SEXUAL ASSAULT AMONG INTIMATES:
FREQUENCY, CONSEQUENCES & TREATMENTS

Grant No. 2002-WG-BX-0003

ABSTRACT

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RESEARCH GOAL & OBJECTIVES

Intimate partner sexual assault is common, outnumbering both stranger and acquaintance sexual assault, with 14% to 25% of women reporting sexual assault by their intimate partners at some time during the relationship. Although much information exists on the health and emotional effects of intimate partner physical abuse, little to no information is available on intimate partner sexual assault. The goal of this research is to describe the frequency and consequences of sexual assault within intimate relationships, specific to ethnicity and immigration status, and compare the findings to a similar group of physically abused women who have not experienced intimate partner sexual assault. Research objectives include a description of the type and frequency of sexual assault, consequences of sexual assault on women's health and their children's functioning, and treatments used by women to end the sexual assault.

RESEARCH DESIGN & METHODOLOGY

A longitudinal cohort design was used. The sample of sexually assaulted and not-sexually assaulted women was derived from a National Institute of Justice study about protection orders. Among the 150 women participating in the protection order study, 148 were living two years later and signed informed consent to participate in this study on sexual assault. Sexual assault was defined as forced vaginal, oral, or anal sex. A structured interview and scored instruments were administered to the 148 women.

RESEARCH RESULTS

- 68% of physically abused women also reported sexual assault.
- 79% of sexually assaulted women reported repeated episodes of forced sex, with the frequency of sexual assault highest for white women.
- 6% of sexually assaulted women contacted the police following the 1st sexual assault and 8% applied for a protection order.
- Justice contact, either police or protection orders, was associated with up to a 70% reduction in the risk of re-assault.
- Not contacting the police after the 1st sexual assault doubled a woman's risk of re-assault and not applying for a protection order tripled her re-assault risk.
- Following sexual assault, 27% of the women began or increased their use of alcohol, illicit drugs (usually cocaine), or nicotine use, 20% became pregnant, and 15% contracted a sexually transmitted disease
- 22% of sexually assaulted women reported suicide threats or attempts within 90 days of applying for a protection order, compared to 4% of physically-abused only women.
- Sexually assaulted women reported more risk factors of femicide, especially strangulation and threats from the abuser to kill the woman and hurt the children, compared to physically-abused only women.
- 88% of the children were exposed to the violence against their mothers, with 64% of the children witness to the abuse by age three. Only 30% of the children received counseling.
- Children of sexually abused mothers, age 12 to 18, showed the same degree of depressive behaviors as children under treatment for depression, and appreciably more behavioral problems than youngsters of physically-abused only mothers.

RESEARCH CONCLUSIONS

Justice, health, and social service professionals assisting abused women should routinely:

- Receive training about the frequency, health and safety consequences of intimate partner sexual assault.
- Assess for type and frequency of sexual assault.
- Inform women reporting sexual assault about their increased risk of femicide, post-traumatic stress disorder, substance use, and suicide, followed with appropriate referrals and safety planning information.
- Offer information about symptoms of post-traumatic stress disorder and suicidal ideation, as well as referral agencies for treatment.
- Inform pregnant women of the increased risk of femicide to women physically or sexually assaulted during pregnancy, followed with appropriate referrals and safety planning information.
- Inform mothers of the potential negative effects of domestic violence on their child's behavior, followed with appropriate referrals.
- Inform immigrant women of the increased risk of post-traumatic stress among non-US born women, followed with culturally appropriate referrals and safety planning information.

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Grant No. 2002-WG-BX-0003

EXECUTIVE SUMMARY

Dr. Judith McFarlane, Principal Investigator

Dr. Ann Malecha, Co-Principal Investigator

RESEARCH PURPOSE & OBJECTIVES

Intimate partner sexual assault is common, outnumbering both stranger and acquaintance sexual assault, with 14% to 25% of women reporting sexual assault by their intimate partners at some time during the relationship (Bennice & Resick, 2003). Although much information exists on the health and emotional effects of intimate partner physical abuse, little to no information is available on intimate partner sexual assault. The purpose of this study is to describe the frequency and consequences of sexual assault within abusive intimate relationships, specific to ethnicity and immigrant status, and compare the findings to a similar group of physically abused women who have not experienced intimate partner sexual assault. Research objectives include a description of the type, extent, and temporal sequencing of sexual assault, consequences of sexual assault on women's health and their children's functioning, and treatments used by women to end the sexual assault.

RESEARCH SETTING & SAMPLE

The sample of sexually assaulted and not-sexually assaulted women was derived from a National Institute of Justice study that measured the effectiveness of protection orders and tested a safety intervention for abused women, the results of which are published (McFarlane, et al., 2002(a), 2002(b), 2004(a), 2004(b); Malecha, et al., 2003). Among the 150 women participating in the protection order study, which took place at the Houston District Attorney's Office, 148 women signed informed consent to participate in the sexual assault study.

RESARCH METHODS

Sexual assault was defined as a positive response to questions about forced vaginal, oral, or anal sex as asked on the Severity of Violence against Women, Sexual Assault Subscale (Marshall, 1987). A structured interview asked about type, frequency, sequencing,

circumstances, and perpetrator behaviors at the time of the first and subsequent sexual assaults as well as actions the woman took to end the sexual assault. Questionnaires were used to measure extent of violence, physical and mental health, and social support for both sexually assaulted and not-sexually assaulted women. Specific questionnaires included the Danger Assessment Scale, which measures risk for femicide, and the Severity of Violence Against Women Scales which measure the frequency and severity of threats of abuse and physical assault. Stalking and work harassment surveys were also used. The Brief Symptom Inventory and the Post Traumatic Stress Disorder Scale assessed mental health functioning, and dimensions of social support were measured with the Medical Outcomes Study Social Support Survey. Additionally, sexual decision-making practices were asked of both groups of women. Finally, aggressive and depressive behaviors of children of sexually assaulted mothers were compared to behaviors of children of physically assaulted only mothers using the Child Behavior Checklist questionnaire. A mixed-model analysis plan tested for significant between-group differences for women reporting sexual assault, compared to women not reporting sexual assault, as well as within-group difference according to racial and ethnic self-identification and immigrant status. The results of this study can be generalized to an African-American, Hispanic and White urban population of women applying for a protection order against an intimate partner. Limitations to the study include a small sample size and self-reported data, which may under or over report the information.

RESEARCH RESULTS

Demographic Characteristics of the Women

Among this group of 148 women, 33% self-identified as African American, 26% identified as White and 41% considered themselves Hispanic. Twenty eight percent of the

women were first generation immigrants, primarily from Mexico, and 26% of the women were non-English speaking. One hundred women (68%) reported sexual assault, at least once, by the intimate partner named in application for a protection order. Among the 100 women reporting sexual assault, most of the women, 62%, reported an event of sexual assault within 90 days of applying for the protection order. There was no significant demographic differences between women reporting sexually assault and women reporting physical abuse only. Both groups consisted of equal proportions of African-American, White and Hispanic women as well as non-US-born women and non-English speakers. Over 75% of the women in each group reported employment, with a reported income of less than $20,000.

Type and Frequency of Sexual Assault

Most women (79%) reported repeated episodes of sexual assault, including vaginal, oral and anal penetration, with forced vaginal intercourse accounting for the highest percentage of sexual assault. Over half (55%) of the women reported a second sexual assault within one month of the first assault. The frequency of sexual assault was highest for white women. However, the type, frequency and severity of sexual assault did not differ significantly by racial or ethnic group or country of birth.

Sequencing of Consensual Sex, Sexual Assault and Application for a Protective Order

Over half of the women (52%) were sexually assaulted by their intimate partner for the first time within two years after the first consensual sex. Most women waited several years after the first sexual assault before applying for a protection order, with white women waiting the longest (on average 8 years) followed by Hispanic women (on average 5 years) and African American women who waited the shortest length of time, (on average 3 years). For 30% of the women, sexual assault occurred before the physical abuse began. Several women reported the

physical abuse began when they began to physically resist the sexual abuse. As one woman explained, “When I began to resist the forced sex by kicking and pushing him away, he became more violent and starting hitting, punching and holding me down for sex”.

Relationship Circumstances around the Time of the First Sexual Assault

Most women (83%) reported a change in the relationship before the first sexual assault, with 33% of the women reporting the abuser had become more violent, possessive, or controlling. Twenty-two percent of the women reported an “emotional” separation prior to the first sexual assault. Examples of an “emotional separation” included statements of “we did not talk to each other anymore”, “I didn’t want to be with him anymore and he knew it”. Seventeen percent of the women reported an actual, or pending, physical separation of the couple prior to the first sexual assault, and 15% of the women reported the abuser had begun to use illicit drugs or alcohol before the first assault. When illicit drug use was reported, the drug reported was usually cocaine.

Perpetrator Behaviors Immediately Before and After the First & Subsequent Sexual Assaults

Over 50% of abusers used alcohol during the first and subsequent sexual assaults, and 40% used illicit drugs, with 60% of the illicit drugs reported as crack or cocaine. Forty percent of the women were physically assaulted immediately before the first sexual assault and almost 50% were physically assaulted before future sexual assaults. Thirty percent of the women were physically assaulted immediately after the first sexual assault and 35% were physically assaulted immediately following future sexual assaults.

Victim Helpseeking after the First and Additional Sexual Assaults

The women sought help in a variety of ways. The most common person with whom the women shared the sexual assault was a friend or family member. Women who sought help from

the justice system, either by contacting the police or applying for a protection order, after the first sexual assault were significantly less likely to be re-assaulted. Women who contacted the police after the first assault, irrespective of whether or not the abuser was arrested, were 59% less likely to be re-assaulted. Women who applied for a protection order after the first assault, irrespective of whether or not the order was received, were 70% less likely to be re-assaulted. Stated another way, women who did not contact the police after the first sexual abuse were 2.4 times more likely to be re-assaulted, and women who did not apply for a protection order were 3.3 times more likely to be re-assaulted.

Helpseeking behavior was repeated. Women who told someone about the sexual assault after the first occurrence were 2.5 times more likely to tell someone after subsequent sexual assaults. Women who contacted the police after the first sexual assault were 7.7 times more likely to contact the police after re-assaults. Women who received medical care after the first assault were 8.3 times more likely to receive medical care after re-assaults. However, none of the women who applied for a protection order after the first sexual assault applied after re-assaults. Likewise, none of the women who received counseling after the first sexual assault went for counseling after re-assaults. Further research is needed to understand why protection orders and counseling were not sought following re-assaults.

Outcomes of Sexually Assaulted Women's Contact with Justice Agencies

Outcomes following the woman's contact with the justice system varied from the first to second sexual assault. Among the women who contacted the police following the first sexual assault, half of the abusers were arrested. Similarly, 50% of the women seeking a protection order after the first sexual assault received the order. However, among the women contacting the police following the second sexual assault, only 20% of the abusers were arrested; however, two-

thirds of the women applying for a protection order received the order. Arrest was higher following police contact for the first sexual assault but more protection orders were received following the second sexual assault.

Consequences of Intimate Partner Sexual Assault on Women's Safety & Health

Compared to not-sexually assaulted women, the sexually abused women reported significantly more risk factors of femicide (see Figure 1), more episodes of work harassment, and worse physical and mental health functioning. These findings did not vary significantly by racial or ethnic group or country of birth. Risk factors for femicide were highest for African-American women, followed by White women. Hispanic women reported the lowest number of risk factors. However, episodes of work harassment were highest for White women followed by African-American women. Alarming is the fact that 22% of the sexually assaulted women had threatened or tried to commit suicide within 90 days of applying for a protection order compared to only 4% of the not-sexually assaulted women.

Twenty-four months after contacting the justice system for a protection order, sexually abused women reported significantly more symptoms of post-traumatic stress disorder compared to not-sexually abused women, regardless of racial/ethnic group or country of birth (see Figure 2). Hispanic and immigrant women reported the most symptoms of post-traumatic stress disorder, and immigrant women reported significantly fewer sources of social support.

Health Problems the Women Attribute to Intimate Partner Sexual Assault

Vaginal and rectal bleeding, sexually transmitted diseases and pelvic inflammatory disease were reported significantly more often by women experiencing repeated sexual assaults. One-third of women who reported repeated sexual assaults also reported beginning or increasing

use of alcohol, nicotine, or illicit drugs, usually cocaine, because of the sexual assaults, with 27% of the women reporting alcohol use beginning or increasing because of the forced sex.

Rape-Related Pregnancy

Twenty-percent of the women reported at least one rape-related pregnancy. Almost one-fifth (16%) of the rape-related pregnancies were ended with an elective abortion. Thirty-percent of the women reported sexual assault during pregnancy.

Sexual Decision Making and Intimate Partner Sexual Assault

When asked about mutual decision making and sexual relations, women sexually assaulted reported their intimate partner was significantly less likely to participate in mutual decision making, compared to partners of women not reporting sexual assault. Sexually assaulted women wanted to use condoms to prevent sexually transmitted diseases significantly more often than not-sexually assaulted women. More than one-fourth (26%) of the sexually assaulted women became pregnant because the abuser would not use birth control compared to only 5% of the women not-sexually assaulted.

Why some women were physically but never sexually assaulted?

Women physically but not sexually assaulted were asked if they had ever worried about sexual assault. Among the 48 women never sexually assaulted, 8 women (17%) reported being worried about forced sex. Seven of the women who had worried about the possibility of forced sex reported changes in the relationship, such as a separation, pregnancy, or an increase in physical abuse. Only three women discussed this worry of a possible sexual assault with someone, primarily family or friends. Among the women that reported they never worried about forced sex, 85% stated the abuser always took “no” to sexual intercourse as an absolute answer. The remaining 15% of the women stated the abuser went elsewhere for sex if they said “no”.

Child Witness to Intimate Partner Physical or Sexual Assault and Counseling Received

Most of the women (77%) had one or more children. When asked if any of their children had ever seen or heard the physical or sexual assault, 88% of the women answered "yes". A total of 205 children were reported to have been exposed to the assault of their mother, with more than one-third of the children (36%) exposed to the violence for the first time during infancy, and 64% exposed by age three. Only one-third of the children had received counseling. When asked how helpful the counseling was, 82% of the mothers rated the counseling as "very helpful", or "somewhat helpful**".**

Behaviors of Children Exposed and Not-Exposed to Intimate Partner Sexual Assault

When the behaviors of children of sexually abused mothers were compared to youngsters of physically abused only mothers, youngsters age 12-18 showed more depression. These same youngsters had behavior problems consistent with children being treated in a clinical setting and appreciably more problems than youngsters of physically-abused-only mothers.

RESEARCH RESULTS SUMMARY

- 68% of physically abused women also reported sexual assault.
- 79% of sexually assaulted women reported repeated episodes of forced sex with the frequency of sexual assault highest for white women.
- 6% of sexually assaulted women contacted the police following the 1st sexual assault and 8% applied for a protection order.
- Justice contact, either police or protection orders, was associated with up to a 70% reduction in the risk of re-assault.
- Not contacting the police after the 1st sexual assault doubled a woman's risk of re-assault and not applying for a protection order tripled her re-assault risk.

- Following sexual assault 27% of the women began or increased their use of alcohol, illicit drugs (usually cocaine), or nicotine use, 20% became pregnant, and 15% contracted a sexually transmitted disease
- 22% of sexually assaulted women reported suicide threats or attempts within 90 days of applying for a protection order, compared to 4% of physically-abused only women.
- Sexually assaulted women reported more risk factors of femicide, especially strangulation and threats from the abuser to kill the woman and hurt the children, compared to physically-abused only women.
- 88% of the children were exposed to the violence against their mothers, with 64% of the children witness to the abuse by age three. Only 30% of the children received counseling.
- Children of sexually-abused mothers, age 12 to 18, showed the same degree of depressive behaviors as children under treatment, and appreciably more problems than youngsters of physically-abused only mothers.

RESEARCH CONCLUSIONS

In this study intimate partner sexual assault was common, reported by 68% of the women applying for a protection order, and equally experienced by African-American, Hispanic, White, US-born and immigrant women. Sexually assaulted women reported an increased risk of femicide, rape-related pregnancy, poor physical and mental health, post-traumatic stress disorder, increased alcohol use, and suicide. By age three most of the children of women in this study had witnessed the physical and/or sexual assault of their mothers. Many of the children had behavioral disorders and most had never received counseling. The women who reported contact with the justice system, either law enforcement or protection orders, experienced a decrease in the risk of re-assault. Our findings indicate the need for accessible and acceptable justice, health,

and social services agencies for women experiencing sexual assault, as well as justice, health and social service personnel trained in the frequency, health and safety consequences of intimate partner sexual assault.

