Published in final edited form as:

J Subst Use. 2010 October; 15(5): 313-329. doi:10.3109/14659890903431611.

Violence perpetrated by women who use methamphetamine

ALISON B. HAMILTON¹ and NICHOLAS E. GOEDERS²

¹UCLA Department of Psychiatry, Integrated Substance Abuse Programs, Los Angeles, California, USA

²Department of Pharmacology, Toxicology & Neuroscience, LSU Health Sciences Center, Shreveport, Louisiana, USA

Abstract

Methamphetamine (meth) is widely recognized as being associated with violence and aggression. This association is found among women and men, with rates of meth-related violence among women possibly being equal to or even exceeding rates among men. This study examined female-perpetrated violence from the phenomenological point of view of 30 women (aged 18–45 years; mean age of 28.5 years) in residential treatment for meth dependence. Of the 30 participants, 80% (n = 24) reported experiencing violence in their lifetimes: 67% (n = 20) had violence perpetrated against them, and 57% (n = 17) had perpetrated violence. Most participants described perpetrating violence when they were 'coming down' off of meth (i.e. withdrawing). Five women (29%) attributed their violent behaviors to meth and said they would not have been violent had they not been using meth. In contrast, 10 women (59%) described pre-existing 'anger issues' that were 'enhanced' by meth. This article describes the timing of meth-related violence, bi-directional violence, men's responses to female-perpetrated violence, aggression in the context of sexual activities, and violence perpetrated against non-partners. A biopsychosocial theoretical framework is useful to interpret the complex explanations that women provide for their perpetration of violence under the influence of chronic meth use.

Keywords

Methamphetamine; women; female-perpetrated violence; aggression; qualitative

Introduction

The complex phenomenon of female-perpetrated violence has been extensively theorized (McHugh, Livingston, & Ford, 2005; Williams, Ghandour, & Kub, 2008), and male-perpetrated violence has been studied for decades (Field & Caetano, 2005; Rhatigan, Moore, & Street, 2005; Miller, 2006; Jordan, 2009). The relationship between violence (particularly male-perpetrated violence) and substance use has been well-established (Boles & Miotto,

Correspondence: Alison B. Hamilton, UCLA Integrated Substance Abuse Programs, 1640 S. Sepulveda Blvd., Suite 200, Los Angeles, CA 90025, USA. Tel: 310-267-5421. Fax: 310-473-7885. alisonh@ucla.edu.

Declaration of interest

^{© 2010} Informa UK Ltd.

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

2003; Hoaken & Stewart, 2003; Moore, Stuart, Meehan, Rhatigan, Hellmuth, & Keen, 2008); however, the phenomenon of violence perpetrated by substance-dependent women has received considerably less attention. Methamphetamine (meth), in particular, is widely recognized as associated with, if not causally linked to, violence and aggression (Wright & Klee, 2001; Tyner & Fremouw, 2008). A handful of reports note that this association between meth and violence is found among women, as well as men, with rates of methrelated violence among women being possibly equal to or even exceeding rates among men (Dluzen & Liu, 2008). Given the lack of detailed information about women meth users' perpetration of violence, an exploratory study is warranted and necessary in order to develop or enhance treatments for this subpopulation that is known to be at high risk for a host of psychological and physical health problems (Semple, Grant, & Patterson, 2005). Accordingly, the purpose of this study is to provide phenomenological perspectives on female-perpetrated violence from the point of view of women in residential treatment for meth dependence. In order to encompass the range of experiences women described, 'violence' is construed broadly in this paper as a 'complex, multifaceted, and dynamic aspect of human interaction that occurs in multiple forms and patterns,' as described by McHugh and colleagues (2005).

The phenomenon of female-perpetrated violence

Increasing evidence suggests that women may commit as much intimate partner violence as men, though the nature and consequences of this violence is likely to be different than maleperpetrated violence (McHugh et al., 2005). Most of the violence perpetrated by women is emotional (rather than physical or sexual) and follows one of two developmental paths: adolescent-limited (i.e. emerges in early adolescence, peaks in mid-adolescence, and decreases in late adolescence) or life-course persistent (i.e. emerges early, escalates, and persists; Williams et al., 2008). Female-perpetrated violence is often enmeshed in a context of bi-directional violence, but mutual aggression is not well-understood. One study found that in relationships involving violence, nearly 50% of the violence was reciprocal (Whitaker, Haileyesus, Swahn, & Saltzman, 2007). Other studies have looked at femaleperpetrated violence in terms of the target of the violence. For example, Babcock, Miller, and Siard (2003) categorized women as partner-only violent women or generally violent women. Generally violent women were found to be more abusive and more injurious, and they had more frequently witnessed mother-to-father violence than partner-only violent women; both groups had high rates of sexual victimization in their lifetimes. While these studies and others (e.g. Kruttschnitt, Gartner, & Ferraro, 2002) shed important light on the phenomenon of female-perpetrated violence, they tend to not emphasize the role of substance abuse in violence, nor do they examine neurophysiological correlates of violence that may be associated with substance abuse and/or other mental health conditions.

Female-perpetrated violence among methamphetamine users

In an ethnographic study of 39 meth users in rural Kentucky and Arkansas (Sexton, Carlson, Leukefeld, & Booth, 2009), 12 participants (38%) reported meth-related violence, six of whom (50%) were women. Violent episodes (categorized as arguments, fights/assault/injury, and property damage) were attributed to disputes over meth, withdrawal, paranoia, anger, and hallucinations. Brecht, O'Brien, von Mayhauser, and Anglin (2004) found that

57% of their sample of 350 meth users reported problems with violent behavior, and there were no gender differences on this item. In a study by Zweben and colleagues (2004) of 1,016 meth users, 46% of females versus 40% of males (p < 0.0001) reported violent behavior problems. Sommers, Baskin, and Baskin-Sommers (2006) found that 38% of males and 30% of females in their sample of 106 meth users committed meth-related violence, and 46% of those who had committed violence reported that they had never committed a violent crime prior to these meth-related events. Most (61%) of the violent events occurred within domestic relationships, whereas the remainder of violent events were drug-related, gang-related, or random. It is important to note that while women meth users do seem to report high levels of perpetrated violence, they also report high levels of victimization (Cohen, Cohen, Christian, Galloway, Salinardi, & Parent, 2003), and this issue should not be minimized.

