

Minors victims of homicide in Milan (Italy): 1993-2017

Minorenni vittime di omicidio a Milano (Italia): 1993-2017

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Abstract

This study aims to examine the phenomenon of homicide with victims under 18 years-old in a wide and multiethnic metropolitan area in the north of Italy. We're dealing with a type of crime that generates a widespread alarm and a common concern. The data analysis, approached with a multidisciplinary strategy, presented in this paper is based on forensic reports of the Institute of Legal Medicine of the University of Milan, to provide a detailed framework of the homicides of minors that took place in the territorial jurisdiction of Milan and Monza Prosecutor's Office between 1993 and 2017. Quantitative and qualitative analysis were conducted regarding victims' socio-demographic characteristics (gender, age, nationality), weapons used, places and modality of body discovery, murderers, motives of the killing and type of relationship between offenders and victims. Purpose of this paper is to compare the present set of data with the ones provided by the international literature, as well as make some criminological observations on this matter with a view to preventing the phenomenon. To this end, some representative case studies have been added, their characteristics and also the relationships between offender and victim have been discussed.

Key words: minor, homicide, social support, mental illness, prevention

Riassunto

Questo studio esamina il fenomeno dell'omicidio con vittime di età inferiore ai 18 anni in una vasta e multi-etnica area metropolitana del nord Italia, un tipo di crimine che genera allarme e preoccupazione. L'analisi dei dati, affrontata con una metodologia multidisciplinare, è basata sui verbali autoptici dell'Istituto di Medicina Legale dell'Università di Milano, al fine di fornire un quadro dettagliato degli omicidi con vittima minorenni che si sono verificati nella giurisdizione territoriale della Procura di Milano e Monza tra il 1993 e il 2017. Sono state condotte analisi quantitative e qualitative sulle vittime, quali le caratteristiche socio-demografiche (genere, età, nazionalità), le armi utilizzate, i luoghi e le modalità di rinvenimento del corpo, le caratteristiche dell'omicida, i motivi dell'uccisione e il tipo di relazione tra criminale e vittima. Scopo di questo studio è confrontare l'attuale insieme di dati con quelli forniti dalla letteratura internazionale, nonché porre alcune considerazioni di carattere preventivo. A tal fine, sono stati presentati anche alcuni casi studio rappresentativi, discutendone le caratteristiche peculiari e le relazioni tra l'autore del reato e la vittima.

Parole chiave: minorenni, omicidio, supporto sociale, patologia psichica, prevenzione

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Introduction

Homicides are always causing bewilderment, but the public reaction is stronger when the victim is a minor¹ (Scardacione, 2011).

The characteristics of the victims, as subjects in need of care and attentions, and their relationship with the murderers, who often are in the role of caregivers before becoming offenders, are factors causing great social concern. Moreover, homicides committed by peers cause disconcert as well, because of the possible reasons and the social contexts in which they usually take place. Since enhancing knowledge of a phenomenon helps to provide the right strategies to prevent it, we decided to take into account both offenders' and victims' characteristics. Regarding the victims, we examined the forensic reports, on the other hand, offenders' data were collected analyzing Italian most widespread newspapers. This helped to investigate the relationship between the two.

The data analysis presented in this paper is based on cases of the Institute of Legal Medicine of the University of Milan: forensic reports concerning methods of killing and time and place of recovery of the corpses were examined. All cases considered involved victims aged between 0 and 17 and took place in the territorial jurisdiction of Milan and Monza Prosecutor's Office between 1993 and 2017.

Concerning the geographical area considered, Milan and Monza represent two of the most populated districts in Lombardy region, including a total population of 4.106.356 inhabitants (ISTAT, 2017). In Italy the homicide rate has been unvaried in the 2000s (0.8 per 100.000 inhabitants), and drastically decreased from the 90s, reaching the lowest value in 2014 (ISTAT, 2017). In Lombardy homicide rate aligns with the national data: 0.7 per 100.000 inhabitants (ISTAT, 2017; ASR, 2018). In Milan the rate is higher than the average, reaching 1/100.000; on the other side Monza shows a lower rate: 0,4/100.00 (ISTAT, 2017; ASR, 2018).

