

Domestic Violence in Methamphetamine Psychotic Users, Psychiatric Inpatients, and Healthy People: A Comparative Study

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What's Known

- Psychotic abusers of methamphetamine may be irritable and may experience auditory and visual hallucinations as well as ideas of reference, infidelity, and jealousy delusions about their partner.
- Many questions have arisen about hostility and domestic violence and their association with methamphetamine use after many criminal acts in Iran.
- Are they really a different group of psychotic patients with more violent and aggressive behaviors?

What's New

- Different types of domestic violence are frequent in methamphetamine psychotic inpatients and psychiatric inpatients in comparison with healthy people.
- It seems that methamphetamine is a new cause of increasing domestic violence in Iran.
- We could not reach a result showing that violence against women is very different between methamphetamine psychotic users and those suffering from primary psychiatric disorders.

Abstract

Background: Domestic violence is a serious threat to the physical and mental health of women. The aim of the present study was to find and compare the frequency of domestic violence between methamphetamine users, patients with psychiatric disorders, and healthy people.

Methods: In this analytical cross-sectional study, methamphetamine users ($n=30$) and patients with psychiatric disorders ($n=30$) were women whose husbands were hospitalized during 2014 in Shafa Psychiatric Hospital in Guilan. Diagnosis was done with DSMIV-TR. Healthy people ($n=60$) were women whose husbands had no primary or drug induced psychiatric disorder or addiction. CTS-2 test was used to evaluate violence.

Results: The frequency of psychological, physical and sexual violence in the groups suffering from psychiatric disease and methamphetamine users was higher than the healthy group ($P=0.001$). We observed a direct correlation between the mean of psychological and physical violence in the three groups ($r=0.9$, $P=0.001$), ($r=0.7$, $P=0.0001$) and ($r=0.53$, $P=0.005$), respectively. Direct correlation between the psychological and physical violence was only observed in the healthy group ($r=0.8$, $P=0.007$).

Conclusion: The results showed that methamphetamine users such as psychiatric patients are at increased risk of violence. Domestic violence screening of these patients is necessary. It seems that this substance is a new source of increasing domestic violence with more undesirable outcomes in Iran.

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Introduction

Domestic violence means using physical, psychological, or sexual violence against someone being in an intimate and romantic relationship like a spouse, girlfriend, or boyfriend. It is significantly prevalent in patients across a range of clinical settings.¹ Domestic violence is associated with a number of adverse medical conditions, such as pain, injury and depression.¹⁻³ Domestic violence has been reported in 7-29% of patients referring to health clinics.³ Each year, about 20-40% of women have experienced sexual violence and 90% of them have suffered psychological

violence.¹⁻³ However, less than one-third of those suffering from domestic violence are reported and most of those who commit such crimes are not examined clinically.³⁻⁵

Abusing certain drugs, especially methamphetamine, increases the risk of domestic violence.^{6,7} Methamphetamine is a synthetic substance which can even be produced at home. Its consumption in Iran is on the rise and locally termed as "Shisheh".⁸⁻¹¹ A methamphetamine user may be irritable and experience auditory and visual hallucinations, ideas of reference, infidelity and jealousy delusions against his/her partner. This situation can lead to potential violence against others and may cause serious crimes toward an intimate partner.¹¹⁻¹⁵

To the best of our knowledge, this is the first study about methamphetamine and domestic violence in Iran. There are concerns about certain criminal cases in Iran in terms of possible association between the use of methamphetamine and domestic violence. Due to the lack of research on this topic, this study aimed at addressing domestic violence by comparing those using methamphetamine and those suffering from primary psychiatric disorders with normal healthy people. We anticipate that the outcome of this study would contribute to the design of health programs in support of vulnerable people in our society.