Several neurobiological factors might be at play in the heightened aggression found among a proportion of meth users, including an impaired capacity to control or inhibit aggressive impulses, high levels of impulsivity generally, and symptoms of psychosis, particularly paranoia (Dawe, Davis, Lapworth, & McKetin, 2009; Lapworth, Dawe, Davis, Kavanagh, Young, & Saunders, 2009). These factors could operate independently of one another or they could operate synergistically. However, a definitive causal relationship between meth and violence has yet to be determined, and may not be conclusively determined considering the importance of non-neurobiological factors (e.g. social context) in the expression of violence.

The findings presented here emerged from a study that originally focused on the impact of meth on women's sexual experiences and behaviors. Due to the well-known relationship between meth and violence, all participants were asked about their experiences of violence, which from the first interview included experiences of both perpetrating and being the victim of violence. Violence was often implicated in women's descriptions of their sexual experiences as well. The data presented here highlight the complexity of violence in terms of a multitude of factors, such as motivations, attributions, types of victims/targets, types of violence, timing and frequency of violence, and consequences.

Methods

Recruitment

All procedures were approved by the UCLA Office for the Protection of Research Subjects. Flyers were posted in five women-and-children-only residential facilities. Interested women called the first author or told staff that they were interested, and staff notified the PI. Potential participants had to be 18 years or older, English-speaking, had to consider meth their primary drug of abuse, and had to have been in residential treatment (at the current facility or elsewhere) for at least 6 months.

Interview protocol

A total of 30 interviews took place at the treatment facilities between September 2006 and February 2007. Informed consent was obtained from all participants (including consent for

follow-up), and all participants completed a background survey and provided locator information for follow-up interviews. All interviews were conducted by the PI. Interviews lasted an average of $1\frac{1}{2}$ h, and ranged from 45 min to 3 h. Interviews were digitally recorded. No adverse events occurred. Participants received \$25 gift cards at the conclusion of the interviews. Interviews were professionally transcribed. Follow-up interviews will take place in late 2009.

Interviews typically began with a question about when the participant first started using any drugs or alcohol, as this seemed to be an anchor with which they could identify—as is typical in 12-step-oriented treatment facilities, they all had their 'stories' about becoming addicted to drugs (Hanninen & Koski-Jannes, 1999). In a person-centered, psychological anthropology orientation (Levy & Hollan, 2000), the interviewer probes into topics and experiences that are especially salient for the participants. Although all participants answered the same range of questions, they were encouraged to expound upon what was important to them.

Data analysis

Analysis occurred inductively throughout the data collection process, using ATLAS.ti, a qualitative data analysis software package. Topics identified in early interviews were utilized as probes in subsequent interviews. This is also known as the constant comparative method, which calls for concurrent data analysis and collection: as data are collected, transcribed, and coded, the researcher compares the data for the emergence of issues (Strauss & Corbin, 1990). This inductive approach helps to ensure that hypotheses generated by the findings are grounded in the data, rather than imposed upon the data (see Rhodes & Cusick, 2000).

Sample description

The average age of participants was 28.5 years, with a range of 18–45 years. Slightly over half of the women (56%; n=17) self-reported as Latina, 30% (n=9) White, 7% (n=2) Native American/American Indian, and 7% (n=2) 'mixed' (Asian and Latina, and White and Latina). Over half (57%) had not completed high school, one-third (33%) had a high school diploma or GED, and 10% had taken some college courses. All (97%) except one woman were unemployed and receiving public assistance. Over three-quarters (77%) had never been married, 13% had been married, and 10% were divorced or separated. All (97%) except one woman had children.

Approximately one-third (37%) of the women were on probation or parole or both. Two-thirds (67%) had used other drugs in addition to meth (typically alcohol and marijuana) in the past year. Almost half (47%) had been in residential treatment prior to their current facility. Additional information about the participants was gleaned from the interviews but was not directly queried in the background survey. In terms of sexual orientation, a total of 19 of the 30 women discussed having sex with/being in relationships with women during the course of their addiction to meth and, for 12 of these women, throughout their adolescent and adult lives. The remaining seven women considered having sex with women to be unusual and exclusive to meth use.

Of the 30 participants, 12 described childhood sexual abuse or molestation by a variety of perpetrators. For some of these women, the abuse took place over several years, whereas for others, it occurred only once or twice. Eleven of the 30 women had at least one parent who was addicted to drugs and/or alcohol; four of these 11 women were introduced to drugs by their parent(s). Participants were an average age of 15 when they started using meth. Most women were introduced to meth by family members or friends, and they typically starting using meth to lose weight, to 'party,' or because they were curious. Most progressed from snorting to smoking meth; six women used meth intravenously.

Results

Of the 30 participants, 80% (n = 24) reported experiencing violence in their lifetimes: 67% (n = 20) had violence perpetrated against them, and 57% (n = 17) had perpetrated violence against their partners and/or others. This paper focuses on the narratives of the 17 women who perpetrated violence. Of those women, 59% (n = 10) had a history of child sexual abuse; 83% (10/12) of those reporting abuse had perpetrated violence. Many women described perpetrating violence when they were 'coming down' off of meth (i.e. withdrawing). Five women (29%) attributed their violent behaviors to meth and did not feel that they would have been violent had they not been using meth. In contrast, 10 women (59%) specifically described histories of violence and/or pre-existing 'anger issues' that were exacerbated or elicited by meth. The majority did not typically become violent defensively but, rather, instigated or participated in violence within the context of intimate relationships, sexual relationships, drug-related networks, families, or criminal activities.

The context/timing of violence: 'coming down' off of meth

Acute withdrawal ('coming down') from meth seemed to lead to heightened violence; many women were specific about this in their descriptions of perpetrating violence. Narratives #1–3 characterize this attribution (Table I).

Narrative #4 illustrates the interplay of daily life stressors (e.g. caring for a child) and meth use. Note how she attributes the violence and rage to the meth, but when asked if meth made her violent, she also reflects on her 'suppressed anger' related to her childhood, which involved extensive abuse and neglect (Table I).

