

Childhood Trauma as a risk factor for suicidal behaviour in prisons

Navarro-Atienzar F¹, Zabala-Baños C², Ricarte-Trives JJ³

¹University of Castilla-La Mancha. Master's Degree in Criminology and Young Offenders. Faculty of Law. Albacete.

²University of Castilla-La Mancha. Faculty of Occupational Therapy, Speech Therapy and Nursing. Talavera de la Reina. Toledo.

³University of Castilla-La Mancha. Faculty of Medicine. Albacete.

ABSTRACT

Suicide is a public health problem worldwide. Although it affects people of any age, race, gender, nationality or culture, the studies reveal that one of the groups that present high risk are the inmates of a penitentiary institution, with suicide figures higher than those of the general population. In recent years, penitentiary institutions around the world are trying to reduce cases of suicide deaths through prevention and early detection programs. However, in countries such as the United Kingdom, Wales or Spain, the figures are still very high.

Researchers and professionals from different disciplines have tried to establish the causes and risk factors that can lead to committing suicide. Among them, suffering traumatic events in childhood (childhood trauma) has been established as one of these factors. Recent studies have shown that childhood trauma has a significant incidence in the prison population, thus assuming an important specific risk factor in this population.

The objective of this article is to review the risk factors associated with suicide in the penitentiary institution in order to understand the role of childhood trauma, its emotional impact and its relation to suicidal behavior in the prison environment, thereby contributing to the understanding and management of the cases having repercussions in an improvement in the programs for the prevention of suicide in prisons.

Keywords: suicide, risk factors, prisons, prevalence.

Text received: 02/02/2018

Text accepted: 25/05/2018

INTRODUCTION

Suicide is a major health problem worldwide. About 800,000 people die from suicide every year¹. In Spain it is the primary cause of unnatural death and is more common than death from traffic accidents². Although suicide affects general public, it is one of the most common causes of death in prison worldwide. Inmates are a high-risk group in this regard, with a ratio of suicide considerably higher than that of the general public³⁻⁵ (usually more than 3 amongst men and 9 amongst women⁶). Such is the degree of concern that the World Health Organisation (WHO) established suicide as a healthcare priority in prisons.

Furthermore, a number of countries are witnessing an increase in cases within the penitentiary systems. The Scandinavian countries show one of the highest rates in Europe, with more than 100 suicides per 100,000 inmates⁶, along with Cyprus, with a ratio of 44.1 for each 10,000 inhabitants⁷, and the UK, where it increased by 28% last year⁸. It is the first cause of death in American prisons, where the ratio in 2013 was 34%, which was a significant increase of 14% in comparison to the year before⁹. In Spain, a total of 31 suicides took place inside Spanish prisons, which is 19.7% of the total number of deaths there¹⁰. However, such a high number of cases makes for a contrast with the decrease in the prison population since

2009, as shown in Table 1, where it can be seen that although the number of male and female inmates has progressively decreased in recent years, and the distribution of inmates by gender has not significantly varied, the number of cases of suicide by women in Spanish women has considerably increased, reaching almost 15% of the total number of cases in 2015. This data indicates a highly significant increase in comparison to previous years, as Table 2 shows. However, this apparent upward trend in suicides amongst women is not limited solely to Spain. Similar figures can be seen in the UK, which highlight the fact that women present more mental health problems and more episodes of suicide than in the past (*Prisons & Probation Ombudsman*¹¹). In Spain the number dropped to 23 in 2015, and fell to 21 in 2016¹².

For decades, researchers and professionals from different disciplines have attempted to determine the factors that can drive a person to commit suicide. Some of these risk factors, which do not necessarily have to be the cause of the act, are psychopathological disorders, family background, alcohol and/or drug abuse, and hopelessness or a history of child abuse. The last factor is important inasmuch as a number of studies have

shown that traumatic experiences in infancy may be a risk factor for future suicidal behaviours^{13,14}. However, studying correlations between childhood trauma and suicidal behaviour in prison is more complex than amongst the general public. The main reason for this is the greater risk of intrinsic suicide in prisons, due to the exposure of inmates to a multitude of risk factors that may not be present outside prisons and which are a traumatic experience, at least to start with.

The aim of this review study is to highlight the existence of a relationship between childhood trauma (caused by abuse and/or neglect) and the existence of suicidal behaviours amongst men and women that are serving their sentence in prison, and to understand the impact that such a trauma can have on suicidal behaviours amongst inmates. By understanding this relation (if there is one), it may be possible to make a positive contribution in assessing possible measures that can help to mitigate this problem.

