Violence against women, family cohesion and drugs

ABSTRACT

OBJECTIVE: To evaluate the association between cohesion, adaptability and mental risk in families, physical violence against women and the use of drugs.

METHODS: Data for this paired case-control study was collected in 2004 and 2005 in the city of João Pessoa, in Northeastern Brazil. The sample included 260 women, divided into 130 battered individuals and 130 non-battered. The case study group consisted of women who lodged complaints for domestic violence at the Specialist Women’s Police Station. The control group was made up of women living in the same neighborhood as those who had made the complaint. Cohesion, adaptability and mental risk were all measured using the “Family Adaptability and Cohesion Evaluation Scales”. For the statistical analysis the Chi-square and the Fisher’s Exact Tests were used, at a significance level of 5%.

RESULTS: The two groups differed for measures relating to mental risk and cohesion, but had similar results for family adaptability (p=0.0917). The women victims of domestic violence had high (43.1%) and medium (39.2%) mental risk, while the non-victims had only medium risk (55.4%). There was a significant difference in drug use between the two groups, with greater consumption among the families of battered women (90.8%) compared with those of non-battered women (56.9%). The most widely used drug was alcohol, which also represented the highest risk factor for aggression if consumed daily (OR=37.33) or in conjunction with other drugs (OR=29.56).

CONCLUSIONS: Both the instability caused by a lack of family unity and the use of drugs significantly affect family functioning and may give rise to conflict and domestic violence.

KEY WORDS: Violence against women. Substance-related disorders. Mental health. Case-control studies.

INTRODUCTION

The literature reports on an association between gender-based violence and an increase in the occurrence of various health-related problems.22 Gender-based violence is considered to be a public health problem, that has physical and mental repercussions for women.23 However, very often this kind of violence is not investigated by health professionals, and is underestimated by official statistics both in terms of its regularity and impact on society. Penna et al20 (2004) state that domestic violence as a social phenomenon is a relatively recent subject of academic discourse.

Many studies show that it is in the domestic sphere that the majority of violence against women occurs,1,9,12 and that this is legitimized by the patriarchal structure of families, in which male dominance is considered the norm.
The rapid pace of life and the breakdown of personal relationships that mark our times have changed family dynamics and, as a result, family norms. With the entrance of women into the working market, parents have chosen to have less children, and women have taken on responsibilities outside of the home, leading to higher levels of stress and affecting the family’s internal stability.3,6,8,13,19

The stability of a family is also affected by the use of legal or illegal drugs by one of its members. Several studies have shown a link between high alcohol consumption and family break ups.15,22 This substance is consumed on a large scale in Brazil, principally among men, and has an impact on their behavior with negative repercussions for women, and sometimes leading to physical violence.

In light of this, the aim of the present study was to assess the factors related to gender-based violence and drug use by those involved in such violence.

METHODS

This is a case control study, paired by residence, age and number of children, and carried out in the municipality of Joao Pessoa, Northeastern Brazil, with a population of 660,797, of which 351,941 are women.* The study design was chosen in order to assess whether the sample group differed significantly from the control group with regard to exposures to risk factors relating to gender-based violence.

The criterion for inclusion in the sample group was to be a woman who had suffered physical harm, caused by a family member. Physical attacks carried out by strangers, neighbors were excluded, as were cases of mental or sexual harm. The sample group was made up of 130 women who had lodged complaints for physical violence at the Specialist Women’s Police Station in 2004 and 2005.

The control group was made up of a group of 130 women living in a neighborhood adjacent to that of the sample group. The criterion for inclusion was to be a woman who had never suffered an attack by a family member and had thus, never lodged a police complaint against a family member. A total of 260 women were included in the study.

The sample calculations were drawn from a pilot study that included 60 women, separated into two groups (30 in the study sample and 30 in the control group) that were not included in the main study. The sample size was determined based on the value of the odds ratio (OR) of 3.27, an anticipated exposure among the control group of 20%, a margin of error (α) of 1% and test power of 95% (β error), calculated using the EpiInfo program.