This idea of meth making women more expressive of their violent tendencies was common for some women, especially those who had a history of violence perpetrated against them. Note that the speaker in quote #5 expresses that meth 'enhanced' her violent tendencies; it helped her 'express them more.' And the speaker in quote #6 feels that she could still be violent, even without meth (Table II).

Bi-directional violence

Some women described situations where violence occurred between them and their partners because of certain dynamics at the time, such as jealousy or frustration over being left behind (e.g. being left out of a party-quote #7, left out of an opportunity to get high-quote #7, left with children-quote #4 above). Women described 'pushing' their partners' 'buttons' (e.g. arguing, complaining) due to this frustration, which often led to violence (Table III).

For some women, the violence was part of a general dynamic of things being out of control. When asked about violence, the speaker in quote #8 did not reflect on the violence with her boyfriend as violence, perhaps because of the pervasiveness of violence throughout her life. As seen in quote #9, violence was sometimes described as acceptable or even desirable because it would lead to a 'reward' of meth and sex. In addition, male violence often led into bidirectional violence, with some women describing fighting back, as seen in quote #10 (Table III).

Responses of partners to violence: men fighting back

As seen within some of the narratives above, women who described being violent often specifically noted that their partners did not fight back, or at least not until they were thoroughly provoked.

The speaker in quote #11 had described earlier in the interview that hostility built up with her husband because he expected her to do 'wifely' things such as cook him dinner: but when she did these things, he did not appreciate them because he was too high to appreciate them, so she would get frustrated and violent. Other women described how they 'made' their partners violent, as seen in quote #12 (Table IV).

Violence/aggression in the context of sex

The relationship between meth use and sex was very strong for the majority of participants. Some women noted that meth made people more sexual, but not necessarily violent. However, several women described problems that their partners had sexually as a result of chronic meth use. These problems included difficulty maintaining erections and difficulty having orgasms. In some instances, these problems seemed to contribute to sexual frustration and increased aggression during sex.

As illustrated in quotes #13 and 14, women experienced 'rough' sex often due to their partners' frustration. Women also described sexual experiences that involved aggression in the forms of sadism or masochism, role-playing rape scenes, making pornography, and other behaviors; but with the exception of actual rape (which was not reported as meth-related), these experiences were described as consensual, as seen in quotes #15 and 16 (Table V).

These sexual experiences involving aggression (which will be described in a forthcoming manuscript) tended to become more intense in some relationships as the couples progressed into chronic, frequent meth use; seemingly because sexual interest, desire, performance, and/or satisfaction seemed more difficult to achieve with more 'traditional' sexual activities.

Violence perpetrated against non-partners: times of desperation and rage

One participant brought up the topic of violence when she was talking about the lowest point in her addiction. At this time, her appearance changed and she became desperate for meth, which led her to have sex under force and affected how she interacted with her family, as seen in quote #17. Later in the interview she spoke again about being violent toward her family (quote #18). Like others, the participant quoted in #19 said that she 'already had anger issues,' but that meth seemed to exacerbate these issues and cause her to 'lose

control.' However, if provoked, she was violent even when she was not using. Non-partner violence also included property violence while exhibiting rage against others, as seen in quotes #20 and 21. Note that women consistently perceived meth to have turned them into someone they could not recognize (e.g. a 'mean, evil person'; Table VI).

Discussion

Over half (57%) of the participants in this study described perpetrating violence, most of which was perpetrated against their intimate partners. While women acknowledged the contribution of meth to the violence that they perpetrated, they also attributed their violence to pre-existing anger typically generated by lifetimes of violence and abuse. However, women rarely depicted themselves as 'victims' of violence in their adult lives, instead describing their own perpetration of violence, their contributions to the violent dynamics of their relationships and their rationales for violence perpetrated against them. Violence often took place during acute withdrawal from meth, particularly after days of heavy use and not sleeping. Women also described violence related to frustration with daily, seemingly gendered life stressors, such as caring for children and other domestic duties. For many women, meth seemed to 'enable' their expression of anger and frustration through violence; while some felt that they had violent 'tendencies' or 'anger issues,' and meth use led to these surfacing in actual perpetration of violence. In terms of violence perpetrated against them, women described instigating the violence of partners ('pushing buttons'), and they also described the impact of meth on their partners' own violent tendencies. Some women denied that there was violence in their lives, but then went on to describe violence with their partners, almost as if there was a sense of 'normal' or acceptable violence in contrast to some other level of more severe violence.

In this study, consistent with Babcock et al.'s (2003) categorization, there seemed to be both partner-only violent women and generally violent women, though it is possible that those who only described partner violence may not have described other violence that they perpetrated. Those who seemed to be generally violent perpetrated violence not only against intimate partners, but also against family members, acquaintances, and people in a variety of social contexts who might have been considered strangers or semi-strangers. Murray, Chermack, Walton, Winters, Booth, & Blow (2008) noted the importance of considering non-partner violence in studies of violence. In their study of men and women in substance abuse treatment, they found high rates (83%) of psychological aggression against non-partners, physical aggression (60%), and injury (47%), with women reporting a higher frequency of psychologically-aggressive behaviors. The present study did not reveal much detail about psychological aggression, perhaps because it was not specifically probed, but future investigations by the authors will investigate other types of aggression and violence more specifically.

There is a classic tripartite explanation for the relationship between substance abuse and violence (Moore et al., 2008):

 the psychopharmacological effects of drugs contribute to increased arousal and irrational behavior, which contributes to aggression;

 aggression is economically motivated (i.e. it occurs in relation to obtaining or selling drugs);

aggression is part of general deviance such that those who are involved in one type
of deviance are involved in another.

Moore and colleagues add the biopsychosocial model, which examines both distal influences (e.g. childhood aggression, childhood abuse, family history of substance use, psychopathology) and proximal factors (intoxication, information processing deficits, provocation, impulsivity, emotional reactivity, setting of encounter) that, in a variety of combinations, increase individual risk for aggression. Although the tripartite explanation could 'fit' the female-perpetrated violence described here to some extent, the biopsychosocial model seems to provide the most flexibility within which to understand the findings, considering that some women referred to distal influences in their attributions for their violence, whereas others described more proximal factors, and still others described a combination of distal and proximal factors that contributed to their violence, often including both current stressors and life histories of stress.

