

Applying NIBRS Data to the Study of Intimate Partner Violence: Massachusetts as a Case Study*

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Using data from Massachusetts, we illustrate three ways in which National Incident-Based Reporting System (NIBRS) data can improve the collection of important information on intimate partner violence. First, because NIBRS uses incident-based reporting, data are collected on all crimes associated with each incident. In our sample of women victimized by an intimate partner, 10% had experienced more than one crime during the incident. Second, NIBRS involves expanded data collection on the offender–victim relationship, as well as reporting about additional offenses. For female victims, partners were more likely than nonpartners to commit the crimes of simple assault, intimidation, and aggravated assault. For crimes involving male victims, an acquaintance was most likely to be the offender. Third, NIBRS data allow us to connect information about the incident, the offender(s), and the victim(s). Our data indicted that several victim-, offender-, and incident-related variables were risk factors for injury, including victim's ethnicity, offender's relationship to the victim, offender's use of a weapon, whether or not the case was cleared, type of crime committed, and whether or not drugs and/or alcohol were involved in the incident. Although there are several limitations to NIBRS data, its potential usefulness to the study of intimate partner violence deserves further attention.

KEY WORDS: NIBRS; intimate partner violence; offender–victim relationship; women; violence; incident-based reporting.

1. INTRODUCTION

Researchers in the area of intimate partner violence have long struggled with the shortcomings of police report data in addressing intimate partner

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violence. These shortcomings include an absence of information on the offender's relationship to the victim with regard to crimes other than homicide, a limited number of types of crimes traditionally reported, and the fact that only one crime is counted in incidents involving multiple offenses. Because police data are a systematic, ongoing collection of information on crimes reported to law enforcement personnel, such data could allow researchers to examine the epidemiological patterns and correlates of violence among intimate partners (Saltzman *et al.*, 1992). The implementation of a revised crime reporting system can enhance the utility of police data for examining these purposes.

The NIBRS was developed in the early 1980s, and its design was finalized by the Federal Bureau of Investigation (FBI) in 1986. The NIBRS was implemented (1) to enhance the quantity, quality, and timeliness of statistical data collected by police departments; and (2) to improve the methodology used for compiling and analyzing collected crime data. NIBRS data are reported for 46 crime incidents and arrests within 22 categories. The incident reporting form includes data on victim and offender demographics, offender-victim relationship, weapon type, location of offense, criminal activity, and property loss. The NIBRS differs from the traditional summary reporting used in the Uniform Crime Reports (UCR) Program since 1930 in that the traditional system provides frequency data on only seven index offenses⁴—murder, forcible rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft. For all these offenses, except homicide, no information is available on the victim or the crime circumstances. Additionally, because UCR summary data are reported in aggregate form, offenses cannot be linked with arrest data [Bureau of Justice Statistics (BJS), 1997a].

NIBRS data are generated by state, local, and campus law-enforcement agencies, which forward the data to a state-level crime reporting program. Participation in NIBRS is voluntary. After processing the data and checking for errors, reporting agencies send the data to the FBI. Before a state submits acceptable data to the FBI, the agency must demonstrate its ability to meet NIBRS reporting requirements. After this testing phase has been successfully completed, a state is "certified" to submit data to the FBI (B. J. S., 1997b). The data supplied by NIBRS-certified states represent approximately 6% of the nation's crime volume (Kinderman, B. J. S., personal communication, April 1998).

The Massachusetts NIBRS program was certified in 1995 and currently collects data from 117 local police departments and 4 campus police agencies. These 121 agencies service a total residential population of 1.9 million

⁴The Modified Crime Index includes arson. However, the FBI arson data are considered less complete and reliable than data on the other seven index crimes (UCR, 1997).

people. The Massachusetts NIBRS data represent 34% of the state's population and 20% of the state's reported crime. NIBRS data from Massachusetts are not representative of either the state's population or its reported crimes. Furthermore, the Massachusetts NIBRS has significant missing data. For these reasons, the focus of our paper is to illustrate the *potential* of the NIBRS once these problems are addressed. It is not our intent in this paper to estimate the extent of intimate partner violence or to generalize our findings. Rather, we use NIBRS data from Massachusetts to demonstrate the potential application of the NIBRS to the study of intimate partner violence.

For this paper, we document three ways in which NIBRS data can improve the collection of important data relevant to intimate partner violence that is not available in the UCR summary reporting system. Although the NIBRS has many limitations with respect to measuring intimate partner violence, it could improve the ability to gather data on intimate partner violence relative to what summary reporting allows. Thus the purpose of this paper is to highlight these assets.