RESEARCH RECOMMENDATIONS

Justice, health, and social service professionals assisting abused women should routinely:

- Receive training about the frequency, health and safety consequences of intimate partner sexual assault.
- Assess for type and frequency of sexual assault.
- Inform women reporting sexual assault about their increased risk of femicide, post-traumatic stress disorder, substance use, and suicide, followed with appropriate referrals and safety planning information.
- Offer information about symptoms of post-traumatic stress disorder and suicidal ideation, as well as referral agencies for treatment.
- Inform pregnant women of the increased risk of femicide to women physically or sexually assaulted during pregnancy, followed with appropriate referrals and safety planning information.
- Inform mothers of the potential negative effects of domestic violence on their child's behavior, followed with appropriate referrals.
- Inform immigrant women of the increased risk of post-traumatic stress among non-US born women, followed with culturally appropriate referrals and safety planning information.

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Marshall, L. (1992). Development of the severity of violence against women scales. *Journal of Family Violence,* 7(2): 103-121.

Figure 1. Frequency of Risk Factors for Femicide Reported by Sexually Assaulted (n=100) and Not-Sexually Assaulted (n=48) Women

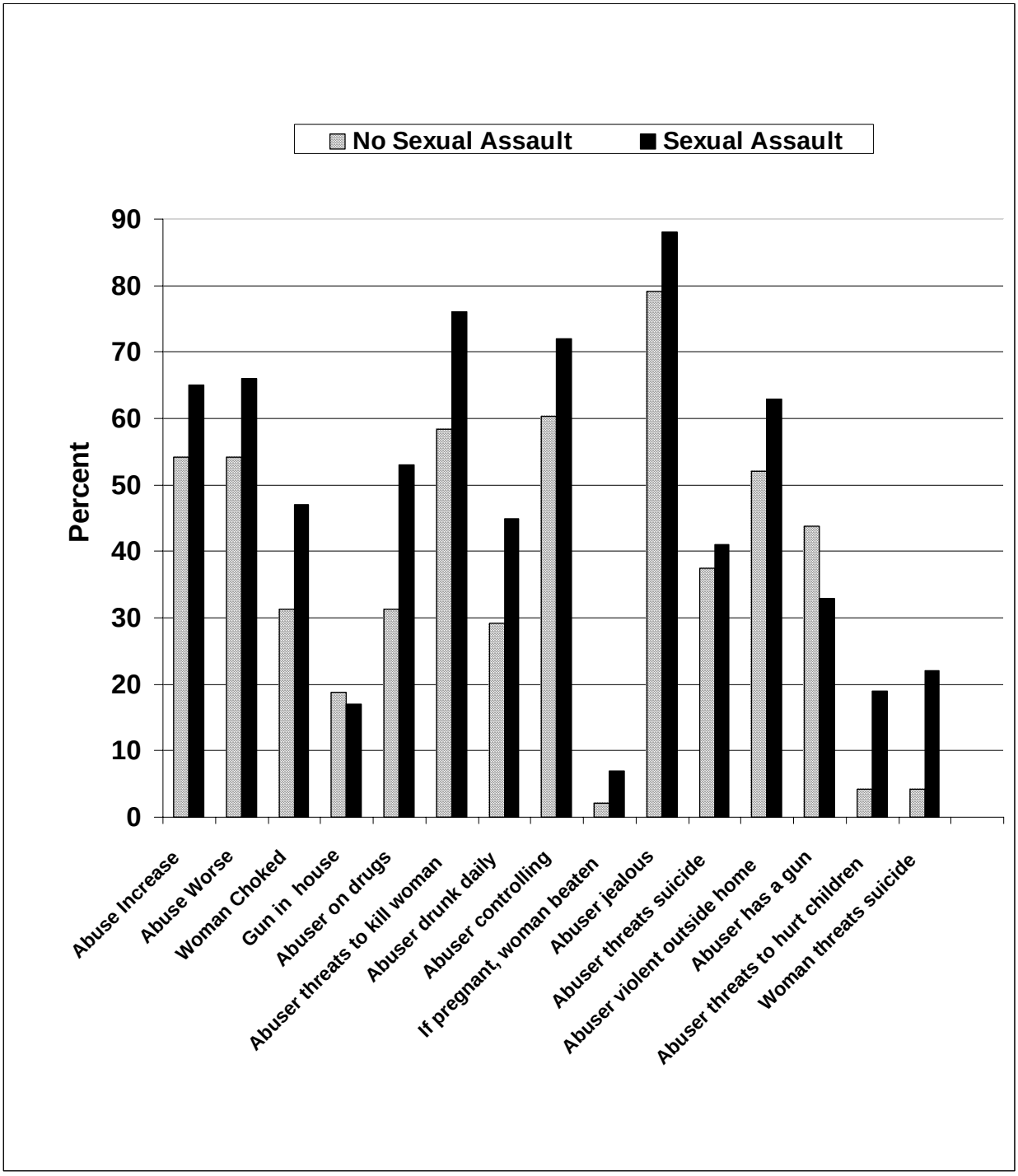
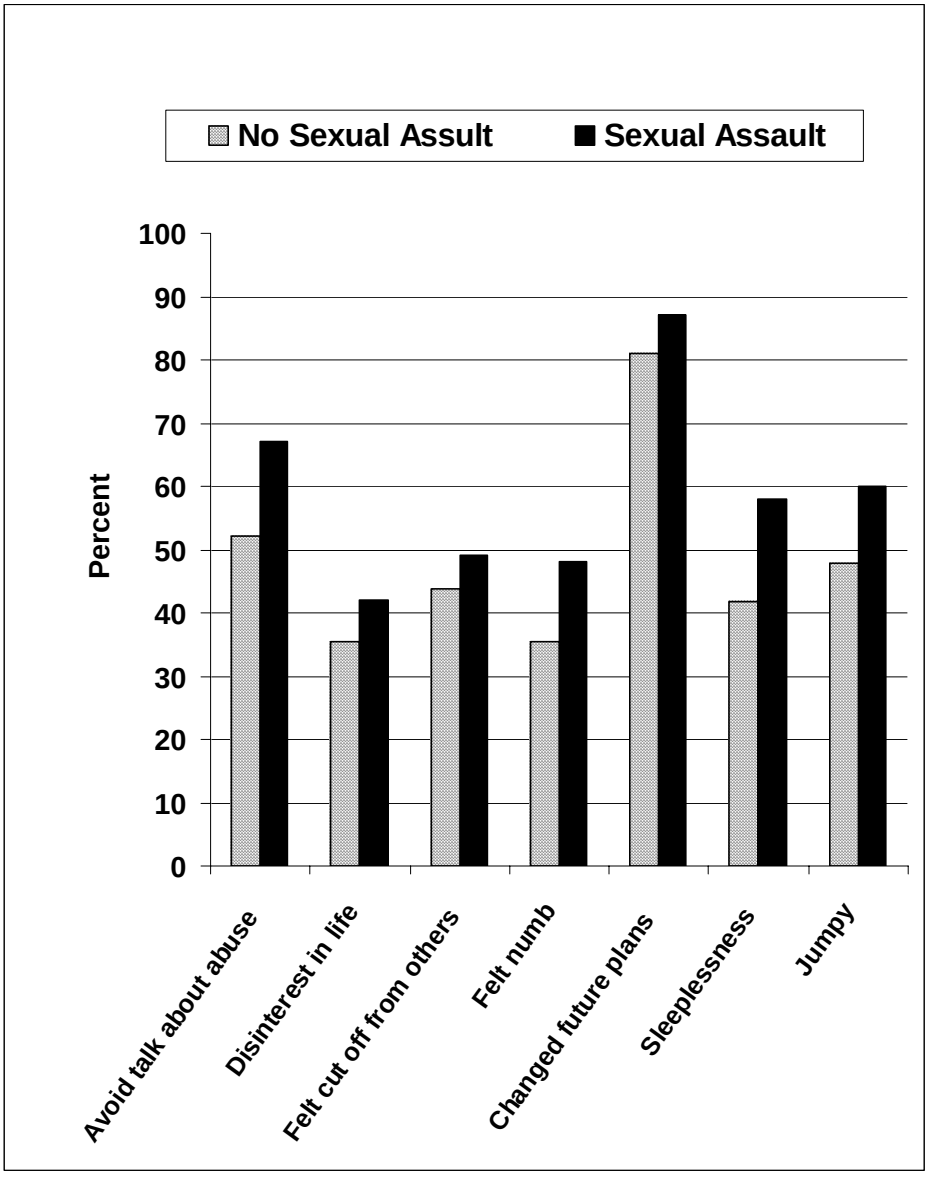


Figure 2. Frequency of Symptoms of Posttraumatic Stress Disorder Reported by Sexually Assaulted (n=100) and Not-Sexually Assaulted (n=48) Women



SEXUAL ASSAULT AMONG INTIMATES: FREQUENCY, CONSEQUENCES & TREATMENTS

Grant No. 2002-WG-BX-0003

September 1, 2002 to August 31, 2004

TECHNICAL REPORT

Dr. Judith McFarlane, Principal Investigator

Dr. Ann Malecha, Co-Principal Investigator

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TECHNICAL REPORT

Dr. Judith McFarlane, Principal Investigator

Dr. Ann Malecha, Co-Principal Investigator

INTRODUCTION

The prevalence and health effects of intimate partner physical assault against women are well chronicled (Tjaden & Thoennes, 2000). Conversely, the extent and especially the consequences of intimate partner sexual assault are virtually unknown. Most of what is known about intimate partner sexual assault is from reports by physically abused women, usually women seeking services (Campbell & Alford, 1989; Bergen, 1996). Studies consistently report 40% to 50% of physically abused women are also sexually assaulted (Campbell, 1989; Bergen, 1996; Campbell & Soeken, 1999), a rate four to five times higher than the 9 to 13% reported by women from community and national samples (Finkelhor & Yllo, 1985; Russell, 1990; Kilpatrick, Edmundo, & Seymour, 1992; Basile, 2002).

Although intimate partner sexual assault is not exclusively found in battering relationships, it is nearly impossible to find a large enough sample of women to study who have experienced sexual violence yet have not been physically assaulted by their intimates as well. The time sequencing of physical and sexual assault within intimate relationship is unknown. Correct sequencing is essential for developing a causal model of victimization and reactions. Therefore, to describe the temporal sequencing, consequences and treatments sought by intimate partner sexual assault victims, disentangle the health effects of sexual versus physical assault, and make recommendations to justice and health agencies, a cohort of 150 African-American, Hispanic and White women who sought justice services were interviewed.

RESEARCH PURPOSE & OBJECTIVES

The purpose of this research is to describe the frequency and consequences of sexual assault within intimate relationships specific to ethnicity and immigrant status and compare the findings to a similar group of physically-assaulted-only women. Project objectives include a

description of the type, extent, and temporal sequencing of sexual assault, consequences of sexual assault on women's health, and their children's functioning, and treatments used by women to end the sexual assault. Finally, recommendations for both justice and health service providers are presented.

METHODS

Our first study began in January 2001 at a special family violence unit of the Harris County District Attorney's office in Houston, Texas that serves an ethnically diverse population of 3 million citizens. All women who presented to this special family violence unit at the district attorney's office to apply for a protection order and who completed the application process, qualified for the protection order, and met our inclusion criteria (e.g., female, 18 years or older, English or Spanish speaker) were invited by one of 6 investigators into a study about the effectiveness of protection orders. Women were invited to participate until 150 women entered the study. Four women refused to participate in the study. One woman committed suicide 6 weeks into the study. All of the remaining 149 women completed the 18-month protection order effectiveness study, the results of which have been published (Malecha et al., 2003; McFarlane, et al., 2002a, 2002b; 2004a; 2004b). (For specifics on how many women received a protection order, reasons for not receiving an order, and outcomes, the reader is referred to the publications by McFarlane and her associates).

Among the initial cohort of 150 women, 148 women were alive in January 2003 and signed informed consent for the second study, "Sexual assault among intimates: Frequency, consequences and treatments". The second study is the focus on the present report. Sexual assault was defined as a positive response to any one of the five questions on the Severity of

Abuse against Women, Sexual Assault Subscale (Marshall, 1992). The five questions are: During the relationship, did (name of abuser)

- Make you have sexual intercourse against your will?
- Physically force you to have sex?
- Make you have oral sex against your will?
- Make you have anal sex against your will?
- Use an object on you in a sexual way?

Additional questions asked about type and frequency of decision making and actions regarding sexual relations, condom use, and birth control. A detailed history of perpetrator behavior at the time of the first and additional sexual assaults was obtained, as well as victim helpseeking and health problems following the sexual assault(s). All sexual assault histories occurred before the victims came to the district attorney's office in January 2001 to apply for a protection order. Instruments were administered to determine type and severity of violence, physical and mental health functioning, family hardiness, and social support functioning. All instruments were offered in English or Spanish according to the woman's preference and completed during a personal interview in a private setting at a time and location convenient for the woman. All women were offered $50 at the completion of the interview.

Instruments

A Demographic Data Form was used to document information on the woman's age, education, income, self-identified race/ethnicity, employment status, relationship to the abuser, and primary language.

The Brief Symptom Inventory (BSI) is an 18-item instrument that measures three psychological dimensions: depression (6 items including feeling no interest in things, feeling

lonely, feeling blue, and suicidal ideation), anxiety (6 items including nervousness, tension, and feeling fearful), and somatization (6 items including faintness or dizziness, pains in heart or chest, and feeling weak). Additionally, a Global Severity Index summarizes the respondent's overall level of psychological distress (Derogatis, 2001). Available in both English and Spanish, internal consistency reliability ranges from 0.74 to 0.89 for the subscales. Test-retest reliability over two weeks ranges from 0.68 to 0.91. High convergent validity exists between the subscales with the longer version BSI-53. A global index score of 63 or greater places the person at risk to psychological distress as does a score of 63 or greater or any two or the three scales. In this study, reliability (Cronbach alpha coefficient) was 0.88 for depression, 0.85 for anxiety, and 0.85 for somatization.

Post Traumatic Stress Disorder Scale (PTSD) is a 7-item symptom scale that screens for post traumatic stress disorder. The instrument is a short form of the modified National Institute of Mental Health Diagnostic Interview Schedule and the World Health Organization Composite International Diagnostic Interview, version 2.1 (Breslau, et al., 1999). Scores of greater than 4 indicate post traumatic stress disorder with a sensitivity of 80% and a specificity of 97%, a positive predictive value of 71%, and a negative predictive value of 98%. In this study, reliability (Cronbach alpha coefficient) was 0.78.

Family Hardiness Index (FHI) is a 20-item instrument that measures family hardiness or the internal strength and durability of the family and the ability to resist stress and to adapt to and effectively deal with new situations (McCubbin, McCubbin & Thompson, 1991). A higher score indicates greater family hardiness or internal strength. The instrument has been tested on community samples with a reported alpha of .82 for internal consistency. In this study, reliability (Cronbach alpha coefficient) was 0.89.

The Medical Outcomes Study (MOS) Social Support Survey measures various dimensions of social support and includes four functional support scales: emotional/informational support, tangible support, affectionate support, and positive social interaction support (Sherbourne & Stewart, 1991). These subscales all have alphas greater than 0.91 and are stable over time. For this study, three social support structural items (How many close friends do you have? How many relatives do you have that you feel close to? How many of these friends or relatives do you see at least once a month?) were included. Two items from each of the four functional support scales were also included. In this study, reliability (Cronbach alpha coefficient) was 0.83 for the eleven social support items.

The Child Behavior Checklist (CBCL) is a standardized instrument that provides a parental report of the extent of a child's behavioral problems and social competencies. The CBCL consists of a form for children 18 months to 5 years (Achenbach & Rescorla, 2000) and a version for ages 6 to 18 years (Achenbach & Rescorla, 1991). The CBCL is orally administered to a parent who rates the presence and frequency of certain behaviors on a 3-point scale (0=not true, 1=somewhat or sometimes true, and 2=very true or often true). The time period is the last 6 months for the child age 6 to 18 years, or last 2 months for the child age 18 months to 5 years. Examples of behaviors for the child age 6-18 years include, "destroys his/her own things," "gets in many fights," "truancy, skips school". Examples of behaviors for the child age 18 months to 5 years include, "cruel to animals", "physically attacks people", and "doesn't want to sleep alone". Both forms of the CBCL consist of two broadband factors of behavioral problems: internalizing and externalizing with mean scale scores for national normative samples as well as clinically referred and non-referred samples of children.

Internalizing behaviors include anxiety/depression, withdrawal and somatic complaints. Externalizing behaviors include attention problems, aggressive behavior, and rule-breaking actions. Behavioral scales yield a score of total behavioral problems. Scores are summed and then converted to normalized T scores. For 6 to18 year olds, T scores are age and gender specific. For children 18 months to 5 years, the T scores are not age or gender specific. For internal, external, and total behavior problems, T scores $\geq$ 60 are within the borderline/clinical referral range - higher scores represent more deviant behavior. Reliability for children 18 months to 5 years were 0.94, 0.91, and 0.97 for internal, external and total behavior problems, respectively. Reliability for youngsters 6 to 18 years in this sample were 0.89, 0.91, and 0.95 for internal, external and total behavior problems, respectively.