Participants' pervasive acknowledgment (even among those who did not perpetrate violence) of meth withdrawal as a time of violence speaks, at least in part, to the neurophysiological effects of the drug during post-intoxication (see Fals-Stewart, Golden, & Schumacher, 2003 for another empirical example of withdrawal-related violence). The general effects of meth have been reviewed extensively elsewhere (Shrem & Halkitis, 2008) and the neurophysiological effects have also been recently reviewed (Homer, Solomon, Moeller, Mascia, DeRaleau, & Halkitis, 2008), so only a brief overview on the methviolence relationship will be provided here. Simply stated, meth causes neurological damage to parts of the brain that are associated with social-cognitive functioning, which contributes to behavioral changes, particularly due to excessive stimulation of the sympathetic nervous system. Withdrawal from meth results in a depletion of catecholamines, which can cause many symptoms, including irritability, aggression, and intense craving. To combat withdrawal symptoms, meth users typically end up using meth again, 'chasing' the first high (Wise & Bozarth, 1987). Meth's damage to the serotonin and dopamine systems can have many effects: serotonin affects functions such as sleep, aggression, and sexual behavior, and dopamine plays an important role in emotional and reward regulation. The impaired decision-making (e.g. making decisions to perpetrate violence) found among chronic meth users is likely at least partially a result of extensive neurocognitive damage. As Homer et al. (2008) note, a paradox of meth abuse is that meth is often initially used to enhance social interactions (including sexual interactions), but it often eventually leads to negative social interactions that can include paranoia and aggressiveness.

The neurophysiological effects of drugs such as meth complicate the discussion of why female-perpetrated violence occurs. Clearly, from the phenomenological perspectives of the participants in this study, meth plays a part in their perpetration of violence, but it typically does not play the only part: women's life histories and relationship dynamics are also important determinants in their experiences of violence. Of the 12 women who reported histories of child sexual abuse, 10 reported perpetrating violence. Though it is not necessarily a distal influence, a history of abuse is characteristic of women who perpetrate

violence (Clarke, Stein, Sobota, Marisi, & Hanna, 1999). This issue has received considerable attention in the literature on female offenders (e.g. Brewer-Smyth & Burgess, 2008; McDaniels-Wilson & Belknap, 2008).

It would be helpful to look at longitudinal trajectories of violence (McHugh et al., 2005) among women meth users for a number of reasons. For example, there may be a neurobiological susceptibility in those who perpetrate repeated acts of aggression (Siever, 2008). Susceptibility to the expression of violence may also derive from pre-existing mental illnesses, which some methamphetamine users are attempting to self-medicate; these illnesses (such as post-traumatic stress disorder and depression) may put meth users at more risk than the meth itself (Wright & Klee, 2001; Dluzen & Liu, 2008) and may have been the precursors to meth use. Alternatively, meth may play a critical role in women users' intimate relationships, particularly considering its effects on sexuality; many women in this study described sexual experiences that included aggression and violence, perhaps in order to achieve satisfaction in increasingly impaired states. Several questions could and should be explored in order to better understand predispositions, risks, and compounding factors: For those who report perpetrating violence, were they perpetrating violence before they started using methamphetamine, and does their violence subside or continue when they stop using methamphetamine? If they stop perpetrating violence, do they attribute this to the absence of the drug, to the effectiveness of substance abuse and/or mental health treatment, to involvement with the criminal justice system, and/or to other factors? In the absence of methamphetamine, what happens to their sexual behaviors and experiences?

Answers to these and many other questions could assist in developing treatments that would better address women meth users' complex behaviors and needs and potentially improve the likelihood of their long-term abstinence and quality of life. For example, a thorough understanding of temporal sequencing could be important for determining different points at which prevention or intervention might be appropriate and effective (Moore et al., 2008). Despite widespread acknowledgment that female-perpetrated violence does occur, treatments for women who perpetrate violence—and who are substance-dependent—are remarkably underdeveloped. As Dowd, Leisring, and Rosenbaum (2005) note, we know very little about what would reduce partner aggression in women. We know even less about what would reduce aggression in women who use meth, which, as discussed, has powerful effects on brain chemistry related to aggression and impulsivity. Findings described here suggest that considerable work needs to be done to develop not only a more comprehensive understanding of the phenomenon of female-perpetrated violence among women meth users, but also a wide range of effective treatments that directly address this phenomenon.

Limitations

Although this study provides nuanced and complex phenomenological descriptions of women's violent behaviors and experiences, it is limited in the sense that it only looks at self-reports at one point in time, that is while these women were in residential treatment, which itself could influence their reconstruction of their experiences and motivations. A more thorough understanding of violent contexts (Dasgupta, 2002) would require mixed

methods longitudinal research (Testa, Livingston, & Leonard, 2003) that could investigate a host of factors involved in violent behaviors related to meth use.

Frequencies reported here only reflect the number of women who chose to discuss and elaborate upon certain topics; the numbers do not necessarily reflect the actual experiences of each woman. Thus, the reported prevalence of adult violence (male- and female-perpetrated) and child sexual abuse may be lower than the actual prevalence. However, the emphasis here has been on experiences that were salient enough to the participants that they wished to convey them to the interviewer.

The study is also limited in that it describes the experiences of a convenience, self-selected sample of only 30 women who were in residential treatment in publicly funded settings in the urban setting of Los Angeles, and who were motivated enough to express their interest in the study to the investigator or to treatment facility staff. This type of sample, along with the payment for the participants' time, may have produced a response bias. Additionally, while the composition of the sample reflects the treatment-seeking population of women meth users in Los Angeles County, it is not representative of all women meth users.