First, the NIBRS uses incident-based reporting rather than aggregate reporting, as in the UCR summary reporting system. Because the NIBRS does not use a hierarchy rule, data are collected on all crimes associated with each incident. Second, the NIBRS involves expanded data collection on the offender–victim relationship, as well as reporting about additional offenses. Third, NIBRS data allow information about the offender(s) to be connected to information about the victim(s) involved in the same incident.

2. METHOD

2.1. Sample Derivation

The data set used in this study was derived from the NIBRS data received by the Crime Reporting Unit of the Massachusetts State Police. The original data structure allows for multiple records for most of the record types in the data set (victim, offender, arrestee, offense, and property). Because each incident in the NIBRS file may have a different combination of records, analysis of the raw data is difficult. For analytical purposes, we converted the raw NIBRS data from an incident-based data set to a victim-based set. Although a maximum of three victim records per case was written out to a raw data file, we analyzed incidents in which there was a single victim. Incident data were written to each victim record, as well as other information specific to that victim (age, race, sex, offender–victim relationship). A series of other variables reflecting incident characteristics was added to each victim record (most serious offense, closest offender–victim relationship, total number of victims and offenders). Thus, even

though the data structure was victim-based, each record contained incident-based information. The result was a reasonably small record which could easily be processed by standard statistical analysis software.

The sample consisted of 94 police departments in Massachusetts. Data were collected from 1994 to 1996. At the time the data files were generated, these were the years for which the most complete data were available. The sample covered a population of more than 1 million; no large cities were included. The cities ranged in population size from under 1400 to almost 170,000, with an average population of about 18,000. The population size for the 25th percentile was 8100; that for the 50th percentile, 13,000; and that for the 75th percentile, 17,900.

We focused on eight violent crimes reported to the police between 1994 and 1996; murder, forcible rape, forcible sodomy, sexual assault with an object, forcible fondling, aggravated assault, simple assault, and intimidation. We focused on these crimes because we were interested in partner violence against women, and preliminary analyses indicated that these violent crimes were ones often perpetrated by partners. We defined intimate partner violence as the commission of one of these eight crimes by a spouse, an ex-spouse, a common-law spouse, a boyfriend, or a girlfriend (both heterosexual and same-sex partners). Although our primary focus is female victims, we include male victims for comparative purposes.

Between 1994 and 1996 in Massachusetts, there were about 20,000 incidents in which females experienced one of the eight crimes included in our study; 49% ($n = 9745$) involved victimization by an intimate partner or ex-partner. Thus, intimate partner victimizations represent almost one-half of the incidents in which a female in our sample experienced one of the targeted eight crimes. Of the remaining incidents, 11% ($n = 2094$) involved victimizations by other family members, 19% ($n = 3837$) involved victimizations by known assailants (i.e., child of boyfriend, acquaintance, babysitter, employer, employee, friend, neighbor, otherwise known), and 3% ($n = 541$) involved victimizations by strangers. The remaining 19% ($n = 3716$) had data missing on relationship of the offender to the victim or were coded as "relationship unknown."

Of the 9745 incidents in which females were victimized by intimate partners, most incidents involved lone offenders ($n = 9711$). The remaining incidents were perpetrated by multiple offenders ($n = 34$). We focused only on incidents in which women were victimized by lone offenders because such incidents differed from incidents involving multiple offenders.

Incidents in which women experienced intimate partner violence perpetrated by a lone offender differed from incidents involving multiple offenders in five ways. First, multiple offenders were involved in less than 1% of all types of crime except for forcible fondling (13%) and forcible rapes

(3%). Second, multiple offenders were involved in less than 1% of incidents perpetrated by spouses, common-law spouses, boyfriends, and girlfriends but were involved in 1.4% of incidents where one of the offenders was an ex-spouse. Third, multiple offenders were more likely to be involved in incidents where the victim was young, and also where the offender was young (≤ 25 years of age). Fourth, incidents with multiple offenders were less likely to involve weapons than incidents with lone offenders. Fifth, incidents involving more than one offender were less likely to be cleared⁵ than incidents involving a lone offender.

