Suicidality in Adolescents and Adults With Fetal Alcohol Spectrum Disorders

Dear Editor: Suicide is the ninth leading cause of death in the US and the third leading cause for Americans aged 15 to 24 years (1). In Canada, suicide rates are higher (2). Fetal alcohol spectrum disorders (FASD) are common and preventable developmental disabilities with a prevalence of 1 in 100 (3). Previous reports suggest that individuals with FASD are at risk for suicide (4,5). An individual with a typical clinical profile for FASD will evidence several risk factors for suicide (for example, impulsivity, a comorbid mood disorder, and substance abuse problems) and should be monitored closely, irrespective of intellectual ability.

We report pilot study data and 2 case studies to illustrate the underappreciated risk of suicide in adolescents and adults with FASD and its clinical manifestation. A pilot study (6) examined 11 adults with FASD (3 men and 8 women, aged 18 to 30 years, with IQs ranging from 72 to 113) drawn from the Fetal Alcohol Syndrome Follow-up Study database of the University of Washington Fetal Alcohol and Drug Unit. It found that approximately one-half the subjects reported at least 1 lifetime suicide attempt on the Lifetime Parasuicide/Suicide Attempt Count (LPS, 7). History of mental illness was not a selection criterion, and only one subject was receiving any mental health treatment (medication management only) at the time of the interview. When each subject’s most serious self-harm incident was evaluated for intent and lethality (8), 2/11 subjects (18%) had a severe suicide attempt, 3/11 (27%) had a moderate-risk attempt, 1/11 (9%) had a low-risk attempt, and 5/11 (46%) had no lifetime attempts. These rates of lifetime suicide attempts are higher than the general population rate of 4.6% reported in the National Comorbidity Study (9).

The following case studies illustrate that the lethality of a suicide attempt or self-harm behaviour often does not correlate with degree of intent in patients with FASD.

Case Report 1
The first case is that of an adopted Native man, aged 19 years, with full fetal alcohol syndrome, normal intellectual abilities, and a long history of attention-deficit hyperactivity disorder and affective instability. He was enraged with his parents because he felt they were “smothering him” by setting strict curfews. However, he was unable to express his feelings verbally and instead expressed them through a suicide attempt. Intending to kill himself, he took 8 to 10 methylphenidate tablets (10 mg) and slashed his right shoulder, but he did not understand that he had taken a sublethal dose. In a family session the day after his suicide attempt, he was better able to verbalize his feelings and expressed overwhelming suicidal urges arising from his feeling “trapped.” His self-destructive feelings were acknowledged, and he now lives in a respite home with his sister’s family.

Case Report 2
The second case is that of a white man, aged 21 years, with alcohol-related neurodevelopmental disorder and schizoaffective disorder (depressed type). He felt socially isolated and wanted to live away from home, but he lacked the resources to do so. He did not intend to kill himself, but he systematically starved himself to the point of needing medical intervention to treat physical electrolyte and nutritional problems. In fact, he had a severe persistent melancholic depression that subsequently responded to parenteral fluvoxam.

References

Kieran O’Malley, MB, DABPN(P)
Janet Huggins, PhD
Seattle, Washington

Absent Dose–Response in the Posttraumatic Stress Disorder Symptoms of 350 Holocaust Survivors

Dear Editor: We examined the court files of 350 Holocaust survivors (193 women and 157 men) who had been examined by one psychiatrist using a semistructured psychiatric interview and the Hamilton Anxiety and Depression Scales. Clinical examinations took place between 1995 and 2003. This sample was entirely separate from a similar sample reported previously (1).

The Hamilton results for 7 subjects were not scored because they had dementia symptoms. Overall mean scores suggested that depression (mean 21.53, SD 4.5) and anxiety (mean 19.17, SD 5.0) were in the severe range. Sleep disturbance (in 88.9%), recurrent dreams (in 81.1%), and diminished interest (in 53.7%) were most frequently reported. Tattooed Auschwitz concentration camp survivors did not differ significantly from the survivors of ghettos in regard to their symptom scores. Therefore, this study failed to replicate our earlier findings that demonstrated the prevalence of severe posttraumatic stress disorder (PTSD) symptoms in tattooed Auschwitz survivors (1).