Public health significance

A recent case-study of homicides (Stretestky, 2009) found that the odds of committing a homicide are nearly nine times greater for an individual who uses meth. The association between meth use and homicide persisted even after adjusting for alternative drug use, sex, race, income, age, marital status, previous arrests, military experience, and education level. Meth was the only drug-use variable that was strongly correlated with homicide. Meth does seem to have a peculiarly potent effect on the perpetration of violence. In addition, meth has a potent effect on sexual behaviors (Hamilton Brown, Domier, & Rawson, 2005; Zule, Costenbader, Meyer, & Wechsberg, 2007) and mental health (Darke, Kaye, McKetin, & Duflou, 2008). For these reasons and several others related to physical, social, and environmental health and public safety (see, e.g. Das-Douglas, Colfax, Moss, Bangsberg, & Hahn, 2008, Dobkin & Nicosia, 2009), addressing meth use (and violence) as a public health problem is imperative (Shrem & Halkitis, 2008).

Acknowledgments

This study was supported by the National Institute on Drug Abuse (grant No. DA017647; Principal Investigator: Alison B. Hamilton, and grant No. DA06013; Principal Investigator: Nicholas E. Goeders). The authors wish to thank the women who participated in the study. The authors also wish to thank Kris Langabeer who edited the manuscript.

References

Babcock JC, Miller SA, Siard C. Toward a typology of abusive women: Differences between partneronly and generally violent women in the use of violence. Psychology of Women Quarterly. 2003; 27:153–161.

Boles SM, Miotto K. Substance abuse and violence: A review of the literature. Aggression and Violent Behavior. 2003; 8(2):155–174.

Brecht ML, O'Brien A, von Mayrhauser C, Anglin MD. Methamphetamine use behaviors and gender differences. Addictive Behaviors. 2004; 29:89–106. [PubMed: 14667423]

Brewer-Smyth K, Burgess AW. Childhood sexual abuse by a family member, salivary cortisol, and homicidal behavior of female prison inmates. Nursing Research. 2008; 57(3):166–174. [PubMed: 18496102]

- Clarke J, Stein MD, Sobota M, Marisi M, Hanna L. Victims as victimizers: Physical aggression by persons with a history of childhood abuse. Archives of Internal Medicine. 1999; 159(16):1920–1924. [PubMed: 10493322]
- Cohen JB, Dickow A, Horner K, Zweben JE, Balabis J, Vandersloot D, et al. Methamphetamine Treatment Project. Abuse and violence history of men and women in treatment for methamphetamine dependence. American Journal on Addictions. 2003; 12(5):377–385. [PubMed: 14660152]
- Darke S, Kaye S, McKetin R, Duflou J. Major physical and psychological harms of methamphetamine use. Drug and Alcohol Review. 2008; 27(3):253–262. [PubMed: 18368606]
- Das-Douglas M, Colfax G, Moss AR, Bangsberg DR, Hahn JA. Tripling of methamphetamine/ amphetamine use among homeless and marginally housed persons, 1996–2003. Journal of Urban Health. 2008; 85(2):239–249. [PubMed: 18163214]
- Dasgupta SD. A framework for understanding women's use of nonlethal violence in intimate heterosexual relationships. Violence Against Women. 2002; 8(11):1364–1389.
- Dawe S, Davis P, Lapworth K, McKetin R. Mechanisms underlying aggressive and hostile behavior in amphetamine users. Current Opinion in Psychiatry. 2009; 22(3):269–273. [PubMed: 19339888]
- Denzin, NK. Interpretive interactionism. Newbury Park, CA: Sage; 1989.
- Dluzen DE, Liu B. Gender differences in methamphetamine use and responses: A review. Gender Medicine. 2008; 5:24–35. [PubMed: 18420163]
- Dobkin C, Nicosia N. The war on drugs: Methamphetamine, public health, and crime. American Economic Review. 2009; 99:324–349. [PubMed: 20543969]
- Dowd LS, Leisring PA, Rosenbaum A. Partner aggressive women: Characteristics and treatment attrition. Violence and Victims. 2005; 20(2):219–233. [PubMed: 16075668]
- Fals-Stewart W, Golden J, Schumacher JA. Intimate partner violence and substance use: A longitudinal day-to-day examination. Addictive Behaviors. 2003; 28(9):1555–1574. [PubMed: 14656545]
- Field CA, Caetano R. Intimate partner violence in the U.S. general population: Progress and future directions. Journal of Interpersonal Violence. 2005; 20(4):463–469. [PubMed: 15722502]
- Hamilton Brown A, Domier C, Rawson R. Stimulants, sex, and gender. Sexual Addiction & Compulsivity. 2005; 12(2):169–180.
- Hanninen V, Koski-Jannes A. Narratives of recovery from addictive behaviours. Addiction. 1999; 94(12):1837–1848. [PubMed: 10717962]
- Hoaken PN, Stewart SH. Drugs of abuse and the elicitation of human aggressive behavior. Addictive Behaviors. 2003; 28(9):1533–1554. [PubMed: 14656544]
- Homer BD, Solomon TM, Moeller RW, Mascia A, DeRaleau L, Halkitis PN. Methamphetamine abuse and impairment of social functioning: A review of the underlying neurophysiological causes and behavioral implications. Psychological Bulletin. 2008; 134(2):301–310. [PubMed: 18298273]
- Jordan CE. Advancing the study of violence against women. Violence Against Women. 2009; 15(4): 393–419. [PubMed: 19176314]
- Kruttschnitt C, Gartner R, Ferraro K. Women's involvement in serious interpersonal violence. Aggression and Violent Behavior. 2002; 7(6):529–565.
- Lapworth K, Dawe S, Davis P, Kavanagh D, Young R, Saunders J. Impulsivity and positive psychotic symptoms influence hostility in methamphetamine users. Addictive Behaviors. 2009; 34(4):380–385. [PubMed: 19097704]
- Levy, RI.; Hollan, DW. Person-centered interviewing and observation. In: Bernard, HR., editor. Handbook of methods in cultural anthropology. Walnut Creek: Altamira Press; 2000. p. 333-364.
- McDaniels-Wilson C, Belknap J. The extensive sexual violation and sexual abuse histories of incarcerated women. Violence Against Women. 2008; 14(10):1090–1127. [PubMed: 18757348]

McHugh MC, Livingston NA, Ford A. A postmodern approach to women's use of violence: Developing multiple and complex conceptualizations. Psychology of Women Quarterly. 2005; 29:323–336.