The women chosen for the research were interviewed by means of a questionnaire that was specifically designed for the purposes of this study. First, data was collected from the cases available at the police station, then the interviewees were paired with their neighbors. The questionnaire was applied by only one researcher after being adapted and tested during the pilot study. It was separated into two sections, the first included information relating to socioeconomic and demographic variables (age, number of years of study, monthly family income, economic class, number of children, number of people living at home), relationship to aggressor, family drug use, member of family who is a drug user and type of drug. The socioeconomic class of the women was determined using the criteria stipulated by the Brazilian Association of Market Research Institutions (ABIPEME).44

In the second part of the questionnaire, family functionality was evaluated using the “Family Adaptability and Cohesion Evaluation Scales” (FACES III), devised by Olson et al21 (1989) and adapted to Brazil by Falceto et al8 (2000). This tool evaluated the mental health risk, and family cohesion and adaptability. The FACES III scale is made up of 20 questions. The ten odd-numbered questions assess family cohesion, defined as the family’s capacity to remain united in the face of day-to-day challenges. The other ten questions relate to adaptability, meaning the family members’ capacity to adapt responsibilities and rules, either to specific tasks or in overcoming a particular hurdle. On the basis of these questions about cohesion and adaptability, the FACES III tool assesses the family mental health risk. According to this model, stable families display medium levels of cohesion and adaptability, while families that have a mental health risk tend to display extreme results. Olson et al18 (1989) classified families into three groups, using a combination of characteristics for cohesion and adaptability: 1) stable families – which are those with a low mental health risk, 2) medium-risk families and 3) high-risk families. For the purposes of statistical analysis, SPSS 11 and SAS 8 were used. The margin of error used in the decision on statistical tests was 5%. For some variables, central tendency and dispersion (average and standard deviation) methods were used.

The Chi-square tests (χ²) and Fisher’s Exact Test, including OR, were used to measure the relationship between the variables grouped into two pairs, with the dependent variable compared against each one of the independent variables. Logistical regressions were used to assess the relationship between drug use, mental health risk, and family cohesion and adaptability.

The regression model was adapted using two models, of independent variables: one assessing drug use and mental health risk; and the other model using drug use, family cohesion and adaptability. The justification for the adaptation of the two models was the high correlation between mental health risk and cohesion and adaptability. The exclusion of the variables frequency of drug use, type of drug and which family members use drugs was due to their high correlation with the variable drug use. In the variable family cohesion, the categories family in contact and family together were joined together due to their occurrence of frequency nil, and their combining meant that it was possible to calculate the OR. In this model, only those variables which were significant (p≤0.20) in a bivariate analysis were included.

The research conformed to the norms of Resolution 196/96 governing research on human beings and was approved by the Research Ethics Committee of the Universidade Federal da Paraiba.

### RESULTS

The average age of the 260 women in the study was 30.64 (DP=9.82), with no statistically significant difference between the two groups (p=0.4129). The average age of the battered women was 30.14 (DP=9.60) and non-battered women was 31.14 (DP=10.06).

The average schooling (years) of study among battered women (8.21; DP=4.15) was less than a year more than the non-battered women (9.02; DP=4.38), also with no statistically significant difference between the two groups (p=0.1247).

Family income was most commonly up to two minimum salaries and the women were most commonly drawn from economic classes with the lowest purchasing power (D and E).