MATERIALS AND METHODS

This review was prepared using the data and information obtained from a total of 55 bibliographi-

Table 1. History of prison population in Spain (2012-2015) with gender differences.

Year		Men	% Men	Women	% Women
2012	68,597	63,372	92.39%	5,225	7.61%
2013	66,765	61,682	92.39%	5,083	7.61%
2014	65,017	60,040	92.35%	4,977	7.65%
2015	61,614	56,892	92.34%	4,722	7.66%

Note. Source: Own research based on data extracted from: Prisons. En: 2015 Statistical Yearbook of the Ministry of the Interior. Ministry of the Interior; 2015. p. 522-603.

Table 2. Total deaths and deaths from suicide in Spanish prisons (2012-2015) with gender differences.

Year	Total number of deaths in P	Deaths from suicide	% Suicide	Deaths of women from suicide in P	% Women
2012	191	30	15.7%	1	3.3%
2013	224	39	17.4%	3	7.7%
2014	157	31	19.7%	5	16.1%
2015*	155	23	14.8%	3	13.04%

Note. Own research based on data from reports SPACE I of 2013, 2014 and 2015, (*Council of Europe Annual Penal Statistics*).

*The data of 2015 corresponds to prisons nationwide, but does not include those of the Community of Catalonia. P: prisons.

cal references, and important part of which are scientific and research articles.

Searches were carried out in the following data bases: PubMed, Psychinfo, SciELO y Google Scholar, so as to localise and obtain the articles. The following criteria were used to define the search: in all cases the searches were confined to articles in Spanish and English; the search for type of sources was limited to scientific articles, books, papers in conferences and publications by official bodies. No time or geographical restriction was applied, and only those studies in which the sample was made up of persons of legal age were included.

The key words and the MeSH terms (Medical Subject Headings) relating to childhood trauma and suicide were then selected. The key words used in Spanish were “trauma infantil”, “abuso infantil”, “negligencia infantil” “trastorno de estrés postraumático”, “instituciones penitenciarias”, “suicidio en prisiones” “cárcel (-es)”. The terms used in English were “childhood abuse”, “child neglect”, “childhood trauma”, “PTSD”, “penitentiary institution (-s)”, “prison (-s), prison suicide (-s)” e “inmate suicide (-s)”. The key words correspond to two blocks: the first related to childhood abuse and trauma; and the second one with prisons, penitentiary institutions and suicide.

When the searches were conducted in the data bases, the first search used isolated searches (one single term). Then cross searches were carried out, simultaneously selecting one key word from each block.

The portals of official bodies and agencies on the Internet were consulted to obtain and localise data and publications from said bodies, both at national (SGII) and international levels (United Nations Organisation).

Table 3 shows the data bases that were consulted, the number of resulting articles (separately and in total) and the filters applied until the final selection of studies was obtained. Table 4 summarises the main results found in the papers reviewed in this study on the history of trauma and suicide in the prison population.

CHILDHOOD TRAUMA AS A RISK FACTOR FOR SUICIDE IN PRISON

The traumatic events that can be experienced in childhood are many and varied. Some may be isolated episodes, such as suffering from a traffic accident or living through a natural disaster, but others, such as child abuse, may occur on a continuous basis, and endanger the physical safety of the minor and expose him or her to severe negative consequences, such as the development of mental illnesses or committing violent and/or criminal offences. Child abuse is defined as abuse and neglect suffered by minors under 18 years of age, and includes type of physical or psychological abuse, sexual abuse, lack of care, neglect and commercial or other types of exploitation that cause or may cause damage to the health development or dignity of the minor¹⁵.

Table 3. Procedure and criteria followed for selection of studies.

Selection criteria/filters	Data bases				Total studies
	PubMed	PsychINFO	SciELO	Google Scholar	
Studies identified in the data bases (without filters)	N=944	N=1,849	N=514	N=1,011	N=3,115
Studies eliminated due to duplication			N=416		N=2,699
Studies selected for title and abstract			N= 257		N=257
Studies eliminated for not having free access to complete text			N=213		N=44
Studies selected by other sources			N=12		N=12
Studies finally included		44 scientific articles 11 publications from official bodies 1 book			N=56

According to the studies, about 60% of children and adolescents have experienced or observed a potentially traumatic situation at some moment in their lives¹⁶.

Data from the WHO¹⁵ also shows that in global terms one fourth of all adults state that they have suffered physical abuse in childhood and more specifically, one out of every five women and one out of every thirteen men declares that they have suffered from sexual abuse in their childhood. Many children are also subject to psychological or emotional abuse and are victims of neglect. In Spain, the prevalence of some type of abuse of minors is situated at between 3 and 6%¹⁷.

