Intimate partner violence during pregnancy in Egypt: prevalence, risk factors, and adverse health outcomes

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Intimate partner violence is a serious and widespread problem that has demographic and reproductive health consequences, as well as physical and mental health sequelae. In U.S. and Canadian population-based surveys, from 8-14% of women of all ages report physical assault in the past year by a husband or sexual intimate; lifetime prevalence ranges between 25-30% (Campbell 2002; Tjaden and Thoennes, 2000). About 40-60% of murders of women are committed by their intimate partners (Horon 2001; Frye 2001); the percentages may be higher in countries where women's status is lower, although global data on such deaths are sparse and contested. Beyond Western industrialized settings, reported lifetime prevalence rates in 10 countries were recently estimated to vary from 15-71% (Garcia-Moreno et al. 2006).

Violence against pregnant women may also have consequences for fetal and birth outcomes, infant and child health, and future fertility (Bohn et al. 2004; Janssen et al. 2003; Jejeebhoy 1998). It affects somewhere between 4-8% of U.S. women (Gazmararian et al. 1996; 2000; Saltzman et al. 2003), with comparable or higher levels of abuse reported in European countries (Campbell 2002). Higher prevalence rates tend to be associated with more inclusive definitions of abuse and low income of respondents.

Women suffer deep-seated discrimination across the Arab world, holding back economic and social development (Nazir 2005; UNDP 2006). Little is known about intimate partner violence in this region. Very few studies report prevalence data, but a review of the limited empirical research indicates that such violence is both pervasive and widely accepted (Boy and Kulczycki, in press). The present study seeks to extend the limited database on partner violence in the Middle East. Specifically, it seeks to inform about physical abuse during pregnancy, its risk factors and detrimental health effects, on which virtually nothing is known for this region. It compares women abused during pregnancy to those not exposed to violence during such times.

Data from the 2005 Egyptian Demographic and Health Survey (EDHS) were analyzed for ever-pregnant women aged 15-49. Nearly half (47%) of ever-married women aged 15-49 reported having experienced physical violence since age 15, and 23% had experienced such violence in the past year. Although the 1995 EDHS included the first questions on wife-beating in a nationally representative survey for the Middle East, the 2005 EDHS survey contains more precise questions. In particular, it asked women: "Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?" In all, 6.2% (n=326) of ever-pregnant women reported having experienced physical violence during their pregnancies, with 5.1% (n=264) victimized by their present or former husband. We focus on these ever-pregnant women abused by their intimate partners to draw valid comparisons with questions that asked all ever-married women about their lifetime experience of physical violence at the hands of their present or former husband. Compared to women not abused during their pregnancies, victims were three times more likely to report having bruises and aches, four times as likely to report ever

having an injury or broken bone, and five times as likely to have ever needed a health facility as a result of something their husbands did to them.

Women who were abused in pregnancy by their husbands had a very similar age profile to non-victims. However, they were significantly more likely to be separated or divorced. In addition, they were more likely to be from rural Upper Egypt and less likely to be from urban or rural Lower Egypt; more likely to have no education or primary education; far less likely to have secondary or higher education; more likely to be from the two lowest wealth quintiles; and far less likely to be in the highest two wealth quintiles. All these regional, educational, and poverty/wealth status differences were statistically significant, as were differences by partner's level of educational attainment which reflected those by the woman's education. Victims were also more likely to be rural dwellers and to be working for cash, but these differences were non-significant.

Regarding relationship characteristics, victims of domestic violence in pregnancy did not differ from non-victims in terms of age differences, but they exhibited significant educational differences. Abuse in pregnancy was far more prevalent where both partners had no education, somewhat more likely when either spouse had a higher level of educational attainment than the other, and significantly less common in relationships where both partners had completed the same level of education. Abuse was more frequent among women who decided alone how their earnings would be spent and less common among those who reported taking such dec2isions with their husband, but these differences were not statistically significant and there were many missing responses (84%).

Women abused in pregnancy were significantly more likely than non-victims to have multiple (5+) children (30% vs. 24%). Among ever-pregnant women aged 40-49, those abused in pregnancy had three-tenths of a child more than did ever-pregnant women who were not so abused. Victims were also significantly less likely to have ever received antenatal care (ANC, 32% vs. 39%) and delivery care from a trained medical provider (36% vs. 42%). Although such women were also more likely to have had a non-live birth (26%) than were non-victims (23%), this difference was not statistically significant.

Respondents were asked if they had had a sexually transmitted infection (STI), genital sore or ulcer, and any genital discharge in the past 12 months. We computed a composite index to indicate the extent of self-reported STIs/STI symptoms. Compared to non-victims, women abused during pregnancy were almost three times as likely to report having experienced such problems. Almost all those who reported having been beaten in pregnancy responded to this question.

Women abused in pregnancy were significantly more likely to find wife beating to be justified in four of five situations considered: if she went out without him, neglected the children, argued with him, or refused to have sex with him, but not if she burnt the food. We derived an additive 'acceptance of wife-beating' index and found that women abused in pregnancy were significantly more likely to agree with at least one justification for wife-beating than their counterparts (62% compared to 50%). We also assessed women's

participation in household decisionmaking, which yielded somewhat inconsistent results across the four criteria posed. Women were significantly less likely to be abused in pregnancy if they typically made decisions jointly with their husbands with respect to their own health care, large household purchases, and visits to family or relatives. On the other hand, they were more likely to be abused if either they or their husbands typically alone had the final say on such matters. Regarding household purchases for daily needs, the findings were non-significant.

