

3rd World Congress on
Mental Health
&

8th International Conference on
Brain Disorders and Therapeutics
February 03, 2022 | Webinar

Accepted Abstracts



3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

Social deficiency and alterations of cholinergic activity in the medial prefrontal cortex in adult rat prenatally exposed to valproic acid

M Dashniani¹, M Burjanadze¹, N Chkhikvishvili¹, R Solomonias^{1,2}, L Tsverava², L Kruashvili¹ and M Chighladze¹

¹I. Beritashvili Center of Experimental Biomedicine, Tbilisi, Georgia

²Ilia State University, Institute of Chemical Biology, Tbilisi, Georgia

Introduction: The present study was designed to investigate the expression level of the cholinergic ($\alpha 7$ nACh and M1) receptors and acetylcholinesterase (AChE) activity in the medial prefrontal cortex (mPFC) in the behaviorally characterized rat prenatally exposed to valproic acid (VPA).

Methods: Experiments were carried out on male offspring prenatally exposed to valproic acid (VPA) at the age of 6 month. Sociability and preference for social novelty in VPA treated and control rats were evaluated in a three-chambered social interaction test. At the end of the behavioral experiments half of rats from each group were used in the immunohistochemical (n = 6) and half in immunoblotting (n = 6) studies.

Results: The results of the sociability test showed that both groups spent more time in the compartment with an unfamiliar rat compared to an empty wire cage ($P < 0.001$). The results of the social novelty phase showed that the control rat spent more time in the compartment with an unfamiliar rat compared to familiar rat ($P < 0.001$). The preference for the social novelty in VPA treated rats was not statistically significant ($P = 0.377$). Immunoblotting studies revealed that the mean level of cholinergic ($\alpha 7$ nACh and M1) receptors in the mPFC is significantly higher in VPA treated group as compared to control group ($p < 0.05$). An immunohistochemical evaluation revealed that the number of AChE positive neurons in the PFC of VPA treated rats significantly higher vs. control group ($P < 0.05$).

Summary: Our results for the first time demonstrate that deficit of social behavior in the VPA induced rat model of autism is accompanied by significant changes in cholinergic activity in the mPFC and reinforce the importance of this model for the preclinical investigation of new therapeutic drugs.

This work was supported by SRNSFG: Grant # - FR-18-14029

Key Words: Autism spectrum disorder, valproic acid, prefrontal cortex, social behavior, rat According to the data obtained by the Beritashvili Center for Experimental Biomedicine, in 2021, the concentration of cadmium in soils in Bolnisi, Kazreti and Didi Dmanisi will increase in almost all samples compared to the maximum allowable concentration. According to these data, Cd pollution was equal to the 2021 mark. Bullets are increased in Didi Dmanisi and Bolnisi. Beritashvili's experimental studies clearly show a tendency to increase toxic metals. Cadmium (Cd) is a highly toxic heavy metal that accumulates in the housing system and, as such, is currently one of the most important occupational and environmental pollutants. Cd reaches the environment through anthropogenic mobilization and it is absorbed as a result of tobacco consumption or the ingestion of contaminants. Its extremely long biological half-life (about 20-30 years in humans) and low rate of excretion from the body lead to cadmium storage mainly in soft tissues (primarily liver and kidneys), with a variety of toxic effects such as nephrotoxicity, hepatotoxicity, and redox. Moreover, Cd-dependent neurotoxicity was also associated with neurodegenerative diseases such as Alzheimer's and Parkinson's diseases. Based on the above, we can say that the health of people living in the region we studied is at risk.

kalabady@dha.gov.ge

3rd World Congress on MENTAL HEALTH & 8th International Conference on BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

Allele-specific methylation-mediated phenotypic variations in monozygotic twins discordant for Schizophrenia

Qi yang Li, Zhong ju Wang, and Cunyou Zhao

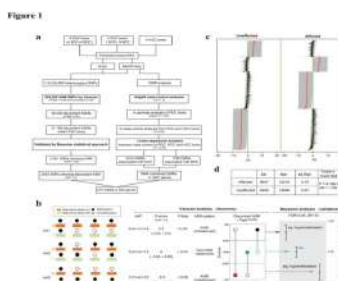
Southern Medical University, China

Background: The non-Mendelian features of phenotypic variations within psychiatric disorder-discordant monozygotic twins are likely complicated by environmental modifiers of genetic effects that have yet to be elucidated.

Methods: We performed methylome and genome analyses of blood DNA from psychiatric disorder-discordant monozygotic twins to study how allele-specific methylation (ASM) mediates phenotypic variations.