Data from the study on effectiveness of protection orders were re-stratified to measure differences between sexually abused and not-sexually abused women. Instruments used in the re-stratified analysis included the following:

Severity of Violence against Women Scales (SAVAWS). This 46-item instrument is designed to measure threats of physical violence (19 items) and physical assault (27 items) (Marshall, 1992). Examples of behaviors that threaten physical violence are threats to destroy property, do bodily harm, or harm other family members. Examples of behaviors that represent physical violence are kicking, choking, beating up, and engaging in forced sex. For each item, respondents use a 3-point scale to indicate how often the behavior occurred (0=never, 1=once, 2=2-3 times, 3=4 or more times). Possible score ranges were 0-57 for the threat of abuse scale and 0-81 for the physical abuse scale. The higher the score, the more violence reported. Internal consistency reliability estimates in studies of abused women have ranged from 0.89 to 0.91 for the threat of abuse scale and from 0.91 to 0.94 for the physical abuse scale (Gist, et al., 2001;

Wiist & McFarlane, 1998a, 1998b). In the present study, reliabilities (measured via Cronbach alpha coefficients) were 0.91 for the threat of abuse dimension and 0.94 for the physical abuse dimension.

Stalking Victimization Survey. This 17-item yes/no questionnaire was used to document the frequency and type of stalking engaged in by the perpetrator. The initial stalking survey instrument consisted of 7 items (e.g., being followed or spied on, being sent unsolicited letters or written correspondence, or finding the perpetrator standing outside one's home, school, or workplace) developed by Tjaden and Thoennes (1998). Ten items were added from the Sheridan (1998) HARASS instrument to form the overall 17-item instrument used here. Examples of items added include threats by the abuser to harm the children or to commit suicide if the woman left the relationship, leaving threatening notes on the woman's car, and threatening her family. The possible score range was 0 to 17. In this study, reliability (Cronbach alpha coefficient) was 0.83.

Danger Assessment Scale. This 15-item instrument, with a yes/no response format, was used to determine the woman's potential risk of becoming a femicide victim (Campbell, 1986). All of the items refer to risk factors that have been associated with murder in situations involving abuse. Examples of risk factors include the abuser's possession of a gun, use of drugs, and violent behavior outside the home. The possible score range was 0 to 15. Scale reliability coefficients have ranged from 0.60 to 0.86 in several studies (Campbell, 1995). In this study, the reliability (Cronbach's alpha coefficient) was 0.61.

Worksite Harassment. Eight yes/no questions were asked about worksite harassment. Questions were derived from a congressional report that reviewed studies of worksite harassment of women by intimate partners (US General Accounting Office, 1998). Questions focused on, for example, repeated call/visits to the woman's worksite and difficulties experienced by the woman

in regard to going to work. The possible score range was 0 to 8. In this study reliability (Cronbach's alpha coefficient) was measured as 0.63.

Medical Outcomes Study (MOS) Short Form (SF-12) Health Survey. This 12–item instrument, derieved from a longer version, the SF-36, was developed to measure health outcomes in a variety of populations (Ware, et al., 1996). The SF-12 is comprised of a physical health component summary and a mental health component summary. Scoring is accomplished by recoding items, computing scale scores, and transforming raw scores to a 0 to 100 scale. Internal consistency reliability is 0.89 for the physical component summary and 0.86 for the mental components summary (Ware, et al., 2002). Validity of the SF-12 has been established in diverse populations. Ware and associates established construct validity using a reference group technique and successfully discriminated between well groups and groups with chronic conditions. Available in both English and Spanish, the SF-12 can be administered in 2 minutes. Norm scores at the 75th percentile are 56.0 for the physical component score and 56.9 for the mental component score. Reliability for this study (Cronbach's alpha coefficient) was measured as 0.76.

DATA ANALYSIS

Means, standard deviations, and frequencies are used to describe the demographic characteristics of the 100 women sexually and physically assaulted compared to the 48 women physically abused only. Chi-square analyses determined whether the groups of women differed significantly with respect to race/ethnicity, immigrant status, English proficiency, education, employment, income and relationship to the abuser.

Descriptive statistics document perpetrator behaviors immediately before and after the sexual assaults. Temporal sequencing of the physical and sexual assaults, types of helpseeking

behaviors used by the women following the sexual assault(s), and the outcome of the helpseeking behaviors are presented with descriptive statistics. Also described in frequency tables and tested with chi-square analyses are the types of sexual decision-making reported by the women. An extensive set of frequency tables document the type of health problems the sexually assaulted women attributed to the assault(s). We completed relative risk analysis to determine if helpseeking with justice or health agencies after the first sexual assault decreased a woman's likelihood of experiencing a second sexual assault. Chi-square analyses and Fisher's exact tests were used to measure group differences between women who sought and did not seek agency help following sexual assault.

Univariate and multivariate analyses of variance were completed to measure ethnic and immigrant status effects on measures of violence, health, social functioning, and family hardiness. Follow-up tests were completed when a global significant difference was detected.

To measure the children's behavior with an adequate representation of age and gender strata, the older child was selected in families with more than one child between the ages of 1.5-17 years. As internal and external behaviors were components of total behavior problems and they were highly correlated with total behavior problems, a multivariate design with internal and external behaviors and a univariate design with total behavior problems were used. Furthermore, different instruments were used for children between 1.5 and 5 yrs and children, 6-18 years of age. Therefore, separate analyses were performed for the 2 major age groups. For children aged 1.5-5 yrs, a one-factor multivariate analysis of variance (MANOVA) was used to test for group differences in internal and external behaviors and adjustments were made for gender as needed. A one-factor analysis of variance (ANOVA) was used to test for group differences in total behavior problems. Similar analyses were performed for children between 6-18 yrs of age.

Because of the age strata, the analyses were adjusted for age group and gender when necessary for this older group. The second set of analyses included one-sample t-tests to compare, for each age and age by gender strata, mean scores for children from sexually abused mothers to clinically referred and non-referred norms.

RESULTS

Demographic Characteristics of Sexually Abused and Not-Sexually Abused Women

Among the 148 women completing the study, 100 women (68%) reported forced sex as least once during the relationship. The demographics of the women sexually assaulted and not-sexually assaulted are presented in Exhibit 1. There were no statistical differences between groups on any of the demographic characteristics. The majority of women were US born and English speaking. Over 75% of the women in each group reported employment, most had at least a high school education, and most reported an income of less than $20,000. At entry into the study in January 2001, two-thirds of the women, both sexually assaulted and not sexually assaulted, categorized their relationship to the abuser as current spouse or common law spouse. Twenty-four months later, January 2003, only one third of the women categorized the relationship as current spouse or common law spouse.

To further examine the change in the relationship status between contacting the justice system (i.e., entry into our study) and 24 months later, Exhibit 2 was formed. Twenty-nine percent of the women, who categorized the relationship as current at entry into the study, reported the relationship as former two years later. Conversely, only 3% of the women reporting the relationship as former at intake reported the relationship as current at 24 months. During a two year period one third of the women, both sexually assaulted and not-sexually assaulted groups, changed their relationship with the abuser from current to former.

Characteristics of Intimate Partner Sexual Assault

Type and Frequency of Sexual Assault

The type and frequency of sexual assault is presented in Exhibit 3. Some 62% of the women reported being forced into sexual intercourse four or more times, 37% reported forced oral sex and 27% reported forced anal sex. Many women reported multiple forms of sexual assault. When asked if she had experienced sexual assault more than once, 79% of the women responded yes. Fifty-five percent of the women reported that the second sexual assault occurred within one month of the first assault.

To determine if the frequency of sexual assault varied by ethnic group or country of birth, a one-way analysis of variance was completed on the mean sexual assault scores. The results appear in Exhibit 3a and 3b. Sexual assault scores ranged from 1 to 15. Although white women had the highest mean score of 7.22, compared to African American women at 5.37 and Hispanic women at 5.92, there was no statistical difference between ethnic groups. Likewise, no statistical difference occurred between mean sexual abuse scores for US born compared to non-US born women.

Temporal Sequencing of Sexual Assault

The mean number of years from meeting the abuser to the first sexual assault, first physical assault, and application for a protection order in January 2001 by ethnicity and country of birth appears in Exhibit 4. Also, the mean number of years from the first consensual sex to the first sexual assault, and first sexual assault to additional sexual assaults, by ethnicity and country of birth, appear in Exhibit 4. There were no significant differences between mean number of years to any of the events and ethnic group; however, there were two significant differences by country of birth. Compared to US born women, non-US born women reported significantly

(p=.03) more years from meeting the abuser to the first sexual assault and significantly (p=.01) more years from the first consensual sex to the first sexual assault.

The actual number of years from meeting the abuser to the first sexual assault, and first consensual sex to the first sexual assault, are presented in Exhibit 5. Thirty-eight percent of the women were sexually assaulted within two years of meeting the abuser, and 52% were assaulted within two years of the first consensual sex. However, for over one third of the women (35%), it was longer than 5 years from meeting the abuser until the first sexual assault and, for 28% of the women, it was longer than 5 years from the first consensual sex experience to the first sexual assault.

When asked about the temporal sequencing of physical and sexual assault, 30% of the women reported that sexual assault preceded the physical assault. As one woman explained, "When I began to resist the forced sex by kicking and pushing him away, he began to hit, punch, and hold me down". Most women waited several years after the first sexual assault before applying for a protection order with White women waiting the longest, 8 years on average, followed by Hispanic women, 5 years on average. African American women waited on average 3 years (see Exhibit 4).

Relationship Circumstances and the First Sexual Assault

The women were asked a series of questions about the status of their relationship with the abuser and abuser behaviors at the time of the first and subsequent sexual assaults. When asked if the relationship had changed prior to the first sexual assault, most women (83%) felt the relationship was different. Reported changes in the relationship are listed in Exhibit 6. Thirty-three percent of the women reported the abuser had become more violent, possessive or controlling. Twenty-two percent of the women reported an "emotional" separation prior to the

first sexual assault. Examples of “emotional separation” included statements of “we did not talk to each other anymore”, “I didn’t want to be with him anymore and he knew it”. Seventeen percent of the women reported an actual or pending physical separation from the abuser prior to the first sexual assault, and 15% of the women reported the abuser had begun to use illicit drugs or alcohol prior to the first sexual assault.

Perpetrator Behaviors Immediately Before and After the First & Additional Sexual Assaults

Abuser behaviors during the first and subsequent sexual assaults appear in Exhibit 7. Over 50% of the abusers used alcohol during the first and subsequent sexual assaults and 40% used illicit drugs, with 60% of the illicit drug use reported as crack or cocaine. Forty percent of the women reported physical abuse immediately before they were sexually assaulted for the first time. Almost 50% of the women reported physical abuse before additional sexual assaults. Thirty percent of the women reported physical abuse after the first sexual assault, and 35% reported physical abuse following additional assaults. Fifteen percent of the women reported threats of abuse immediately before or after the first and subsequent sexual assaults.

Helpseeking Behaviors Immediately After the First & Subsequent Sexual Assaults

The women were asked about their helpseeking actions following the first and subsequent sexual assaults. Women were asked if they told someone about the sexual assault, contacted the police, applied for a protection order, or received medical care or counseling. If the woman responded “yes” to contacting the police or applying for a protection order, she was asked if she received the order of protection and was the abuser arrested. Helpseeking behaviors were stratified by women who were and were not re-sexually assaulted after they sought help. This information appears in Exhibit 8 along with the test statistic. Twenty-six women (26%) told

some one about the first sexual assault, 6% contacted the police, 8% applied for a protection order, 9% received medical care and 3% received counseling. The behaviors of telling someone, contacting the police and applying for a protection order were significantly ($p<.05$) associated with a decreased risk of re-assault, with the largest reduction in risk associated with application for a protection order.

The relative risk, 95% confidence interval and interpretation of a specific helpseeking behavior compared to not doing the behavior after the first sexual assault and risk of re- assault are presented in Exhibit 9. Women who contacted the police, irrespective of whether or not the abuser was arrested, were 59% less likely to be re-assaulted. Women who applied for a protection order, irrespective of whether or not the order was received, were 70% less likely to be re-assaulted**.** Stated another way, women who did not contact the police after the first sexual assault were 2.4 times more likely to be re-assaulted, and women who did not apply for a protection order after the first assault were 3.3 times more likely to be re-assaulted.

Frequencies for helpseeking behaviors after re-assaults for women that did and did not perform helpseeking behaviors after the first sexual assault are presented in Exhibit 10. Telling someone, contacting the police, and receiving medical care after the first sexual assault was significantly ($p<.05$) related to repeating these same behaviors after re-assaults. The likelihood of helpseeking after re-assaults if the woman did or did not seek help after the first sexual assault is presented in Exhibit 11. Women who told someone after the first sexual assault were 2.5 times more likely to tell someone after re-assaults. Women who contacted the police after the first sexual assault were 7.7 times more likely to contact the police after re-assaults. Women who received medical care after the first sexual assault were 8.3 times more likely to receive medical care after re-assaults. None of the women who applied for a protection order after the first sexual

assault applied after re-assaults. Likewise, none of the women who received counseling after the first sexual assault went for counseling after re-assaults. Helpseeking behaviors were repeated and all helpseeking reduced the risk of re-assault.

CONSEQUENCES OF INTIMATE PARTNER SEXUAL ASSAULT FOR WOMEN

Violence and Health Measures at Time of Application for a Protection Order

Type and extent of intimate partner violence, as measured by the Severity of Violence against Women, Danger of Femicide, Stalking and Work Harassment Scales, as well as mental and physical health functioning for sexually assaulted and not-sexually assaulted women was assessed when the women applied for a protection order in January 2001. Mean scores and results from analysis of variance, by ethnic group, appear in Exhibit 12. Exhibit 13 presents the same scores by country of birth.

Sexually assaulted women reported significantly ($p=.002$) more danger of femicide as well as more episodes of work harassment ($p=.009$) compared to not-sexually assaulted women. When mean differences for physical and mental health functioning were examined, sexually assaulted women reported significantly ($p=.03$) worse mental and physical health functioning.

There were no significant differences between ethnic groups on any of the violence or health measures, neither were there any interactions between sexual assault and ethnicity (Exhibit 12). This means that regardless of a woman's ethnic group, sexually assaulted women report significantly ($p<.01$) more risk factors for femicide, more episodes of work harassment and poorer physical and mental health compared to not-sexually assaulted women. Exhibit 14 lists the frequency for each risk factor for femicide for sexually abused compared to not-sexually abused women. Sexually assaulted women reported significantly more threats of murder from

the abuser, more threats by the abuser to harm the children, more illicit drug use by the abuser, and more threats and/or attempts by the woman to commit suicide.

There were no significant differences between US born and non-US born women on any of the violence or health measures and there were no interactions (Exhibit 13). The lack of a statistical interaction means, regardless of whether a woman was born in the US or not US born, if the women reported sexual assault, they reported significantly more risk factors for femicide, and worse physical and mental health functioning.

Psychological Measures Two Years after Application for a Protection Order

Mental health, as measured on the Brief Symptom Inventory (BSI), social support, as measured on the Medical Outcomes Study, Post-traumatic Stress, and Family Hardiness for sexually assaulted and not-sexually assaulted women was assessed 24-months after the women applied for a protection order. Mean scores were calculated for sexually assaulted and not-assaulted women by ethnic group (Exhibit 15) and country of birth (Exhibit 16).

Post-traumatic stress was the only health measure that showed a significant difference between sexually assaulted and not-sexually assaulted women (Exhibit 15). Sexually assaulted women reported significantly ($p=.02$) more post-traumatic stress symptoms compared to not-sexually assaulted women. There was one significant ($p=.003$) difference between ethnic groups. Regardless of sexually assaulted or not-assaulted, Hispanic women reported significantly higher mean post-traumatic stress scores compared to African American ($p=.005$) and White women ($p=.012$) (Exhibit 15).

There were two significant differences on psychological scores according to country of birth (Exhibit 16). Regardless of sexually assaulted or not sexually assaulted, non-US born women reported significantly ($p<.001$) higher mean post-traumatic stress scores compared to US

born women. Additionally, these same non-US born women reported significantly (p=.007) fewer sources of social support (Exhibit 15). Exhibit 17 lists the frequency for symptoms of post-traumatic stress for sexually assaulted compared to not-sexually assaulted women. Sexually assaulted women reported appreciable more problems with sleeping and trying to avoid thinking about the abuse. To determine if a relationship existed between post- traumatic stress and sexual assault scores, a correlation was computed. The correlation of .16 (p=.104) showed a trend towards a significant positive relationship, indicating the greater the frequency of sexual assault the more symptoms of post-traumatic stress disorder.

