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Original article

Child abuse, gender differences and their clinical and criminological implications in incarcerated individuals[☆]



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ARTICLE INFO

Article history:

Received 17 July 2018

Accepted 15 January 2019

Available online 1 December 2020

Keywords:

Child abuse

Gender differences

ACE scale

Incarcerated men

Incarcerated women

ABSTRACT

Introduction: Several studies show high rates of childhood traumatic events in subjects incarcerated in prison institutions.

Objective: To assess the prevalence and gender differences of different types of childhood adverse experiences and their correlation with psychopathological and criminological variables in incarcerated individuals.

Material and methods: An epidemiological, descriptive-observational study was conducted in two psychiatric prisons located in Argentina and 84 subjects of both sexes participated. A socio-demographic questionnaire was used, the SCID I and II scales and the Adverse Childhood Experiences questionnaire.

Results: 91.7% of the participants had suffered some adverse experience in childhood. A high rate of physical (63%) and emotional abuse (61%) was detected. We found gender differences in the type of child abuse and the crimes committed. Significant relationships were found between some childhood adverse events and psychiatric disorders, crimes committed and recidivism.

Conclusions: In accordance with other studies, there was a high prevalence of adverse childhood experiences in incarcerated individuals and significant gender differences in the type of child abuse, in psychiatric disorders, in the crimes committed and recidivism.

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DOI of original article: <https://doi.org/10.1016/j.rcp.2019.01.001>.

[☆] Please cite this article as: Vallejos M and Cesoni OM. Maltrato infantil, diferencias de género y sus implicaciones clínicas y criminológicas en personas privadas de su libertad. Rev Colomb Psiquiat. 2020;49:305–310.

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<https://doi.org/10.1016/j.rcpeng.2019.01.002>

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Maltrato infantil, diferencias de género y sus implicaciones clínicas y criminológicas en personas privadas de su libertad

R E S U M E N

Palabras clave:

Maltrato infantil
Diferencias de género
Escala ACE
Varones detenidos
Mujeres detenidas

Introducción: Diversos estudios muestran elevados índices de eventos traumáticos infantiles en sujetos detenidos en instituciones carcelarias.

Objetivo: El objetivo del estudio es evaluar la prevalencia y las diferencias de género de los diferentes tipos de experiencias adversas infantiles y su correlación con variables psicopatológicas y criminológicas en personas detenidas.

Material y métodos: Se realizó un estudio epidemiológico descriptivo-observacional en 2 instituciones psiquiátricas penitenciarias ubicadas en la República Argentina. Participaron 84 personas de ambos sexos. Se utilizó un cuestionario sociodemográfico, las escalas SCID I y II y el Cuestionario de Experiencias Adversas Infantiles.

Resultados: El 91,7% de los participantes habían padecido alguna experiencia adversa en su infancia. Se encontró una elevada tasa de abuso físico (63%) y emocional (61%). Hallamos diferencias de género en el tipo de maltrato infantil y en los delitos cometidos. Se encontraron relaciones significativas entre algunos eventos adversos infantiles y trastornos psiquiátricos, delitos cometidos y reincidencia.

Conclusiones: En concordancia con otros estudios, se observó elevada prevalencia de experiencias adversas infantiles en personas detenidas y diferencias de género significativas en el tipo de maltrato infantil, los trastornos psiquiátricos, los delitos cometidos y la reincidencia.

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Introduction

Suffering traumatic events in childhood influences the psychic structuring of people and the incorporation of models of internal representation of attachment figures, which affects the development of the sense of self and the possibility of establishing stable interpersonal relationships.¹

Numerous studies have shown that adverse childhood experiences are associated with an increased risk in adulthood of physical problems, mental conditions such as personality disorders and post-traumatic stress disorder (PTSD), and aggressive and antisocial behaviours.²⁻⁴

Child abuse produces effects on neurodevelopment and neurobiological alterations in brain regions related to the execution of adaptive strategies, emotional processing, social cognition, impulse control and decision-making, which leads to an increase in the predisposition to impulsive, criminal and antisocial behaviours.⁵⁻⁷

Several studies carried out in the general population^{2,8,9} and in people with serious mental illnesses¹⁰⁻¹² have shown the existence of a high prevalence of adverse childhood experiences, with estimated values between 40% and 89%, depending on the methodological variables used.