2.2 Measures

The variables we included in this study consist of victim-, offender-, and incident-related characteristics. The variables assessing victim-related information include race, ethnicity, age, offender's relationship to the victim, whether or not an injury was sustained by the victim, and, if so, what type of injury. The variables assessing offender-related information include race, sex, age, and weapon use. The variables assessing incident-related information include type of offense (coded as the most serious offense committed during the incident), alcohol and/or drug involvement, whether or not the case was cleared, location of the incident, and circumstances surrounding the incident if the most serious offense was a homicide or an aggravated assault. If multiple crimes occurred in a single incident, we used our own hierarchical scheme to code which crime in an incident was the most serious offense. This scheme ranked murder as the most serious, followed by forcible rape, forcible sodomy, sexual assault with an object, forcible fondling, aggravated assault, simple assault, and intimidation.

RESULTS

First, we present descriptive statistics for the 9711 incidents in which females were victimized by a lone offender who was a current or former intimate partner. Second, we demonstrate three ways in which NIBRS data can potentially be used to study intimate partner violence. Some of these examples are restricted to incidents in which the offender was a partner or ex-partner ($n = 9711$ for female victims; $n = 1222$ for male victims), and other examples involve incidents in which the offender was a current or

⁵In the UCR vocabulary, a known offense is "cleared" or "solved" (1) when a law enforcement agency has charged at least one person with the offense or (2) when a suspect has been identified and located and an arrest is justified, but action is prevented by circumstances outside law enforcement control (BJS, 1981, p. 39).

former partner *or* a nonpartner ($n = 15,833$ for female victims; $n = 7817$ for male victims).

3.1. Descriptive Data for Female Victims of Partner Violence Perpetrated by Lone Offenders

3.1.1. Victim and Offender Characteristics

Whereas all victims were females, almost all (99%) of the offenders were male. The race distributions of the victims and offenders are presented in Fig. 1. Most victims and offenders were white; the majority of the remainder were black. In terms of victim's ethnicity, 71% were non-Hispanic, 14% were Hispanic, and 15% were of unknown ethnicity (not shown in figure). The age distributions of the victims and offenders are presented in Fig. 2. The average age of the victims was 30.0 years ($SD = 9.2$ years), and the average age of the offenders was 32.1 years ($SD = 9.4$ years). The relationship of the offender to the victim is presented in Fig. 3. Most women victimized by an intimate partner or ex-partner had been victimized by a boyfriend, with the majority of the remainder being victimized by a spouse. Most victims (57%) were injured during the crime, although most of these injuries (91%) were minor (not shown in figure). Most offenders used a weapon during the crime (89%) (not shown in figure). Personal weapons were the most frequent weapon of choice (68%).

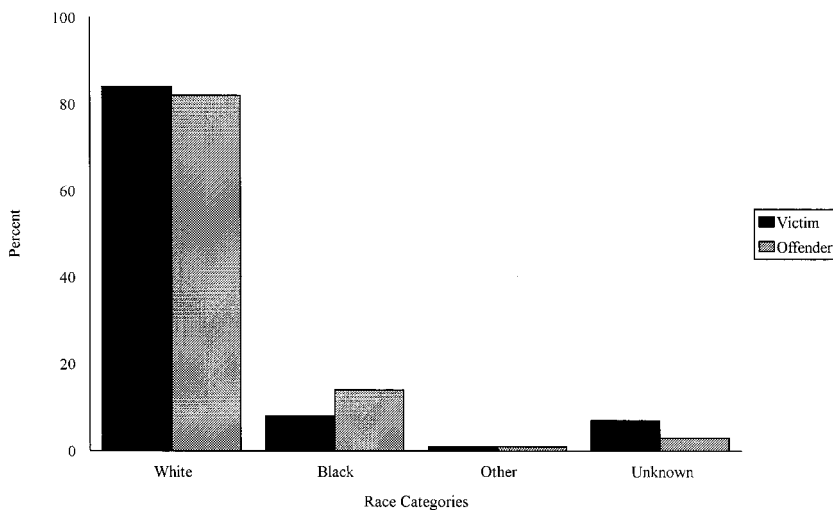


Fig. 1. Race of female victims and their offenders—Massachusetts, NIBRS, 1994–1996.