We further considered some criminological aspects, such as the perpetrators' characteristics and possible presence of mental illness, the motives of the killing and the nature of the relationship between murderers and victims: these elements were gathered from the main online research databases and Italian newspapers press reviews, as medical reports could not always include these kind of in-

formation. This is a commonly used way to do criminological researches, since the needs in the forensic fields are different from the criminological ones. In literature, the methodological limits of this strategy of research are well highlighted but, talking about homicide, because of the social reaction this type of crime causes, it's easier to find a good amount of newspaper articles and magazines focusing on the offences. Also, journalists are often well informed about crimes, victims and offenders, since usually they have direct contacts with investigators.

This was made possible thanks to the considerable public concern that the murder of a young person usually raises, with the consequent availability of communications from the most important press organizations (Bandini, 2004).

This article will focus about general aspects and age-linked patterns of victimization, in order to compare the present set of data with the ones provided by the international literature on this issue.

Methods

A total of 36 cases of minors' intentional homicides were identified and then conventionally divided into three groups, based on the victims' age: "infants" aged 0-1, "children" aged 2-12 and "adolescents" aged 13-17.

Although the study is conducted over an extended time range, few cases were identified and we therefore cannot conduct a significant statistical analysis: hence we will focus mainly on qualitative considerations.

We make Tullio Bandini's words ours, when he says: "Qualitative researches and case-studies become both indispensable tools to a proper understanding of a crime's origin and dynamics" (Bandini, 2017).

Analyzing Italian most widespread newspapers archives ("Corriere della Sera" and "La Repubblica"), in their national and local editions, aspects as the identity of the defendant, the motive of killing and the relationship between offender and victim were drawn. We also collected information on the psychological conditions of the murderers: present or suspected psychological disorder, relational difficulties, social disadvantage. We will therefore use the terms "murderer" and "perpetrator" regardless of the trial result and the possible criminal responsibility associated to her or him.

Through the medical reports we were able to collect data about victims' age, nationality, gender, places and modality of body discovery, methods of killing. We also considered cases of homicide-suicide.

¹ According to the Italian Civil Code, a minor is a person under the age of 18.

Data analysis

Of the totality of homicides committed between 1993 and 2017 in the considered area, 4,2% involved a minor victim (36 cases out of 856). The latter are distinguished by gender, age and nationality (as seen in Tab. 1): most cases involved a male victim (69%); more than a half of victims were ado-

lescents, aged 13-17 (58%), and mostly 17 year-old (36%). Younger victims, aged 0-1 and 2-12 represent respectively the 20% and 22% of cases.

Regarding victims nationality, 56% of them were Italian, 33% from foreign countries (most of them non-European). In few residual cases it was impossible to recover nationality.

Socio-demographic characteristics of victims	Gender F / M	Age Infants: 0-1 Children: 2-12 Adolescents: 13-17	Nationality It non-It	Weapon Stabbing-weapon Firearm Asphyxia Traumas Poisoning Others	Place of discovery Private Public
% of cases	F = 31% M = 69%	Inf = 20% Chil = 22% Adol = 58%	It = 56% Not-It = 33%	Stab-w = 33% Firearms = 22% Asphyxia = 17% Traumas = 14% Poisoning = 5% Others = 9%	Private = 55% Public 45%

Table 1: an overview on the sample.

In most of cases, death was caused by a stabbing weapon or by firearms: respectively 33% and 22%. Asphyxial death represents 17%, followed by contusive traumas with different kinds of objects (14%) and poisoning (5%). Death was caused by burning in one case and by a combined use of firearm and knife in another case. We also found a case of neglect. Each cause of death according to the age-range of victims will be examined.

Concerning the place of body discovery, 55% of the victim was found in a "private" place, meaning the victim's or murderer's house, their vehicle or other private buildings. The residual 45% was found in public areas: mainly on the streets.

- Infants (0-1 y-o)

Victims of this age represent 20% of all cases, more than a half were females (57%).

Asphyxia and stabbing are the cause of death in 64% of cases, neglect and starving in 22%. In the latter cases, both parents were charged with homicide.

Only 28% of infants were found in a non-private context, such as streets or countryside; all the others were found in their own home.

In 85% the homicide is attributable to the mother. Among these, only one was a homicide - (attempted) suicide, committed by a mother who tried to drown herself together with the baby.

All victims were Italian.