The results of numerous studies support the hypothesis that incarcerated individuals have a higher rate of having suffered adverse events in childhood than the general population and people with certain mental illnesses.¹³⁻¹⁷

Various studies have found gender differences in relation to the type of child abuse suffered, both in the general population^{8,18} and in patients with serious mental illnesses,^{10-12,19} with a higher prevalence of emotional and

sexual abuse in women and more physical abuse and neglect in men.⁸ Regarding incarcerated individuals, differences were also found according to sex: women had a higher prevalence of multiple traumatic childhood events,^{14,20} a higher prevalence of sexual abuse,^{13,14,16,20-22} emotional abuse and neglect,^{14,22} and physical abuse.^{14,20,21} In men, studies found greater family dysfunction: incarcerated family members and parents with substance use problems.^{14,20}

There are studies on inmates in different countries, which have focused on evaluating whether there is a relationship between child abuse and the onset of mental illness and the perpetration of certain crimes. They have found evidence of an association between child abuse and psychiatric disorders and criminal behaviours and, in turn, that having multiple traumatic events or certain adverse events, such as physical abuse, has a different psychobiological impact in men than in women.^{13,14,20,23-25}

Several studies have shown that the way in which child abuse influences mental structuring, the onset of mental illnesses and antisocial behaviours depends largely on the specific type of abuse, the period of exposure and the age of the child. Some studies found that exposure to a specific type of abuse during a certain stage of development has a stronger predictive role for psychopathological variables than total measures of exposure, such as severity, duration or multiplicity,²⁶⁻²⁹ both in the general population and in patients with severe mental disorders,^{10,30} and in incarcerated subjects.^{31,32}

Taking into account that in recent years, the number of incarcerated people around the world has grown significantly, especially women,^{14,23,33} we consider it relevant to evaluate

how certain traumatic childhood events impact the triggering of psychopathological symptoms and criminal behaviours in people detained in Argentina.

The main objective of the study is to determine the prevalence and differences by sex of the different types of adverse childhood experiences and their correlation with psychopathological and criminological variables in people detained in two psychiatric prison institutions.

Our hypothesis is that certain mental illnesses and criminal behaviours are associated with a history of having suffered specific adverse childhood events.

Material and methods

Participants and design

This is a descriptive, observational, cross-sectional study that included 84 inmate patients, 59 men and 25 women, between May 2011 and November 2013, in two psychiatric penitentiary institutions dependent on the Ministry of Health and the Ministry of Justice and Human Rights, located in the province of Buenos Aires, Argentina. The men were evaluated in Unit 20 of the Men's Central Psychiatric Service (Unit 20 of the Federal Penitentiary Service), on the premises of the J.T. Borda Hospital of the Autonomous City of the City of Buenos Aires, and the women were housed in the women's unit of the Argentine Interministerial Mental Health Programme (PRISMA, its acronym in Spanish), located on the premises of the Federal Penitentiary Complex IV, in Ezeiza. Both institutions were created in order to provide an interdisciplinary and adequate approach to the mental health problems of women and men in facilities of the Federal Penitentiary Service (SPF, its acronym in Spanish). These facilities have interdisciplinary mental health teams, in order to guarantee the best possible care for people in the prisons with mental disorders.

Procedures

All participants were evaluated by a mental health professional, a specialist in psychiatry, who applied a semi-structured interview as part of the study protocol. An initial interview was conducted to determine if they met the inclusion criteria: a) age ≥ 18 years; b) persons detained for committing a crime, and c) psychiatric stability for a period of ≥ 3 months.

Participants were excluded from the study if: a) they did not give their consent to participate; b) they did not speak Spanish, and c) they could not respond autonomously (e.g. if they were sedated due to the effect of medication).

All study participants gave their informed consent.

Instruments

Data collection was carried out through individual semi-structured interviews. A sociodemographic questionnaire was used. The SCID I and II scales and the ACE scale were used. The medical records of the participants were analysed. In turn, the criminological information (type of crime, criminal record, etc.) was extracted from the single prison file (LPU, its acronym

in Spanish) that all persons detained in Argentine SPF units have.