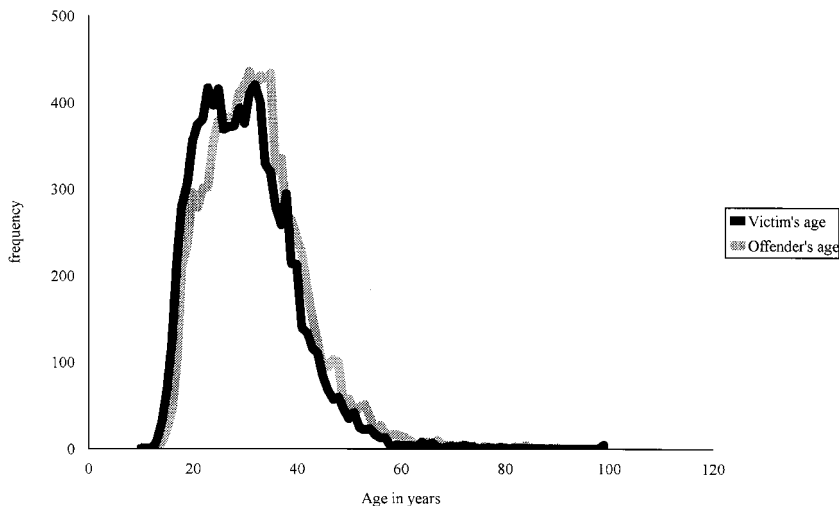


Fig. 2. Age distributions for victims and offenders—Massachusetts, NIBRS, 1994–1996.

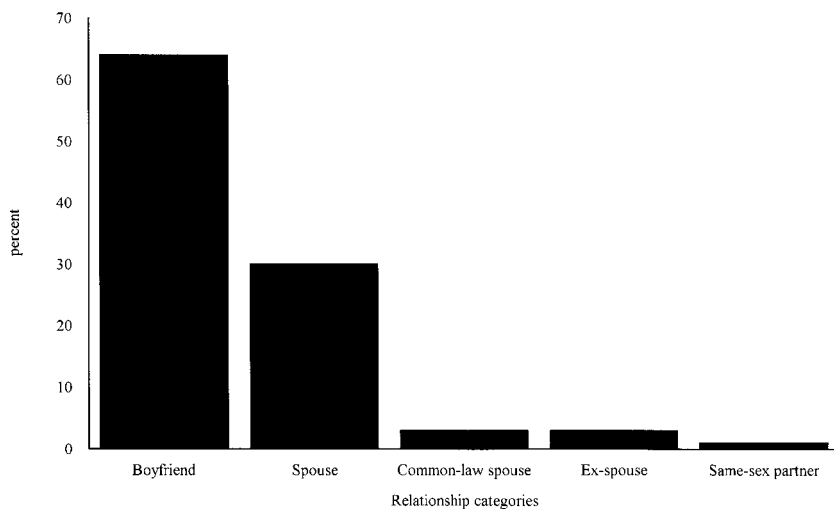


Fig. 3. Offender's relationship to victim—Massachusetts, NIBRS, 1994–1996.

3.1.2. Incident-Related Characteristics

Of the women who were victimized by an intimate partner or ex-partner, women were most likely to have experienced a simple assault (49%), next most likely to have experienced an aggravated assault (40%), followed

by intimidation (10%). The remaining types of offenses (murder, forcible rape, sexual assault with an object, forcible fondling) were each experienced by less than 1% of women. Alcohol and/or drugs were involved in 19% of the crimes. Two-thirds of the incidents (67%) were cleared. Most incidents occurred in the victim's residence (84%); the remainder occurred in various public locations (15%) or unknown locations (1%). Of the aggravated assaults, 69% occurred during an argument, 23% during a "lover's quarrel," 4% in "other circumstances," and 4% in "unknown circumstances." Of the four murders, one (25%) occurred in "other circumstances," and three (75%) occurred in "unknown circumstances."

3.2. Three Ways NIBRS Data Can Be Utilized for the Study of Intimate Partner Violence

3.2.1. Incident-Based Reporting Rather than Summary Reporting

In the UCR traditional summary reporting system, if more than one crime was committed in a single incident, a hierarchy rule determined which crime would be counted. This rule stipulates that if more than one of the seven index crimes occurs simultaneously, only the highest-ranking offense should be scored (UCR, 1984). An advantage of NIBRS is that data are collected on more than one crime in the same incident. In our sample of 9711 women victimized by a lone offender who was an intimate partner or ex-partner, 1017 (10%) had experienced more than one crime in the violent incident. Data in Table I depict the cross-classification of offense types for crimes involving multiple offenses.

