

# IX INTERNATIONAL MEETING OF THE LATIN AMERICAN SOCIETY FOR BIOMEDICAL RESEARCH ON ALCOHOLISM (LASBRA) NOVEMBER 7<sup>TH</sup>, 8<sup>TH</sup> AND 9<sup>TH</sup>, 2019.

#### "DETERMINANTS OF ALCOHOLISM: BRIDGING THE GAP BETWEEN EPIDEMIOLOGICAL AND BASIC RESEARCH"

Activity organized by LASBRA executive committee, with the financial or logistical help of Secretaría de Prevención y Asistencia de las Adicciones (Gobierno de Córdoba), IBRO, CONICET, Universidad Nacional de Córdoba, Instituto Ferreyra (INIMEC-CONICET) and the Ministry of Science and Technology (Gobierno de Córdoba)



International Brain Research Organization
Bringing neuroscience to the world









Secretaría de PREVENCIÓN Y ASISTENCIA DE LAS ADICCIONES

Ministerio de SALUD

## ELSA 2016 COHORT: ALCOHOL, TOBACCO, AND MARIJUANA USE IN ARGENTINEAN COLLEGE FRESHMEN

Vaggione, Matias<sup>1</sup>, Dubini, Santiago<sup>1</sup>, Pagliero, Maria del Huerto<sup>1</sup>, Gutierrez, Agustina<sup>1</sup>, Pilatti, Angelina<sup>1-2</sup>, Rivarola Montejano, Gabriela<sup>1-2</sup>, & Michelini, Yanina<sup>1-2</sup>

<sup>1</sup>Universidad Nacional de Córdoba. Facultad de Psicología. Córdoba, Argentina <sup>2</sup>Instituto de Investigaciones Psicológicas, IIPSI, UNC-CONICET. Córdoba, Argentina angepilatti@gmail.com

Emerging adulthood is the developmental stage between adolescence and young adulthood that involves exploration of life alternatives concerning love, work and interests as well as instability. This stage, and particularly, the transition from high school to university life, is considered a high-risk stage for the initiation and escalation of substance use. Culture and particular idiosyncratic features of college life may potentiate or interact with these transitions leading to different substance use outcomes. There are, however, noticeable differences in college life between Argentina and US, the country that concentrates the vast majority of research on substance use during the college years. The present cross-sectional study describes the occurrence of alcohol, tobacco, and marijuana use in a large sample of Argentinean college freshmen (n = 4083, 40.1% men; M age =  $19.39 \pm 2.18$  years). Participants completed a survey that measured substance use (alcohol [with a focus on heavy drinking and binge drinking behaviors], tobacco, and marijuana). Results: The findings indicated that alcohol use is nearly normative (90.4 and 80.3% with last year and last month use, respectively) and heavy episodic drinking is highly prevalent (68.6). Tobacco use (51.3 and 36.3% lifetime and last year use, respectively) and marijuana use (36.0 and 27.5% lifetime and last year use, respectively) was lower than alcohol use. The analysis of sex differences in the frequency of heavy episodic drinking and frequency of tobacco and marijuana use showed that men and women exhibited a fairly similar prevalence of these behaviors when focusing on less-than weekly use. Discussion: A main contribution of this study was the description of substance use behaviors in a large sample of Argentinean college freshman (from many and different careers). Overall, results suggest that alcohol use is more prevalent in Argentina than in U.S. while the opposite applies for marijuana use.

## MARIJUANA USE AND PROTECTIVE BEHAVIORAL STRATEGIES IN ARGENTINEAN COLLEGE STUDENTS

Rinaldi, Carolina<sup>1</sup>, Gómez Manzone, Ezio Arian<sup>1</sup>, Calos de Vit, Joel<sup>1</sup>, Cuello, Florencia<sup>1</sup>, Michelini, Yanina<sup>1,2</sup>, Rivarola Montejano, Gabriela<sup>1,2</sup>, & Pilatti, Angelina<sup>1,2</sup>

<sup>1</sup>Universidad Nacional de Córdoba. Facultad de Psicología. Córdoba, Argentina <sup>2</sup>Instituto de Investigaciones Psicológicas, IIPSI, UNC-CONICET. Córdoba, Argentina