Structured Clinical Interview for DSM Disorders (SCID): the most widely used interview to evaluate Axis I and II psychiatric disorders.³⁴

Adverse Childhood Experiences (ACE) Questionnaire: an interviewer-administered questionnaire that consists of 10 questions that make it possible to assess exposure to various traumatic experiences before the age of 18, such as: physical, mental and sexual abuse, physical and psychological neglect, and other situations that, although they do not involve direct abuse, are considered adverse childhood events, such as living with people who abuse drugs and/or alcohol, a family history of mental illness and/or suicide, parental separation, abandonment or divorce, witnessing maternal/paternal violence or having a member of the family that is incarcerated. Scores from 0 to 10 points are obtained and it is translated into Spanish.²

When analysing the different types of crimes, the classification of the Argentine Penal Code was taken into account: *crimes against sexual integrity* (simple sexual abuse, aggravated sexual abuse and sexual abuse with penetration); *crimes against persons* (crimes against life, homicide and assault); *crimes against property* (robbery and theft); *crimes against liberty* (kidnapping and threats); *crimes against public safety* (crimes against public health: drug law) and *crimes against the public administration* (resisting an officer).

Recidivism is defined, according to the Argentine Penal Code, as: "whoever has fulfilled, totally or partially, a custodial sentence imposed by a national court and commits a new crime punishable by that kind of penalty" (Argentine Penal Code).

Meanwhile, to define crimes as violent, the Wolff and Shi (2012) and Dutton and Hart (1992) criteria are used: robbery with a weapon, kidnapping, homicide, serious injuries, sexual abuse with penetration.

Methods

The general characteristics of the population are described by calculating measures of central tendency and dispersion. For continuous-discrete variables, if distribution is normal, the mean $\pm$ standard deviation is used and, when distribution is not normal, the median [interquartile range] is used. For dichotomous-nominal variables, the results are expressed as a percentage with 95% confidence interval (95% CI).

The prevalence of ACEs was calculated according to sex. In the same way, the prevalence of each ACE subtype in each group was calculated. The non-parametric Kolmogorov-Smirnov test was used, allowing for collecting normally distributed data. The χ^2 test was used to measure the correlation of categorical variables. For crossover of continuous variables, ANOVA was used.

In all cases, p values < 0.05 were taken as significant. For the statistical analysis, the SPSS Statistics 22® program was used.

Ethical considerations

The study was carried out in accordance with the Declaration of Helsinki (2003) on ethical principles for medical research

Table 1 – Sociodemographic characteristics.

	Total (n = 84)	Women (n = 25)	Men (n = 59)
Age (years) [0.1-4]	31.9 ± 10.8	35.3 ± 10.1	29.5 ± 10.8
[0.1-4] Marital status			
Single	71 (84.5)	19 (76)	52 (88)
Married	5 (6.0)	2 (8.0)	3 (5.0)
Divorced	5 (6.0)	2 (8.0)	3 (5.0)
Widowed	3 (3.5)	2 (8.0)	1 (2.0)
Employed before detention	14 (16.6)	7 (28.0)	7 (11.9)

Values are expressed as n (%) or mean ± standard deviation.

in human beings and Law 26,529 on patient rights in their relationship with health care professionals and institutions (2009).

The authors declare that they have followed the protocols of their work centre on the publication of patient data and that all patients included in the study have received sufficient information and have given their written informed consent to participate in the study. The work was reviewed and approved by an Independent Ethics Committee of the SERES Centre for Studies in Applied Cognitive Neuroscience.

Results

The participants had a mean age of 31.9 years and the majority (84.5%) were single. About 17% were employed before being arrested (Table 1).

History of traumatic events

An exploratory analysis was carried out on the prevalence of child abuse and differences according to sex. 91.7% had at least one adverse event during their childhood, and approximately 70% had multiple traumatic childhood events (ACE scale > 4); rates were higher among women. A high prevalence of physical (63.1%) and emotional (61.9%) abuse and neglect (59.5%) was found. Significant differences by sex were found in sexual abuse and emotional abuse, which were higher in women (Table 2).