Table 1 shows that the variables for family income, economic class and number of children were not significantly different between the two groups (p=0.3743, $\chi^2=3.11; p=0.9711$, $\chi^2=0.52; p=0.4623$, $\chi^2=1.54$, respectively).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Battered</th>
<th>Non battered</th>
<th>Total</th>
<th>$\chi^2$ (p-value)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family income (as a multiple of minimum salaries)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 1</td>
<td>30 24.0</td>
<td>38 29.5</td>
<td>68 26.7</td>
<td>3.1146 (0.3743)**</td>
<td>1.00</td>
</tr>
<tr>
<td>1 to 2</td>
<td>47 37.6</td>
<td>36 27.9</td>
<td>83 32.7</td>
<td>1.65 (0.87;3.16)</td>
<td></td>
</tr>
<tr>
<td>2 to 4</td>
<td>28 22.4</td>
<td>35 27.1</td>
<td>63 24.8</td>
<td>1.01 (0.51;2.02)</td>
<td></td>
</tr>
<tr>
<td>More than 4</td>
<td>20 15.0</td>
<td>20 15.5</td>
<td>40 15.8</td>
<td>1.27 (0.58;2.77)</td>
<td></td>
</tr>
<tr>
<td>Total*</td>
<td>125 100.0</td>
<td>129 100.0</td>
<td>254 100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>6 4.6</td>
<td>7 5.4</td>
<td>13 5.0</td>
<td>0.5244 (0.9711)**</td>
<td>1.75 (0.33;9.30)</td>
</tr>
<tr>
<td>B2</td>
<td>6 4.6</td>
<td>4 3.1</td>
<td>10 3.8</td>
<td>1.12 (0.33;3.83)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>23 17.7</td>
<td>24 18.5</td>
<td>47 18.1</td>
<td>1.18 (0.38;3.70)</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>69 53.1</td>
<td>68 52.3</td>
<td>137 52.7</td>
<td>1.12 (0.33;3.79)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>26 20.0</td>
<td>27 20.8</td>
<td>53 20.4</td>
<td>1.12 (0.33;3.79)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130 100.0</td>
<td>130 100.0</td>
<td>260 100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>11 8.5</td>
<td>16 12.3</td>
<td>27 10.4</td>
<td>1.5430 (0.4623)**</td>
<td>1.00</td>
</tr>
<tr>
<td>1 or 2</td>
<td>74 56.9</td>
<td>76 58.5</td>
<td>150 57.7</td>
<td>1.42 (0.62;3.25)</td>
<td></td>
</tr>
<tr>
<td>3 or more</td>
<td>45 34.6</td>
<td>38 29.2</td>
<td>83 31.9</td>
<td>1.72 (0.71;4.16)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130 100.0</td>
<td>130 100.0</td>
<td>260 100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of people living at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two</td>
<td>20 15.8</td>
<td>5 3.9</td>
<td>25 9.6</td>
<td>10.5879 (0.0316)**</td>
<td>5.23 (1.73;15.79)</td>
</tr>
<tr>
<td>Three</td>
<td>28 21.5</td>
<td>28 21.5</td>
<td>56 21.5</td>
<td>1.31 (0.63;2.72)</td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td>33 25.4</td>
<td>39 30.0</td>
<td>72 27.7</td>
<td>1.11 (0.55;2.20)</td>
<td></td>
</tr>
<tr>
<td>Five</td>
<td>23 17.7</td>
<td>24 18.5</td>
<td>47 18.1</td>
<td>1.25 (0.58;2.70)</td>
<td></td>
</tr>
<tr>
<td>Six or more</td>
<td>26 20.0</td>
<td>34 26.2</td>
<td>60 23.1</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>130 100.0</td>
<td>130 100.0</td>
<td>260 100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For six interviewees, this information was not available
** Pearson’s Chi-square test
In terms of the number of people living in their home, there were more homes with two people among the group of battered women (15.8%) than among the non-battered (3.9%); homes with four or more people were more common among the non-battered group, with a statistical difference between the two groups (p=0.0316, $\chi^2=10.59$) (Table 1). The chance of a woman having been exposed to violence was five times higher among those who lived with just one other person, than those with larger families (OR = 5.23 for families made up of two people). Most commonly, the aggressor was the partner/husband (58.5%), followed by the victim’s ex-partner (31.5%).

Table 2 shows that the families of battered women were more commonly drug users (90.8%) than the families of non-battered women (56.9%), with the differences being significant (p=0.0001, $\chi^2=38.55$). The chance of a woman being exposed to domestic violence was seven times greater where drugs were used (OR = 7.44).