Of the 87 women who experienced a forcible rape as their most serious crime, 30 (34%) also experienced another offense during the same crime incident. Most of these other offenses were aggravated assaults, followed by simple assaults, intimidation, and burglary. Of the two women who experienced sexual assault with an object as the most serious crime, both also were victims of aggravated assault perpetrated during the same incident. Of the seven women who experienced forcible fondling as the most serious crime, two (29%) also experienced another offense during the incident.

Of the 967 women whose most serious victimization was intimidation, 50 (5%) also experienced another offense during the incident, typically vandalism. Of the 3931 women who experienced aggravated assault as the most serious crime, 536 (14%) also experienced another offense during the same incident. Almost half of these other offenses were simple assaults, followed by vandalism, intimidation, burglary, and larceny/theft. Of the 4713 women who experienced simple assault as the most serious crime, 397 (8%) also experienced another offense during the same incident. The majority of these multiple offenses were crimes of intimidation and vandalism, followed by

Table I. Cross-Classification of Offense Types for Crimes Involving Multiple Offenses Among Women Victimized by a Lone Offender Who Was an Intimate Partner or Ex-Partner

	Crimes targeted in this study						Other crimes not targeted in this study							
	Most serious offense	Multiple offenses	Aggravated assault	Simple assault	Sexual assault with object	Forcible fondling	Intimidation	Buglary	Larceny /theft	Theft of motor vehicle	Theft from building	Arson	Stolen Property	Theft from motor vehicle
Forcible rape	87	30	23	5	1	3	2							
Sexual assault with object	2	2	2											
Forcible fondling	7	2	1	1										
Aggravated assault	3931	536	—	231		127	58	28	8	167	1	1	1	
Simple assault	4713	397	—	—		164	53	33	14	159	8	2		1
Intimidation	967	50					8	5	39		1			

Table II. Offender–Victim Relationship Status by Most Serious Crime Type Among Female Victims—Massachusetts, NIBRS, 1994–1996^a

	Partner or ex-partner (<i>n</i> = 9711)	Family member (<i>n</i> = 2046)	Other known (<i>n</i> = 3582)	Stranger (<i>n</i> = 494)	Unknown/missing on offender–victim relationship (<i>n</i> = 31)
Murder	4 (44%)	1 (11%)	3 (33%)	1 (11%)	0
Forcible rape	87 (18%)	85 (17%)	296 (60%)	27 (5%)	3
Sodomy	0 (0%)	1 (33%)	2 (67%)	0 (0%)	0
Sexual assault with object	2 (8%)	10 (39%)	13 (50%)	1 (4%)	0
Forcible fondling	7 (4%)	60 (30%)	104 (52%)	27 (14%)	3
Aggravated assault	3931 (60%)	907 (14%)	1514 (23%)	230 (3%)	9
Simple assault	4713 (71%)	805 (12%)	1022 (15%)	144 (2%)	12
Intimidation	967 (53%)	177 (10%)	628 (34%)	64 (4%)	4

^a*n* = 15,833.

burglary and larceny/theft. These data indicate that multiple offenses were most likely to occur during sexual crimes, such as rape, sexual assault with an object, and forcible fondling. Additionally, these data indicate that intimidation and property crimes, such as vandalism and burglary, often cooccurred in incidents of physical and sexual assaults perpetrated by intimate partners.

3.2.2. Expanded Information on Offender–Victim Relationship and Offenses Committed

One of the most promising applications of NIBRS data to the study of partner violence is the information now available on the offender's relationship to the victim. Previously, this information was available only for homicides (Saltzman *et al.*, 1992). Furthermore, the offenses for which crime statistics are reported have been expanded beyond the seven index crimes.

We examined differences in offender–victim relationship status by crime type for incidents involving females victimized by lone offenders. However, because our sample was not random or representative, we did not use inferential statistics to test for significant associations. We excluded females for whom the nature of the offender–victim relationship was unknown. Incidents for which offender–victim relationship status was unknown ranged from 7 to 69%: 7% for aggravated assaults, 9% for simple assaults, 19% for intimidation, 20% for fondling, 25% for sodomy, 26% for rape, 36% for murder, and 69% for sexual assault with object.