Patients and Methods

Participants

This analytical cross-sectional study was done at Shafa Hospital; the only psychiatry hospital located in Rasht (Guilan, Iran) during October 2013 to February 2014. The participants were women of 18-50 years of age who, at least, were cohabiting with their husbands for the last 6 months before admission to the hospital. The participants were selected by a simple random sampling. They were classified into three groups. The first group included women whose husbands were admitted due to methamphetamine induced psychotic (MIP) disorder ($n=30$). The second group included women whose husbands suffered from the primary psychiatric disorders (schizophrenia or bipolar) ($n=30$), and the third group included women with husbands without primary or methamphetamine induced psychiatric disorder (healthy people, $n=60$). The participants of the first and second groups were women whose husbands were admitted to Shafa Hospital and their psychiatric disorder was diagnosed with DSM-IV-TR diagnostic criteria by a board-certified psychiatrist. Following clinical

evaluation and psychiatric interviews, men with diagnosis of borderline or anti-social personality disorder in axis II according to the DSM-IV-TR diagnostic criteria were excluded from the study.

The healthy group comprised of randomly selected women who cohabited with their husbands for at least six months prior to the test and accompanied their husband to an outpatient dermatology clinic in Rasht.

All MIP and psychiatric inpatients were screened in the emergency room and were excluded if they tested positive for cannabis and morphine. We also queried patients' informants about intoxication periods and probable symptoms or instruments for using other substances and alcohol. Finally, patients who had mainly used methamphetamine, at least, three months prior to their admission to the hospital were selected. The fixed doses of methadone were accepted. The patients in the psychiatric group were also screened and excluded if tested positive for amphetamine, morphine, or cannabis. This exclusion criterion was extended to those with a history of using such substances or alcohol in the year before their admission. Finally, the selected patient's partners were tested.

Study Design

The qualified women, after being debriefed about the goals of the investigation and obtaining their informed consent, were tested for detecting domestic violence. The revised Conflict Tactics Scale (CTS-2) test was used to evaluate physical, psychological, sexual and injury violence. All tests were done without time restriction and in a secure place. A clinical psychologist and a senior psychiatry resident were present at the time of the tests.

This study received approval from the Research Ethics Committee of the Guilan University of Medical Sciences (IR.GUMS.REC.1394233). A written consent was obtained from patients or their families.

Measurement Tool

CTS by Straus was used to measure and evaluate violence.¹⁶ CTS-2 measures the extent to which partners in a relationship engage in psychological and physical violence and their negotiation skill to deal with conflicts. This test examines both the perpetrator and the victim. The CTS-2 is a 39 pair-item questionnaire comprising five subscales demonstrating high reliability coefficients; negotiation ($\alpha=0.86$), psychological aggression ($\alpha=0.79$), physical assault ($\alpha=0.86$), sexual coercion ($\alpha=0.87$), and injury ($\alpha=0.95$).¹⁶⁻¹⁹ The

reliability and validity of the CTS questionnaire were studied by Jazayeri et al. in 2011.²⁰ The questions with odd numbers were to evaluate perpetrator level and those with even numbers were for the state of being a victim. Total reliability based on Cronbach's alpha and test-retest respectively in perpetrator was 0.9, 0.73, 0.94, and 0.76 in victims. This ratio represents high prestige in conflict tactics scale based on reliability. Validity and convergence of this scale along with the questionnaire sub-scales prove that this scale and its sub-scales have the required internal consistency (α Cronbach between 0.60 and 0.86).²⁰

CTS is effective in focusing on specific occasions in a married life. Scoring this questionnaire is done according to Likert spectrum in a domain between 0-7. CTS-2 questions assess "minor" and "major" categories of both psychological aggression and physical assault. Acts of minor versus major psychological aggression and physical assault varied from "insulted or swore" to "threatened to hit or throw something", and from "grabbed" to "used a knife or gun", respectively. Men who had committed, in the past year, one or more minor-category actions more than 5 times, three or more minor-category actions 3 to 5 times, or one major-category action at least once, were classified as currently perpetrating psychological and/or physical domestic violence. The same criteria were used to classify victimization.⁵

Statistical Analysis

Based on previous studies of the prevalence of domestic violence in MIP (80%),⁶ psychiatric inpatients (90%),²¹ and healthy people (50%), the sample size for $\alpha=0.05$ and $\beta=0.20$ was estimated at least 20 people in each group. We finally decided to consider 30 participants for patients' groups and 60 for the healthy group. The data were analyzed using SPSS statistical software (version 16.0). One-way ANOVA, chi-square and Fisher's exact test were used to compare the mean and frequency of violence in the groups, and $\alpha<0.05$ was considered as a meaningful level for the data.