In the group of battered women, the highest frequency of drug use was daily (37.8%), followed by weekend use (37.7%). For the non-battered group, the highest frequency was non-consumption (43.1%), followed by occasional use (28.4%) (p<0.00001, $\chi^2=70.55$) (Table 2). The daily use of drugs also led to a greater...
risk of violence (OR=37.33) compared with those who are not included in this group, as well weekend users (OR=7.23).

Table 3 shows that the drug most commonly used by families was alcohol, which was the case for 76.2% of battered women and 54.6% of non-battered. Other substances appear linked to alcohol, including marijuana, cocaine, crack-cocaine and ropinol (flunitrazepam) in 14.6% of the study group and 2.3% of the control group (p<0.0001, χ²=44.71). Table 3 also shows that if alcohol was associated to another substance, such as...
as marijuana, cocaine, crack-cocaine or ropinol, the chance of violence occurring increased by a multitude of 29 (OR=29.56), in spite of the size of the confidence interval (7.52 – 116.08); if the drug consumed was just alcohol, the risk of violence was six times greater than among families who consumed no drugs at all (OR=6.51).

The partner and ex-partner was most commonly cited as the users of drugs by both groups (84.6% among battered women and 40.0% among non-battered), and this increased nine-fold the risk of violence occurring (OR=9.87) (Table 3).

Mental health risk is presented in Table 4, along with cohesion and adaptability for the study group and control group. Among the control group, the largest share (55.4%) corresponded to women who displayed a medium mental health risk, while among the group of battered women, the largest share was those who displayed a high risk (43.1%) (p=0.0016; χ²=12.85). Data on family mental health risk shows that the chance of violence occurring was twice as high among those families who were high risk (OR=2.43).

In relation to family cohesion, among the group of battered women 70.8% were from a broken home; while in the control group, the highest proportion of women (43.1%) came from a united family (p=0.0001; χ²=69.30). The chance of domestic violence was 16 times greater if the family was separated (OR=16.73).

In terms of adaptability, the largest share of among all women related to the category rigid (47.3%), with no significant difference between the two groups (p=0.0917, χ²=6.45).

Table 5 shows the results of the logistical regression and the OR values. The table shows that there were significant differences in relation to family use of drugs and non-use of drugs and the categories high mental health risk in relation to a balanced family. The ORs showed a stronger relationship between the use of drugs (OR=7.74) and domestic violence than between the risk of mental health and domestic violence (OR=3.14). The probability of a woman suffering violence increases if her family members are drug users (OR=5.81), if the family is estranged or separated (OR=22.03) when compared with families that are in touch or together.

**DISCUSSION**

The present study shows that the majority of women who suffer violence are young, in contrast with other authors,7,15,21-23 who report on the subject amongst women in age ranges of up to 44. This shows that the women who are beaten in the family environment are probably those with an active sex life, for they wear younger than those considered by other authors.

The women involved in the present study had an average number of years of schooling of eight, which is similar to findings in other works9,16 that found that around 60% of women had not completed primary school. Adeodato1 et al (2005) states that the better a woman is educated, the less tolerant she is to violence. The more qualified she is, the more likely she is to find paid work and thus improve her self-esteem and independence.

While the literature4 points to poverty and a lack of moral guidance as leading to violence, it also exists among wealthier classes. Adeodato et al (2005) report that women with greater purchasing power are also those who possess the political and economic resources to hide domestic violence, leading to this group being under-represented in data on the subject.

The number of children per women in the present study (one or two) is similar to the findings of Galvão & Andrade6 (2004), and is corroborated by data from the Instituto Brasileiro de Geografia e Estatística (IBGE – Brazilian Institute of Geography and Statistics*) (2005), which points to a fall in the average number of children borne to Brazilian women. This is accentuated by women’s involvement in the working market and by changes in concepts of family structures. The number of children is also related to the number of people who live at home. The present study found that a woman was five times more likely to be the victim of violence if she was from a family made up of only two people living in the same house, when compared with families of more than two people. This finding suggests that families made up of a husband, wife, their children or children from earlier marriages and in-laws are less at risk of involving violence.