As shown in Table II, forcible rapes were more likely to be perpetrated by acquaintances (60%) than by intimates (18%), family members (17%), or

Table III. Offender–Victim Relationship Status by Most Serious Crime Among Male Victims—Massachusetts, NIBRS, 1994–1996^a

	Partner or ex-partner (<i>n</i> = 1222)	Family member (<i>n</i> = 1175)	Other known (<i>n</i> = 4114)	Stranger (<i>n</i> = 1306)	Unknown/missing on offender–victim relationship (<i>n</i> = 1990)
Murder	2 (20%)	2 (20%)	6 (60%)	0 (0%)	6
Forcible rape	1 (8%)	5 (42%)	5 (42%)	1 (8%)	5
Sodomy	2 (6%)	13 (41%)	15 (47%)	2 (6%)	14
Sexual assault with object	0 (0%)	3 (50%)	3 (50%)	0 (0%)	10
Forcible fondling	0 (0%)	13 (32%)	26 (63%)	2 (5%)	10
Aggravated assault	672 (16%)	616 (14%)	2240 (52%)	781 (18%)	926
Simple assault	450 (18%)	443 (17%)	1273 (50%)	396 (16%)	658
Intimidation	95 (11%)	80 (10%)	546 (65%)	124 (15%)	361

^a*n* = 7817.

strangers (5%). Forcible fondlings were more likely to be perpetrated by acquaintances (52%) or family members (30%) than by intimate partners (4%) or strangers (14%). For incidents in which the most serious crime was aggravated assault, perpetrators were more likely to be current or former partners (60%) than family members (14%) or strangers (4%). Incidents among females in which the most serious crime was simple assault or intimidation were more likely to have been perpetrated by intimate partners or ex-partners (simple assault, 71%; intimidation, 53%) than by other family members (12 and 10%), other known persons (15 and 34%), or strangers (2 and 4%). Although the cell sizes for crimes of murder and sodomy were small, for this sample of female victims, more murders were committed by partners or ex-partners than by nonpartners. On the other hand, acquaintances were more likely than intimate partners to commit sodomy or sexual assault with an object.

We also examined the distribution of crime types across relationship categories for male victims. We excluded incidents for which the nature of the offender–victim relationship was unknown. Incidents for which offender–victim relationship status was unknown ranged from 18 to 63%: 18% for aggravated assaults, 20% for simple assaults, 20% for fondling, 29% for rape, 30% for intimidation, 30% for sodomy, 38% for murder, and 63% for sexual assault with object.

As seen in Table III, crimes of sodomy were more likely to be perpetrated by acquaintances (47%) or family members (41%) than by intimate partners (6%) or strangers (6%). Incidents among male victims in which the most serious crime was forcible fondling were more likely to be perpetrated by acquaintances (63%) than by intimate partners (0%) or strangers (5%).

Aggravated assaults were most typically perpetrated by acquaintances (52%), although this was not higher than the number of aggravated assaults perpetrated by intimates (16%), family members (14%), or strangers (18%).

Simple assaults were more likely to be perpetrated by acquaintances (50%) than by intimate partners (18%), family members (17%), or strangers (16%). Similarly, intimidation was more likely to be perpetrated by acquaintances (65%) than by intimate partners (11%), family members (10%), or strangers (14%). Although the cell sizes for crimes of murder and sexual assault with an object were small, in this sample of male victims, more murders were committed by acquaintances than by other relationship types, and a higher number of rapes and sexual assaults with an object were perpetrated by family members and acquaintances than by intimate partners or strangers.

These data suggest that the pattern of perpetration differs for male and female victims of violent crime. For men who experienced forcible fondling, sodomy, simple assaults, or intimidation, acquaintances were more likely to be the perpetrators than any other relationship types. Conversely, for women who experienced aggravated assault, simple assault, or intimidation, an intimate partner was most likely to be the perpetrator. This finding needs to be interpreted with caution due to the large amount of missing data in our sample. It remains an empirical question to determine if this finding can be replicated using data from a representative sample without a lot of missing data.

3.2.3. *Linking of Offender Data to Victim(s) Data and Victims of Same Incident to Each Other*

Another advantage of NIBRS data is that they allow us to connect information about the offender(s) to information about the victim(s) from the same incident. This new application of police data can be used to broaden our understanding of risk factors for injury among female victims of partner violence. To demonstrate this, we examined which victim-, offender-, and incident-related variables were risk factors for injury.

Data in Table IV indicate that several victim-, offender-, and incident-related variables were risk factors for injury. These included victim's ethnicity, offender's relationship to the victim, offender's use of a weapon, whether or not the case was cleared, type of crime committed, and whether or not drugs and/or alcohol were involved in the incident. Specifically, Hispanic victims were more likely than non-Hispanic victims to be injured. Victims whose offenders were spouses, common-law spouses, boyfriends, or same-sex partners were more likely to be injured than not injured, while women victimized by ex-spouses were less likely to sustain an injury than to not be injured.