Health Problems Attributed to Sexual Assault

The women were asked if they experienced a sexually transmitted disease, certain health problems, rectum or vaginal bleeding, or began or increased nicotine, alcohol, or illicit drug use following the sexual assaults. The women's responses, according to whether they reported one or more than one sexual assault, are listed in Exhibit 18 along with the relative risk and 95% confidence intervals. Women reporting more than one sexual assault reported significantly more health problems compared to women reporting one assault. Bacterial vaginosis, Chlamydia, genital herpes, genital warts, crabs, gonorrhea and pelvic inflammatory disease were only experienced by women reporting more than one sexual assault. One third of the women reported beginning or increasing use of alcohol, nicotine, or illicit drugs because of the sexual assaults, with 27% of the women reporting alcohol use. When illicit drug use was reported by the women, cocaine was the drug most often reported. One-fifth of the women reported problems with intimacy and sexual functioning. As one woman explained, "When I tried to have sex with another man, I froze with fear" and "It was a long time before I could enjoy sex again". One-third of the women reported anxiety and depression following the sexual assaults.

Sexual Assault & Suicidality

In January 2001, when the women entered our study, each woman was asked if she had threatened or attempted suicide within the past 90 days. Whereas 4% of the not-sexually assaulted women answered "yes", 24% of the sexually assaulted women answered "yes". Two years later, in January 2003, the women were asked if, during the preceding seven days, they had experienced thoughts of ending their life. Although 4% of the not-sexually assaulted women answered "yes", 9% of the sexually assaulted women reported "yes".

Rape-Related Pregnancy

Twenty women reported a total of 32 pregnancies resulting from sexual assault. Outcomes for these 32 pregnancies were 26 (81%) live birth, 5 (16%) elective abortion and 1 (3%) still birth. There were no miscarriages. When asked if the abuser ever forced sex during pregnancy, 24 women (31% of the women that had experienced a pregnancy) reported a total of 52 pregnancies accompanied with one or more episodes of sexual assault. Outcomes of these 52 pregnancies were 46 (88%) live births, 3 (6%) elective abortions, and 3 (6%) spontaneous abortions.

Sexual Decision Making and Sexual Assault

Type and frequency of mutual decision making about sexual relations, condom use, and birth control is presented in Exhibit 19 with the test statistic. Significantly ($p<.01$) less mutual decision making about having sex and using condoms was reported by sexually assaulted compared to not-assaulted women. Type and frequency of actions surrounding birth control, condoms, and pregnancy are presented in Exhibit 20 along with the test statistic. Only sexual assault abusers refused to use birth control. These same men were far more likely to never use

condoms. Over one fourth (26%) of the sexually assaulted women became pregnant because the abuser would not use birth control compared to only 5% of the never sexually assaulted women.

CONSEQUENCES OF INTIMATE PARTNER SEXUAL ASSAULT FOR CHILDREN

Child Witness to Intimate Partner Assault and Counseling Received

Seventy-seven percent of the 148 women had one or more children. When asked if any of their children had ever seen or heard the physical or sexual abuse, 88% of the women answered yes. A total of 205 children were reported to have been exposed to the abuse of their mother. The age of these children when first exposed to abuse is presented in Exhibit 21 and graphed in Exhibit 22. More than one-third of the children (36%) were exposed to violence for the first time during infancy and 64% were exposed by age three.

When asked if the child exposed to violence ever received counseling, only 65 children (33%) received counseling. When asked how helpful the counseling was, 82% of the mothers rated the counseling as “very helpful”, or “somewhat helpful”.

Behaviors of Children Exposed and Not-Exposed to Intimate Partner Sexual Assault

Mean scores, standard errors, group differences, and standardized effect sizes are shown in Exhibit 23. Results of the MANOVA and ANOVA showed no significant differences between the abuse groups for children between 1.5-5 years of age. When gender was added to the model, the results remained unchanged. For the older children, results from the MANOVA, adjusting for age group, showed a significant multivariate effect ($F(2,87)=3.99$, $p=0.022$) for the age group by abuse group interaction. Follow-up ANOVAs yielded an interaction effect that was just past significance ($F(1,88)=4.45$, $p=0.038$ with critical $p <.025$) for internal behaviors. Further examination of the internal scores showed that mean scores for the 6-11 yr olds were practically equal with values of 53.2 (SE=1.94) and 53.1 (SE=2.26) for youngsters of the sexually assaulted

and not-assaulted mothers, respectively. However, internal mean scores for children between 12-18 years of age showed that scores for youngsters of the sexually assaulted group (M=61.9, SE=2.41) were higher than mean scores for youngsters from women who were not sexually assaulted (M=51.0, SE=3.41). Furthermore, the mean score for the 12-18 year olds from mothers who were sexually assaulted were above the cut-off for the clinically referred range (values > 60). These findings indicate older youth, age 12-18 years, of sexually assaulted mothers are more likely to be depressed, compared to youth of physically abused only mothers, and not any less depressed than youth of the same age receiving treatment. Exhibit 24 compares the scores of youngsters of sexually assaulted mothers and physically assaulted only mothers to referred and non-referred norm scores.

Women Who Were Physically but Not Sexually Assaulted

Women physically, but never sexually, abused were asked if they had ever worried about sexual assault. Among the 48 women never sexually assaulted, 8 women (17%) reported being worried about forced sex. Seven of these women reported changes in the intimate relationship, such as a separation, pregnancy, or an increase in physical abuse. Only three women discussed their worry of a possible sexual assault with someone. When these three women shared their worry of sexual assault it was with family or friends. Among the women that reported they never worried about forced sex, 85% stated that the abuser always took “no” to sex as an absolute answer. The remaining 15% of the women all stated the abuser went elsewhere for sex if they said no.

Social & Family Functioning of Sexually and Not-Sexually Assaulted Women

Although sexually assaulted women, regardless of ethnic group or immigrant status, had lower scores on both family hardiness and sources of social support (see Exhibits 15 and 16)

only social support for non-US born women was statistically lower (p=.007) compared to US born women.

RESULTS SUMMARY

Sexual assault of women by their intimate partners is common, severe, repeated and does not vary by ethnicity or country of birth. The first episode of sexual assault usually occurs within two years of the first consensual sex and is associated with a change in the relationship, most frequently increased violence, or a pending or actual separation of the couple. At the time of the sexual assaults, 50% of the women reported the abuser was using alcohol, and 40% of the women reported the abuser was using illicit drugs, usually crack or cocaine. Over 40% of the women reported physical abuse immediately before the sexual assault, and 30% of the women reported physical assault immediately afterwards. Fifteen percent of the women reported being threatened before and/or after the sexual assaults.

One third of the women told someone about the first sexual assault. Helpseeking with the justice system, either by contacting the police or applying for a protection order, or receiving medical care after the first sexual assault, is associated with a major reduction in the risk of further assaults. Helpseeking is repeated. Women who tell someone about the first sexual assault, or contact justice or health services, are very likely to re-contact these agencies after additional assaults.

Consequences for women associated with intimate partner sexual assault include increased danger for murder by the abuser, more symptoms of post-traumatic stress disorder, worse physical and mental health, and a higher likelihood of threatening and/or attempting suicide. Sexually assaulted women attribute major health problems to the sexual assaults, including sexually transmitted diseases, pelvic inflammatory disease, substance use, anxiety,

depression and unintended pregnancy. Twenty percent of the women reported at least one rape-related pregnancy with 16% of these pregnancies ended with an elective abortion. Thirty percent of the women were sexually assaulted during pregnancy.

Eighty-eight percent of the children witness the physical and/or sexual assault toward their mothers, many during infancy, and most, 64 percent of the children, witnessed the violence by age three. Only 33 percent of the children received counseling. However, when children do receive counseling, and mothers are asked to rate the counseling, 82% of mothers state the counseling was "very helpful", or "somewhat helpful". Sexual assault of mothers affects the behaviors of their children with children; age 12 to 18 being the most affected and displaying symptoms of depression not different from children being treated for depression.

DISCUSSION OF RESEARCH FINDINGS

Characteristics of the Sexual Assault Event

A few descriptive studies exist that chronicle the characteristics and consequences of intimate partner sexual assault. Campbell and Alford (1989) surveyed 1,000 women currently living in battered women's shelters across the United States. Among the 115 women who returned the survey (12% of the 1000 women surveyed), 44% reported physical assault during sex, and 51% reported rape following physical assault. Weingourt (1990) found 58% of a sample of 33 raped wives reported physical assault during the rape. These figures are comparable to our finding that 40% of the women reporting physical assault during the first sexual assault and 50% during re-assaults. Bennice and Resick (2003) suggest two explanations for the concurrent occurrence of physical and sexual assault. One possibility they posit is that sexual assault is used by the abuser as another form of assault during a physically abusive episode, similar to reaching for a weapon. A second possibility is that sexual assault intimates do not view forced sex as

assault, and instead, they are attempting to have sex as a form of apologizing for the physical assault. An apology possibility is consistent with Walker's (1979, 1981, 2000) three phase Cycle of Violence with the honeymoon and making-up behaviors as the phase following the assault. Our findings support the first explanation of extended violence, especially since 30% of the women in our sample reported physical assault following sexual assault.

Helpseeking Following Sexual Assault

It is well documented that only 16%-25% of sexual assaults are reported to the police, with the reporting rate lowest when the woman knows the assailant (Rennison, 2002; Resnick et al., 2000). In our study only 6% of the sexually assaulted women contacted the police after the first assault and 15% after the second assault. This is especially concerning as 50% of the sexually assaulted women in our study reported physical assault also during the sexual assault. Similarly, most victims of sexual assault do not receive medical attention following the event (Rennison, 2002). National estimates are that only 26% of women receive medical care following sexual assault with women who report sexual assault to the police nine times more likely to seek medical care (Resnick et al., 2000). Another study reports 50% of injured female victims of sexual assault reporting the crime to the police also received medical treatment, compared to a fifth of those women not reporting to police (Rennison, 2002). In our study, 50% of women reporting to the police after the first sexual assault also received medical care. Only 33% of the women in our study contacting the police after the second sexual assault also received medical care. Reporting to police initiates the protocol to collect forensic evidence, which is performed by a medical provider. Alternatively, sexual assault victims who go directly to a medical care facility for treatment may be asked to report to police in order to receive

emergency forensic medical care that may be funded by the state (Young, Bracken, Goddard & Matheson, 1992).

In our study 9% of the women received medical care immediately following the first sexual assault and 14% following the second sexual assault. Although contact with the police and medical care increased from the first to second assault, only 50% of women contacting the police also received medical attention. Anonymity is a frequently cited reason for women not contacting the police and medical care (Resnick et al., 2000). A cooperative medical and justice system model that encourages, and perhaps even subsidizes, medical care for all sexual assault victims and also permits anonymity as an option for sexual assault victims receiving forensic examinations is recommended as a strategy for facilitating sexual assault victims' access to justice and health services.

Finally, 8% of the women applied for a civil protection order following the first sexual assault and 19% following subsequent assaults. It is well known that abused women often seek civil protection orders to end the violence (McFarlane, 2004). A collaborative model of justice and health care that encourages women seeking orders of protection following sexual assault to also seek medical care is highly recommended.

Risk of Re-Assault Following Helpseeking with Justice Agencies

Sexually assaulted women who contacted the police or applied for a protection order after the first sexual abuse were at much lower risk for re-assault. Contacting the police, irrespective of whether or not the abuser was arrested, and applying for a protection order, irrespective of whether or not the order was received, was associated with up to a 70% risk reduction for re-assault. However, women that did not contact the police after the first sexual assault were twice as likely to be re-assaulted, and women that did not apply for a protection order were three times

more likely to be re-assaulted. These results agree with those of other longitudinal studies reporting significantly lower levels of violence experienced by women seeking assistance from the justice system, irrespective of the justice system outcome (McFarlane, et al., 2004b; Gist, etal., 2001; McFarlane, et al., 2000).

The significant risk reduction for re-assault among women who contacted the justice system is consistent with abuse intervention findings reported by social and health researchers. In one study, abused women exiting a shelter and receiving home social support were compared, at 6 months, with abused women not receiving such support; women in both groups reported decreases in physical abuse (Sullivan, 1994). In two health clinic studies involving comparisons of abused women receiving intensive counseling and outreach support and abused women offered a wallet-sized card listing community abuse resources, women in both groups reported significantly lower levels of violence 6, 12, and 18 months post intervention (McFarlane, et al., 2000; Parker, et al., 1999).

Do findings from this study and others indicate that the justice intervention of a protection order or arrest of the abuser, and the health and social service interventions of counseling, support, and referrals, are no more of a deterrent to future violence than an abused woman's contact with assistance agencies? When an abused woman decides to contact criminal justice, civil justice, health, or social service agencies, information about the abuse is shared, and contact is made. Just as the privatization of domestic violence contributes to its continuation, perhaps the contact and public knowledge stemming from justice encounters can prevent reoccurrence of violence. Perhaps, just as legal sanctions (e.g., requirements involving the use of helmets and seat belts) have proven effective in reducing unintentional injuries, legal sanctions can reduce the occurrence of intentional intimate partner violence.

A qualitative study focusing on reasons why women seek civil orders of protection revealed a desire among women to regain some measure of control in their lives by making the abuse public (Fischer & Ross, 1996). These women discussed using the application for a protection order as a "loudspeaker" to notify the abuser that the law knew about his behavior. They viewed the legal system as a force larger than themselves and as having power over the abuser that they themselves had lost as a result of the abuse. Moreover, they felt a need to have the legal system both approve and reinforce their decision to leave the abuser. The protection order became an announcement that the abused woman refused to "take it" anymore and was acting on her own behalf. Our results support these findings. When sexually assaulted women in this study made the assault public, by contacting the justice system, a significant reduction in the likelihood of re-assault was reported.

Our findings demonstrate that, irrespective of whether or not an abuser is arrested, or a protection order received, sexually assaulted women who contact the justice system, following the first sexual assault, reported less re-assaults. Clearly, accessible, acceptable, and known locations of justice services, such as the one-stop Family Justice Centers which contain justice, health, legal, and social services within one agency, can potentially facilitate early contact of abused women with the justice system and interrupt existing assault and prevent further abuse.

CONSEQUENCES OF SEXUAL ASSAULT ON WOMEN'S PHYSICAL HEALTH

Gynecologic Problems

Gynecologic problems are the most consistent, longest lasting, and largest physical health difference between abused and non-abused women. Conditions of sexually-transmitted diseases, vaginal bleeding or infection, fibroids, genital irritation, pain on intercourse, urinary-tract infections and pelvic pain and inflammatory disease are far more likely to be reported by abused

women (Tollestrup, et al., 1999; Campbell & Soeken, 1999; Coker, et al., 2000; Campbell et al., 2002; Johnson & Hellerstedt, 2002). In one US population-based study of self-reported data, the odds of having a gynecological problem were three times greater than average for victims of spouse abuse (McCauley, et al., 1995). Another study of 201 abused women found 30% of sexually abused women reported three or more gynecologic health problems compared to only 8% of women who experienced physical abuse alone and 6% of women never abused (Campbell et al., 2002). The incidence of gynecologic health problems among physically but not sexually abused women was not appreciably different from the incidence of the non-abused women.

Sexual assault and associated consequences may explain these gynecological differences. For example, vaginal, anal, and urethral trauma from forced sex (blunt force and lack of lubrication) can lead to increased transmission of microorganisms through direct transmission into the bloodstream or back flow of bacteria in the urethra. Additionally, the shame and stress associated with forced sex can act to depress the immune system and increase susceptibility to infection and disease. We found no other study that measured intimate partner sexual assault separately from physical assault and associated occurrence of specific sexually transmitted disease.

Sexually Transmitted Diseases

Sexually transmitted diseases (STD's) are frequently reported by abused women. Among a sample of 115 abused women, 6.5 percent of the women reported contracting a STD as a direct result of forced sex and 17.6 percent reported an unwanted pregnancy following sexual assault (Campbell & Alford, 1989). Our data show higher rates of sexually transmitted diseases attributed to sexual assault, with Chlamydia reported by 9% of the women, gonorrhea experienced by 6% of the women, and herpes contracted by 5% of the women. Among the 100

women who reported sexual assault in our study, 15% attributed at least one episode of Chlamydia, crabs, genital herpes, genital warts, or gonorrhea to the sexual assault.

Sexually transmitted diseases may follow forced sex with an infected partner and/or the limited ability of abused women to negotiate condom use with the abusive partner. In fact, Wingood and DiClemente (1997) report abused women were significantly less likely to report the use of condoms than not-abused women and were 9.2 times more likely to report being threatened with physical abuse after requesting their partners to use condoms. These women worried more about acquiring the human immunodeficiency virus (HIV) and felt more isolated than did women not in abusive relationships. Likewise, Davila and Brackley (1999) noted similar reports of physical and/or psychological abuse and accusations of infidelity following requests for condom use by Mexican and Mexican-American abused women.