- Children (2-8 y-o)

Children victims represent 22% of all cases, equally dis-

tributed between males and females. Asphyxia was the most common cause of death (39%), followed by stabbing (25%); firearm, poisoning by carbon monoxide and complex death (combination of firearm and knife) represent 12%.

The place of discovery was mainly the victim's or author's house (75%). As seen for infants, most homicides of children were committed by a parent, but more often by fathers (50%) than by mothers (25%). In very few cases the murderer was an acquaintance and just one victim was killed by a stranger, who was actually aiming at someone else.

All victims were Italian.

- Adolescents (13-17 y-o)

This range of age includes more than a half of the sample (58%), with a prevalence of 17 y-o (60%). 85% of adolescents victims were male. Again, knife is the most common weapon used, as it represent 39% of cases. The use of firearm is the second cause of death, emerging in 31%. In 14% victims deceased for different kinds of traumas, like the fall from a height or being beaten to death. Burning, strangulation and poisoning represent 5%.

The most frequent place of discovery was a public area: 72% were found on the streets or near a bar; 28% were found in a vehicle or in a private house.

Regarding adolescents murderers, characteristics are heterogeneous, also considering that a non-negligible portion of perpetrators remained unknown to justice (28%): homicide was perpetrated by a friend or acquaintance in 33%, often originating from quarrels, fights or gang conflicts.

In few cases the homicide was attributed to a relative or a stranger (14%). In all cases involving female victims, the crime was always attributed to the partner.

42% of adolescents victims were Italian, meaning 9 cases out of 21. Of the 12 cases remaining, 2 came from Morocco, 1 from Philippines, 1 from Ecuador, 1 from Bangladesh, 1 from Romania, 1 from India, 1 from Egypt, 1 from Albania and 1 from China; nationality of 2 victims remained unknown.

Results

Data presented align with the international literature on the matter.

Regarding gender prevalence, the statistical analysis published by Unicef in 2014 (United Nations Children's Fund, 2014) shows that, all over the world, males are generally at higher risk of murder than females, with a considerable increase of homicide rate in adolescence (Terranova, Zen & Maguolo, 2018).

The trend noticed in our area is consistent with Unicef data, similarly to the trends described by Terranova and colleagues in 2018 (Terranova, Zen & Maguolo, 2018) concerning the full Italian territory, and by Mathews (Mathews, Abrahams & Jewkes, 2013) referring to South Africa: the number of homicides is similar for male and female as infants (0-1 y-o), and seems to change with age.

In Mathews sample, as in our area, a higher number of male victims was found amongst adolescents (13-17 y-o): considering the range 13-17 y-o, the number of homicides for males was considerably larger. Again, Abrahams (Abrahams, Mathews & Martin, 2016) confirm this pattern regarding adolescents in an urban setting.

Depending on the age-group analyzed, different predominant methods of killing were found.

Infants (0-1 y-o) and children (2-12 y-o) presented similar patterns: asphyxial death seems to be the leading cause in both categories. Our findings are consistent with Brown (Brown, Batalis & McClain, 2018), where asphyxia results being the leading cause of traumatic deaths under the age of 6.

Similar findings concerning infants were reported in Porter and Gavin review (Porter & Gavin, 2010): the Authors showed how suffocation and drowning are very frequent methods of killing infants worldwide (Devakumar & Osrin, 2016).

Concerning adolescents data, we found almost the same number of death involving the use of a knife (38%) and a firearm (34%). Finkelhor and Ormrod (Finkelhor & Ormrod, 2001) found consistent findings about the killing of adolescents in USA. Looking closer at firearm homicide cases, we can see that all the victims older than 13 y-o were male. This data is consistent with the statistics described in Fowler study (Fowler, Dahlberg & Haileyesus, 2017): according to the Authors, in the last seventeen years, males are disproportionately involved in firearm death, accounting for 82% of all minors firearm deaths. The number of firearm homicides was nearly 10 times higher among 13-17 than

among 0-12 year-olds: similarly, in our area 13-17 y-o present a 6 times higher gunshot deaths compared to 0-12 y-o. Moreover, still consistently with Fowler, ethnic minority males represent a high percentage of firearm victims in Milan-Monza area, as we found 42% of non-Italian victims.

With regards to the offenders, considering the complete sample, in 72% of cases the perpetrator is a person known by the victim: in most cases is a relative (44%). Moreover, amongst relatives, almost all homicides were committed by a parent (94%; 42% of the total cases), equally distributed between mothers and fathers.