Table IV. Victim, Offender, and Incident Risk Factors for Injury Among Female Victims of Intimate Partner Violence (*n* = 9711)

Risk factors	Percentage injured (57%)
<i>Victim-related variables</i>	
Victim's race	
White	58
Black	60
Asian-Pacific	65
Indian	58
Victim's ethnicity	
Hispanic	62
Non-Hispanic	58
Victims' age	
≤ 25	57
26–35	58
36–99	57
Offender's relationship to victim	
Spouse	55
Common-law spouse	61
Boyfriend	59
Girlfriend	56
Ex-spouse	36
<i>Offender-related variables</i>	
Offender's sex	
Male	57
Female	56
Offender's race	
White	57
Black	58
Asian Pacific	62
Indian	38
Offender's age	
≤ 25	56
26–35	58
36–99	58
Weapon use	
Yes	67
No	46
<i>Incident-related variables</i>	
Case cleared	
Yes	64
No	45
Most serious crime of incident	
Forcible rape	56
Sexual assault with object	50
Forcible fondling	38
Aggravated assault	65
Simple assault	63
Alcohol or drugs involved	
Yes	68
No	55
Location	
Private residence	58
Public area	55

Weapon use was related to injury occurrence. Two-thirds of incidents involving weapons resulted in a victim sustaining an injury, whereas less than half of the incidents that did not involve weapons resulted in such injuries. A similar pattern emerged for whether or not a case was cleared. Cases that were cleared were more likely to involve victim injuries than cases that were not cleared. In terms of the most serious crime committed during the incident, women who were victims of aggravated assault, simple assault, or forcible rape were more likely to have been physically injured during the crime than women victimized by sexual assault with an object or forcible fondling. (Homicides and intimidation were excluded from this analysis.) Incidents that involved alcohol or drugs were also related to an increased likelihood for victim injury.

4. DISCUSSION

We have demonstrated some potential applications of NIBRS data to the study of intimate partner violence. First, we presented data that illustrated the potential usefulness of collecting data on all crimes that occur in an incident, and not simply the most serious crime. This allowed us to determine that 1 of every 10 female victims of intimate partner violence experienced more than one type of crime during the same incident. This was most likely to be the case for sexual crimes. For example, aggravated assaults cooccurred in 77% of incidents where the most serious crime was forcible rape, 100% of the incidents where the most serious crime was sexual assault with an object, and 50% of incidents where forcible fondling was the most serious crime. Another interesting finding to emerge from the multiple offense analyses was that intimidation, as well as property crimes, often cooccurred with more serious crimes. This may lead to intervention strategies for use with victims of intimate partner violence. For example, the cooccurrence of intimidation with other more serious crimes suggests that victims may initially be intimidated by partners prior to a more serious crime occurring. If this were to be the case, interventions could begin earlier in the abuse cycle when intimidation is manifest but prior to more serious crimes occurring. This would prevent more serious forms of abuse from emerging in the partner relationship.

Second, we presented data that illustrated the ability of NIBRS to gather information on the offender-victim relationship for crimes other than homicide. Prior to NIBRS, data from the FBI's Supplemental Homicide Reports indicated that females were more likely to be killed by their male partners and ex-partners than men were to be killed by their female partners and ex-partners. Females were also more likely to be killed by intimate partners than nonintimates, whereas males were more likely to be killed by

nonintimates than by intimates. NIBRS data now allow researchers to use police data to examine this gender difference for crimes other than homicide. Our data indicated that among victims of intimate partner violence, females were more commonly the victims than males. Further, among female victims, crimes of simple assault, intimidation, and aggravated assault were more likely to have been perpetrated by a current or former partner than by a nonpartner.

A third way in which we illustrated how NIBRS data could be applied to the study of partner violence was by showing how victim-, offender-, and incident-related variables can be examined concurrently. We used the example of predicting injuries to victims and showed that victim's ethnicity, offender's relationship to the victim, offender's use of a weapon, whether or not the case was cleared, type of crime committed, and whether or not drugs and/or alcohol were involved in the incident were risk factors for victim injury.