In our sample, sexually assaulted women reported significantly less mutual decision making regarding having sex and the use of condoms, compared to not-sexually assaulted women, with 69% of the sexually abused women wanting to use condoms to prevent sexually transmitted diseases compared to 50% of the not-sexually abused women. Furthermore, the sexually assaulted women were five times more likely than the not-sexually abused women to report a pregnancy following the abuser's refusal to use birth control. Clearly, sexually assaulted woman are in greater danger of both sexually transmitted diseases and unintended pregnancies.

Rape-Related Pregnancy

Unintended pregnancies account for about half of all pregnancies in the US (Henshaw, 1998). Some of these unintended pregnancies follow sexual assault. To determine the national rape-related pregnancy rate, a national probability sample surveyed 4,008 women over a period of three years and found a national rape-related rate of 5%, with a disproportionate number of

pregnancy rapes among adolescents (Holmes, et al., 1996). This national estimate of 5% is appreciably lower than the 20% rape-responsible pregnancy rate found in this study. Additionally, none of the women in our study were adolescents. Our research suggests women sexually assaulted by an intimate partner are at a four fold increase of experiencing a rape-related pregnancy. The sexual assault continued into pregnancy with 31% of our sexually assaulted women reporting sexual assault during pregnancy.

Ill Health During Pregnancy, Poor Infant Outcomes & Femicide

Extensive research suggests a clear relationship between intimate partner assault during pregnancy and adverse health outcomes for both mother and child. Lower infant birthweight, substance use during pregnancy, as well as preterm labor and inadequate prenatal care, are significantly related to abuse during pregnancy (McFarlane, et al., 1996; Curry, 1998; Renker, 1999). Additionally, women physically abused during pregnancy are at a three fold increase of femicide (McFarlane, et al., 2002c). Since one-third of the women in our study were sexually assaulted during pregnancy, and reported more risk factors of femicide compared to the physically abused only women, women sexually assaulted during pregnancy may be at an exceptionally high risk of femicide. Pregnant women reporting sexual assault must be advised by justice and health professionals of their increased risk of femicide.

Elective Abortion

There is evidence to suggest that sexually assaulted women may be more likely to terminate pregnancies as a strategy to eliminate this source of power and control within the relationship (Evins & Chescheir, 1996). In our study, 16% of pregnancies resulting from sexual assault were ended with an elective abortion. However, we did not ask the percentage of consensual sex pregnancies terminated with an elective abortion. Latest statistics from the Texas

Department of Health (1998) document 19% of reported pregnancies ended with an elective abortion. How many of these pregnancies resulted from sexual assault are unknown. Clearly, further research is needed to document the connection between sexual assault, unintended pregnancy and elective abortion.

CONSEQUENCES OF SEXUAL ASSAULT AND WOMEN'S MENTAL HEALTH

One meta-analysis was identified that reviewed over 50 articles to determine a mean prevalence of alcohol and drug use, depression, post-traumatic stress disorder and suicidality for women reporting intimate partner violence (Golding, 1999). Although the studies reviewed in the meta-analysis did not separate intimate partner physical assault from sexual assault, and varied appreciably in populations sampled, measures used, and definitions of terms, we feel the weighted mean prevalence figures are representive of existing literature and will be used to compare the findings of our study.

Temporal sequencing of mental health problems in abused women is essential for effective treatment strategies as well as secondary prevention efforts. Mental health problems may be related to other life stressors that usually accompany violence, such as changes in residence, unemployment, marital separation, and child behavior problems. Some abused women suffer from chronic mental health problems, such as depression or substance use, exacerbated by a violent relationship or a mental health problem, such as post-traumatic stress disorder or suicidality, which may be triggered by the initiation of abuse. In addition to comparing our findings to published prevalence rates, we also looked for studies of temporality of mental health problems and intimate partner violence.

Alcohol, Illicit Drug and Nicotine Use

Golding (1999) reports rates of alcohol abuse among battered women ranged from 6.6% to 44% with a weighted mean of 18.5% across 10 studies. This compares to lifetime prevalence reports of 4.6% (Helzer et al., 1991) and 8.2% (Kessler et al., 1994) in general populations. The weighted mean odds ratio linking intimate partner violence and alcohol abuse was 5.56 (95% CI 3.32, 9.31) (Golding, 1999). In our study, 10% of women experiencing one sexual assault, and 27% of women experiencing more than one sexual assault, attributed beginning or increasing use of alcohol use because of the sexual assault. We identified one two-year longitudinal study by Kilpatrick and associates (1997) that found new assaults associated with alcohol abuse.

Golding (1999) reports that rates of illicit drug use among abused women ranged from 7% to 25% across four studies, with a weighted mean of 8.9%. This compares to lifetime prevalence of 4.8% (Anthony and Helzer, 1991) to 5.9% (Kessler et al., 1994) in general populations of women. The weighted mean odds ratio linking intimate partner violence and illicit drug use was 5.62 (95% CI 3.55, 7.72) (Golding, 1999). In our study, none of the women who reported one sexual assault and 9% of the women who reported more than one sexual assault attributed beginning or increasing use of illicit drugs because of the sexual assault. Regarding temporal sequencing, Kilpatrick and associates (1997) also found new assaults associated with drug use.

We identified only one study that compared smoking of abused to non-abused women. In a study of 1,203 pregnant women, McFarlane and associates (1996) found 50% of African-American women reporting abuse also smoked, compared to 34% of the non-abused women. For white women, 60% of the abused women smoked, compared to 47% of the non-abused. No temporality was established in the McFarlane (1996) study. In our study, 10% of the women who

experienced one sexual assault and 22% of women who experienced more than one sexual assault attributed beginning or increasing use of nicotine because of the sexual assault.

We identified no other studies with victims who attributed alcohol, illicit drug or nicotine use as a consequence of sexual assault. Our study is limited in that we did not ask physically-assaulted-only women about their use of substances following the physical assault. Additionally, we asked about "use of substances" not "abuse of substances". However, information about temporal sequencing of substance use following sexual assault is lacking from the literature. Our study offers the first look at the large percentage of victims that attribute substance use, both initial and increased use, to sexual assault. If sexual assault contributes to alcohol, illicit drug, and nicotine use, interventions aimed at these problems will not succeed without preventing and addressing sexual assault.

Depression

Golding (1999) reports the weighted mean prevalence of depression among battered women as 47.6%, across 18 studies. This compares to a lifetime prevalence rates of 10.2% (Weissman et al., 1991) to 21.3% (Kessler et al., 1994) on a lifetime basis. The weighted mean odds ratio linking intimate partner violence and depression was 3.80 (95% CI 3.16, 4.57) (Golding, 1999). In our study, 10% of the women who reported one sexual assault and 27% of the women who reported more than one sexual assault attributed anxiety and depression to the sexual assault.

When Coker and associates (2002) compared depression scores of physically and sexually assaulted women to those of physically assaulted only women, the sexually assaulted women were at higher risk to both past problems of depression, as well as current depression. Among women in our study, we found no difference in depression scores between sexually

assaulted and not-assaulted women. However, we measured depression two years after the women contacted the justice system, and for most women, this was two years after the violence had ended (McFarlane et al, 2004b).

A few studies have sought to establish the temporal proximity of depression to assault. Campbell et al. (1995) found that 83% of women who had just left a battered women's shelter were depressed; over six months, rates declined slightly for women who had been recently battered at the time of follow-up (to 71%) and appreciably (to 49%) for women who had not been recently abused. Another study by Campbell and Soeken (1999b) found depression declined over time once the violence ended. Likewise, Surtees (1995) found the rates of major depression declined from 28.1% for the 6-month period before entering a shelter to 9.2% during the 6-month period following shelter entry. None of these studies separated physical assault only from physical and sexual assault. Certainly the need to chronicle the occurrence and resolution of depression among physically and sexually assaulted women is great.

Post-Traumatic Stress Disorder

Golding (1999) reports rates of post-traumatic stress disorder among abused women ranged from 7% to 25% across 11 studies, with a weighted mean of 63.8%.This compares to estimates of lifetime prevalence in general populations of women of 1.3% to 12.3% (Kessler et., 1995), including 9.4% of those without a history of crime victimization and 25.8% of those with such a history (Resnick et al., 1993). The weighted mean odds ratio linking intimate partner violence and post-traumatic stress disorder was 3.74 (95% CI 2.05, 6.83) (Golding, 1999). No studies of temporality were located. Our study found a prevalence of post-traumatic stress disorder of 52% for both sexually assaulted women and physically assaulted only women. Although the percentage of affected women was the same, the sexually assaulted women

reported more symptoms of post-traumatic stress disorder, especially sleep disturbances, and significantly higher scores compared to physically assaulted only women.

A recent study compared intimate partner sexual assault victims to women who have experienced physical assault alone and found that women who have experienced physical and sexual abuse tend to have higher levels of post-traumatic stress disorder and depression (Bennice, et al., 2003). However, severity of physical assault did not predict severity of post-traumatic stress. Rather, intimate partner sexual assault continued to significantly predict post-traumatic stress even after controlling for the severity of physical violence. Our results concur. We found that sexually assaulted women reported significantly higher post-traumatic stress scores compared to physically assaulted women only. Additionally, we found a trend ($p=.10$) towards a positive relationship between post-traumatic stress scores and sexual assault scores, indicating the greater the frequency and severity of sexual assault the more symptoms of post-traumatic stress.

Is the sexual assault predicting the post-traumatic stress or is the threat of physical and/or sexual assault used by the perpetrator to gain sexual access to the victim more often, thus increasing the frequency of sexual assault overall in the relationship? Our results did not show a significant increase in physical abuse, or threats of abuse, for sexually assaulted women, compared to non-sexually abused women. This finding is in contrast to other reports of intimate partner sexual assault associated with more severe physical assault (Bennice et al., 2003; Kilpatrick et al., 1988; Meyer et al., 1998). Seemingly, the act of sexual assault itself accounts for an increase in post-traumatic stress symptoms. Consistent with this explanation, a survey of women who reported rape to be their most upsetting trauma found 45.9 percent of the women developed post-traumatic stress disorder. In contrast, for women who considered physical attacks

to be most upsetting trauma, only 21.3% of the women developed post- traumatic stress disorder (Kessler, et al., 1995). These findings lend support to the notion that there indeed may be something unique to the experience of sexual assault that increases the likelihood of developing post-traumatic stress disorder.

The findings of our study have notable clinical implications in that our women were experiencing symptoms of post-traumatic stress disorder two years after applying for a protection order and, for most women, two years after the violence had ceased (McFarlane et al., 2002b & 2004b). Many researchers consider post-traumatic stress disorder the most appropriate diagnostic category for experiences associated with intimate partner violence, even though symptoms of other disorders, such as depression, may be present (Browne, 1993; Koss et al., 1994). Because post-traumatic stress disorder and depression overlap (Friedman and Schurr, 1995) depression detected in some studies may represent symptoms of post-traumatic stress. Because the essential feature of post-traumatic stress disorder is the development of certain symptoms (i.e., sleep disturbances, hypervigilance) following exposure to an extreme traumatic stressor (American Psychiatric Association, 1994, p. 424), experiences following the stress of intimate partner violence can be interpreted as representing post-traumatic stress disorder. Conceptualizing battered women's symptoms as reflecting post-traumatic stress disorder depathologizes the woman. Because post-traumatic stress disorder connects trauma and certain symptoms, it can facilitate understanding and meaningful treatments for abused women.

It is important to document that in our study, post-traumatic stress scores were significantly higher for Hispanic women and non-US born women, irrespective of sexual abuse status. In our study, 93% of the non-US born women were first generation immigrants from Mexico, 55% of these women did not speak English and 54% had not graduated from high

school (McFarlane et al, 2002b). Non-US born women in our study appear to be in double jeopardy; they experience levels of abuse no different from US-born women, but without the resources of social support, English proficiency and education with which to deal with the abuse. Our study findings indicate that non-US born abused women are at high risk to post-traumatic stress disorder and report significantly lower levels of social support compared to US born women. Abuse prevention programs for non-US born populations, that use language appropriate materials and resources, are urgently needed.

The duration of symptoms of post-traumatic stress disorder is lengthy, can last for years and interfere with all activities of daily living. It is essential that justice and health agencies routinely assess for sexual assault and inform women who report assault of their increased risk of post-traumatic stress disorder. Information about what constitutes post- traumatic stress disorder, as well as community referral agencies, must be part of standard health and justice care for abused women.

Suicidality

Golding (1999) reports rates of suicidality among abused women ranged from 4.6% to 77% across 13 studies, with a weighted mean of 17.9%.This compares to rates of 0.8% to 15.9% (ideation) and 0.1% to 4.3% (attempts) in general populations of women (Moscicki, 1989). The weighted mean odds ratio linking intimate partner violence and suicidality was 3.55 (95% CI 2.73, 4.60). (Golding, 1999).

Within 90 days of entering this study, 22% of the sexually assaulted women reported threatening or trying to commit suicide, compared to 4.2% of the not-sexually abused women. Sexual assault preceded each of these suicide threats or attempts. Previous research has also found suicide attempts to be more frequent among sexually assaulted women compared to not-

sexually assaulted women (Kaslow, et al., 1998; Wiederman, Sansone, & Sansone, 1998; Coker et al., 2002); however, the temporal sequencing of the suicidality relative to the sexual abuse was not reported. To establish temporal order of sexual assault and suicidal behavior, a National sample of women, age 15 to 54, found both suicidal ideation and suicide attempts three times as likely to follow sexual assault as to occur prior to or within the same year of sexual assault (Ullman & Brecklin, 2002). Intimate partner sexual assault is a clear risk factor for suicide attempts and therefore should be a target of intervention and treatment for suicide prevention programs.

In our study, both post-traumatic stress disorder and suicidality were more common among women reporting sexually assault. Although we know suicide threats and attempts followed sexual assault, we do not know the temporal sequencing of post-traumatic stress disorder relative to the sexual assault. Other research has documented that although post-traumatic stress disorder and depression are both significant predictors of suicide ideation; only depression was a significant predictor of suicide attempts (Ullman & Brecklin, 2002). This suggests that depression may be the critical factor in differentiating sexual assault victims who actually attempt suicide. In our study, suicide threats were not differentiated from suicide attempts. However, our results add to a growing literature demonstrating that sexual assault history is an important risk factor for suicidal behavior in women. Few victims of sexual assault seek mental health treatment. Delayed disclosure is common and may be associated with more serious assaults (Ullman, 1999). Additionally, healthcare professionals may not recognize or identify the sexual abuse or post-traumatic stress sequelae. There exists an urgent need for training of both justice and health personnel in the assessment of sexual assault, post-traumatic stress disorder, and suicidality.

Femicide

Sexual assault is associated with an increased risk of femicide (Campbell, et al, 2003; McFarlane, et al., 2002c). This study found significantly more risk factors of femicide reported by sexually assaulted women when compared to physically assaulted only women. Highly significant in this study was the finding of a significant increase in threats to harm the children by men who sexually assaulted women as well as threats to murder the woman. This finding is essential knowledge for justice personnel, especially as decisions are made for orders of protection and the inclusion of children on the order.

CONSEQUENCES OF MOTHERS ASSULT ON CHILDREN'S BEHAVIOR

Most of the women (77%) had one or more children and most of these children had been exposed to the violence. The children were exposed to the violence at an early age with one-third of the children exposed for the first time during infancy and 64% exposed by age three. Only one-third of the children had received counseling. The violence affected the children's behavior with older children of sexually abused mothers displaying the same degree of depression and loneliness as children under treatment.

Recent research followed a sample of 543 children for over 20 years and found exposure to violence between parents the greatest risk of being victimized as an adult (Ehrensaft, Cohen, Brown, et al, 2003). Clearly to help children heal from the effects of exposure to violence in the home, as well as to prevent victimization as an adult, counseling services must be available, affordable, and accessible to all communities.

STUDY CONCLUSIONS

Two-thirds (68%) of 148 African-American, Hispanic, White, US born and immigrant women, applying for a protection order in an urban justice center, reported intimate partner sexual assault. Most (79%) of the women reported repeated episodes of forced vaginal, oral and anal penetration, with over half (55%) of the women reporting a second sexual assault within one month of the first assault. The first episode of sexual assault usually occurred within two years of the first consensual sex and was associated with a change in the relationship, most frequently increased violence, or a pending or actual separation of the couple. At the time of the sexual assaults, 50% of the women reported the abuser was using alcohol, and 40% of the women reported the abuser was using illicit drugs, usually crack or cocaine. Over 40% of the women reported physical abuse immediately before the sexual assault, and 30% of the women reported physical assault immediately afterwards. Fifteen percent of the women reported being threatened before and/or after the sexual assaults. For these women sexual assault frequently accompanied physical assault and was associated with substance use by the abuser. However, none of the women reported the sexual assault to the justice agency at the time of application for a protection order. The need for routine assessment by service providers of physically abused women for type and frequency of sexual assault followed by guided referral to appropriate agencies is merited by this research.