Depending on the characteristics of each person, their surroundings and their coping skills, such traumatic episodes may in some cases have no repercussions on a person's life beyond the event itself; but in

other cases, it may lead to future short, medium or long term complications, depending on the type and intensity of the act, on the age of the minor when it took place or the socio-demographic characteristics. Despite this highly complex state of affairs, recent decades have seen intense research work being carried out to detect and document the long-term effects of childhood abuse on those who have experienced it.

A number of studies and research projects have managed to establish correlations between childhood trauma and different conditions, such as depressive disorders¹⁸, post-traumatic stress disorder (PTSD)¹⁹, anxiety disorders²⁰, consumption of illegal substances²¹, risk of emotional distress²², suicidal behaviour^{14,15}, biological effects on memory and social cognition²³, and even a reduced life expectancy²⁴. The prison population is regarded as a group at risk, since the most characteristic group is made up of persons

Table 4. Summary of main findings on trauma and suicide in the prison population.

Authors	Characteristics of the sample	Results	Conclusions
Roy (2011)	281 patients with drug dependence and family history of suicidal behaviour.	Suffering traumatic events in childhood increases the risk of suicide in adulthood.	Individuals at risk of suicide attempts present more histories of childhood trauma.
Gorodetsky, Carli, Sarchiapone, Roy, Goldman & Enoch (2016)	702 Italian men in prison.	Physical abuse means an increased risk of suicide and of self-harming behaviours (in men).	In men there is a correlation between a history of physical abuse and the risk of suicide.
Swogger, Sungeun, Cashman-Brown & Conner (2010)	266 criminal offenders between 18 and 62 years.		
Charles, Abram, McClelland & Teplin (2003)	1,272 women in prison.	There is a similar risk of suicide in prison for men and women.	There are no significant gender differences with regard to risk of suicide.
Mandellia, Carlib, Roy, Serrettia & Sarchiapone (2011)	1,553 prisoners	Sexual abuse is a risk factor in repetition of suicidal behaviours.	Inmates with histories of sexual abuse, regardless of gender, shall present more risk and/or history of repetition of suicidal behaviours.
Clements-Nolle, Wolden & Bargmann-Losche (2009)	247 women incarcerated in a state prison in Las Vegas (Nevada, USA)..	Childhood trauma is an independent risk factor for suicide attempts in the past and possibility of future suicide attempts amongst women in prison.	Childhood trauma is confirmed as an independent risk factor of suicide in prison.
Caravaca, Fearn & Vaughn M (2017)	2,270 hombres men incarcerated in seven Spanish prisons.	Childhood trauma is one of the risk factors related to almost fatal suicidal acts amongst Spanish prisoners.	About 74% of prisoners that presented almost fatal suicide attempts also showed presence of some level of childhood trauma, compared to 59% of the participants who had not attempted suicide.

who have lived in depressed environments, with difficult life histories, and many of them have suffered from abuse, abandonment, physical or verbal abuse, defective socialisation processes and family and social contexts where there is a lack of basic necessities. All the above leads to a psychological profile characterised by a high frequency of exposure to traumatic events, abusive consumption of drugs and alcohol and a high prevalence of mental health problems. These three characteristics are significantly more common amongst inmates than in the general population²⁵. Many research projects have highlighted the relationship between traumatic events and their link to, for example, violent or maladapted behaviours, such as victimisation. Studies²⁶ carried with young recidivists showed that of the 25 that had suffered head injuries, 15 committed self-injury and 10 attempted suicide. Results on the type of trauma according to gender in the prison environment are contradictory, as there are studies that refer both to the frequency and exposure to trauma, which is similar in both sexes²⁷, except where sexual abuse and aggression is concerned, which was more common amongst women²⁸; and in mean, being witness or victim to physical violence, where also exposure to trauma in the past is a significant predictor of violent behaviours and victimisation in prison, especially when the frequency of traumatic events at an early age was high²⁶.

However, as mentioned above, the nature of the abuse must be taken into account before reaching any conclusions. Some authors²⁹ observed a number of interesting differences in terms of the psychopathological effects of the different types of trauma. Physical and sexual abuse present high levels of correlation with PTSD, and sexual abuse has a high correlation with bipolar disorder, although these results should be taken with some precaution. A relationship has also been observed between complex trauma and the development of borderline personality disorder, one of the most common personality disorders of its type, which is related to childhood emotional³⁰ and sexual abuse in between 40 and 70% of cases³¹.

