

## EPV0549

### Psychiatric and forensic aspects of homicide-suicide and prevention perspectives in offenders: a review of the literature

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**Introduction:** Homicide-suicide is a rarer phenomenon than homicides or suicides alone. However, this event shows a devastating psychological impact on relatives with effects on the mental health of survivors. The possibility of early intervention through the identification of psychopathological risk factors in offenders remains a challenge of current forensic psychiatry, also for the geographic heterogeneity of the phenomenon.

**Objectives:** The purpose of the work is to offer a homogeneous review of the state of the art on the homicide-suicide phenomenon, focusing attention on the psychopathological characteristics of the offenders and related prevention.

**Methods:** A literature review was carried out through the PubMed NCBI search engine by entering the keywords “*homicide-suicide*” and *psychiatry*. A screening of the titles was carried out, with reading of the abstracts and full texts only in the selected papers that respected the research objectives.

**Results:** The search evidenced 71 papers and only 20 met the inclusion criteria. The review revealed in the vast majority of offenders, most often male, the presence of mental disorders such as major depression and schizophrenia, especially in the context of relationship problems, with triggers such as the fear of separation or partner unfaithfulness. In these cases, the relationship between victim and killer shows pathological dependence or extreme possession. The event can involve children or relatives (filicide/familicide suicides). The review showed the frequent association with psychiatric depressive disorders, and obsessive-compulsive, paranoid, or narcissistic traits, with a lack of specialist consultations and very poor adherence to psychiatric treatment. Firearms were the most widely used means. In the history of perpetrators there were frequent episodes of domestic violence, previous suicide attempts and substance abuse. In rarer cases, the event takes place in the context of mass murder-suicides in which the offender assumes positions of responsibility (eg. Airplane pilot) or acts in extremist religious contexts.

**Conclusions:** The review showed an association with mental health disorders and the need for early identification of risk signals. Appropriate psychiatric prevention programs, through the close collaboration of the family, social community and the mass media, are necessary in the management of the phenomenon, especially through the reporting of episodes of domestic violence or self-harming attempts.

**Disclosure of Interest:** None Declared

### Genetics and Molecular Neurobiology

## EPV0550

### BRUNNER SYNDROME: FROM GENETICS TO PSYCHIATRY - CASE REPORT

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**Introduction:** Monoaminergic neurotransmitters affect motor control, emotions and cognitive functions. Their relative abundance depends on the action of monoamine oxidase A (MAOA) which catalyses their degradation into inactive metabolites. Brunner syndrome is a rare chromosome X-linked recessive inheritance genetic disorder, which causes loss of function of the MAOA gene, leading to a relative increase in monoamines in affected individuals (typically males). It manifests with moderate intellectual developmental disturbance associated with maladaptive externalising behaviours, low frustration tolerance and marked impulsivity.

**Objectives:** To present a clinical case of patient diagnosed with Brunner Syndrome presenting with suicidal and homicidal ideation and to discuss it based on a non-systematic review of the literature.

**Methods:** Case report and non-systematic review of the literature.

**Results: Case Report:** Male born with neonatal asphyxia that consequently presented developmental retardation characterised by learning difficulties and emotional dysregulation. At 18 years of age, he began follow-up in Psychiatry due to self-injurious behaviours and several reactive suicide attempts (SA), being diagnosed with Intellectual Disability. At 22, he was hospitalised due to reactive depression, being discharged doing well with valproate, fluoxetine and olanzapine. Shortly after, he was arrested (aged 23-28) for attempted murder followed by SA. During imprisonment, he was diagnosed with Brunner’s Syndrome after his younger brother diagnosis. At 31, he was hospitalised for suicidal and homicidal ideation, revealing high impulsiveness and low frustration tolerance, and was discharged with compulsory psychiatric treatment. Three weeks later he was again hospitalised for symptoms recurrence having improved on Sertraline 50mg and Aripiprazole 400mg monthly.

**Discussion:** Although scarce, the available evidence suggests that dietary modifications and the use of selective serotonin reuptake inhibitors may improve behaviour, reduce serotonergic symptoms and possibly reverse some neurochemical abnormalities.

**Conclusions:** Brunner syndrome is a rare genetic disorder with neuropsychiatric manifestations, whose course, treatment and prognosis are currently poorly known. Thus, the current treatment is empirical and further studies are needed.

**Disclosure of Interest:** None Declared