- Miller J. A specification of the types of intimate partner violence experienced by women in the general population. Violence Against Women. 2006; 12(12):1105–1131. [PubMed: 17090689]
- Moore TM, Stuart GL, Meehan JC, Rhatigan DL, Hellmuth JC, Keen SM. Drug abuse and aggression between intimate partners: A meta-analytic review. Clinical Psychology Review. 2008; 28(2):247–274. [PubMed: 17604891]
- Murray RL, Chermack ST, Walton MA, Winters J, Booth BM, Blow FC. Psychological aggression, physical aggression, and injury in nonpartner relationships among men and women in treatment for substance-use disorders. Journal of Studies on Alcohol and Drugs. 2008; 69:896–905. [PubMed: 18925348]
- Rhatigan DL, Moore TM, Street AE. Reflections on partner violence: 20 years of research and beyond. J Interpers Violence. 2005; 20(1):82–88. [PubMed: 15618564]
- Rhodes T, Cusick L. Love and intimacy in relationship risk management: HIV positive people and their sexual partners. Sociology of Health & Illness. 2000; 22:1–26.
- Semple SJ, Grant I, Patterson TL. Female methamphetamine users: Social characteristics and sexual risk behavior. Women and Health. 2005; 40(3):35–50. [PubMed: 15829444]
- Sexton RL, Carlson RG, Leukefeld CG, Booth BM. An ethnographic exploration of self-reported violence among rural methamphetamine users. Journal of Ethnicity in Substance Abuse. 2009; 8:35–53. [PubMed: 19266373]
- Shrem MT, Halkitis PN. Methamphetamine abuse in the United States: Contextual, psychological and sociological considerations. Journal of Health Psychology. 2008; 13(5):669–679. [PubMed: 18519440]
- Siever LJ. Neurobiology of aggression and violence. American Journal of Psychiatry. 2008; 165(4): 429–442. [PubMed: 18346997]
- Sommers I, Baskin D. Methamphetamine use and violence. Journal of Drug Issues. 2006; 36:77-96.
- Sommers I, Baskin D, Baskin-Sommers A. Methamphetamine use among young adults: Health and social consequences. Addictive Behaviors. 2006; 31(8):1469–1476. [PubMed: 16309848]
- Strauss, A.; Corbin, J. Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park: Sage; 1990.
- Stretesky PB. National case-control study of homicide offending and methamphetamine use. Journal of Interpersonal Violence. 2009; 24(6):911–924. [PubMed: 18936516]
- Testa M, Livingston JA, Leonard KE. Women's substance use and experiences of intimate partner violence: A longitudinal investigation among a community sample. Addictive Behaviors. 2003; 28:1649–1664. [PubMed: 14656551]
- Tyner EA, Fremouw WJ. The relation of methamphetamine use and violence: A critical review. Aggression and Violent Behavior. 2008; 13:285–297.
- Whitaker DJ, Haileyesus T, Swahn M, Saltzman LS. Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence.

 American Journal of Public Health. 2007; 97(5):941–947. [PubMed: 17395835]
- Williams JR, Ghandour RM, Kub JE. Female perpetration of violence in heterosexual intimate relationships: Adolescence through adulthood. Trauma, Violence, and Abuse. 2008; 9(4):227–249.
- Wise RA, Bozarth MA. A psychomotor stimulant theory of addiction. Psychological Review. 1987; 94(4):469–492. [PubMed: 3317472]
- Wright S, Klee H. Violent crime, aggression and amphetamine: What are the implications for drug treatment services? Drugs: Education, Prevention, and Policy. 2001; 8:73–90.
- Zule WA, Costenbader EC, Meyer WJ, Wechsberg W. Methamphetamine use and risky sexual behaviors during heterosexual encounters. Sexually Transmitted Diseases. 2007; 34(9):689–694. [PubMed: 17471112]
- Zweben JE, Cohen JB, Christian D, Galloway GP, Salinardi M, Parent D, Iguchi M. Methamphetamine Treatment Project. Psychiatric symptoms in methamphetamine users. American Journal on Addictions. 2004; 13:181–190. [PubMed: 15204668]

Table I

The context/timing of violence

Quote #	Speaker (Age, ethnicity, initiation of drug use)	Narrative
1	21-year-old mixed ethnicity (White & Latina) Alcohol at age 13; meth and MJ at age 15	I saw myself being so pissed off when I was coming down, just wanting to pick a fight, you know? And you know, when I'm not on it, it takes a long time for me to get mad and get—and pick a fight with someone, you know?
2	40-year old White. MJ at age 13; meth at age 22	No, [my boyfriend] never became violent with me. He would just leave, you know? I probably became a little more violent—started throwing shit, you know, and just angry when I was coming down or whatever. But luckily I was never a victim of that. If I hit him, he'd hit me, though. That only happened once. I was like, 'Whoa—you're not supposed to hit me back.'
3	25-year-old Native American. Alcohol, MJ, Ritalin at age 13; meth at age 16	[Interviewer: One thing that people say about meth is that it makes people violent. Have you ever like been, you know, a victim of that? Or done it yourself?] No. I'm not a very violent person. The only person that I really fought is my mom and that's just in defense of myself, because when she gets drunk, she gets fucking pissed. So, that's how I learned how to fight. I was fighting my mom. [And no guys ever, none of your boyfriends or guys you slept with?] No, I, I hit my boyfriends when I get mad. [Because of meth, do you think? Or just because of life?] Yes, definitely, definitely—when I was coming down.
4	27-year-old Latina. Tried meth at 15, started using at 20	We would fight when we would be coming down. We would, we would have fun together like getting high, but then when we would be coming down, all he'd wanna do is sleep There would be days when I'd have to have my daughter, for example, and he would be wanting to sleep and I would just like, you know, I need help with this! And I was pregnant and we were living in the desert and it was like a 100 degrees outside and I was just like miserable and he wouldn't help me, so I would just have this rage in me and I would like wanna hit him and throw things at him and scream and yell and, and I know it was directly off from the drugs, because I was coming down from the drugs. And then I had, I mean, I was with my daughter, but, you know, unattended, so I had to be awake with her and then I was angry that he wouldn't do it. So then, but all of that, I know it's just due to drugs. And when we're both sober, we didn't have no problems. [So it made you violent, you think?] Yeah. But, I mean I think I have a lot of suppressed anger, also, inside, 'cause of my childhood and everything, so it's kind of just all tied in together.