History of traumatic events and mental disorders

Given the high prevalence of personality and substance abuse disorders found in the participants, it was decided to explore the correlation between these diagnoses and certain adverse childhood events. A higher prevalence of physical abuse and neglect was found in people diagnosed with antisocial personality disorder. It was also found that people with borderline personality disorder had high rates of emotional abuse. Regarding substance use disorders, a positive correlation was found with a history of having suffered physical abuse and having witnessed domestic violence (Table 3).

History of traumatic events and criminological variables

The decision was made to explore the correlation between different adverse childhood events and criminological variables. A significantly higher prevalence of crimes against persons (homicides) and against property (robbery and theft) was found in the group of inmates with a history of sexual abuse. Likewise, a significantly higher prevalence of crimes against property and number of previous crimes were found in the group of people who suffered from neglect (physical and/or emotional). Meanwhile, it was observed that repeat offenders had a high prevalence of neglect and of having witnessed domestic violence (Table 4).

Gender differences: psychopathological analysis and criminological characteristics

Gender differences were explored both in the prevalence of certain psychiatric disorders and in criminal behaviours in the population studied.

In the study, all the participants had a mental disorder, according to the DSM IV criteria. Most had a personality disorder (79.7%), and significant differences by sex were found, with a higher prevalence of antisocial personality disorder in men and borderline personality and mood disorders in women. It was also found that 77.4% of the participants had substance use disorders, with a higher prevalence among men. Non-significant differences were observed between the sexes in anxiety disorder and PTSD (Table 5).

The crimes with the highest rate of prevalence were those committed against property, mainly robberies. In most of

Table 2 – History of traumatic events.

	Total (n = 84)	Men (n = 59)	Women (n = 25)	p
Sexual abuse	25 (29.8)	11 (18.6)	14 (56.0)	0.01
Physical abuse	53 (63.1)	35 (59.3)	18 (72.0)	0.27
Emotional abuse	52 (61.9)	32 (54.2)	20 (80.0)	0.02
Neglect (physical and/or emotional)	50 (59.5)	35 (59.3)	15 (60.0)	0.95
Witnessed domestic violence	52 (61.9)	39 (66.1)	13 (52.0)	0.22

Values are expressed as n (%).

Table 3 – History of traumatic events and mental disorders (n: 84).

	[0.2-3] Antisocial personality disorder		[0.4-5] Borderline personality disorder		[0.6-7] Substance use disorder	
	n (%)	p	n (%)	p	n (%)	p
Sexual abuse	6 (19.4)	0.11	8 (40.0)	0.25	17 (26.2%)	0.18
Physical abuse	24 (77.4)	0.03	13 (65.0)	0.84	45 (69.2)	0.03
Emotional abuse	18 (58.1)	0.57	17 (85.0)	0.01	43 (66.2)	0.13
Neglect (physical and/or emotional)	23 (74.2)	0.03	4 (70.0)	0.27	42 (64.6)	0.07
Witness of domestic violence	21 (67.7)	0.39	13 (65.0)	0.74	44 (67.7)	0.04

Table 4 – Background of traumatic events and criminological variables (n = 84).

	[0.2-3] Crimes against persons		[0.4-5] Crimes against property		[0.6-7] Crimes against public health		[0.8-9] Recidivism		[0.10-11] Number of crimes, mean	
	n (%)	p	n (%)	p	n (%)	p	n (%)	p	n (%)	p
Sexual abuse	8 (53.3)	0.02	10 (20.8)	0.03	6 (46.2)	0.16	12 (23.5)	0.12	2.92	0.74
Physical abuse	7 (46.7)	0.14	33 (68.8)	0.21	9 (69.2)	0.61	36 (70.6)	0.77	2.94	0.30
Emotional abuse	10 (66.7)	0.67	29 (60.4)	0.74	11 (84.6)	0.06	32 (62.7)	0.84	2.97	0.34
Neglect (physical and/or emotional)	6 (40.0)	0.08	33 (68.8)	0.04	9 (69.2)	0.43	36 (70.6)	0.01	3.17	0.04
Witness of domestic violence	7 (46.7)	0.18	34 (70.8)	0.05	7 (53.8)	0.51	37 (72.5)	0.01	2.95	0.27

Table 5 – Differences by sex and psychopathological analysis.

