

thoughts of suicide, 22.5% reporting a prior suicide attempt, and 97.6% endorsing moderately severe or worse depression. Notably, in a second high risk group (N = 662, 12%), 27% endorsed thoughts of suicide and more than half (57%) reported feeling hopeless, yet only 1.5% noted moderately severe or worse depression. When graduate students (N = 1138) were classified using the model, the proportions falling into each class were similar to undergraduates.

**Conclusions:** We identified at-risk groups in the college student population, each with a distinct prevalence of risk factors, including a group of students who would not necessarily be classified as high risk with depression-based screening, but nevertheless appear high-risk on a number of measures.

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**Keywords:** Suicide, Suicidal ideation, Suicide risk factors, College mental health

### 213. Meat Consumption during Pregnancy and Substance Misuse among Adolescent Offspring: An Evaluation of Cobalamin (Vitamin B12) Deficits Utilizing Mendelian Randomization

Joseph Hibbeln<sup>1</sup>, John Paul SanGiovanni<sup>2</sup>, Jean Golding<sup>3</sup>, Pauline E Emmett<sup>3</sup>, Kate Northstone<sup>3</sup>, John M Davis<sup>4</sup>, Marc Schuckit<sup>5</sup>, and Jon Heron<sup>3</sup>

<sup>1</sup>National Institutes of Health, <sup>2</sup>National Institute on Alcohol Abuse and Alcoholism, <sup>3</sup>University of Bristol, UK, <sup>4</sup>University of Illinois at Chicago, <sup>5</sup>University of California, San Diego

**Background:** Reducing meat consumption in pregnancy may cause inadvertent nutritional deficiencies; here we evaluated adverse substance use among adolescent offspring.

**Methods:** Dietary patterns were derived from pregnant women and their 13 year old offspring in the Avon Longitudinal Study of Parents and Children (ALSPAC). Multivariable logistic regression models including potential confounders evaluated adverse alcohol, cannabis and tobacco use of the children at age 15 years. Potential causality was evaluated using maternal allelic variants impacting biological activity of cobalamin (vitamin B12).

**Results:** Lower maternal meat consumption was associated with greater problematic substance use among 15 year old offspring in dose response patterns. Comparing never to daily consumption after adjustment, risks were greater for all; alcohol, odds ratio OR=1.75, 95% CI = [1.23, 2.56],  $p < 0.001$ , cannabis OR=2.04, 95% CI = [1.52, 2.70],  $p < 0.001$  and tobacco use OR=2.70, 95% CI = [1.89, 4.00],  $p < 0.001$ . Lower meat consumption disproportionally increased the risks of offspring substance misuse among mothers with optimally functional (homozygous) variants (rs1801198) of the gene TCN2 which encodes the vitamin B12 transport protein transcobalamin indicating a causal role for cobalamin deficits. Risks attributable to cobalamin deficits during pregnancy include adverse adolescent alcohol, cannabis, and tobacco use (14 %, 37% and 23% respectively).

**Conclusions:** Lower prenatal meat consumption was associated with increased risks of adolescent substance misuse. TCN2 variants specifically implicated cobalamin deficiency regardless of social confounding. By selectively identifying a causal

contribution of vitamin B12 insufficiencies, greater meat consumption need not be advised to reduce risk.

**Supported By:** Intramural Program of the National Institute on Alcohol Abuse and Alcoholism

**Keywords:** Vitamin B12, Substance abuse, Pregnancy, Nutrition, Mendelian Randomization

### 214. Hospital Stay in Individuals with Psychotic Disorders and Bipolar Disorders with and without Kush Use Reported at Hospital Admission

Huiqiong Deng<sup>1</sup>, Satyajit Mohite<sup>2</sup>, Robert Suchting<sup>1</sup>, and Olaoluwa Okusaga<sup>2</sup>

<sup>1</sup>Department of Psychiatry and Behavioral Sciences, McGovern Medical School at The University of Texas Health Science Center at Houston, <sup>2</sup>Harris County Psychiatric Center, University of Texas Health Science Center at Houston; Department of Psychiatry and Behavioral Sciences, McGovern Medical School at The University of Texas Health Science Center at Houston

**Background:** Use of synthetic cannabinoid products (commonly referred to as Kush in the Houston area) has become popular and is leading to an increased number of patients presenting to emergency departments and psychiatric hospitals. The purpose of this study is to evaluate the impact of Kush on hospital length of stay (LOS) in individuals with psychotic disorders and bipolar disorders.

**Methods:** We retrospectively examined medical records of 324 individuals admitted to a psychiatric hospital in Houston, TX due to exacerbations of psychotic disorders and bipolar disorders during January 2014 to July 2015. Data on age, sex, race, length of stay, and the results of urine drug tests administered routinely on the patients at the time of admission were collected. The present study used structural equation modeling to estimate the direct and indirect effects of Kush status on LOS.

**Results:** Kush-positive patients (N = 162) and Kush-negative patients (N = 162) were matched on age, race, and gender. Patients in the present study were diagnosed with either a bipolar spectrum disorder (N = 142) or schizophrenia and other psychotic disorders (N = 182) based on DSM-IV. LOS was significantly different between the two groups (mean LOS for Kush-positive patients =  $8.7 \pm 5.9$  days vs.  $11.9 \pm 10.3$  days for Kush-negative patients;  $p = 0.001$ ).

**Conclusions:** The results suggest that individuals with psychotic disorders and bipolar disorders who also have comorbid Kush use may require shorter inpatient stay during exacerbation of psychosis. Longitudinal studies controlling for treatment with psychotropic medications are warranted.

**Keywords:** Length of Stay, synthetic cannabinoid, Kush, Bipolar Spectrum Disorders, Psychotic Disorders

### 215. Cannabis and Cocaine Use Are Independent Predictors of Phencyclidine (PCP) Use in District of Columbia Urban Population with Lower Socioeconomic Status

Walid Aziz and Partam Manalai

Howard University Hospital