Results

A total of 120 women with the mean age 39.35 ± 8 (between 23 and 50 years of age) participated in this study (table 1). The mean duration of married life between groups did not have a meaningful statistical difference ($P=0.2$). In terms of education level, 53.3%, 60% and 20% of men in the groups had education lower than the twelfth grade, respectively ($P=0.03$). In terms

of employment, 20%, 70% and 11.7% of men in the groups were unemployed, respectively ($P=0.001$). Education and employment status of women are shown in table 1.

The mean duration of substance use in methamphetamine user (MIP group) was 16.8 ± 8.4 . The frequency of psychological, physical, sexual, injury and economic violence are shown in table 2. The frequency of different types of violence in the MIP and the group with psychiatric disorders was higher than the healthy group and the difference was statistically meaningful ($P=0.001$) (table 3).

We observed a direct correlation between the mean of psychological and physical violence in the groups ($r=0.9$, $P=0.001$), ($r=0.7$, $P=0.0001$) and ($r=0.53$, $P=0.005$), respectively. The frequency and mean of different types of violence among perpetrators are given in table 3. Having analyzed the mean of different types of violence, we found that the three groups had no significant statistical differences, except for the physical violence ($P=0.03$). A direct correlation between the psychological and physical violence was only observed in the healthy group ($r=0.8$, $P=0.007$).

Discussion

Similar to other countries, many studies have been done in Iran on domestic violence and its risk factors. Hajian et al. (2014) reported that about 20% of the participants in their study experienced, at least, one type of physical violence. Increased risk of physical violence was positively associated with the husband's heavy cigarette smoking ($OR=2.62$, $P<0.01$) and drug abuse ($OR=2.1$, $P<0.05$).²²

In a study by Salari et al. (2008), the husband's education, employment, and addiction status, along with geographical settings, were significantly correlated with the rate of domestic violence.²³ Bazargan-Hejazi et al. (2014) carried out an emergency department study to detect risk factors associated with domestic violence and found that about 16% had experienced domestic violence. As a group, they were younger, more depressed, and impulsive than the non-domestic violence group. They were more likely to engage in binge drinking, drug abuse, and had more childhood exposure to violence. In the domestic violence group, 31% were perpetrators, 20% victims, and 49% both victims and perpetrators. They also commented that alcohol and drug use of husbands should be screened in emergency rooms in the context of domestic violence.²⁴ Oram et al. (2013), in a systematic review, reported that the prevalence of physical violence by a partner in the previous year ranged in

Table 1: Demographic characteristics of participants

Violence	MIP (n=30)	PDI (n=30)	HP (n=60)	P value
Age (year±SD)	39.7±8.5	42.3±7.9	37.6±7.4	0.03
Marital duration (year±SD)	16.9±11.4	19.4±10.2	15.5±8.1	0.2
Number of child N (%)				
One child	3 (10)	2 (6.7)	7 (11.7)	0.2
2-3 children	24 (80)	24 (80)	51 (85)	
>3 children	3 (10)	4 (13.3)	2 (3.3)	
Education N (%)				
<12 years	14 (46.7)	20 (66.7)	13 (21.7)	0.001
12 years	11 (36.7)	10 (33.3)	22 (36.7)	
>12 years	5 (16.7)	-	25 (41.7)	
Housing status				
Ownership N (%)	19 (63.3)	20 (66.7)	49 (81.7)	0.1
Rental N (%)	11 (36.7)	10 (33.3)	11 (18.3)	

MIP: Methamphetamine induced psychotic disorder; PDI: Psychiatric disorder inpatients; HP: Healthy people