	Total (n = 84)	Men (n = 59)	Women (n = 25)	p
Personality disorder	67 (79.7)	42 (71.1)	15 (60.0)	
Antisocial	31 (36.9)	27 (45.8)	4 (16.0)	0.01
Borderline	20 (23.8)	10 (16.9)	10 (40.0)	0.02
Other	3 (3.5)	2 (3.3)	1 (4.0)	
Substance use disorder	65 (77.4)	47 (79.7)	18 (72.0)	0.44
[0.1-5]				
Anxiety disorder	16 (19.0)	10 (16.9)	6 (24.0)	0.45
PTSD	8 (9.5)	5 (5.0)	3 (12.0)	0.61
Psychotic disorders	17 (20.2)	12 (20.3)	5 (20.0)	0.97
Mental weakness	4 (4.7)	3 (5.0)	1 (4.0)	0.83
Mood disorder	8 (9.5)	3 (5.0)	5 (20.0)	0.03

Values are expressed as n (%).

Table 6 – Differences by sex and criminological characteristics.

Crimes	Total (n = 84)	Men (n = 59)	Women (n = 25)	p
Crimes against sexual integrity	2 (2.5)	2 (3.5)	0	
Crimes against persons	14 (16.5)	9 (15.0)	5 (20.0)	0.59
Crimes against property	48 (57.1)	40 (67.8)	8 (32.0)	0.02
Crimes against liberty	5 (6.0)	5 (8.5)	0	
Crimes against public health	13 (15.5)	2 (3.4)	11 (44.0)	0.01
Crimes against the public administration	5 (5.9)	4 (6.8)	1 (4.0)	0.62
Recidivism	51 (60.7)	40 (67.8)	11 (44.0)	0.04
>2 Previous convictions	33 (39.3)	27 (45.8)	6 (24.0)	0.06
Violent crimes	57 (67.9)	44 (74.6)	13 (52.0)	0.04

Values are expressed as n (%).

the crimes committed, significant differences were observed between men and women (Table 3). It was observed that 44% of the women committed crimes against public health (drug law), while only 5% of the men had been arrested for these crimes. Higher rates of crimes against property, against liberty and

against sexual integrity were found in men. Recidivism rates were higher in men, who also had a history of a greater number of previous convictions and had committed more violent crimes (homicide, robberies with a firearm, and kidnapping) than women (Table 6).

Perpetrators

Parents were found to be primarily responsible for the majority of adverse childhood experiences. When specifically analysing the implications of the parents in child abuse, significant differences were found in terms of the nature of the abuse and the sex of the perpetrator (father/mother) of the abuse. In both sexes, it was found that physical and emotional abuse (60%) was caused especially by the father and to a lesser extent by the mother (40%), while abuse in the form of neglect was mainly caused by the mother (70%). In contrast, in comparison with other types of abuse, differences were found in sexual abuse in the identity of the perpetrators depending on the sex of the victim. When the victims were boys, the main perpetrators were strangers (50%), and the remaining cases of abuse were committed by the father, a relative or a family acquaintance (friends of the parents, neighbours). In contrast, the women who suffered child sexual abuse were mainly abused by relatives or family acquaintances (60%), strangers (32%), and, to a lesser extent, the father (8%).

Discussion

The first objective of this study is to analyse the prevalence of traumatic childhood experiences in incarcerated individuals. The results have shown that 91.7% of the individuals had suffered some traumatic event in their childhood. At the same time, 70% scored ≥ 4 on the ACE scale. The values found are higher than in studies in the general population,^{2,8,9} in patients with serious mental illnesses,^{10-12,20} and in subjects housed in penitentiary institutions.^{13,14,17,22} In agreement with other studies, a higher prevalence of multiple adverse childhood events (ACE > 4), a higher rate of emotional abuse, sexual abuse,^{13,14,17,20,22} and physical abuse²⁰ have been found in detained women than in men.