Results: We identified that thousands of genetic variants with ASM imbalances exhibit phenotypic variation-associated switching at regulatory loci. These ASMs have plausible causal associations with psychiatric disorders through effects on interactions between transcription factors, DNA methylations, and other epigenomic markers and then contribute to deregulated gene expression, which eventually increases disease susceptibility. We also experimentally validated the model that the rs4854158 alternative C allele at an ASM switching regulatory locus of EIPR1 encoding endosome-associated recycling protein interacting protein 1, is associated with demethylation and higher RNA expression and shows lower TF binding affinities in unaffected controls. An epigenetic ASM switching induces C allele hyper methylation and then recruits repressive Polycomb repressive complex 2, reinforces trimethylation of lysine 27 on histone 3 and inhibits its transcriptional activity, thus leading to down regulation of EIPR1 in schizophrenia. Moreover, disruption of rs4854158 induces gain of EIPR1 function and promotes neural development and vesicle trafficking.

Conclusions: Our study provides a powerful framework for identifying regulatory risk variants and contributes to our understanding of the interplay between genetic and epigenetic variants in mediating psychiatric disorder susceptibility.



qiyanglee@foxmail.com

3rd World Congress on MENTAL HEALTH & 8th International Conference on BRAIN DISORDERS AND THERAPEUTICS

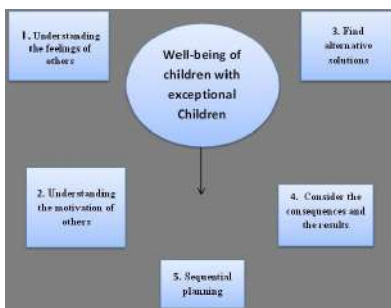
February 03, 2022 | Webinar

Family/school centered problem-solving training program and wellbeing of children with special needs

Keivan Kakabaraee

Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Statement of the Problem: When thinking about promoting children's subjective well-being, one can focus on both the school and the family. The family and school is the place where a person begins and forms a life in which, on the basis of this, empowerment of parents is regarded as important through new psychological, cognitive-behavioral approaches. This assumption by the presence of child with special needs in the family doubles the need of training for parenting. This study aims to introduce a family-centered problem-solving training program with emphasis on child with special needs. This study aims to introduce a family-centered problem-solving training program with emphasis on people with special needs. In this regard, firstly, how to prepare a family-centered problem-solving training program that integrates my programs, I can solve my problem, and the Thoughtful child/teenager, then study the experimental research that has been designed using this intervention method. The empirical evidence suggests that the family-centered problem-solving family has a positive impact on family-oriented children with special needs. In this regard, has been considered the need for attention to the families of child with special needs and their empowerment through the problem-solving program. The objectives and content of the training program The family-centered problem solving was described According to the empirical evidence provided by the author, a family-centered problem-solving educational program can provide practical skills for children with special needs, and their parents and teachers, through adopting a problem-solving child-rearing style and educational, can improve the psychological well-being and quality of life themselves and their children.



kakabraee@gmail.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

The effect of resilience training on Stress, Anxiety, Depression and quality of life of hemodialysis patients: A randomized controlled clinical trial

Nasrin Shokrpour and Mehdi Amirkhani

Shiraz University of Medical Sciences, Shiraz, Iran

Background: Today, the prevalence of psychological problems such as stress, anxiety and depression in hemodialysis patients has increased and affected their quality of life.

Objectives: Given the relationship between resilience interventions and psychological problems, this study aimed to investigate the effect of resilience training on stress, anxiety, depression and quality of life of hemodialysis patients.

Methods: This was a controlled clinical trial study of 57 hemodialysis patients referred to Fasa city hemodialysis centers from October to December 2019. Patients were selected using simple sampling method and divided into two groups of intervention (n=29) and control (n=28), using the block randomization method. In 12 sessions of a 90-minute workshop, the intervention group was taught resilience skills by a clinical psychologist. Before and after the intervention, stress, anxiety, depression, and quality of life were measured using the DASS-21 and SF-36 questionnaires. Data were analyzed through SPSS software version 20, using t-test, Kolmogorov-Smirnov, and Chi-Square tests. $P < 0.05$ was statistically significant.

Results: According to the paired t-test, the patients' mean score of stress, anxiety and quality of life in the intervention group decreased significantly ($P < 0.001$), but their depression score did not change significantly after the intervention ($P = 0.689$). The mean score of stress, anxiety, depression and quality of life of patients in the control group before and after the intervention was not significant ($P > 0.05$).