Table II

Violent tendencies

Quote #	Speaker	Narrative
5	25-year-old White. MJ at age 12; injected meth at 16	[Did you have a lot of like violent experiences while you were getting high, or?] With me towards them? Yeah. [Toward guys or everyone?] Guys, girls; if the girls were hanging out too long at my house, I'd flip out, flip out. Yeah, that happened a lot [So do you think that that was meth?] I think it's probably my past, my past relationships, like family-wise, that have made me that way, and meth just enhanced it. I think those feelings were probably always there and meth just helped me express them more, or way more than something else.
6	18-year-old Latina. Meth, MJ, alcohol at age 12	[You know, a lot of people say that meth makes people violent and paranoid do you think that it does all those things?] Well, I could be still violent to this day. Like when I was on one [high], I used to always get in fights, you know? Like a girl'd be looking at me in the car, and I'd be like, 'What, bitch?' I go up to the car and pull her out, beat her ass, you know? I'd still be like that, now, but you know, I guess meth gave me more—got me more brave. I was violent with my baby's dad. He beat my ass, so I beat his ass, you know? We'd fight a lot.

Table III

Bi-directional violence

Quote #	Speaker	Narrative
7	24-year-old Native American. Meth at age 18	[No one's ever gotten like violent with you or anything like that?] My kid's dad had got real disgusting, you know? We would get high and like jealousy—I mean like there—we would be getting high with another girl and I re-, we already passed that point to where we were all together [sexually]—me, him and, and this girl that he cheated on me with, but it could be any girl. And we would be getting high and my insecurity would kick in, like you know, 'You passed the pipe that way—a certain way to her—why?' Just like stuff like—I laugh about now. It got real physical. He's, he's done a lot, a lotta horrible things to me. He's dropped me and the baby off, like in the middle of nowhere—just like, 'Here, you guys gotta get out now—go home,' you know? And he decided he wanted to go party—when he has his mind set, 'I'm gonna go be with somebody, I'm gonna go party.' Me and my daughter had—no matter if he would take care of us, but at that specific moment—'Okay, you guys, you know, go home.' Or he would drop us off at home, or he would come home and like I would push his button, it's like, by arguing with him, 'cause he didn't wanna give me, he didn't wanna get me high, so it ended up turning physical. It's just—it was, it was really bad.
8	32-year-old White. Meth, alcohol, MJ, ecstasy, LSD at age 11	[Was it ever, did anyone get violent toward you?] No, I mean, I knew my boyfriend did due to dope, yeah. Having no more, me having it, I mean, not giving them what they want, not giving him money for more. It's —yeah, they put hands on me, and I've also put hands on them. But, it had, I've had violence all my life.
9	28-year-old Latina. Meth at age 18	We were so much into it [getting high] that I really didn't care if I got my ass kicked or not, you know—we always made up and we always, you know, made up with meth and sex, so it was all good for me at that time. You know? It didn't matter how bad he beat me, but afterwards, the reward was meth and sex. Yeah, so I—sometimes I would, you know, even, you know, push that button, you know, to go, yeah.
10	28-year-old Latina (same as above)	[So when he was, when he was violent toward you did you fight back? Or?] At, at first, I didn't fight back. But then afterwards, I started fighting back, but it would—it got worse. [Do you feel like he was violent because of the meth? Or was that just how he was?] Yeah, every time he would get violent was either because we were both coming down, or there was no money to get it, or we didn't have any, or stuff like that, so [So you were stressed out, basically?] Yeah. [Yeah. And what was like the worst thing you feel he did to you?] Broken ribs, bruises all over my arm, my back—scratches and stuff.

Table IV

Responses of partners to violence: men fighting back

Quote #	Speaker	Narrative
11	45-year-old White. Meth at age 24	[Did meth ever contribute to any kind of violence?] Oh yeah, especially when I was pregnant, 'cause when I was pregnant with my first child, and my hormones were all outta whack, I would get upset and, and, and depressed, or whatever, but I, I never went after my husband. But when I got pregnant with my daughter and my hormones were outta whack and I was doing speed, I physically went after him. After she was born I physically—and I was doing speed after she was born, 'cause I didn't breas-, breastfeed, you know, so I could go right back to my dope, and my hormones were outta whack—I mean, we could, police were called to the house, because I got physical, throwing the swing and shit—I didn't throw my daughter or nothing like that, but my screaming and my yelling and throwing shit, and my neighbors used to come over and get my, my oldest daughter because I'd be throwing ashtrays and bongs at my husband, you know? [Well, he didn't [fight back]?] He didn't get physical with me until he, one time—I used to always try and kick him in the nuts, and everything else, this was even before this speed. But then when we were doing the speed I was just nagging, nagging, nagging, nagging, nagging—and one day he just turned around and he hit me. I mean, he was starting to defend himself, 'cause I was, I was throwing—what do you call those, you used to p-, put it in the car—equalizers? I was chucking those at him. I was chucking, I wa-, I was chucking games at him—we had this Sega, and different stuff like that, I chucked the swing at him. He started to, you know, protect himself.
12	28-year-old Latina. Meth at age 17	[A lot of people say that meth makes people violent and] It did at the end. I was—I thrashed my kids' father car last year I tried, I tried to stab him and everything [Was anyone violent toward you?] I made him violent, well he was [violent] before, but then after, you know, it's my fault 'cause I dirtied him with the knife, dirtied him and he just yeah, he hit, he, he physically, you know, but that's before he seen my stomach, before him seeing that I was pregnant.