We considered various hypotheses to explain these results. The first is related to the populations included in our study, since all the participants had some psychiatric disorder and it has been observed that people suffering from mental illnesses have a higher prevalence of abuse in childhood. The second hypothesis refers to the methodological differences with other studies: the presence of more situations considered as adverse childhood events (abuse, neglect and dysfunction in the home) has been explored, as compared to other studies that used other questionnaires and, in addition, used different definitions of abuse or childhood, the age of the children, and the types of traumatic events explored.

Coinciding with other studies, differences were found by sex in terms of the types of crimes, since women commit less violent crimes and have lower recidivism rates than men.^{13,14,20} In our study, women had a higher prevalence of crimes against public health (drug law), while men had a higher prevalence of violent crimes and crimes against property, against liberty and against sexual integrity, as well as a higher rate of recidivism.^{13,14,20,35}

Unlike other studies,^{14,17,21,36} a positive correlation was found between a history of sexual abuse and the committing of crimes against persons and property. Meanwhile, a higher

prevalence of crimes against property was found than of emotional and physical neglect.

Regarding the prevalence of psychiatric disorders in inmates, in agreement with other studies, a high prevalence of personality disorders and substance abuse disorders was found.^{13,20,23,37} A higher prevalence of antisocial personality disorder was also found in men²⁰ and borderline personality disorder, mood disorder, anxiety and PTSD in women, which, as suggested by several researchers, could be related to the higher prevalence of traumatic childhood events in women.^{20,23} Unlike other studies, men had a higher prevalence of substance use disorder.²⁰⁻²³

With regard to child abuse and its association with psychopathological variables, in accordance with other studies, when exploring the different variables, a higher prevalence of physical abuse and neglect was found in people diagnosed with antisocial personality disorder^{31,38} and physical abuse and substance use disorder.^{17,20} Meanwhile, unlike other studies, a significant relationship was found between emotional abuse and borderline personality disorder, and witnessing domestic violence with substance use disorder, but no significant associations were found between a history of sexual abuse and no psychiatric disorder.^{17,21,31,38}

With regard to the perpetrators, taking into account the data obtained and compared with other studies,³ it was found that parents are the main perpetrators of child abuse, which leads us to infer that the family context, ideally perceived and conceived as a place where rights relating to the life, health and education of a child must be guaranteed by the parents, often ends up being an unsafe, dysfunctional place lacking in care and protection.

This study contains several limitations that must be taken into account when interpreting the results. The design allows for exploring associations but not establishing a causal relationship between a history of adverse childhood events and criminal behaviours and psychiatric disorders. Likewise, since it is a cross-sectional study, there are biases to take into account.

First, the characteristics of the sample of participants, since the study was carried out in a psychiatric prison institution where only inmates with serious mental illnesses are housed. This could bias the results of several of the variables analysed, such as the prevalence of psychiatric disorders, since all those entering the institution have some psychiatric diagnosis, and the prevalence of child abuse, since it has been observed that people who suffer from serious psychiatric disorders have a higher prevalence of child abuse.

Second, the data was obtained retrospectively and accuracy may be affected by recall bias. However, several studies have demonstrated the reliability of retrospective reports of trauma in patients with severe mental illness. These studies showed that the information obtained from questionnaires is not affected by current symptoms and is adequately correlated with other sources of information. Furthermore, there is evidence that retrospective evaluation of child abuse tends to be underestimated due to memory disturbances, denial or a decision not to disclose these experiences. Individuals who retrospectively reported abuse were those who had typically endured the most severe abuse in the prospective evaluation.³⁹ This allows us to conclude that the results

obtained could be underestimated.⁴⁰ Finally, studies are needed that include a greater number of inmates and consider prospective designs to determine if there is a greater risk of criminal behaviour and psychiatric conditions in people with a history of adverse childhood experiences.

Conclusions

Numerous investigations show a high prevalence of adverse childhood experiences in individuals deprived of their liberty.

We consider it of utmost importance to evaluate the history of traumatic childhood events in incarcerated people, which will allow us to have a more holistic and comprehensive approach to detained people and to implement appropriate psychological, social, and biological therapeutic strategies for a vulnerable and traumatised population.

When implementing specific therapeutic approaches for incarcerated individuals, it is necessary to take into account gender differences in terms of the history of traumatic events and the most prevalent psychopathological symptoms

Conflicts of interest

None.

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