Compared to the not-sexually abused woman, the sexually assaulted woman reported significantly more risk factors of femicide and more episodes of work harassment. These findings did not vary by racial or ethnic group or country of birth. Risk factors for femicide were highest for African-American women, followed by White women. It is well researched that sexual assault coupled with physical assault places a woman in more danger. This research

revealed a higher number of risk factors of femicide, reported by sexually assaulted compared to not-sexually abused women, including strangulation and threats from the abuser to kill the woman and hurt the children. Informing sexually assaulted women of their increased likelihood of experiencing strangulation and threats, as well as stressing a safety plan and enabling women to enact a safety plan, could greatly contribute to enhance health of abused women and their children.

Health consequences of sexual assault reported by the sexually assaulted women included vaginal and rectal bleeding, sexually transmitted diseases and pelvic inflammatory disease. Gynecological problems were reported significantly more often by women reporting repeated sexual assaults. Additionally, one third of the women who reported repeated sexual assaults also reported beginning or increasing use of alcohol, nicotine, or illicit drugs because of the sexual assaults. Mental health was also affected with 22% of the sexually assaulted women reporting they had threatened or tried to commit suicide within 90 days of applying for a protection order compared to only 4% of the not-sexually assaulted women. Sexually assaulted women also reported significantly more symptoms of post-traumatic stress disorder compared to not-sexually abused women, regardless of racial or ethnic group or country of birth. Hispanic and immigrant women reported the most symptoms of post-traumatic stress disorder and immigrant women reported significantly fewer sources of social support. Offering sexually assaulted women information about potential physical and mental health problems and guided referral to assistance agencies can potentially minimize or avert the threat of health problems and enhance the health and wellbeing of abused women.

Contact with the justice system, either law enforcement or protection orders, was associated with decreasing the risk of re-assault. This reduced risk of re-assault following contact

with justice services indicates the need for accessible and acceptable justice agencies for women such as the Family Justice Center models that include justice, health, counseling, and shelter referral within one agency. An integrated agency approach to family violence can potentially facilitate early contact of abused women with the services they need and function to interrupt existing assault and prevent further abuse.

STUDY LIMITATIONS

There are limitations of the study that are important to generalizing the findings. The sample used in the study was from one urban agency of women who were actively seeking assistance from the justice system. The sample size is small and the study relied on self-reports that may under-report or over-report due to lack of inadequate recall or lack of voluntary disclosure. None of the information on use of justice or medical services following the sexual assaults was validated with justice or medical reports. Additionally, 95% of the non-US born women in this study were from Spanish-speaking countries and, hence, Hispanic. How similar or dissimilar Hispanic immigrant women are from non-Hispanic immigrant groups is unknown and cannot be deduced from this research. Future research is needed with different ethnic and immigrant groups on the temporal sequencing of intimate partner sexual assault relative to services sought and consequences experienced.

Additionally, when considering the health outcome data, our study is limited by an absence of information about the women's physical or sexual abuse during childhood. Childhood abuse represents a potential confounding factor for later health problems. McCauley and associates (1997) found that abused women in a primary care setting, who were abused as children, had long-term health consequences over and above what could be attributed to intimate partner violence. Another limitation of our study is an absence of trauma history data over the

woman's lifetime. Like intimate partner violence, all trauma a woman experiences will affect her physical health. Holman and associates (2000) found that 10% of 1456 adults interviewed in a primary care clinic had experienced a traumatic event in the last year and that 57% experienced at least 1 event in their lifetime. Holman documented the traumatic event history, female gender and non-Hispanic ethnicity associated with more psychiatric conditions. Future studies must separate physical from sexual assault and examine the interconnections among childhood abuse, lifetime trauma and violence, intimate partner violence and physical health problems to better understand the effects of these factors on a woman's health and functioning.

STUDY IMPLICATIONS FOR HEALTH & JUSTICE PRACTICE

This study found repeated sexual assaults associated with life-threatening consequences including sexually transmitted diseases, unintended pregnancy, post-traumatic stress disorder, suicide and femicide. If the woman is pregnant and assaulted, both the health of the mother and viability of the infant are seriously jeopardized. Contact with the justice system, either police or civil protection orders, or receiving medical care greatly reduces the likelihood of re-assault. Clearly, the need for available, accessible and culturally acceptable justice services, both law enforcement and civil protection orders, as well as health services are urgently needed.

Women must be informed that contact with justice and health services greatly reduces the likelihood of re-assault. Routine assessment for sexual assault must be part of standard justice and health services, along with information on the associated increased risk for mental health problems of post-traumatic stress disorder, substance use, and suicide, as well as physical health problems of rape-related pregnancy, sexually transmitted diseases, pelvic inflammatory disease, and vaginal, rectal, or urinary bleeding. Guided referrals to agencies that can assist sexually

assaulted women with existing and potential mental and physical health problems must be part of standard justice care.

Because sexual assault during pregnancy is recognized as a major threat to maternal health and infant viability, it is advised that justice services assess abused women for pregnancy status and advise pregnant women to share her sexual assault history with a healthcare provider. Pregnant women not receiving health care should be offered referrals for medical care by justice personnel. It is also recommended that healthcare providers routinely assess all women for intimate partner physical and sexual assault and refer all women reporting assault to justice services.

Finally, most children witness the physical or sexual assault of their mothers, most by age three, and most never receive any type of counseling. The need is urgent and immediate for available, accessible, acceptable and affordable counseling services for youngsters of assaulted women. Mothers must be advised of counseling services for children as part of standard justice and health care services.

STUDY RECOMMENDATIONS

Justice, health, and social service professionals assisting abused women should routinely:

- Receive training about the frequency, health and safety consequences of intimate partner sexual assault.
- Assess for type and frequency of sexual assault.
- Inform women reporting sexual assault about their increased risk of femicide, post-traumatic stress disorder, substance use, and suicide, followed with appropriate referrals and safety planning information.

- Offer information about symptoms of post-traumatic stress disorder and suicidal ideation, as well as referral agencies for treatment.
- Inform pregnant women of the increased risk of femicide to women physically or sexually assaulted during pregnancy, followed with appropriate referrals and safety planning information.
- Inform mothers of the potential negative effects of domestic violence on their child's behavior, followed with appropriate referrals.
- Inform immigrant women of the increased risk of post-traumatic stress among non-US born women, followed with culturally appropriate referrals and safety planning information.

Exhibit 1. Demographic Characteristics for Women Who Were and Were Not Sexually Assaulted by an Intimate Partner

Characteristic	Not Sexually Assaulted		Sexually Assaulted		Total		Test Statistic
	n	%	n	%	n	%	
Ethnicity							x(2)=.87,p=.646
African American	14	29.2	35	35.0	49	33.1	
White	12	25.0	27	27.0	39	26.4	
Latino/Hispanic	22	45.8	38	38.0	60	40.5	
Total	48	100.0	100	100.0	148	100.0	
US Born							x(1)=.81,p=.367
No	11	22.9	30	30.0	41	27.7	
Yes	37	77.1	70	70.0	107	72.3	
Total	48	100.0	100	100.0	148	100.0	
English Speaking							x(1)=.43,p=.511
non English	11	22.9	28	28.0	39	26.4	
English	37	77.1	72	72.0	109	73.6	
Total	48	100.0	100	100.0	148	100.0	
Ever Employed							x(1)=1.03,p=.310
No	8	16.7	24	24.0	32	21.6	
Yes	40	83.3	76	76.0	116	78.4	
Total	48	100.0	100	100.0	148	100.0	
Education							x(1)=3.66,p=.056
Less than HS grad	9	18.8	34	34.0	43	29.1	
At least HS grad	39	81.3	66	66.0	105	70.9	
Total	48	100.0	100	100.0	148	100.0	
Income							x(3)=1.98,p=.577
0-$10	12	25.5	30	30.0	42	28.6	
$10-20	11	23.4	31	31.0	42	28.6	
$20-30	14	29.8	22	22.0	36	24.5	
>$30	10	21.3	17	17.0	27	18.4	
Total	47	100.0	100	100.0	147	100.0	
Present relationship?							x(3)=2.54,p=.468
Spouse/Common law	24	50.0	55	55.0	70	53.4	
Ex-spouse/common law	10	20.8	15	15.0	25	16.9	
Boyfriend/girlfriend	2	4.2	10	10.0	12	8.1	
Ex-boyfriend/ex-girlfriend	12	25.0	20	20.0	32	21.6	
Total	48	100.0	100	100.0	148	100.0	
Present relationship?							x(1)=1.61,p=.205
Former	22	45.8	35	35.0	57	38.5	
Current	26	54.2	65	65.0	91	61.5	
Total	48	100.0	100	100.0	148	100.0	
Living with Abuser							x(1)=.06,p=.803
No	42	87.5	86	86.0	128	86.5	
Yes	6	12.5	14	14.0	20	13.5	

Total	48	100.0	100	100.0	148	100.0	
Children							x(1)=2.39,p=.122
No	14	29.2	18	18.0	32	21.6	
Yes	34	70.8	82	82.0	116	78.4	
Total	48	100.0	100	100.0	148	100.0	

Exhibit 2. Relationship Status at Intake and 24-Months Later

Relationship Status	24 Months					
	Former		Current		Total	
	n	% of total	n	% of total	n	%
Intake						
Former	53	35.8	4	2.7	57	38.5
Current	43	29.1	48	32.4	91	61.5
Total	96	64.9	52	35.1	148	100.0

Exhibit 3. Type and Frequency of Sexual Assault Reported by 100 Women

Question:	Never	Once	2-3 times	4 or more
How many times did (abuser's name)	%	%	%	%
Make you have sexual intercourse against your will?	0	18	20	62
Physically forced you to have sex?	9	21	19	51
Make you have oral sex against will?	63	5	7	25
Make you have anal sex against your will?	73	14	6	7
Used an object on you in a sexual way?	94	3	1	2

Exhibit 3a. Analysis of Variance for mean sexual assault score by ethnicity

Woman's Ethnicity	Sexually Abused na=35/ nw=27/ nl=38		Ethnicity
	M	SD	F(df), p
African American	5.37	2.35	F(2,145)=1.42
White	7.22	3.52	p=.246
Latino/Hispanic	5.92	3.46	

n_a=sample size for African American/ n_w=sample size for White/ n_l=sample size for Latino/Hispanic

Exhibit 3b. Analysis of Variance for mean sexual assault score by country of birth

Woman's Country of Birth	Sexually Abused n_n=30/ n_u=70		
	M	SD	F(df), p
Non-US born	4.1	3.9	F(1,146)=.015,p=.904
US born	4.2	3.8	

n_n=sample size for non-US born/ n_u=sample size for US born

Exhibit 4.Means, Standard Deviations, and Results from One-Way ANOVA of Incidents by Ethnicity and Country of Birth

Incident	Ethnicity						Statistic
	African American		White		Latino/Hispanic		
	M	SD	M	SD	M	SD	
Number of years from when met abuser to First Forced Sex	4.1	4.9	4.2	4.7	5.7	6.2	F(1,98)=1.00,p=.372
Number of years from First Sex to First Forced Sex	3.5	4.4	3.8	4.6	5.3	6.5	F(1,98)=1.26,p=.289
Number of years from First Forced Sex to Additional Forced Sex	0.3	0.6	0.8	2.2	0.3	0.5	F(1,77)=1.22,p=.300
Number of years from meeting abuser to when Physical Abuse began*	2.6	3.2	2.2	3.0	3.4	3.6	F(1,68)=0.82,p=.444
Number of years from meeting abuser to applied for PO in January 2001**	7.7	5.7	12.3	7.9	11.0	9.1	F(1,69)=2.20,p=.118

* Women who reported sexual abuse BEFORE physical abuse were removed from this analysis

** Women who applied for a protection order before Jan. 2001 were removed from this analysis

	Country of Birth				
	US Born		Non US Born		
	M	SD	M	SD	
Number of years from when met abuser to First Forced Sex	4.0	4.4	6.5	6.8	F(2,97)=4.92,p=.029*
Number of years from First Sex to First Forced Sex	3.4	4.1	6.3	7.2	F(2,97)=6.24,p=.014*
Number of years from First Forced Sex to Additional Forced Sex	0.4	1.4	0.5	0.9	F(2,76)=0.01,p=.909
Number of years from meeting abuser to when Physical Abuse began	2.3	2.9	3.7	3.8	F(2,67)=3.15,p=.080
Number of years from meeting abuser to applied for PO in January 2001	9.9	7.6	10.5	8.2	F(2,68)=0.11,p=.773

*Non US born significantly higher than US born

Exhibit 5. Time Sequencing of Forced Sex

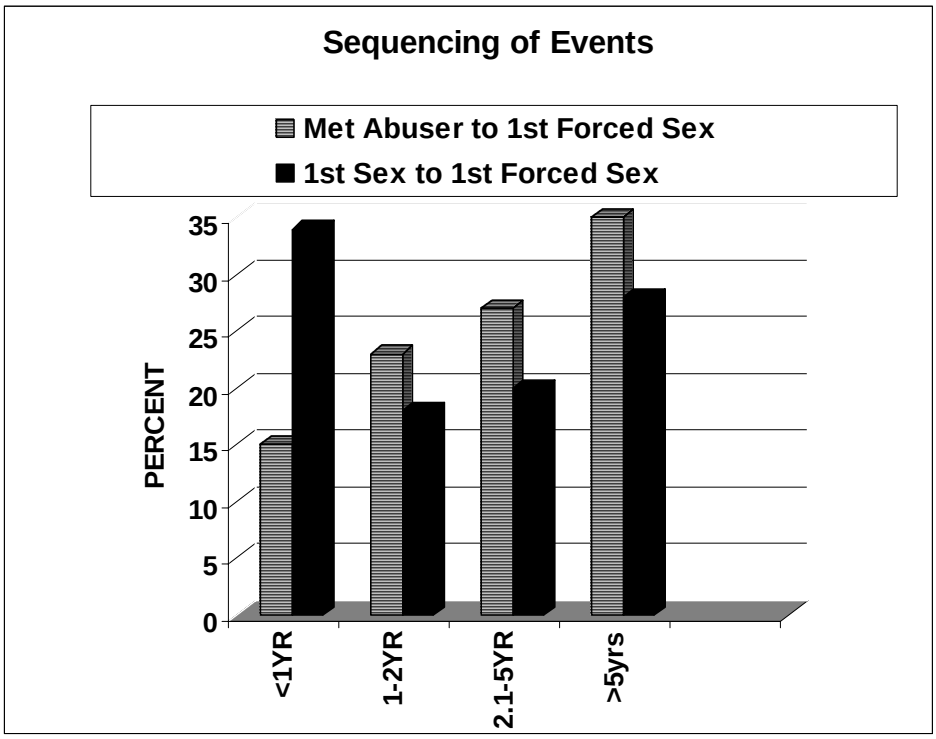

Exhibit 6. Type and Frequency of Relationship Changes Prior to First Sexual Assault

Relationship Change	N (%)
Abuser more violent, possessive or controlling	27 (33)
Emotional separation of couple	18 (22)
Actual or pending separation	14 (17)
Abuser using drugs or alcohol	12 (15)
Abuser having an affair	7 (8)
Pregnancy or post-partum state	4 (5)