In only one case the crime was charged to both, as the baby died for neglect and starvation. In 12% of cases the victim was killed by a stranger. Cases of homicide-suicide represent 14% of the sample.

Perpetrators characteristics and motives of the crime vary according to the age of the victims.

In international literature (Dawson, 2015; Fujiwara, Barber & Schaechter, 2009), particular patterns of victimization are noticed when the offender is a parent of the victim, concerning for instance: victim's age, method of killing, psychological or intoxication state of the perpetrator (Terranova, Zen & Maguolo, 2018).

In our sample, in fact, mothers were identified or suspected as the perpetrators in nearly a half (46%) of the homicides of infants (0-1 y-o) and children (2-12 y-o). Our findings align with the international literature, that furthermore showed how mothers' risk of perpetration was associated with economic stress, unemployment, younger age, social isolation, lack of social support (Friedman & Resnick, 2007; Friedman, Horwitz & Resnick, 2005; Adinkrah, 2000).

Consistently with these and other recent publications on possible motives for filicide (Abrahams, Mathews & Martin, 2016; Putkonen, Amon & Weizmann-Henelius, 2016; Karakasi, Markopoulou & Tentes, 2017), we can consider unwanted pregnancy, lack of social support, marital or relationship conflict the main reasons why parents kill their baby in our area sample, especially referring to the infants (0-1 y-o) age range. Moreover, pregnancy negation and/or conscious concealment of it (Karakasi, Markopoulou & Tentes, 2017) frequently occurred before the killing of the newborn by the mother.

In Devakumar and Osrin global review (Devakumar & Osrin, 2016), "altruistic" motives and "spousal revenge" can be found among the leading causative factors of filicide: "altruistic filicide" meaning any situation where parents kill their child "out of love", in order to prevent any other suffering. This situation can range from a kind of euthanasia to an extended suicide in which a parent refuses to leave the child behind his or her suicidal gesture. In our sample, consistently with other studies (Merzagora, Travaini & Battistini, 2011), the suicide (or attempted suicide) was almost simultaneous to the homicide. Suicide following the killing of a child was not very common in our sample: 14% of the perpetrators committed suicide, mainly the father, guided by reasons close to the latter description of "altruistic homicide". Similar data were found by Abrahams (Abrahams, Mathews & Martin, 2016) in the South African sample.

“Spousal revenge” filicide, instead, occurs when one parent kills the favored child, or all the children, as a punishment against the partner (Abrahams, Mathews & Martin, 2016): 20% of filicides occurred in our area seem to be ascribable to this kind of motive.

According to Putkonen (Putkonen, Amon & Weizmann-Henelius, 2016), four latent classes of homicidal parents could be empirically derived: “homicidal-suicidal fathers”, “violent impulsive parents”, “single sober parents” and “prosocial psychotic parents” (Tanaka, Berger & Valença, 2017). The first class seems to describe at least a portion of our sample: almost all homicide-suicide cases were committed by fathers.

The predominance of male perpetrators is higher in cases of murder-suicide than for homicide in general, and not only with regards to filicide followed by suicide, but considering the general phenomenon of homicide-suicide (Merzagora, Travaini & Battistini, 2011).

There are also cases of the so called “spousal revenge” filicide that could realistically be considered part of the violent impulsive crime, together with cases of homicides derived from unmanageable anger on behalf of one parent. These findings are consistent with USA data described in Friedman and Friedman’s review (Friedman & Friedman, 2010): in the USA, most young children who are homicide victims are killed by a parent. Almost two thirds (59%) of the victims up to 5 y-o were killed by their parents or step-parents. Of the other 41%, most were killed by male acquaintances. Consistently, considering the victims up to 5 y-o (12 out of 36 victims) from the Milan-Monza area, the majority were killed by their parents. Actually, the percentage found in the present study is higher, as 83% of the victims aged 5 y-o or less were killed by their parents, equally distributed between mothers and fathers.

However, in contrast with our data, according to USA statistics suicide occurs frequently in cases of both maternal and paternal filicide (Friedman & Friedman, 2010): suicide rate seems to be higher in USA than in our area: 16% to 29% of American mothers and 40% to 60% of American fathers commit suicide in conjunction with filicide.