Although the sample used for this study was not representative of Massachusetts, some comparisons can nonetheless be made with data from other sources, such as the National Crime Victimization Survey (NCVS); (BJS, 1997a). First, the distribution pattern of the offender-victim relationship paralleled that found in the NCVS. Our data indicated that almost two-thirds of the women in our sample were victimized by boyfriends, approximately one-third were victimized by spouses or common-law spouses, and only 3% were victimized by ex-spouses. In the NCVS, 42% of females victimized by partners had been victimized by boyfriends, 53% were victimized by spouses, and 5% were victimized by ex-spouses (Greenfeld *et al.*, 1998). Second, like the NCVS data, our data indicated that females are at greater risk than males of being a victim of intimate partner violence. Third, our data indicated that almost two-thirds (64%) of women victimized by intimate partners were injured, compared to the 52% injury rate found in the NCVS (Bachman and Saltzman, 1995). The higher proportion of injuries found by using NIBRS data is likely due to the fact that crimes in which a woman was injured are more likely to be reported to the police than crimes not resulting in injuries (Bachman and Saltzman, 1995).

Several shortcomings to Massachusetts NIBRS should be noted. First, these data are not representative of the state's population or the state's crime figures. Thus, our results cannot be generalized beyond the study sample. Second, NIBRS contains a lot of missing data, particularly for variables assessing alcohol and drug involvement and offender-victim relationship status. In our sample, 81% of the data for alcohol and/or drug involvement were missing. Consequently, our finding that alcohol/drug involvement was a risk factor for injury among women victimized by current or former partners should be interpreted with caution. Similarly, data were

missing for offender-victim relationship status for a large number of incidents, particularly for the crime of sexual assault with an object. Consequently, the findings for sexual assault should also be interpreted with caution. However, the problems posed by missing data are not unique to NIBRS. FBI Supplemental Homicide Reports for Massachusetts indicate that for 50% of homicides, data were missing on the offender-victim relationship; for 31% of homicides involving female victims, data were missing on offender-victim relationship (Langford *et al.*, 1998). Several researchers have postulated that homicide cases that are missing data on offender-victim relationship are most likely committed by strangers because murders perpetrated by intimate partners are more likely to be cleared and appropriately classified (Maxfield, 1989; Rosenberg and Mercy, 1991).

Third, because NIBRS data are police report data, it is more difficult to obtain reliable and complete data for injury occurrence than it would be with hospital data. Fourth, although NIBRS includes data on all crimes committed during a single incident, it is not possible to determine how many incidents, or repeat victimizations, a victim experienced. Fifth, the reliability and validity of our data are unknown. Although auditing of NIBRS data is not routinely or systematically done, the NIBRS data collection process has a number of built-in edits and structures which likely enhance the accuracy of the data. Also, NIBRS data from Massachusetts have been certified by the FBI. One of the police departments in our sample participated in a field test of the FBI's "Quality Assurance Review" and had an error rate under 2%. Further, data quality is likely increased because police agencies submitting NIBRS data have computerized record-management systems which replaced paper records systems. Finally, NIBRS, like the UCR summary reporting system, does not include a category for "ex-boyfriends." This is unfortunate because prior research indicates that divorced and separated women may be at a greater risk for intimate partner violence than their married counterparts (Bachman and Saltzman, 1995; Wilson and Daly, 1993) and are more likely to be killed by their ex-partners than married women are to be killed by their husbands (Ellis and DeKeseredy, 1997).

Several suggestions can be made for future research with NIBRS data. First, we need to consider ways to improve the reporting of certain data elements, particularly the offender-victim relationship status. This information was missing in a large number of incidents, and the extent of missing data varied by crime type. One possibility for improving the likelihood that data are recorded by police is to work with law enforcement agencies to educate and train police regarding the importance of this information in learning how to intervene most effectively in the prevention of intimate partner violence. Unless we have reliable, complete, and valid data, NIBRS will be of limited value in helping us learn more about the patterns and

correlates of intimate partner violence. Another direction for future research is to investigate whether or not intimidation or vandalism precedes more serious forms of intimate partner violence. For example, prospective studies with women who have experienced intimidation or vandalism perpetrated by their partners but who have not yet experienced more severe forms of violence might be able to determine the likelihood that they will experience such violence in the future. If this hypothesis were to be supported, it would provide important evidence for the need for early intervention with victims of intimate partner violence.

In sum, we have illustrated how NIBRS can potentially further the utility of police data for examining the patterns and correlates of intimate partner violence. We used Massachusetts data to demonstrate three ways in which NIBRS data can improve our ability to gather important data relevant to intimate partner violence. The NIBRS data for Massachusetts are available to anyone interested in researching this important public health and criminal justice problem.

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