Exhibit 7. Abuser Actions during 1st and Add Sexual Assaults

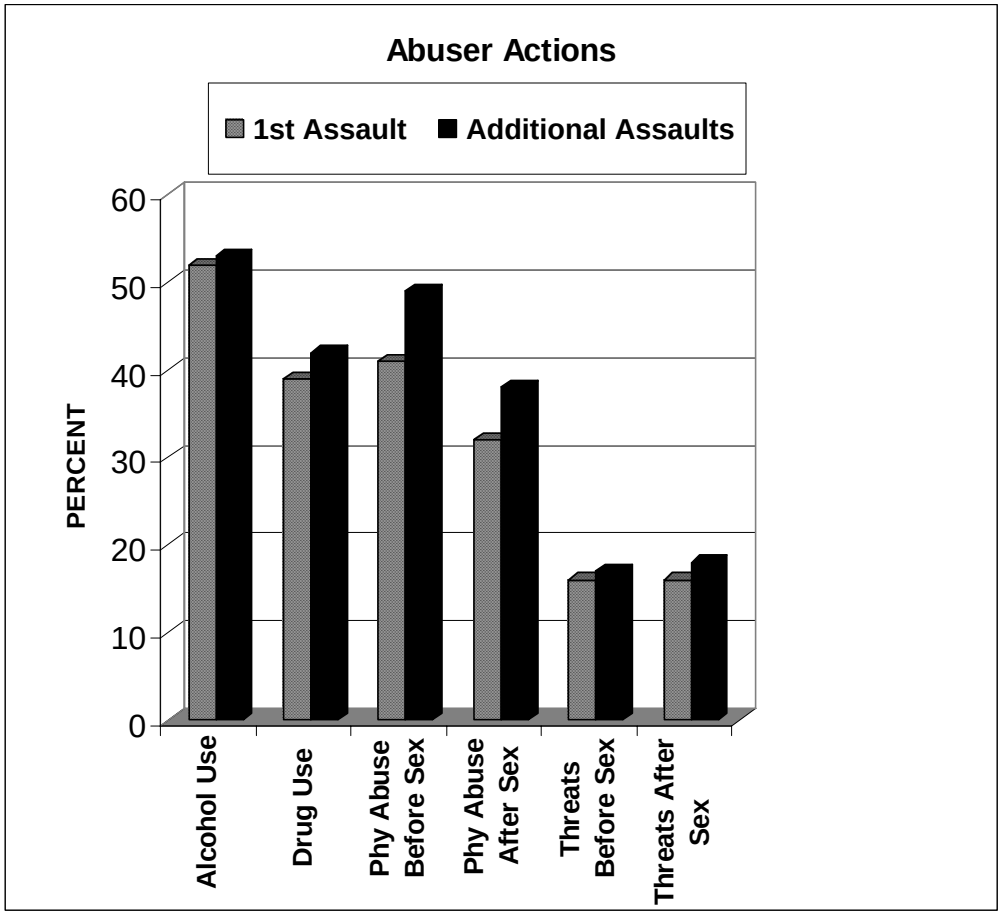

Exhibit 8. Frequencies for Helpseeking Behavior Stratified By Women Who Were and Were Not Subsequently Sexually Assaulted

Helpseeking Behavior After 1st Sexual Assault	Experienced Subsequent Sexual Assault		Total (n=100)	Further Distribution of Total	P-Value*
	Yes (n=79)	No (n=21)			
	n (%)	n (%)	n (%)		
Told someone about assault	16 (20.3%)	10 (47.6%)	26 (26.0%)	(family/friends=20/other=6)	.022
Contacted police	2 (2.5%)	4 (19.0%)	6 (6.0%)	(abuser arrested=3/no arrest=3)	.017
Applied for protection order	2 (2.5%)	6 (28.6%)	8 (8.0%)	(received PO=4/no receipt=4)	.001
Received medical care	5 (6.3%)	4 (19.0%)	9 (9.0%)		.087
Received counseling	2 (2.5%)	1 (4.8%)	3 (3.0%)		.511

*Fisher's exact test for contingency tables

Exhibit 9. Relative Risk (RR), 95% Confidence Interval (CI), and Interpretation of Effect of Helpseeking Behavior After First Assault and Subsequent Sexual Assault

Helpseeking (HS) Behavior After 1st Sexual Assault (SA)	RR (95%CI) RR=p1/p2	Interpretation of RR	
		Benefit of seeking help as compared to women who did not seek help	Consequences of not seeking help compared to women who sought help
Told someone about assault	0.72 (0.53,0.99)	Women who told were 28% less likely (72% as likely) to experience subsequent SA	Women who did not tell were 40% more likely (1/0.72) to experience subsequent SA
Contacted police	0.41 (0.13,1.27)	Women who contacted police were 59% less likely to experience subsequent SA	Women who did not contacted police were 2.4 times more likely to experience subsequent SA
Applied for protection order	0.30 (0.09, 1.0)	Women who applied for PO were 70% less likely to experience subsequent SA	Women who did not applied for PO were 3.3 times more likely to experience subsequent SA
Received medical care	0.68 (0.38,1.24)	Women who received medical care were 32% less likely to experience subsequent SA	Women who did not receive medical care were 47% more likely to experience subsequent SA
Received counseling	0.84 (0.37, 1.88)	Women who received counseling were 16% less likely to experience subsequent SA	Women who did not receive counseling were 19% more likely to experience subsequent SA

p1=(Yes performed HS behavior & experienced SA/ Total yes performed HS behavior [example using told someone (16/26)]
p2=(No to perform HS behavior but experienced SA/ Total no to perform HS behavior [example using told some ((79-16)/(100-26))]
p1/p2 = 0.615/0.851 = 0.72

Exhibit 10. Frequencies for Helpseeking Behavior After Subsequent Assault By Women Did and Did Not Perform Helpseeking Behavior After First Sexual Assault

Performed Helpseeking Behavior After FIRST Sexual Assault		Performed Helpseeking Behavior After Subsequent Sexual Assault		Total (n=79)	Further Distribution of Total "Yes-Performed helpseeking behavior after subsequent assault"	P value
Behavior		Yes	No	n (%)		
Told someone	Yes-told someone	14 (38.9%)	2 (4.7)	16 (20.3)		p<.001
	No-didn't tell someone	22 (61.1%)	41 (95.3)	63 (79.7)	(family/friends=26/other=10)	
Contacted Police	Yes-contacted police	2 (16.7%)	0 (0%)	2 (2.5)		p=.021
	No-didn't contact police	10 (83.3%)	67 (100.0%)	77 (97.5)	(abuser arrested=2/no arrest=10)	
Applied for Protection Order	Yes-applied for PO	0 (0.0%)	2 (3.1%)	2 (2.5)		p=1.00
	No-didn't apply for PO	15 (100%)	62 (96.9%)	77 (97.5)	(received PO=10/no receipt=5)	
Medical care after 1st SA **	Yes-received care	4 (36.4%)	1 (1.5%)	5 (6.4)		p=.001
	No-didn't receive care	7 (63.6%)	66 (98.5%)	73 (93.6)		
Counseling after 1st SA	Yes-received counseling	0 (0.0%)	2 (2.8%)	2 (2.5)		p=1.00
	No-didn't receive counseling	7 (100%)	70 (97.2%)	77 (97.5)		

*Fisher's exact test for contingency tables

**One woman who did not receive medical care after 1st assault is missing response to medical care after subsequent assault

Exhibit 11. Relative Risk (RR), 95% Confidence Interval (CI), and Interpretation of Effect of Helpseeking Behavior After First Assault and Subsequent Sexual Assault

Performed Helpseeking Behavior After Subsequent Assault	Relative Risk (RR)	95% Confidence Interval		Interpretation of RR	
Helpseeking Behavior	p1/p2	Lower	Upper	Benefit of seeking help as compared to those who did not seek help after 1st SA	Consequences of not seeking help as compared to those who did seek help after 1st SA
Told someone about assault	2.5	2.5	3.7	Women who told after 1st SA were 2.5 times more likely to tell after subsequent SA	Women who did not tell after 1st SA were 60% less likely to tell after subsequent SA
Contacted police	7.7	4.3	13.7	Women who contacted police after 1st SA were 7.7 times more likely to contact police after subsequent SA	Women who did not contact police after 1st SA were 87% less likely to contact police after subsequent SA
Applied for protection order	Unable to compute*				
Received medical care	8.3	3.6	19.1	Women who received medical care after 1st SA were 8.3 times more likely to receive medical care after subsequent SA	Women who did not receive medical care after 1st SA were 88% less likely to receive medical care after subsequent SA
Received counseling	Unable to compute*				

*Unable to compute RR-no women performed the helpseeking behavior after 1st and subsequent sexual assault
p1=(Yes to performed HS behavior both times/ Total Yes to performed HS behavior after 1st SA [example: (14/16)]
p2=(No to perform HS behavior after 1st SA but Yes performed HS behavior After subsequent SA/ Total no to perform HS behavior after 1st SA [ex: (22/63)]
p1/p2 = 0.875/0.349 = 2.5

Exhibit 12. Mean Violence Scores and Results from Analyses of Variance (ANOVA) and Multivariate ANOVAs for African American, White, and Latino/Hispanic for Women Who Were and Were Not Sexually Abused by an Intimate Partner at Time of Seeking a Protection Order in January 2001

Violence Score	Woman's Ethnicity	Sexually Abused n_a=35/ n_w=27/ n_l=38		Not Sexually Abused n_a=14/ n_w=12/ n_l=22		Abuse Group	Ethnicity	Abuse Group x Ethnicity Interaction
		M	SD	M	SD	F(df), p	F(df), p	F(df), p
SAVAWS[a]								
Threats	African American	29.29	11.77	21.36	15.10	F(2,141)=2.47,	F(4,284)=1.21,	F(4,284)=.974
	White	28.74	16.45	24.25	16.00	p=.088*	p=.308	p=.422
	Latino/Hispanic	27.11	13.02	26.00	12.30			
Physical Abuse	African American	22.80	15.21	11.43	14.75			
	White	17.81	16.33	10.92	12.73			
	Latino/Hispanic	19.21	13.51	19.73	16.36			
Danger	African American	6.77	2.22	4.86	2.32	F(1,142)=10.07	F(2,142)=.674	F(2,142)=.511
	White	6.56	2.29	5.25	2.14	p=.002**	p=.511	p=.607
	Latino/Hispanic	5.82	2.72	4.91	2.43			
Stalking	African American	7.29	3.10	7.14	4.50			
	White	8.59	4.11	5.75	5.03	F(1,142)=1.71	F(2,142)=.007	F(2,142)=1.66
	Latino/Hispanic	7.18	3.91	7.36	4.09	p=.192	p=.993	p=.194
Work Harassment	African American	3.24	2.06	1.92	2.02	F(1,110)=5.90	F(2,110)=.969	F(2,110)=.955
	White	3.83	1.56	2.60	1.96	p=.009**	p=.383	p=.388
	Latino/Hispanic	3.17	1.74	2.94	2.15			
SF12-Health Scores[a]								
Physical Component Scale	African American	44.23	13.78	50.55	13.42	F(2,141)=4.83,	F(4,284)=1.42,	F(4,284)=1.72
	White	46.32	12.73	49.94	10.28	p=.009***	p=.227	p=.147
	Latino/Hispanic	47.26	12.17	52.36	9.45			
Mental Component Scale	African American	28.32	11.70	30.35	10.48			
	White	27.45	9.96	39.24	14.03			
	Latino/Hispanic	28.44	11.57	27.85	8.81			

n_a=sample size for African American/ n_w=sample size for White/ n_l=sample size for Latino/Hispanic

[a]Multivariate ANOVA with 2 dependent variables (SAVAWS: threats and physical abuse; SF12: Physical and Mental)

*Trend for global difference in abuse group yielded the following results for tests of simple effects: threats F(2,142)=3.30,p=.072 & physical abuse F(2,142)=4.82,p=.03

** Sexually abused significantly higher than not sexually abused

***Tests of simple effects tests yielded the following results: PCS F(2,142)=5.10,p=.026 & MCS F(2,142)=4.88,p=.029

Exhibit 13. Baseline Mean Violence Scores and Results from Analyses of Variance (ANOVA) and Multivariate ANOVAs for US Born and Non-US Born Women Who Were and Were Not Sexually Abused by an Intimate Partner

Violence		Sexually Abused n_n=30/ n_u=70		Not Sexually Abused n_n=11/ n_u=37		Abuse Group	Country of Birth	Abuse Group x Country of Birth Interaction
		M	SD	F(df), p	F(df), p	F(df), p	F(df), p	F(df), p
SAVAWS[a]								
Threats	Non-US born	24.53	12.18	25.55	8.55	F(2,143)=.663,p=.532	F(2,143)=1.99,p=.140	F(2,143)=.827,p=.439
	US born	29.93	13.83	23.81	15.26			
Physical Abuse	Non-US born	19.93	13.82	19.45	17.22			
	US born	20.16	15.44	13.81	14.78			
Danger	Non-US born	5.63	2.79	5.55	2.70	F(1,144)=3.99,p=.048*	F(1,144)=.084,p=.766	F(1,144)=3.30,p=.071
	US born	6.66	2.25	4.81	2.16			
Stalk	Non-US born	6.13	3.58	7.36	3.85	F(1,144)=.023,p=.879	F(1,144)=.881,p=.350	F(1,144)=2.90,p=.091
	US born	8.23	3.62	6.76	4.60			
Work Harassment	Non-US born	2.90	1.74	3.00	2.20	F(1,112)=1.32,p=.253	F(1,112)=.015,p=.904	F(1,112)=1.88,p=.173
	US born	3.57	1.83	2.44	2.05			
SF12-Health Scores[a]								
Physical Component Score	Non-US born	46.03	12.95	53.85	7.53	F(2,143)=3.14,p=.046**	F(2,143)=.875,p=.419	F(2,143)=1.97,p=.144
(norm at75th %=56.0)	US born	45.92	12.89	50.44	11.51			
Mental Component Score	Non-US born	29.33	12.08	26.23	9.73			
(norm at75th %=56.9)	US born	27.62	10.71	32.97	11.69			

n_n=sample size for non-US born/ n_u=sample size for US born

[a]Multivariate ANOVA with 2 dependent variables (SAVAWS: threats and physical abuse; SF12: Physical and Mental)

*Overall, danger scores from sexually abused women were significantly higher than women who were not sexually abused.

**Overall a significant abuse group main effect. Follow-up tests showed women who were not sexually abused had significantly (F(1,144)=6.13,p=.014) higher physical component scores.

Exhibit 14. Table of Frequencies of Women Who Reported "Yes" to Danger Behaviors of Femicide By Sexual Abuse Group

	Not Sexually Abused (n=48)		Sexually Abused (n=100)		Chi-square
	n	%	n	%	
Within the last three months:					
Has the physical violence increased in frequency?	26	(54.2)	65	(65.0)	X^2=1.61,df=1,p=.205
Has the physical violence increased in severity?	26	(54.2)	66	(66.0)	X^2=1.93,df=1,p=.165
Has the person tried to choke you?	15	(31.3)	47	(47.0)	X^2=3.31,df=1,p=.069
Is there a gun in your house?	9	(18.8)	17	(17.0)	X^2=.069,df=1,p=.793
Has this person used drugs?	15	(31.3)	53	(53.0)	X^2=6.18,df=1,p=.013
Has this person threatened to kill you?	28	(58.3)	76	(76.0)	X^2=4.85,df=1,p=.028
Has this person been drunk every day?	14	(29.2)	45	(45.0)	X^2=3.39,df=1,p=.066
Does this person control most or all of your daily activities?	29	(60.4)	72	(72.0)	X^2=2.01,df=1,p=.158
If pregnant, df=1, did this person beat you?	1	(2.1)	7	(7.0)	P=1.00 (Fisher's Exact)
Has this person been violently and constantly jealous of you?	38	(79.2)	88	(88.0)	X^2=2.00,df=1,p=.157
Have you threatened or tried to commit suicide?	2	(4.2)	22	(22.0)	X^2=7.59,df=1,p=.006
Has this person threatened or tried to commit suicide?	18	(37.5)	41	(41.0)	X^2=.17,df=1,p=.684
Has this person been violent outside the home?	25	(52.1)	63	(63.0)	X^2=1.60,df=1,p=.205
Does this person have a gun?	21	(43.8)	33	(33.0)	X^2=1.62,df=1,p=.203
Has this person threatened to harm the children?	2	(4.2)	19	(19.0)	X^2=5.86,df=1,p=.015

Exhibit 15. Mean Psychological Scores Assessed at 24 Months After Application for a Protection Order and Results from Analyses of Variance (ANOVA) and Multivariate ANOVAs for African American, White, and Latino/Hispanic for Women Who Were and Were Not Sexually Abused by Intimate Partner

Violence Score	Woman's Ethnicity	Sexually Abused n_a=35/ n_w=27/ n_l=38		Not Sexually Abused n_a=14/ n_w=12/ n_l=22		Abuse Group	Ethnicity	Abuse Group x Ethnicity Interaction
		M	SD	M	SD	F(df), p	F(df), p	F(df), p
BSI: Global Index	African American	53.0	12.6	50.4	12.3	F(1,142)=1.69,	F(2,142)=.02	F(2,142)=.43
(at risk ≥63)	White	55.0	12.7	49.5	12.0	p=.195	p=.983	p=.653
	Latino/Hispanic	52.3	11.5	51.8	11.7			
BSI:[a] (at risk 2 scales≥63)								
Depressed	African American	53.1	11.8	50.6	11.2	F(3,140)=.73,	F(6,282)=.40,	F(6,282)=.74,
	White	53.1	12.0	52.4	11.9	p=.533	p=.533	p=.620
	Latino/Hispanic	52.7	10.6	52.7	9.6			
Anxiety	African American	52.6	10.6	51.3	12.8			
	White	56.6	11.9	50.9	14.5			
	Latino/Hispanic	52.4	11.4	53.0	10.6			
Somatization	African American	52.3	12.5	51.0	12.6			
	White	53.2	9.9	48.2	8.9			
	Latino/Hispanic	50.8	10.5	49.5	9.5			
Medical Outcomes Study	African American	40.57	8.52	43.93	5.33	F(1,142)=3.33	F(2,142)=1.68	F(2,142)=.19
	White	39.52	9.56	43.25	9.10	p=.070	p=.189	p=.830
	Latino/Hispanic	38.24	9.85	39.86	8.10			
Posttraumatic Stress Disorder	African American	3.31	2.11	3.43	2.34	F(1,142)=5.58,	F(2,142)=6.22	F(2,142)=2.08
(have PTSD≥4)	White	3.96	1.99	2.08	1.88	p=.020*	p=.003**	p=.129
	Latino/Hispanic	4.95	2.14	4.05	2.01			
Family Hardiness Index	African American	46.63	10.48	49.08	7.80	F(1,141)=2.04,	F(2,142)=.458	F(2,142)=1.73
(normed mean=47.4,SD=6.7)	White	42.44	14.00	48.92	7.53	p=.156	p=.633	p=.181
	Latino/Hispanic	47.24	7.01	45.86	7.72			

n_a=sample size for African American/ n_w=sample size for White/ n_l=sample size for Latino/Hispanic