Different patterns can be drawn for the adolescents (13-17 y-o) group: 33% of homicides was attributed to a person equal in age, only 14% to a relative of the victim. Accordingly to recent studies, the percentage of homicide victims murdered by other youths is much larger for teenagers than for younger victims (Finkelhor & Ormrod, 2001; Fowler, Dahlberg & Haileyesus, 2017). Moreover, in this age range the number of foreign-born victims observed was higher than the Italian ones. These findings are consistent with the data presented in Aebi, Linde (Aebi & Linde, 2010) and in Agnew (Agnew, 2009): in both studies mentioned, factors as low socio-economic status and/or frequent involvement in gang activities were outlined as aspects related to the higher possibility of committing a crime.

In the US firearm homicides of adolescents were often a consequence of other crimes, gang-related and often with drug involvement (Fowler, Dahlberg & Haileyesus, 2017).

This pattern can as well be found in our sampled area, where adolescents firearm homicides were often related to

other crimes, such as drugs or gang conflicts. If we consider all adolescent victims, regardless of the weapon used, percentage of homicides related to other crimes or gang conflict reaches 24% of cases.

Discussion

From the analysis of our data emerges a picture of homicidal behaviors which have the common denominator of having minors as victims, but which, from a criminological analysis standpoint are born and develop in different contexts. This entails the need for differentiated prevention strategies that suit different contexts.

Regarding the cases of victims up to the first year of age, we agree with the prevailing literature that highlights the need for supportive interventions for the maternal figure and the family context in terms of early recognition of a discomfort. Signs that are, at times, prodromal to actions of homicidal nature (de’ Micheli, Merzagora, Clerici & Marchesi, 2013; Brown, Tyson & Arias, 2018).

With respect to the age range between 2 and 8 years, a peculiar fact emerges in our sample; in half of the cases the offender is the father. In literature there are more studies focused on the mother being the offender and, only secondarily, on the father.

Significant to this regard is the case of E.P. aged 44, of Italian nationality who killed his 6-year-old son by suffocation with a pillow. The element that he had covered the corpse with about 80 images of Hindu matrix is interesting. It should be noted that the offender was known by the psychiatric services of the area since he had attempted suicide months before the homicidal event. On that same occasion, while threatening the nursing staff with a broken bottle, he shouted that he would kill his own son. After the gesture he tried to take his own life first by ingesting sleeping pills, but once he woke up, he tried to hang himself, cut his veins and electrocute himself with an electric wire. During an interrogation at the hospital with the Prosecutor, the offender justified his act saying he did not want his son to suffer the disagreements within the family any longer. In other words, an altruistic motivation. This is not uncommon and, for example, in harmony with what was written by Declercq on the subject (Declercq, Meganck & Audenaert, 2017).

It is clear how, in this case, the pathological trait has played a role in the criminogenesis. The question arises as to why the mother of the child, former partner of the offender, entrusted the care of their child to a father with obvious signs of serious psychological distress.

Another case that seems to be of interest and raises the issue of family hardship and the role of social services is that of M.B., a citizen of Egyptian origin who killed his 8-year-old son with a gunshot and subsequently stabbed his body several times with a knife: these downward blows will cause the child’s death. All of this took place during a protected interview at a counseling center because a conflictual separation from the wife and son’s mother was taking place. For this reason, the meetings were taking place in a pro-

tected situation. After the gesture, the offender takes his own life. Interesting, from a criminological point of view, is the double mode of injury and the use of the bladed weapon that involves greater proximity and determination of conduct. Following this incident an investigation was opened against the social workers for not having supervised the meeting with due attention.

Regarding the homicides committed by fathers, another reason found in literature for this type of murder is that of “spousal revenge”, present in our sample in 20% of the cases (Carruthers, 2016).

Regarding adolescent victims, it is appropriate to make some considerations: some cases fall within the typology of family hardship for which the considerations mentioned above apply.

In other cases, the offender is himself an adolescent. Interesting are the data on how these homicides have been committed in a public place and in the proximity of venues where alcohol was administered, that is in contexts of conviviality where also the use of alcohol and drugs cannot be excluded. In literature the relationship between adolescent fragility, consumption of psychoactive substances and possible commission of crimes is well highlighted as a risk factor (Di Nunno, Lamboni, Boninfante, Pino & Greco, 2015; Rocca, Verde, Fossa & Gatti, 2015; Caccavale, 2015).