Two of every three women (66%) abused in pregnancy sought help to deal with the violence, in most cases from relatives. Of special note, not one such woman sought help from medical personnel. Women who did not seek help stated, in descending order of importance, that they considered the violence not important, a part of life, or that they were embarrassed, afraid, or did not want to disgrace the family. These explanations indicate the widespread fatalism and resignation in the face of such violence.

We undertook multivariate logistic regression analyses to examine the predictors of physical abuse during pregnancy, and the association between such violence and adverse health effects. These analyses were adjusted for individual and partner-level characteristics. Our first multivariate model of the risk factors for experiencing violence in pregnancy considered only demographic characteristics at the individual level. This found that abuse was more common among women who had no education, had five or more children, and who were divorced or separated. The addition of male education rendered female education no longer significant, suggesting that the former is more predictive of such violence, and age differences also had elevated odds. After adding poverty/wealth and the 'beatings' index, we found that women who were urban dwellers, divorced or separated, engaged in cash work, and who accepted at least one justification for wife-beating, were more likely to be victims of abuse in pregnancy. There was also an inverse association between physical violence and being in the richest two quintiles.

Maternal health and birth outcomes partly depend on the care received by women during pregnancy and delivery. We examined if women's access to ANC varies by their experience of violence in pregnancy. Women, who were older, without education, divorced or separated, were less likely to have had ANC. In contrast, women living in urban areas and with at least five children were more likely to have had ANC. In this model, husbands' lack of education decreased the odds of receiving ANC significantly and made the effect of women's lack of education even large. Working for cash was not significant. As socioeconomic status increased, so did the odds of receiving ANC, whereas neither acceptance of wife-beating nor experiencing partner violence during pregnancy were significant.

Physical violence has also been associated with a range of common gynecological disorders such as fibroids, decreased libido, chronic pelvic pain, pain on intercourse, urinary tract, vaginal, and sexually transmitted infections (Letourneau 1999). Our multivariate analysis of experience of STIs/STI symptoms indicated that younger women were more likely to experience gynecological morbidities, whereas the odds were lower for urban women and those who had 5+ children. Poverty/wealth, women's and men's

education were not significant in this model. However, agreement with at least one justification for beating and experience of partner violence in pregnancy were highly significant. In fact, acceptance of wife-beating was found to raise the odds of experiencing STIs/STI symptoms by 1.6 times relative to non-abuse victims. Women subjected to violence from their husbands in pregnancy were 2.4 times more likely to acquire STIs/STI symptoms than were non-victims.

The study has several limitations. The size of our sample of ever-pregnant women abused in pregnancy, although not small, is not big either, so that the relative rarity of physical abuse limited our ability to examine fully every characteristic of interest. Women may have underreported their violence experiences, a sensitive topic, creating an underestimate of abuse. The study is also subject to the limitations of self-report studies, such as recall bias, and we cannot discount the possibility that respondents interpreted survey terminology in different ways. An additional limitation is that the data on ANC apply to all births during the five years prior to the survey and that on gynecological morbidity symptoms relate the past year. These periods of exposure are not equal and they are not index to the pregnancy period in which the abuse occurred. Also, the survey did not collect data on women whose abuse was so severe that it ended in their death. To ensure valid comparison, we could not consider questions on sexual and emotional violence, because the question asked of women experiencing violence during pregnancy only considered physical violence. On the other hand, only 2% of ever-married women reported sexual or emotional violence.

Despite these limitations, this study begins to enhance our understanding of intimate partner violence during pregnancy in Egypt, its prevalence, risk factors, and deleterious effects for reproductive health. We have provided a valid comparison group for deriving our study inferences. This study's findings also have important practice implications. Our findings confirm that pregnancy is a period of risk for spousal abuse in Egypt. This confirms the importance of discussing abuse during FP and other health care visits in the preconception and pregnancy periods. However, there is little opportunity for in-depth counseling and intervention for those who disclose abuse. Alarmingly, not a single woman in our sample sought assistance from a doctor or other medical personnel, emphasizing the scale of obstacles to implementing screening for abuse by health workers. Currently, no effective interventions exist for such women other than referral for counseling and shelters, which are almost non-existent in Egypt, as throughout the Middle East. Many women who experience domestic violence are too accepting of such abuse and may be too embarrassed or frightened to seek direct help, even if it were available. However, such research and publicizing such findings is a vital step toward recognizing this is an issue of public health significance, as well as a criminal justice problem, and addressing the roots of abuse.

Accurate information on the prevalence of domestic violence is difficult to obtain, especially for the Middle East. We have drawn upon a new, nationally representative sample of Egyptian women to assess the prevalence of spousal physical violence during pregnancy, the correlates of such violence, and their associated adverse reproductive health outcomes. This ongoing study confirms prior work reporting an association of

physical abuse during pregnancy with adverse maternal and reproductive health outcomes. It extends this work to the largest nation in the Middle East and adds to the limited evidence base on the topic for this region. It shows that such violence is common and likely underreported, constituting a serious public health problem that demands urgent attention. Although acceptance of spousal abuse declines among more empowered Egyptian women, the pervasive culture of silence and fatalism that surrounds this issue renders it very difficult to address its roots.

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