Negative findings are notoriously difficult to interpret. We favour 2 explanations for the
difference between the first and the second study, although no statistical proof exists. First, all subjects in the second sample had applied for an increase in their compensation because their symptoms had worsened (for example, following the death of a spouse or related to emerging medical illness), whereas many subjects in the first study had applied for the first time. Thus the impact of more recent life events may have obliterated PTSD-related dose–response effects. Second, the assessments of this study relied heavily on Hamilton scales (to measure level of distress), whereas the first study used a detailed review of PTSD symptoms (to demonstrate causation).

In both Holocaust samples (combined \( n = 474 \)), substance abuse was extremely rare, and social instability seemed almost completely absent. This is inconsistent with the hypothesis that PTSD may lead to substance use, violence, and social instability.

Only one case of full-fledged alcoholism was diagnosed in the part of our second sample diagnosed in the part of our second sample; and Marks and Kumar confirmed only that fathers are more likely to kill boys (2); and Marks and Kumar found no association between the sex of the victim and that of the aggressor (3). In 1999 Marleau and Laporte suggested that an association exists between the sex of the offender, the sex of the victim(s), and the type of motivation (4).

To gain a better view of this potential association, we obtained a sample of all women and men and women in the province of Quebec identified by the authorities as having killed at least 1 biological child between 1986 and 1994 (\( n = 75 \) parents: 39 women and 36 men). For the final analysis, we retained only the parents who killed 1 child or 2 children of the same sex (\( n = 59 \)). We used a backward conditional logistic regression to determine whether the sex of the offender, the motivation (others or altruism), the age of the victim (0 to 2 years or 3 to 18 years), and the method of killing (soft methods or brutal methods) predicted the sex of the victim(s). In the final model, only the motivation and the method of killing were important. Parents who killed their children for altruistic reasons were 5 times more likely to kill a girl than a boy (\( P = 0.02; \) odds ratio 5.48; 95%CI 1.30 to 20.15). The method of killing is marginally significant and indicates that those who used more brutal methods were nearly 3 times more likely to kill a girl than a boy (\( P = 0.09; \) odds ratio 2.96; 95%CI 0.83 to 10.63). In a separate model, we also used a logistic regression to consider interactions between the sex of the offender and the independent variables used for predicting the sex of the victim; we found no interactions.

Our observations caution against the assumption that substance use, aggression, and social instability are common concomitants of trauma and PTSD. Instead, different populations may cope differently with the distress that results from traumatic life events.

This study was approved by the Ethics Committee of the University of Toronto, and the data have not been published elsewhere.

References


Klaus Kuch, MD
Neil A Rector, PhD
Kate Szacun-Shimizu, BA
Toronto, Ontario

Sex of the Offender, Sex of the Victim, and Motivation in Filicidal Situations in Quebec

Dear Editor: Some studies on filicide look for an association between the sex of the victims and that of the offender. Results are contradictory: Rodenburg found that fathers are more likely to kill boys and mothers to kill girls (1); Silverman and Kennedy confirmed only that fathers are more likely to kill boys (2); and Marks and Kumar found no association between the sex of the victim and that of the aggressor (3). In 1999 Marleau and Laporte suggested that an association exists between the sex of the offender, the sex of the victim(s), and the type of motivation (4).

To gain a better view of this potential association, we obtained a sample of all women and men in the province of Quebec identified by the authorities as having killed at least 1 biological child between 1986 and 1994 (\( n = 75 \) parents: 39 women and 36 men). For the final analysis, we retained only the parents who killed 1 child or 2 children of the same sex (\( n = 59 \)). We used a backward conditional logistic regression to determine whether the sex of the offender, the motivation (others or altruism), the age of the victim (0 to 2 years or 3 to 18 years), and the method of killing (soft methods or brutal methods) predicted the sex of the victim(s). In the final model, only the motivation and the method of killing were important. Parents who killed their children for altruistic reasons were 5 times more likely to kill a girl than a boy (\( P = 0.02; \) odds ratio 5.48; 95%CI 1.30 to 20.15). The method of killing is marginally significant and indicates that those who used more brutal methods were nearly 3 times more likely to kill a girl than a boy (\( P = 0.09; \) odds ratio 2.96; 95%CI 0.83 to 10.63). In a separate model, we also used a logistic regression to consider interactions between the sex of the offender and the independent variables used for predicting the sex of the victim; we found no interactions.