In the majority of studies, the most common aggressor of the woman was her partner/husband or ex-partner, with percentages varying from 73.0% to 80.0%.4,7 In the present study, reported violence by partners or ex-partners was higher than in the studies cited here (90%).

Authors such as Giffin11 (2002) link violent male behavior with unemployment that leads to the breakdown of the masculine identity that is then reflected violently onto his partner. This author argues that in contemporary society, male power was displaced from the street to the home, and then to the body.

The families of the majority of women who participated in the present study were drug takers, with alcohol being the most commonly used substance and consumed daily. Nonetheless, the literature11 reports that the risk of an association between alcohol and physical
violence does not only occur amongst alcoholics and regular drinkers but also among moderate and even occasional drinkers. Adeodato et al.\(^1\) (2005) found that in their study, 70% of partners consumed alcohol and 11% illicit drugs. The authors also found that the fact that the aggressor consumed alcohol showed a direct correlation with violence against his children. Njaine & Minayo\(^{17}\) (2004) report that alcohol consumption is beginning at an increasingly young age and adolescents copy the example set by adults in terms of the frequency of alcohol use and drunkenness.

Various studies show that men who are violent against women are consumers of alcohol\(^1\) and Meneguel et al\(^{16}\) (2000) note that 37.2% used marijuana and 32.7% cocaine. Alcohol appears to be the drug that has the most harm on a family’s functionality, since the fact that it is socially acceptable means that it is widely used principally by men. Even taking into account possible over-statement on the part of interviewees who may have been traumatized by the violence that they experienced, certainly alcohol consumption is higher amongst at-risk families than within the wider population, thus making these families even more vulnerable.\(^16\) Low levels of education and income, as well as emotional stress among men can serve to perpetuate high levels of alcohol consumption and family violence.\(^5\)

In relation to family functionality, the study by Arcos et al\(^2\) (1999) shows greater dysfunction and risk among women who have experienced domestic violence compared with those who have not. Items in the questionnaire, including less family support to the personal development of the battered woman and less interaction to share free time, space and money showed statistically significant differences between the groups. The woman’s perception of her relationship with her partner showed significant differences between the two groups in the following items of the questionnaire: greater number of discussions and less understanding of the man towards the woman. The partners of those women who had suffered violence were found to be seven times less understanding than those of women who had not been battered.

Families with a high mental health risk were twice as likely to be violent, according to the present study. Data from the study by Adeodato\(^1\) et al (2005) suggest that domestic violence is associated to a negative perception of mental health by the woman, of whom 78% reported anxiety and insomnia, 65% somatic symptoms, 40% serious depression and 26% social dysfunction.

With regard to family cohesion, the two groups behaved differently. The families that were broken were 16 times more likely to experience violence. One also notes that in families where violence was present, family members did not spend their free time together, nor did they share activities as a family. Generally, women who had been battered felt closer to a stranger than to members of their families. In terms of family adaptability in the context of the present study, family leadership was associated with the main provider in the house, who was usually the man, with little change in leadership. In such houses, it was rare for there to be changes in the rules or in the allocation of domestic chores. The children in such families usually had little or no in the decisions of the house and few expressed their opinions or suggested solutions to family problems. This rigid kind of family behavior was found among both groups of women, suggesting that Brazilian cultural norms, principally from the northeast of the country, encourage this kind of family that shows little sign of flexibility when it comes to adapting to daily challenges.

The results found here can also give rise to a hypothesis of reverse causality: is it incoherence within a family that leads to violence or is physical violence the cause of a broken family? Does drug consumption by family members decrease family cohesiveness and lead to domestic violence or is it the presence of incoherence and physical violence that increases legal and illegal drug consumption? All these factors are interlinked and can lead to increases in family instability.

Efforts should be made to increase discussions about the Brazilian family, in relation to its historic formation and to the changes that new times have had upon women.
REFERENCES


Article based on the doctoral thesis of PM Rabello, presented to the Faculdade de Odontologia of Universidade da Paraíba, in 2006.