Suicide attempt

- Exploring the role of impulsivity, aggression, lipid profiles, and inflammatory markers in suicide attempts: A cross-diagnostic study
- Elevated suicide risk in individuals with epilepsy: a systematic review and meta-analysis
- What differentiates adolescents who have attempted suicide from those without suicidal history? A retrospective psychiatric inpatient study
- Sex differences in pain, suicidal ideation, and suicide attempts in patients with migraine
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- Unforeseen hazards: cranial penetration with a metallic chopstick in a suicide attempt
- Associations between NIH Toolbox Emotion Battery measures and previous suicide attempt in bipolar I disorder
- Psychiatric Comorbidities in Persons With Epilepsy Compared With Persons Without Epilepsy: A Systematic Review and Meta-Analysis

Traumatic brain injury (TBI) following a suicide attempt is a serious and complex medical condition that involves damage to the brain resulting from an external force. This can occur in various ways, such as blunt force trauma from a fall or impact, gunshot wounds, or asphyxiation, depending on the method of the suicide attempt. The consequences of a TBI after a suicide attempt can be severe and multifaceted, affecting not only the individual's physical health but also their cognitive, emotional, and psychological well-being.

There are several known contributing factors, including severe traumatic brain injury, depression, alcohol use, and male sex. Impulsivity, or the tendency to act guickly with little thought, may be an early predictor of suicidality following TBI. The purpose of a study was to evaluate the suicide risk in patients with a prior history of impulsivity following a traumatic brain injury (TBI). Using de-identified electronic health records from the TriNetX United States Collaborative Network with Natural Language Processing, three cohorts were generated: the impulsivity TBI cohort (I+TBI+) included subjects with a diagnosis of impulsivity before a diagnosis of TBI; the no impulsivity TBI cohort (I-TBI+) included patients with TBI but no impulsivity; the impulsivity no TBI cohort (I+TBI-) included patients with impulsivity but TBI. Two analyses were conducted, including analysis 1 (impulsivity TBI vs. no impulsivity TBI) and analysis 2 (impulsivity TBI vs. impulsivity no TBI). Patients were 1:1 propensity score matched by age, sex, race, ethnicity, psychiatric diagnoses, and antidepressant use. Outcomes included a diagnosis of self-harm, suicidal ideation, or a suicide attempt within one year after the index event. The all-time incidence of each outcome was assessed across different age categories. The chi-square test (categorical variables) and t-test (numerical variables) were used to assess for differences between groups. A total of 1,292,776 TBI patients were identified in the study. After 1:1 propensity score-matching, there were 20,694 patients (mean [SD] age, 48.1 [21.8]; 8,424 females [40.7%]) with impulsivity and TBI (I+TBI+), 1,272,082 patients (mean [SD] age, 46.0 [23.1]; 562,705 females [44.2%]) with TBI alone (I-TBI+), and 90,669 patients (mean [SD] age, 43.7 [22.6]; 45,188 females [49.8%]) with impulsivity alone (I+TBI-). Within the first year after a TBI, patients with impulsivity were more likely to exhibit self-harm (P < 0.001), suicidal ideation (P < 0.001) or a suicide attempt (P < 0.001). Compared to TBI patients without impulsivity, those with impulsivity had a fourfold increase in the incidence of self-harm (2.81% vs. 0.63%), an eight-fold increase in suicidal ideation (52.42% vs. 6.41%), and a twenty-one-fold increase in suicide attempts (32.02% vs. 1.50%). This study suggests that impulsivity diagnosed before a TBI may increase the risk of post-traumatic

suicidality, with a four-fold increased risk of self-harm, an eight-fold increased risk of suicidal ideation and a twenty-one-fold increased risk of suicide attempts. This characterizes a group of at-risk individuals who may benefit from early psychiatric support and targeted interventions following a TBI 1)

Most people who have suicidal thoughts do not go on to make suicide attempts, but it is considered a risk factor.

During 2008-09, an estimated 8.3 million adults aged 18 and over in the United States, or 3.7% of the adult US population, reported having suicidal thoughts in the previous year. An estimated 2.2 million in the US reported having made suicide plans in the past year.

Suicidal ideation is generally associated with depression and other mood disorders; however, it seems to have associations with many other mental disorders, life events, and family events, all of which may increase the risk of suicidal ideation. For example, many individuals with borderline personality disorder exhibit recurrent suicidal behavior and suicidal thoughts.

Patients with intracranial tumors suffer from decreased Health related quality of life (HRQoL) and suicidal ideation (SI) regardless of histopathology. SI is associated with higher Beck Depression Inventory (BDI) scores, but not evident depression (BDI \geq 18). Thus, patients should be screened specifically and regularly. Lower HRQoL and greatest prevalence of SI at 6 months may help clinicians to find the right time for careful monitoring of patients at risk².

Thirty percent of patients with treatment resistant depression (TRD) attempt suicide at least once during their lifetime. However, it is unclear what the attempted and completed suicide incidences are in TRD patients after initiating a treatment, and whether specific treatments increase or decrease these incidences.

METHODS: We searched PubMed systematically for studies of depressed patients who failed at least two antidepressant therapies and were followed for at least three months after initiating a treatment. We estimated attempted and completed suicide incidences using a Poisson meta-analysis. Given the lack of controlled comparisons, we used a meta-regression to estimate whether these incidences differed between treatments.

RESULTS: We included 30 studies investigating suicidality in 32 TRD samples, undergoing deep brain stimulation (DBS, n = 9), vagal nerve stimulation (VNS, n = 9), electroconvulsive therapy (ECT, n = 5), treatment-as-usual (n = 3), capsulotomy (n = 2), cognitive behavioral therapy (n = 2), ketamine (n = 1), and epidural cortical stimulation (n = 1). The overall incidence of completed suicides was 0.47 per 100 patient years (95% CI: 0.22-1.00), and of attempted suicides 4.66 per 100 patient years (95% CI: 3.53-6.23). No differences were found in incidences following DBS, VNS or ECT.

Suicidality is poorly recorded in many studies limiting the number of studies available.

The completed and attempted suicide incidences are high (0.47 and 4.66 per 100 patient years respectively), but these incidences did not differ between three end of the line treatments (DBS, VNS or ECT). Given the high suicide risk in TRD patients, clinical trials should consider suicidality as an

explicit outcome measure³⁾.

1)

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