Table V

Violence/aggression in the context of sex

Quote #	Speaker	Narrative
13	33-year-old Latina. MJ, alcohol at age 13; PCP, LSD, heroin by age 16; meth at age 20	[Did you ever, do you think that [meth] does make people violent? Or men, or women, or everyone, or?] No, the people that I was always around were never violent on it. They were more sexual, a little more sexual. Or, or just having a good time and stuff.
14	24-year-old White Alcohol, MJ at age 13; meth at age 16	It really does kinda do things to guys, like I guess it does do things for women, but I don't know. It just is really—it's sick. It was really quite sick. I've had other guys that've gone for like hours and hours and hours [had intercourse for hours] and still like nothing [no orgasm], you know, where they're like hurting and then that's why I guess it starts to get a little rough, I mean you can see like, like a little bit of anger start to go where it's like [You mean they can't, they can't cum?] Yeah, and I actually had it with an ex of mine—he's just like, 'Come on, come on' like—I'm like [saying]. 'It's like really starting to hurt now.' I mean it was ridiculous, you know what I mean? For me it was always a little bit that had to do with some kind of attraction, you know what I mean? And this was a guy that I was like falling in love with, or so I thought, you know? And he's like looking like he's like gonna beat the crap out of me, you know, 'cause he can't [have an orgasm]. And it's just like anger in his eyes, and I'm just like, whoa. So it definitely could lead to dark places.
15	28-year-old Latina. Meth at age 18	[Was the sex itself ever violent?] No—violent? No, because we were both into it, you know, like we would, yeah, we would both, you know, be okay with it and stuff like that Handcuffs, stuff like that.
16	31-year-old Latina. Meth, MJ, alcohol at age 12	I think I was mean when I was on meth, but not like violent. Not a violent mean, not, like I wanna kill anybody, or, or torture anybody and, but I do remember like my brother's girlfriend saying that he would like to like, he would like to tie her up and do—and I, my baby's dad would tie me up, too, sometimes, but I don't, I don't think it was like in a violent way. You know, I think it was more like oh, 'cause this is, it gives me more power to have you in a certain way—tied up and bonded with th-, you know [Yeah.] that whole bondage thing, I think it's a power thing. Yeah, I don't, I don't think it made me violent, anyways. Maybe it probably made him violent. But I think it's just like their brain, the way their brain works and, and what's in your unconscious mind and, but I don't remember ever being violent on it.

Table VI

Violence perpetrated against non-partners

Quote #	Speaker	Narrative
17	30-year-old Latina. Alcohol at 14, then cocaine, meth at age 14–15	The men that I slept with treat-, treated me different. You know, no more, like, they didn't—be more less kind and, you know, and loyal, no more, and let me alone. They'd say, it's like when that third time, when they're ready, when they want to, you know [Were they violent?] Yes, some were, some were violent, yes, some were violent. There's times I didn't wanna, you know, be with them and, and they'd force me to have sex with them. They forced it. And it was scary, but I don't know why I still, you know I don't know, it's just for the drugs, you know, this, this meth gets you. [So, were you starting to, like, look pretty bad, and?] Yes. Where I wouldn't want to take showers, you know, in the same ole dirty socks, and, and just—started picking at my face and get scarred up. [So, but at this time you still, like, kept in touch with parents? Or they found you? Or, I mean, how did they?] I wouldn't wanna call them. They were always, well, actually, when I was out on the streets, already, towards this, this, in this end, I would stop by their house and they wouldn't wanna open the door for me. And I would get violent, you know, yell out things, you know? Say ugly things to them and to my son—push him away from me. They didn't wanna let me see my son and [They were taking care of him?] Yes, they had him from when he was born, and, this, this just got real ugly.
18	30-year-old Latina (same as above)	The drugs made me violent. I know that it was—the drugs made me violent. [Toward at anyone, or toward men, or?] Just, I guess, just my family, like they say, you know, we, we [Hurt the ones you love?] people who care about us and love us, you know, we're—those are the ones we treat bad, you know? We hurt them, and—just my family. [Just like actually, like more violent with, with things, or with physically hurting people, or more like throwing things, or breaking things, or?] Throwing things and, and putting my hands on them, sometimes.
19	23-year-old White. MJ, alcohol at age 12; tried meth at 13, started using at age 16	[And did it ever make you violent?] Oh yeah. I mean, I already had the urge oh yeah I already had like anger issues. I don't know how to control my temper, but being under the influence of meth? I'd stay up for like 3 days, I just wanted to go out and fight I went to juvenile hall for beating up my mom and beating up a couple of other people and my best friend's husband. And it was, it was because of meth. I know that I wouldn't have reacted the way I would've if I wasn't high. You know? But even like I said, you know, last semester, I was discharged after almost 2 months clean for fighting a girl, you know, 'cause I just, I lose my temper. [Over things that people say about you?] Yeah, it was over what some girl said about me. She was calling me a "little white bitch" and, you know. The majority of the girls here are Mexican, so I had to, had to do something. [Defend yourself?] Yeah, so. But normally when I'm using, nobody has to do anything wrong. I just snap. I just lose control.
20	28-year-old Latina. Alcohol at age 12, MJ at 15; tried meth at 15, started using at age 17–18	I didn't think [my boyfriend] was worth losing my kids permanently for. [In terms of being violent toward them?] Yeah, 'cause I've done that. I've damaged cars, houses Especially if under the influence, I can go on mean stalking surges here—missions and stuff and go look for this man and when I find him I'll hurt him and her. I've done it and he still comes back, 'cause he knows, you know, he's in the wrong.
21	24-year-old Latina. Alcohol, MJ at age 12; meth at age 13	[So do you think the, do you think the violence was all drug-related?] Yeah everything was drug-related — everything. Everything was because of the drugs. The drugs changed you. It, it changed me. I was never like, I don't know, man, if anybody got in the way of my dope, I'd fuck them up. 'Don't screw with my dope. Don't fuck up my high or you're gonna get your face smashed in, pretty much.' And it turns you—it turns you to an evil person. You're doing things you'd—I was doing home invasions, I was selling it, like driving from Mexico to over here. I mean, I did a lot of stuff. I just don't like talking about it, 'cause I'm ashamed of it. I mean, when I was pregnant I would go in [when] people [were] getting their house fumigated and go in with a gas mask and rob them. You know? Done a lot of stuff that I'm not proud of. Hurt a lot of people that I'm, I'm not proud of 'cause I'm not that kind of person. I'm not a mean person and it turned me really, really mean.