Table 2: Frequency of different types of violence in victims

Violence N (%)	MIP	PDI	HP	P value
Psychological	26 (86.7)	29 (96.7)	28 (46.7)	0.001
Physical	25 (83.3)	23 (76.7)	15 (25)	0.001
Sexual	16 (53.3)	16 (53.3)	6 (10)	0.001
Injury	12 (40)	16 (53.3)	2 (3.3)	0.001

MIP: Methamphetamine induced psychotic disorder;
PDI: Psychiatric disorder inpatients; HP: Healthy people

Table 3: Frequency of different types of violence in perpetrators

Violence N (%)	MIP	PDI	HP	P value
Psychological	MIP	27 (90)	46 (76.7)	0.1
Physical	27 (90)	8 (26.7)	8 (13.3)	0.03
Sexual	11 (36.7)	3 (10)	2 (3.3)	0.1
Injury	0.0	1 (3.3)	3 (5)	0.2

MIP: Methamphetamine induced psychotic disorder;
PDI: Psychiatric disorder inpatients; HP: Healthy people

three studies from 33% to 93% in psychiatric inpatients.²⁵ They did not include studies in non-psychiatric controls, representative of the general population. Masoudzadeh et al. (2015) evaluated the prevalence of domestic violence among male spouses with psychiatric disorders by a researcher-made questionnaire. The results of this study showed emotional, physical, and sexual abuse of women were 100%, 99.2%, and 81.5%, respectively. They concluded that domestic violence is higher among families with men suffering from psychiatric disorders.²⁶ These findings are consistent with the findings of our study that show a higher prevalence of domestic violence in this group of patients.

Taherkhani et al. (2014), in their qualitative study about Iranian women's experiences with domestic violence, indicated that participants experienced overt physical, sexual, and emotional violence. Women who experienced overt violence revealed that emotional violence

was the most common and most important to them.²⁷ However, they mentioned male infidelity is the worst kind of violence.²⁷

This is a very important finding since psychological violence was the most common form of violence in all groups in our study. The prevalence of psychological domestic violence, as reported by Cohen et al. (2003), was 80% among methamphetamine users.⁶ Other studies have also reported that psychological violence was more damaging than other forms of violence. Emotional neglect was indicated to be the most common and important type of neglect for women who participated in Taherkhani's et al. study.²⁷ Unfortunately, it is usually underrated while it can have a significant destructive role in marital relationships. Chang et al. (2010) found that a partner's betrayal/infidelity was considered a major factor in reducing woman's tolerance to violence and motivation for change.²⁸ It should be noted that persecutory, reference and infidelity delusions toward the spouse are frequently seen in MIP.

According to the results of these studies, it seems that substance abuse is known to play a significant role in domestic violence in the Iranian society. No special attention has been given to the role of methamphetamine in the studies on domestic violence in Iran. The hypothesis of this study was that the probability of domestic violence increases with the hostility and psychiatric symptoms of methamphetamine users. The results of the current study indicated that methamphetamine has a significant and important role in domestic violence. These findings are consistent with Martin et al. (2009) and McKitin et al. (2014) findings, reporting that methamphetamine increases the risk of violence, which is consistent with many reports about recent violent behavior of psychotic methamphetamine users in Iran.^{15,29}

The results of this study showed that all forms of violence in MIP inpatients were similar to psychiatric disorder inpatients and higher compared with the healthy people. Although the participants of the MIP and psychiatric disorder groups were selected among inpatients, CTS-2 questionnaire focused on deliberate violence in the past year and not only today. Therefore, it is possible to generalize the results to outpatient samples. The results of this study showed that domestic violence is seen much more among patients who use methamphetamine compared to those in the healthy group, but they do not have a meaningful difference with other patients having a psychiatric disorder. Although the participants in our study were chosen among the patients who used methamphetamine and hospitalized in the psychiatric ward, it is not possible to generalize the results to the whole groups of methamphetamine users. It should be noted that what we studied was an individual's behavior in a year in which the patient used the drug without showing severe symptoms to be hospitalized while displaying behavioral signs of methamphetamine intoxication (e.g. increased sexual appeal, verbal violence, physical violence, a tendency to threaten and become talkative). Violence is generally tolerated by a partner, but leads to disturbed and intolerable behavior like pessimism or getting naked in public, being followed by hospitalization.

