interview, 14% had a committed