Our results show that both mothers and fathers are more likely to kill a girl than a boy for altruistic reasons. This runs counter to the hypothesis proposed by Marleau and Laporte (4), who suggested that this is only the case for fathers. However, it is important to note that fathers rarely kill their children for altruistic reasons. The method of killing was found to be marginally significant, which does not support the idea that parents who kill male children use more brutal methods.

Further research is needed to separately analyze aggressors with and without psychosis. Lewis and Bunce showed that the sex of the victim did not vary for filicidal mothers suffering from psychosis (5). A possible association between the sex of the offender, the sex of the victim, and the motivation may exist only for mothers and fathers without psychosis.

References


Stacy Tzoumakis, BA, Myriam Dubé, PhD Jacques D Marleau, PhD Montreal, Quebec Suzanne Léveillée, PhD Trois-Rivieres, Quebec

Seizures, Coma, and Coagulopathy Following Olanzapine Overdose

Dear Editor: Olanzapine is an atypical antipsychotic with few overdose cases reported (1). We describe new-onset seizures and a hypercoagulable state following a suicidal olanzapine overdose.

Case Report
A man aged 32 years was brought to the emergency department (ER) following an olanzapine overdose. He had a 12-year history of schizophrenia, paranoid subtype. His pertinent history was notable for obesity (body mass index 32) and negative for underlying seizure disorder or alcohol use. Prior to admission, his treatment had for 3 months consisted of olanzapine 10 mg daily, with limited response. For several days preceding presentation, he reported hearing accusatory hallucinations commanding him to kill himself. On the day of admission, he took his total olanzapine supply (70 tablets, equal to 700 mg) all at once.

The patient was found unresponsive and brought to the ER. He was stuporous and
hypertensive and had miosis. A toxicologic workup was negative for other substances. Naloxone administration failed to lead to pupillary dilatation. Over the following 3 hours, 2 partial complex seizures involving his left upper extremity were observed; intra-venous (IV) lorazepam promptly stopped them. Neurological examination, EEG and brain CT scans were noncontributory and failed to reveal other etiologic processes. Bloodwork was notable for a slightly elevated activated partial thromboplastin time (43.6 seconds, range 28.1 to 42.1 seconds), with normal platelet count, prothrombin time, and international normalized ratio.

Owing to his obtunded state, he was intubated and admitted to the intensive care unit. He required IV antibiotics for aspiration pneumonia. Four days later, because he had difficulties weaning off the ventilator, a ventilation-perfusion lung scan was ordered and revealed multiple disseminated pulmonary emboli. Further workup also found bilateral deep venous thromboses. Hematological consultation confirmed the presence of anticardiolipin antibodies, leading to a diagnosis of underlying antiphospholipid syndrome and recommendation that he receive lifetime warfarin therapy. Because his psychosis persisted, haloperidol 2 mg daily was initiated, with beneficial effect. Following discharge, the patient was lost to follow-up.

Discussion

Common adverse effects of olanzapine include dizziness, somnolence, increased appetite, and weight gain. Although the drug has an overall favourable safety profile, experience with toxicity is still emerging (1). Weight gain over long-term use, combined with prolonged stupor and immobility following the overdose, may have contributed to our patient’s thrombosis. The underlying antiphospholipid syndrome further elevated his risk (2). Although not routinely tested, up to one-third of patients presenting with psychosis have an underlying antiphospholipid syndrome (4). Other relevant risk factors for clot formation in psychiatric patients (which did not occur in this patient) include smoking, phenothiazine prescription, and use of restraints (3).