The Protective Behavioral Strategies Scale for Marihuana [PBSM] measures the frequency of engaging in specific behaviors to reduce or minimize the negative consequences of marijuana. Previous studies, conducted mostly with college students from U.S., showed a robust association between PBSM scores and marijuana outcomes. This study examined the use of protective behavioral strategies and its association with marijuana use (i.e., frequency and quantity) and marijuana-related negative consequences in 158 freshman college students (51.3% women, M age =  $20.08 \pm 4.18$ ) from Argentina. College freshman that reported using marijuana at least once with the previous month completed an online survey that assessed frequency (i.e., number of

days) and quantity of marijuana use (i.e., grams of marijuana within each day of a typical week), marijuana related negative consequences, and the PBSM. Close to 30% of the sample reported >5 days of marijuana use during the previous month and close to 20% reported using more than 3 grams during a typical week of marijuana use. Overall, marijuana use and PBS use were statistically similar between men and women. PBS was, in both men and women, negatively and significantly associated with frequency of use and – in men only – with quantity of marijuana use, but not with the number of marijuana-related negative consequences. Conclusions: Frequency of marijuana-related PBS was, unlike previous studies that assessed this variable in the context of alcohol use, similar between men and women. Moreover, and despite a general protective effect of PBS on marijuana use, the association between PBS and marijuana use seems to be stronger for men than for women. The promotion of PBS seems a promising intervention to reduce marijuana use

#### ANALYSIS OF CHANGES IN COGNITIVE CAPACITIES, FOCUSING ON DECISION-MAKING, IN INDIVIDUALS WITH ALCOHOL USE DISORDER

Pereira, Laís da Silva¹, Gobbo, Deise Ribeiro¹, Conte, Rafael¹, Conceição, Marcelo Carvalho¹, Rachman, Sergio², Sato, João Ricardo³, Junior, Henrique Carrete⁴, Formigoni, Maria Lucia Oliveira de Souza², & Céspedes, Isabel Cristina¹

- <sup>1</sup> Departamento de Morfologia e Genética da Universidade Federal de São Paulo, UNIFESP – SP. Brasil.
- <sup>2</sup> Departamento de Psicobiologia da Universidade Federal de São Paulo, UNIFESP SP, Brasil.
   <sup>3</sup> Centro de Matemática, Computação e Cognição da Universidade Federal do ABC São Bernardo do Campo SP, Brasil.
  - <sup>4</sup> Departamento de Diagnóstico por Imagem da Escola Paulista de Medicinada Universidade Federal de São Paulo, UNIFESP – SP, Brasil. lahhmoura93@gmail.com

Ranked as the seventh-highest risk factor for death are alcohol use disorders. Genetic and environmental factors influence the disorder's multifactorial character. The neural structures than undergo the most neuroplasticity by alcohol effects are those involved with the reward, stress and cognition. Cognition, precisely the decision-making (DM), targets the deleterious alcohol effects leading to substance-seeking behaviors. This project has been developed with the objective to analyze possible changes in cognition, focusing in DM, through cognitive and emotional tests analysis in individuals with AUD. Individuals diagnosed with AUD and control (CO) have responded to cognitive tests (Iowa Gambling Task-IGT, Rey Auditory Verbal Learning Test-RAVLT, and Stroop Test) and emotional tests (Beck Depression Inventory-BDI and State-Trait Anxiety Inventory-STAI). Twenty patients were collected (16 AUD, 4 CO), in which we observed a higher alcohol use score in the AUD group (27.7  $\pm$  8.6) over the CO group (3.5  $\pm$  7.0). Besides, the AUD had worse results compared to the CO group for the Stroop T1 test [20.6  $\pm$  15.7; 12.2  $\pm$  4.5], Stroop T2 [30.9  $\pm$  33.8; 16.5  $\pm$ 5.1] and Stroop T3 [51.4  $\pm$  62.7; 24.2  $\pm$  8.8], as well as for the STAI-trait [48.7  $\pm$  11.7; 41  $\pm$  12.4] and STAIstatus [40.1  $\pm$  8.9; 39.2  $\pm$  5.7], respectively. Moreover, we observed in the AUD group results lower than CO, respectively, for the immediate score [ $48 \pm 10.2$ ;  $36.4 \pm 10.3$ ]; forgetfulness score [ $2 \pm 2.7$ ;  $2.3 \pm 1.7$ ], learning score  $[3.5 \pm 3.1; 6.3 \pm 0.9]$  and IGT  $[4.4 \pm 13.6; 11.5 \pm 36.7]$ . For BDI, AUD obtained better values [12  $\pm$  8.4] than CO [11.5  $\pm$  8]. Until now, our results indicate that the AUD group showed worse results on tests that evaluate executive, cognitive and DM functions than the CO group. Thus, we can conclude so far that individuals with AUD present DM impairment due to the alcohol action on the neural structures that would regulate this complex process. However, is needed an increase in sample number, for data clearer and more conclusive.