Some studies have tried to ascertain the impact of different types of abuse on future suicidal behaviours and found that, although several types of abuse are related to suicidal behaviour, sexual abuse appears to be the most strongly linked³². In any case, there is scientific evidence that suggests that these acts may be a risk factor for future suicidal behaviour. In some

sectors of the population, as is the case of people in prison, it may be an extra risk, as it combines with a multitude of factors intrinsic to confinement in a prison. Studies carried out on the general public³³ confirmed the hypothesis that childhood trauma presented a significant correlation with suicidal patients when compared to the control group^{34,35}, and the same results were detected amongst inmates that had attempted to commit suicide, who were more likely to have a history of childhood trauma³⁶. However, studying the correlations between childhood trauma and suicidal behaviour is a more complex process in prisons than in the outside world. The main reason is the greater risk of suicide intrinsic to prisons, as the fact of being confined exposes individuals to a multitude of risk factors that might not appear amongst the general population, such as the psychological impact of detention and imprisonment, the daily stress implicit in prison life, the repercussions of their criminal activity in the media, the depression produced in people who have committed economic crimes when a type of economic reality disappears, separation from or loss of family and social links, mental illness, chronic substance abuse and a criminal record³⁷. But despite these difficulties, several authors³⁸ have carried out studies that have found a risk of suicide of 27% in prisons, in comparison to 3.6% in the general population, and between 41 and 50% had experienced severe childhood abuse in their infancy³⁹.

As to when such suicidal behaviours amongst prisoners commence and are repeated, several studies⁴⁰ confirmed that inmates that had attempted suicide presented higher value in the scale of the *Childhood Trauma Questionnaire* (CTQ). They also detected that repetition of suicide attempts was solely related to sexual abuse.

Studies⁴¹ on predictors of self-harming behaviours have revealed that only physical abuse had an independent effect on self-directed aggressive behaviours, and that this trauma from physical abuse also meant an increase in the risk of suicide and in the likelihood of future attempts⁴².

Research on this subject has also been carried out in Spain. Some authors⁴³ explored the risk of suicide amongst male inmates, measuring demographic variables, personality disorders, psychopathological disorders and the risk of suicide. The results showed that 33.5% of the sample were at risk of suicide and a study on associated risk factors conducted at six Span-

ish prisons⁴⁴, with an initial sample of 5,000, detected that 74% of the inmates that had attempted suicide at some time presented a history of childhood abuse, compared to 59% of the participants that had not attempted any suicidal acts. Possible gender differences have also been the subject of research in recent years. Although the vast majority of studies carried out in this area have studied male populations (due to the predominance of men in prisons), other authors⁴⁵ have carried out studies on the female prison population, and found that sexual abuse (and not physical) had an effect on suicidal behaviour. Studies were also conducted to see if childhood trauma was an independent risk factor for attempted suicide in the past and the probability of repeating the attempt in future, and results showed that the existence of childhood trauma was in itself a risk factor, both for previous attempts and for future suicidal episodes⁴⁶.

THE INCIDENCE OF CHILDHOOD TRAUMA IN THE PRISON POPULATION

Published studies have managed to establish correlations between traumatic events at an early age and future criminal behaviour, both in infancy and adolescence, and as an adult⁴⁷⁻⁴⁹, and found that more than 90% of young offenders have suffered at least one traumatic event in their past, and that over 50% of adults in prison had suffered some type of moderate or severe trauma³⁸.

This findings may indicate that childhood trauma is very much present within the justice system, both amongst men and women and amongst adults and young people. Different studies^{50,51} found a significantly higher prevalence of post-traumatic stress disorder amongst young offenders than amongst young people who have not committed any crime. It was also detected that 70% of women in prison were victims of family violence during their childhood or adolescence⁵². Similar research work⁵³ found that 78% of women in prison had experienced at least one type of trauma. Subsequent studies⁵⁴ detected significantly high levels of traumatic experiences, such as sexual abuse (53%), physical abuse (42%) and neglect (22%) in their sample of women in a prison in New Mexico.