The results of this study also showed a high frequency of domestic violence among MIP group and psychiatric inpatients, which is considerably much higher compared to the group of healthy people.

Is violence a behavior that is intensified because of drug abuse, or is it because of personal characteristics? Those who suffer from borderline and anti-social personality disorders have more tendencies to use drugs, leading to anti-social and violent behavior. Of course, this group of people shows violent tendencies even without drug abuse. Some studies show that many offenders who commit different crimes have developed such behavior due to drug abuse, or exacerbated after using drugs.¹¹

Anti-social behavior is an indicator of violent behavior against women and a tendency for drug abuse. Therefore, to investigate the non-dependent role, the anti-social behavior should be controlled during a study. Although in most studies carried out so far, the anti-social behavior was not controlled. Here, similar to Fals et al.,³⁰ violent behavior against women were observed despite controlling the anti-social personality disorder. The sample MIP in our study had no history of primary psychiatric disorder or other

mentioned personality disorders as a reason for the violent behavior. During the past year, 70% were employed with sufficient income to support their families. It appears that using methamphetamine had a great impact on their violent behavior towards their partners.

As for methamphetamine, it was intended to report the true violent behavior of those using this drug. However, it was challenging to establish that violence against women by methamphetamine users is very different to those suffering from psychiatric disorder. It seems that this drug is a new source of increasing domestic violence with more undesirable outcomes in Iran.

While this study focused on methamphetamine, the probability of violent behavior can be anticipated due to the consumption of other drugs, especially alcohol.^{21,30,31} Unfortunately, the pattern of drug use in Iran is multi-drug and multi-substance. It requires further studies to identify the frequency of domestic violence and its effect in these situations.⁸ The frequency of violence in methamphetamine users in our study was similar to the results of Cohen et al. (2003), in the psychiatric disorders group was similar to the finding of Heru et al. (2006) and in terms of healthy people, it was consistent with the results from Noujhah et al. (2001).^{6,21,32}

Facing psychological violence comes along with physical violence and vice versa.³³⁻³⁷ Under specific circumstances, like forensic or medical emergencies, physical violence is generally considered while not other types of violence. These findings are obtained through self-reporting of different types of violence among men and women since physical attack comes along with aggression and sexual abuse. As shown, when there is a report of a type of marital violence, other types of violence might exist too. Consistent with other researchers, we found that methamphetamine could increase violence and hostility.^{29,38-40} Due to a correlation between physical and psychological violence, it is recommended that all the staff in every trauma center be educated about different types of violence.

Different reports from different cultures and societies present various percentages of domestic violence, which are sometimes high. What makes the studies of family violence and the obtained results hard to interpret is the different methods and definitions for various cases, although the main concept of these different instruments is the same. Data collection methods varied between studies and included researcher-administered questionnaires during face-to-face interviews, self-completed questionnaires, and files reviews. The comparability of studies was

limited by the methods of data collection and instruments used to assess intimate partner violence. Since this study was carried out in the small city of Rasht, it cannot be generalized to the country as a whole due to cultural differences. The hospitalized patients were selected for comparison with the healthy individuals as they probably suffered from more severe diseases. Another limitation of this study was; while we had access to all medical documents, evaluations, multiple informants and families of psychiatric inpatients and MIP groups for the healthy group, the only source of information on the husband's conditions was the statement by their spouses. Due to non-uniformity in educational levels among the groups and its potential confounding effect, this topic should be addressed in future studies.

Conclusion

The result of this study revealed that different types of domestic violence are more frequent in methamphetamine psychotic inpatients and psychiatric inpatients in comparison with healthy people. However, we could not conclude that violence against women by methamphetamine psychotic users is very different to those suffering from psychiatric disorders. It seems that this substance is a new source of increasing domestic violence with more undesirable outcomes in Iran.

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