A figure that is also confirmed in our research. Particularly in homicides in the context of arguments between peers, there is also a positivity of the victims for alcohol or drugs.

In terms of prevention, it is important to emphasize the need for an educational approach towards the physical and behavioral risks associated with consuming substances, to prevent the subculture of consumption and the lack of knowledge on the effects from resulting in a dangerous combination. We believe in a prevention that starts precisely from the awareness of the effects of what is consumed, as it happens in a context seemingly far away like doping in sports (Merzagora, Romano, Verzelletti & Travaini, 2015; Merzagora & Travaini, 2014).

There is only one case of adolescent couple homicide in our sample. The offender R.G., of sixteen years of age, stabs a female peer with a small knife he had in his pencil case severing her jugular. It all happens in the schoolyard in front of the other classmates. The motivation of the gesture is to be found in the victim's intention to end their relationship. It is important to underline that the minor, subjected to a psychiatric evaluation, has been declared incapable with a diagnosis of total mental defect (a serious personality disorder called narcissistic-schizoid).

Conclusion

In the presented analysis several types of juvenile's homicides have been discussed and specific patterns of homicidal behaviors emerged.

Minors' homicide is a very wide and heterogeneous phenomenon: when concerning very young victims, the murder is often committed within a caregiving relationship

that is somehow negatively influenced by social and/or psychopathological factors affecting the caregiver. This pattern was observed in our sample as well as in the pre-existing international literature.

On the other hand, cases involving adolescents can more often be linked to subcultural contexts: in a critical age, but also to psychopathological reasons. When the peer group usually represents an important source of support and a significant relationship for the youth, the subcultural background can lead to a criminal behavior against coetaneous.

Our data concerning adolescents (13-17 y-o), consistently with the international literature, outline how commonly the perpetrator is still someone related and very close in age to the victim. Various reasons of conflict seem to originate from the kind of relationship existing between them, such as relational problems, gang rivalry or drugs trafficking.

Aware of the statistic limitations of the present study, we can however point out a good consistency and a general coherence between our findings and the international literature.

We therefore hope that this survey will help in widening the knowledge of the phenomenon, in identifying risk factors that could affect the most fragile subjects, as mentally ill mothers or male adolescents, in order to promote new ways of preventing this type of crime.

References

- Abrahams, N., Mathews, S. & Martin L.J. (2016). Gender differences in homicide of neonates, infants, and children under 5 y in South Africa: Results from the cross-sectional 2009 National Child Homicide Study. *PLoS medicine*, 13(4), e1002003.
- Adinkrah M. (200). Maternal infanticides in Fiji. *Child Abuse & Neglect*, 24:1543-1555.
- Aebi M.F. & Linde A. (2010). Is there a crime drop in Western Europe? *European Journal on Crime Policy and Research*, 16(4):251-277.
- Agnew R. (2009). *Juvenile Delinquency: Causes and Control*. Oxford, UK: Oxford University Press.
- ASR - Annuario Statistico Regionale, Lombardia (2018). (<http://www.asr-lombardia.it/asrlomb/en>).
- Bandini T. (2004). *Criminologia. Il contributo della ricerca alla conoscenza del crimine e della reazione sociale (Vol. 2)*. Milano: Giuffrè.
- Bandini T. (2017). *Criminologia clinica tra passato e futuro. Rassegna Italiana di Criminologia*. 1/2017.
- Brown T.T., Batalis N.I. & McClain J.L. (2018). A retrospective study of the investigation of homicidal childhood asphyxial deaths. *Journal of forensic sciences*. 63.4: 1160-1167.
- Brown T., Tyson D. & Arias F. (2018). When parents kill children: understanding filicide. *Palgrave Mcmillan*.
- Caccavale R. F. (2015). La devianza giovanile autorilevata. Primi risultati della ricerca ISRD 3 a Napoli. *Rassegna Italiana di Criminologia*, 3/2015.
- Carruthers G. (2016). Making sense of spousal revenge filicide. *Aggression and violent behaviour*, vol. 29.
- Dawson M. (2015). Canadian trends in filicide by gender of the accused, 1961-2011. *Child Abuse & Neglect*, 47:162-174.
- Declercq F., Meganck R. & Audenaert K. (2017). Filicide-Suicide:

- Personality Disorder, Motives and Victim Choice. *Journal of Psychology*, vol.15.
- de' Micheli A. G, Merzagora I, Clerici C.A. & Marchesi M. (2013). Da Mosè al cassetto; l'abbandono dei neonati. *Rassegna Italiana di Criminologia*, 2/2013.
- Devakumar D. & Osrin, D. (2016). Child homicide: a global public health concern. *PLoS medicine*, 13(4).
- Di Nunno N., Lamboni V., Boninfante B., Pino J. & Greco O. (2015). Il consumo di sostanze psicoattive tra gli adolescenti italiani. *Rassegna Italiana di Criminologia*, 3/2015.
- Finkelhor D. & Ormrod R. (2001). Homicides of children and youth. *Out of the darkness: Contemporary perspectives on family violence*, 17-19.
- Fowler K.A., Dahlberg L.L. & Haileyesus T. (2017). Childhood firearm injuries in the United States. *Pediatrics*, e20163486.
- Friedman S.H., Horwitz S.M. & Resnick P.J. (2005). Child murder by mothers: a critical analysis of the current state of knowledge and a research agenda. *American Journal of Psychiatry*, 162:1578-1587.
- Friedman S.H., & Resnick P.J. (2007). Child murder by mothers: patterns and prevention. *World Psychiatry*, 6:137-141.
- Friedman S.H. & Friedman J.B. (2010). Parents who kill their children. *Pediatrics in Review*, 31(2), e10.
- Fujiwara T., Barber C. & Schaechter J. (2009). Characteristics of infant homicides: findings from a U.S. multisite reporting system. *Pediatrics*, 124(2):e210-e217.
- ISTAT - Italian Institute of Statistics, Rome. <http://www.istat.it/en/>; last accessed 21 December 2017.
- Karakasi M.V., Markopoulou M. & Tentes I.K. (2017). Prepartum Psychosis and Neonaticide: Rare Case Study and Forensic Psychiatric Synthesis of Literature. *Journal of Forensic Sciences*, 62(4): 1097-1106.
- Mathews S., Abrahams N. & Jewkes R. (2013). The epidemiology of child homicides in South Africa. *Bull World Health Organ*, 91:562-568.
- Merzagora I., Travaini G., Battistini A. & Pleuteri L. (2011). Murder-suicide in the province of Milan, Italy: criminological analysis of cases 1990-2009. *Medicine, Science and the Law*, 51(2), 87-92.
- Merzagora I. & Travaini G. (2014). Le regole del gioco e il gioco delle regole nel crimine sportivo. *Rassegna Italiana di Criminologia*, 4/2014.
- Merzagora I., Romano C.A., Verzelletti A. & Travaini G. (2015). Progetto LEGASPO: educazione alla legalità in ambito sportivo. *Medicina dello Sport*, vol.68 n.4, 679-703.
- Porter T. & Gavin H. (2010). Infanticide and neonaticide: a review of 40 years of research literature on incidence and causes. *Trauma, Violence, & Abuse*, 11(3), 99-112.
- Putkonen H., Amon S. & Weizmann-Henelius G. (2016). Classifying filicide. *International journal of forensic mental health*, 15(2), 198-210.
- Rocca G., Verde A., Fossa G. & Gatti U. (2015). La delinquenza giovanile autorilevata in Italia; analisi preliminare dei risultati dell'ISRD 3. *Rassegna Italiana di Criminologia*, 3/2015.
- Scardaccione G. (2011). Adolescenze estreme. Ragazzi che uccidono: vissuti personali e risposte istituzionali. *Rassegna Italiana di Criminologia*, 2/2011.
- Tanaka C.T., Berger W. & Valença A.M. (2017). The worldwide incidence of neonaticide: a systematic review. *Archives of women's mental health*, 1-8.
- Terranova C., Zen M., Maguolo N. & Cirillo T. (2018). Underage victims and perpetrators of murder in Italy: 2007-2015. *Journal of forensic and legal medicine*, 59: 39-44.
- Travaini G. (2013). Omocidi; alcune riflessioni criminologiche. *Rassegna Italiana di Criminologia*, 3/2013.
- United Nations Children's Fund. (2014). *Hidden in plain Sight: A Statistical Analysis of Violence against Children*. New York: United Nations Children's Fund.