Therefore, the published studies have shown that there is a considerable presence of childhood trauma amongst persons that are serving prison sentences in

different regions and countries. As we pointed out above, such traumatic experiences may imply a risk of future suicidal behaviours in prison (apart from those triggered by other factors). In view of this situation, the Prison Institution in Spain developed action and prevention programmes and in 2005 set up the Framework Programme for Prevention of Suicide in Prisons (*Programa Marco Prevención de Suicidios en los Centros Penitenciarios* (PPS)), which underwent a review in 2014 for analysis and improvement. The programme consists of a protocol of measures directed to all professionals working in prisons, in order to identify inmates and personal and social situations that imply or may imply a high risk of suicide, such as committing severe offences against persons, a history of attempts, or behaviours, that are suicidal or self-harming, a severe disease, family loss or break ups, the impact of entry into prison, consumption of alcohol and drugs, social isolation or psychopathological disorders (some of the psychopathological disorders mentioned are schizophrenia and depressive disorders), for the subsequent application of more appropriate and effective intervention measures so as to prevent self-harming behaviours. This programmes is complemented with the figure of the “inmate listener”, an inmate trusted by the healthcare and technical team of the facility, who has received specialised training and who is responsible for being 24 hours a day with the inmate who has committed self-harm, attempted suicide or presents a high risk, and monitors their conduct. 2,456 inmates formed part of this programme in 2016⁵⁵.

Although there is no mention of childhood trauma or post-traumatic stress disorder in this programme, it does mention psychopathological conditions as risk factors. However, as we stated previously, being a victim of abuse, neglect or abandonment in infancy may be a risk factor for suicide, without any psychopathological diagnosis being required, which means that such cases may go undetected, since they do not fit in with any of the risk factors that are listed.

Women may also find themselves in situations of greater risk as they are exposed to traumatic events of different types and/or intensity, while data on the increase of suicides by women in recent years has also been seen.

CONCLUSIONS

Suicide and childhood abuse are two phenomena that cause tremendous alarm in most societies and communities worldwide. A large number of countries are actively fighting against suicide through dynamic policies of prevention, training and awareness-raising, and by establishing strategies such as early detection, psychological aid and research. Finland has actively struggle against suicide and thanks to this effort has managed to bring about an ongoing decrease in the figures of death by suicide amongst young men, which in 1990 reached the astronomical rate of 49.5 per 100,000 inhabitants (about one case per 2,000 persons).

The same process is taking place with childhood abuse and neglect. In recent decades, the vast majority of developed countries have taken measures, creating programmes and toughening up the law to ensure that minors are protected from this type of abuse. Advances in research in recent years are helping to raise awareness of the damage that such violent and negligent acts can do in the short, medium and long term to the person that has to endure them. As the analysis of this review shows, some of these effects include criminal conduct or suicidal behaviour.

Although the link between childhood trauma and suicide in the general population is well known, the incarceration of an individual in prison is a major aggravating factor, due to the stress of confinement and risk factors associated with serving a prison sentence. A set of phenomena and concepts can be seen in this case (childhood trauma, crime, suicidal behaviours) that are related, combine and form mutual feedback loops. Greater knowledge of how these relationships function may help to improve suicide prevention and, eventually, reduce the number of people who take their own lives in prison.

The authors share the observations made by studies²⁵ that highlight the fact that a large percentage of prison inmates have suffered from some type of traumatic event in their childhood, and that this may affect them when they enter prison, together with the presence of anxious-depressive symptoms in the first days of incarceration that may be aggravated, thereby reducing or even eliminating the inmate's capacity to cope with the situation of confinement, which may trigger behaviour leading to suicide.

The studies have plainly shown the existing relationship between the high frequency of exposure to

traumatic events amongst inmates and abusive consumption of drugs or alcohol, and both factors tend to be related to the appearance of mental health problems. The high prevalence of inmates that present The high prevalence of inmates who present histories of childhood trauma should be regarded as a predictive factor for suicidal behaviour, and an evaluation of such traumas should be included in the available assessment protocols so as to provide better understanding of the impact that childhood trauma may have on suicidal behaviour amongst inmates, and so positively contribute to the appraisal of possible lines of action that can help to mitigate this problem.

It would also be desirable to consider the need for introducing the examination or detection of trauma as a risk factor in clinical evaluation of inmates with suicidal behaviours or in situations of risk, along with an assessment of emotional factors, psychiatric symptoms, personality variables, the risk of suicide itself, indicators of consumption of substances and an evaluation of daily stress factors in prisons. By doing so, a more accurate and comprehensive overview of the knowledge of the risk of suicide in this group is achieved, which enables more suitable intervention to be established that focuses on the inmates that present a history of suffering from trauma not only in suicide prevention programmes, but also in psychotherapeutic programmes designed to assist in the inmate's personal and psycho-social reparation, as well as in programmes to facilitate adaptation to the prison environment.

CORRESPONDENCE

Carmen Zabala-Baños
E-mail: Carmen.Zabala@uclm.es

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