[a]Multivariate ANOVA with 3 dependent variables (BSI: depressed, anxiety, somatic)

* Sexually abused significantly different than not sexually abused

**Overall, regardless of abuse group, Latinos experienced significantly greater PSTD scores than African American (p=.005) and White (p=.012)

Table 16. Mean Psychological Scores Assessed at 24 Months and Results from Analyses of Variance (ANOVA) and Multivariate ANOVAs for US Born and Non-US Born Women Who Were and Were Not Sexually Abused by an Intimate Partner

Violence Score	Country	Sexually Assaulted n_n=30/ n_u=70		Not Sexually Assaulted n_n=11/ n_u=37		Assault Group	Country of Birth	Assault Group x Country of Birth Interaction
		M	SD	F(df), p	F(df), p	F(df), p	F(df), p	F(df), p
BSI: Global	Non-US born	52.7	10.5	52.2	9.3	F(1,144)=.53,p=.467	F(1,144)=.03,p=.862	F(1,144)=.28,p=.595
(at risk ≥63)	US born	53.6	12.6	50.4	13.3			
BSI: [a] (at risk-2 subscales ≥63)								
Depression	Non-US born	53.6	10.0	51.6	9.8	F(3,142)=.49,p=.691	F(3,142)=.19,p=.905	F(3,142)=1.2,p=.329
	US born	52.7	11.9	52.1	10.8			
Anxiety	Non-US born	51.4	10.1	53.0	8.8			
	US born	54.6	11.7	51.7	13.0			
Somatization	Non-US born	52.1	9.9	49.6	10.4			
	US born	51.9	11.5	49.6	10.2			
Medical Outcomes Study	Non-US born	36.87	9.98	37.27	10.39	F(1,144)=.82,p=.366	F(1,144)=7.46,p=.007*	F(1,144)=.46,p=.500
	US born	40.49	8.82	43.27	6.33			
Posttraumatic Stress Disorder	Non-US born	5.40	1.96	5.09	1.76	F(1,144)=1.49,p=.224	F(1,144)=24.59,p<.001**	F(1,144)=.22,p=.641
(have PTSD≥4)	US born	3.56	2.05	2.86	2.06			
Family Health Index	Non-US born	44.27	9.18	45.18	8.89	F(1,143)=.498,p=.481	F(1,143)=1.68,p=.197	F(1,143)=.06,p=.806
(normed mean=47.4,SD=6.7)	US born	46.36	11.11	48.25	7.28			

n_n=sample size for non-US born/ n_u=sample size for US born

[a]Multivariate ANOVA with 3 dependent variables (BSI: depressed, anxiety, somatic)

*US born significantly higher than non-US born

**Non-Us born significantly higher than US born

Exhibit 17.
Table of Frequencies of Women Who Reported “Yes” to Post Traumatic Stress Disorder Symptoms By Abuse Group

	Not Sexually Abused (n=48)		Sexually Abused (n=100)		Chi-square
	n	%	n	%	
Post Traumatic Stress Disorder Symptom					
Made a special effort to avoid thinking or talking about what happened	25	(52.1)	67	(67.0)	X^2=3.07,df=1,p=.080
Much less interested in doing things	17	(35.4)	42	(42.0)	X^2=.586,df=1,p=.44
Felt distant or cut off from others	21	(43.8)	49	(49.0)	X^2=.359,df=1,p=.549
Felt "numb" or as if you no longer had strong feelings	17	(35.4)	48	(48.0)	X^2=2.09,df=1,p=.149
Notice a change in the way you think about or plan for the future	39	(81.3)	87	(87.0)	X^2=.85,df=1,p=.357
Had trouble falling or staying asleep	20	(41.7)	58	(58.0)	X^2=3.47,df=1,p=.062
Been jumpy or easily startled	23	(47.9)	60	(60.0)	X^2=1.92,df=1,p=.166

Exhibit 18. Victim Health Problems Following One Sexual Assault vs multiple assaults

Health Problem	One Assault (N=21)		>1 Assault (N=79)		Total (N=100)
	N	(%)	N	(%)	
Pregnancy	2	(10)	18	(23)	20
Bacterial Vaginosis	0		10	(13)	10
Chlamydia	0		9	(11)	9
Crabs	0		2	(3)	2
Genital herpes	0		5	(6)	5
Genital warts	0		3	(4)	3
Gonorrhea	0		6	(8)	6
HIV/AIDS	0		0		0
Pelvic Inflammatory Disease	0		7	(9)	7
Trichomoniasis or yeast infection	1	(5)	24	(30)	25
Bleeding from vagina	1	(5)	16	(20)	17
Bleeding from rectum	0		16	(20)	16
Hematuria	0		5	(6)	5
Attempted suicide	0		5	(6)	5
Began or increased substance use	2	(10)	26	(33)	28
Began or increased alcohol use	2	(10)	21	(27)	23
Began or increased nicotine use	2	(10)	17	(22)	19
Began or increased illicit drug use	0		7	(9)	7
Problems with intimacy & sexual functioning	4	(20)	17	(22)	21
Anxiety and depression	2	(10)	21	(27)	30

Exhibit 19. Type & Frequency of Decision Making About Having Sex, Condom Use & Birth Control

Decision	Sexual Assault N=100	No Sexual Assault N=48	Test Statistic
Having Sex	Woman = 1%	Woman = 2%	$\chi^2(2)=14.3$, p=.001
	Abuser = 56%	Abuser = 23%	
	Mutual = 43%	Mutual = 75%	
Using birth control	Woman = 74%	Woman = 68%	χ^2 (2)=3.5,p=.176
	Abuser = 10%	Abuser = 5%	
	Mutual = 16%	Mutual = 27%	
Using condoms	Woman = 46%	Woman = 33%	
	Abuser = 22%	Abuser = 8%	
	Mutual = 32%	Mutual = 58%	χ^2 (2)=10.2,p=.006

Exhibit 20. Type & Frequency of Actions Surrounding Birth Control, Condoms, & Pregnancy

Action	Sexual Assault N=100	No Sexual Assault N=48	Test Statistic
Ever Used Birth Control	Yes= 63%	Yes=58%	χ^2 (1)=.29,p=.585
If no to Birth Control, Reason:			χ^2 (2)=3.68,p=.159
• Sterility	Yes = 43%	Yes = 55%	
• Abuser refused to use	Yes = 16%	Yes = 0	
• Woman's decision not to use	Yes = 41%	Yes = 45%	
Woman wanted to use condoms to prevent STDs	Yes= 69%	Yes= 50%	χ^2 (1)=5.01,p=.025
If yes to wanted condoms, Frequency of use:			χ^2 (4)=3.93,p=.415
• Never	Yes= 22%	Yes= 13%	
• Rarely	Yes= 17%	Yes= 21%	
• Some of the time	Yes = 23%	Yes = 42%	
• Most of the time	Yes = 20%	Yes = 13%	
• All of the time	Yes = 17%	Yes = 13%	
If no to wanted condoms, Reason:			χ^2 (3)=5.92,p=.116
• No perceived threat of STD's	Yes= 19%	Yes= 30%	
• Abuser refused to use	Yes= 25%	Yes= 9%	
• Woman did not want to use	Yes = 15%	Yes = 17%	
• Never discussed. Not an issue	Yes = 42%	Yes = 44%	
Ever Pregnant because abuser would not use birth control	Yes= 26%	Yes = 5%	χ^2 (1)=8.9,p=.003

Exhibit 21. Child Age at First Exposure to Physical or Sexual Assault of the Mother for 200 Children*

Age of First Exposure	N	%
<1 year	73	36
1-3	55	28
4-9	50	25
10-20	22	11

*Five mothers could not remember the age of child at first exposure

Exhibit 22. Child's Age at First Exposure to Assault of Mother

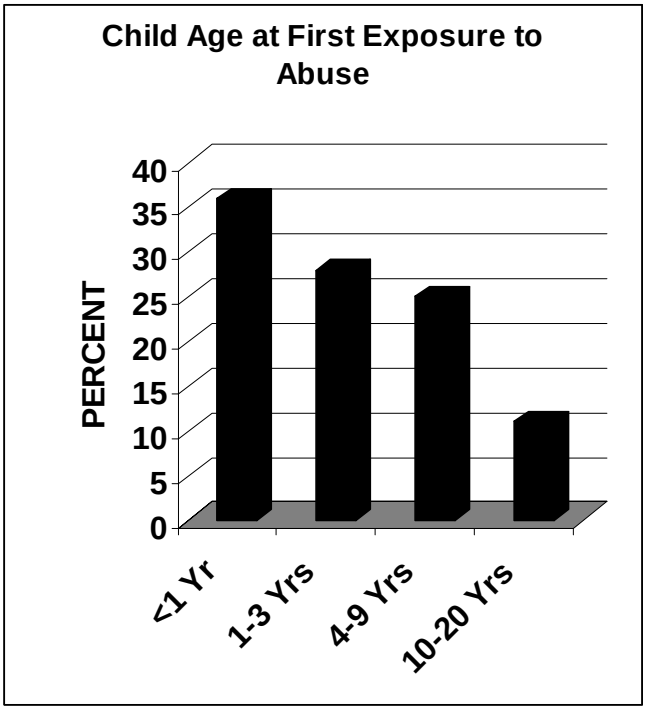

Exhibit 23. Marginal Means (M), Standard Errors (SE)[a], Raw Group Differences (DIF), and Standard Effect Sizes (SEF) for Instruments with Internal (INT), External (EXT), and Total Behavior Problems (TBP) Administered to Mothers of 1.5-5 yr olds and Mothers of 6-18 yr olds

	Sexually Abused			Not Sexually Abused			DIF	SEF
	n	M	SE	n	M	SE		
Instrument for 1.5-5 yrs								
INT	25	53.44	2.74	24	49.25	2.80	4.19	0.31
EXT	25	55.44	2.25	24	51.46	2.30	3.98	0.35
TBP	25	56.20	2.51	24	50.83	2.56	5.37	0.42
Instrument for 6-18 yrs[b]								
INT								
6-11 yrs	34	53.21	1.94	25	53.12	2.26	0.09	0.01
12-18 yrs	22	61.91	2.41	11	51.00	3.41	10.91	0.88
EXT								
6-11 yrs	34	55.44	1.76	25	54.08	2.06	1.36	0.15
12-18 yrs	22	55.55	2.19	11	55.36	3.10	0.18	0.02
TBP								
6-11 yrs	34	52.59	1.74	25	51.16	2.03	1.43	0.15
12-18 yrs	22	58.05	2.17	11	51.09	3.07	6.95	0.59

[a] SE Accounts for variation and sample size

[b]Overall Significant Multivariate Abuse Group by Age Group Interaction; Follow-up Univariate interaction for Internal Behaviors was just past significance (p=.038), indicating that INT scores for 12-18 yr old youth from Sexually Abused Mothers was nearly significantly higher than scores for youth from Not Sexually Abused Mothers

Exhibit 24. Internal (INT), External (EXT), and Total Behavior Problem (TBP) Scores Stratified by Age Group and Gender for Children from Sexually Abused Women and Non-Sexually Abused Women with Children Scores from Sexually Abused Mothers Compared to a Clinically Referred and Non-Referred Normative Sample

	Sexually Abused		Not Sexually Abused		Clinically Referred Normative Sample	Clinically Non-Referred Normative Sample
	n	M(SD)		M(SD)	M(SD)	M(SD)
INT:						
1½-5 yrs[a]	24	53.0 (16.1)	9	53.4 (12.7)	61.2 (10.9)**	50.2 (10.0)
6-11yrs : Boys	15	53.0 (11.9)	6	56.7 (6.4)	61.7 (11.8)**	50.2 (9.6)
Girls	15	51.7 (10.6)	9	52.8 (11.9)	61.4 (10.9)*	50.1 (9.7)
12-18 yrs:Boys	11	60.5 (12.7)	4	53.8 (5.3)	61.5 (11.1)	50.5 (9.7)**
Girls	10	62.6 (12.3)	6	48.8 (12.9)	62.0 (11.5)	50.1 (10.0)**
Total	75	55.1 (13.6)	34	53.1 (10.6)		
EXT:						
1½-5 yrs[a]	24	55.7 (12.1)	9	52.2 (11.3)	57.3 (13.4)	50.2 (9.9)**
6-11yrs : Boys	15	56.9 (8.5)	6	58.7 (2.3)	62.5 (11.6)**	49.9 (9.8)*
Girls	15	52.9 (10.6)	9	50.6 (9.4)	61.2 (12.3)*	50.0 (9.6)
12-18 yrs:Boys	11	55.7 (13.6)	4	53.5 (5.8)	62.6 (10.7)	50.5 (9.7)
Girls	10	55.9 (12.3)	6	54.8 (14)	62.8 (11.4)	50.8 (9.8)
Total	75	55.4 (11.2)	34	53.5 (9.7)		
TBP:						
1½-5 yrs[a]	24	56.1 (14.6)	9	53.3 (12.3)	61.7 (11.1)	50.1 (9.9)
6-11yrs : Boys	15	52.8 (9.8)	6	55.3 (2.6)	64.4 (10.7)*	50.0 (9.9)
Girls	15	51.2 (10.4)	9	50.2 (6.7)	63.8 (11.3)*	50.1 (9.9)
12-18 yrs:Boys	11	57.3 (12.0)	4	50.8 (5.6)	64.0 (9.5)	50.5 (9.8)
Girls	10	58.7 (12.5)	6	50.3 (14.8)	63.0 (10.9)	50.4 (10.1)
Total	75	55 (12.2)	34	52.0 (9.4)		

Significantly different from normative sample (*p < .01; ** p < .05)

Investigators' Biosketch

Dr. Judith McFarlane is the Principal Investigator of this research and also the Parry Chair in Health Promotion and Disease Prevention at Texas Woman's University, College of Nursing, in Houston, Texas. Dr. McFarlane conducts research on the health effects of violence against women and the effectiveness of interventions to prevent further violence. Her research has been funded by the Centers for Disease Control, National Center for Injury Prevention, Agency for Health Research & Quality, The National Institutes of Justice, and the National Institutes of Mental Health. Dr. McFarlane began studying intimate partner violence during pregnancy in 1984 and has since authored many studies on abuse of pregnant women and its connection with low birthweight. Her research findings have been presented to congressional committees, included in national health objectives, and used by clinicians in the U.S. and abroad to set standards of care for pregnant women. To improve access to early prenatal care for high-risk Hispanic women, the W.K. Kellogg Foundation funded Dr. McFarlane to design and test the program De Madres a Madres, a health care delivery model featured in TIME Magazine and excerpted on NBC "TODAY" show. Dr. McFarlane is the author or coauthor of six clinical nursing textbooks and more than 130 peer reviewed journal articles on women's health. Dr. McFarlane presents regularly to national and international audiences.

Dr. Ann Malecha is the Co-Principal Investigator of this research and also an Assistant Professor at Texas Woman's University, College of Nursing in Houston, Texas. Dr. Malecha's research program focuses on improving the health and safety outcomes of abused women. Utilizing her experience as an adult nurse practitioner and nurse researcher, Dr. Malecha is studying the practice and policy implications of universal screening for domestic violence in health care settings. Selected as a Chancellor's Research Fellow for 2002-2004 at Texas Woman's University, Dr. Malecha is studying the outcomes of domestic violence screening in the occupational health setting. Dr. Malecha is the author or coauthor of more than 30 publications that focus on improving the health of abused women.

Drs McFarlane and Malecha were assisted by the following people in data collection: Dr. Julia Gist, an assistant professor at Texas Woman's University, Drs. Iva Hall and Sheila Smith at the Nursing Department of Lamar University in Beaumont Texas and Ms Elizabeth Batten, a bilingual caseworker at the Harris County District Attorney's Office in Houston. Finally, Ms Kathy Watson, statistician at Baylor College of Medicine in Houston completed the data analysis.

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SEXUAL ASSAULT AMONG INTIMATES:
FREQUENCY, CONSEQUENCES & TREATMENTS

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