One other death has been described in a patient receiving olanzapine (10 mg daily). This patient died from disseminated intra-vascular coagulation following prolonged status epilepticus (5). Although an autopsy was performed, testing for anticardiolipin antibodies was not reported (4). Some authors have dismissed convulsions and clotting abnormalities as unlikely following olanzapine intoxication (6). However, olanzapine is structurally related to clozapine, which has one of the highest incidences of seizure occurrence among the atypical antipsychotics (1). Therefore, on the basis of emerging data, we recommend vigilance for seizures and clotting abnormalities with high dosages of olanzapine and in patients with underlying coagulopathies.

References


Nadeem H Bhanji, BScPharm, MD
Guy Chouinard, MD, MSc, FRCPC
Lawrence Hoffman, MD, CM, FRCPC
Howard C Margolese, MD, CM, MSc,
FRCPC Montreal, Quebec

Posttraumatic Mood Disorder:
A New Concept

Dear Editor: A recent study found that comorbidity of posttraumatic stress disorder (PTSD) and depression was associated with global psychosocial impairment, distress, social impairment, and occupational disability and that this distinction remained when the comorbid group was compared directly with a pure PTSD group (1). These findings raised the question whether comorbid PTSD and depression should be recognized as a core posttraumatic affective disorder.

Neurobiological findings support the notion that posttraumatic mood disorder can be recognized as a separate disorder. Maes and others reported an association between PTSD with concurrent major depression and lower affinity of alpha 2 adrenoreceptors, as well as higher plasma tyrosine availability to the brain, not found in patients suffering from PTSD alone (2). This indicates that monoaminergic mechanisms may play a role in the pathophysiology of comorbid PTSD and depression. Woodward and others found that patients with comorbid PTSD and depression exhibited less slow wave sleep and less facial (mental) electromyographic activity, compared with PTSD patients without comorbid depression (3).

Cortisol response to placebo or fenfluramine was examined in depression patients with or without comorbid PTSD and in a control group of healthy volunteers (4). Depressed patients with comorbid PTSD had the lowest plasma cortisol; depression patients without comorbid PTSD had the highest plasma cortisol; and healthy volunteers had intermediate levels. Sher and others compared the effect of age on postchallenge cortisol levels in depression patients with or without comorbid PTSD and in healthy volunteers (5). We found that cortisol levels increased with age in depression patients with PTSD alone; they did not increase in depression patients with comorbid PTSD or in healthy volunteers. Family studies suggest a shared liability for PTSD and major depression, with familial loading for major depression predicting chronic PTSD in trauma survivors (6). Future studies of comorbid PTSD and depression should include large samples, independent ratings of exposure severity, ratings of psychological health done independently of exposure, reliable information on the timing of the disorders’ onset and offset, and measures of putative biological markers (7). Studies of comorbid PTSD and depression may produce important results.

References

5. Sher L, Ogueda MA, Galfalvy HC, Cooper TB, Mann JJ. Age effects on cortisol levels in depressed patients with and without comorbid posttraumatic
Dear Editor: Over the last decade, psychoneuroimmunological studies have reported the presence of immune disturbances in several psychiatric disorders and confirmed the effects of proinflammatory cytokines on neurobehavioural processes (1). Reported successes with antidepressant use in treating the somatic symptoms of functional somatic syndromes may point to a shared causal factor between these disorders and depression (2). We argue that abnormal proinflammatory cytokine production may be a shared causal factor. Our hypothesis rests on 3 facts. First, cytokines can influence cerebral function and cytokine receptors have been shown on many cerebral structures (3). Microglial cells and astrocytes can produce cytokines (4). Among the cytokines with effects that could have a bearing on psychopathology are the proinflammatory cytokines IL-1, IL-2, IL-6, and TNF (1). Second, abnormal proinflammatory cytokine activity has been implicated in major depression and reported in some functional somatic syndromes (5,6). Third, antidepressants that are used successfully in treating depression, and for which partial success has been reported with regard to the somatic symptoms of functional somatic syndromes (5,6). We therefore conclude that proinflammatory cytokine production may be a shared causal factor in depression and functional somatic syndromes and that the antiinflammatory properties of antidepressants may account for their reported success in the treatment of these disorders.

References


Margareth Viljoen, PhD, PhD
Annie Panzer, MBChB, PhD
Pretoria, South Africa