Conclusion: Resilience training reduced stress and anxiety in hemodialysis patients and improved their quality of life, so using resilience intervention programs along with other methods for hemodialysis patients' care and treatment programs is recommended as a non-invasive, non-pharmacological, inexpensive and cost-effective method without complications complementary measure

Keywords: resilience, education, quality of life, depression, anxiety, stress.

shokrpourn@gmail.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

Number of heavy metals or eco-toxicological condition in Bolnisi district

Nikolaishvili M. Museliani T¹ and Jikia G²

¹Ivane Beritashvili Center of Experimental Biomedicine, Georgia

²Shota Rustaveli National Science Foundation of Georgia, Georgia

According to the data obtained by the Beritashvili Center for Experimental Biomedicine, in 2021, the concentration of cadmium in soils in Bolnisi and Dmanisi will increase in almost all samples compared to the maximum allowable concentration. According to these data, Cd pollution was equal to the 2021 mark. Bullets are increased in Dmanisi and Bolnisi. Beritashvili's experimental studies clearly show a tendency to increase toxic metals. Cadmium (Cd) is a highly toxic heavy metal that accumulates in the housing system and, as such, is currently one of the most important occupational and environmental pollutants. Cd reaches the environment through anthropogenic mobilization and it is absorbed as a result of tobacco consumption or the ingestion of contaminants. It's extremely long biological half-life (about 20-30 years in humans) and low rate of excretion from the body lead to cadmium storage mainly in soft tissues (primarily liver and kidneys), with a variety of toxic effects such as nephrotoxicity, hepatotoxicity, and redox. Moreover, Cd-dependent neurotoxicity was also associated with neurodegenerative diseases such as Alzheimer's and Parkinson's diseases. Based on the above, we can say that the health of people living in the region we studied is at risk.

radio_mari@yahoo.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

CKTDD immune checkpoint inhibitors prognostic survival signature for lower-grade glioma

Murad Al-Nusaif

Dalian Medical University, China

Background: There are significant gaps in our understanding of the pathogenesis of glioma and how to treat it clinically. One of the substantial gaps is effectively treating low-grade glioma (WHO II and III-LGG) to increase survival and decrease the progression to high-grade glioma (WHO IV). Although patients with LGG have a better prognosis than those with high-grade gliomas, all LGG progress to high-grade glioma and death. Genomics has a scarcity that compiles all immuno-oncology targets for translational research and drug discovery for early stages of cancers. Our study reveals a new gene survival prognostic model from recent immune checkpoint inhibitor (ICIs) databases for glioma cancer.

Methods: The Cancer Genome Atlas TCGA transcriptomic analysis and matching ICIs genes from the checkpoint therapeutic target database (CKTDD) identify new particular ICI gene signatures for LGG survival analyses. Analysis by using the survival package in R software. A deep genetic and cellular network prediction model was also developed.

Results: CKTDD showed significant Cox regression for overall survival with adjusted clinical variables in low-grade glioma. 10 ICI genes were supposed to be as risk gene signatures (considered only P-value ≤ 0.001) in LGG; these genes have higher sensitivity testing in one, three, and fifth-year AUC (89%, 86%, and 75%). We further investigated the prediction of the resulting gene by a novel nomogram, which highly detected the risk of death. CCR5 gene expression was significantly associated with grading in LGG patients. Additional validation of CCR5 from GEO was obtained as external validation. CCR5 gene was investigated by a novel nomogram, which highly detected the risk of death and associated grade. Immune cells subpopulation infiltration revealed a highly significant correlation with risk signature.

Conclusion: The ICIs risk score model, which consists of a series of biomarkers, can predict the prognosis of LGG patients and serve as the foundation for implementing targeted immunotherapy approaches. Future studies are necessary to test the clinical usefulness of biomarkers and target therapy for LGG.

alnusaif2016@gmail.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

Get rid of the Stigma associated with Mental Health - An essential step towards real education

Shauli Mukherjee

Adamas University West Bengal, India

It has now been more than a year that the entire world has been embroiled in this unprecedented global pandemic causing massive wreckage, disruption and devastation at an alarmingly exponential rate. Along with the threat to our physical health and well-being, there has been a steep upsurge in the mental health issues. In these circumstances, it is extremely critical to take care of our mental health and emotional well-being as much as our physical health because almost all the recent studies in this field foregrounds the essential fact that almost all our physical ailments have their source in our minds. We have to acknowledge that mental health is more than the presence or absence of a mental illness. It is in fact, a crossroad between emotional, psychological and physical well-being. As responsible adults, we need to advocate against mental health stigma as people with mental health conditions often experience severe human rights violation and discrimination.

meetingdrmukherjee@gmail.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

The relation between pattern of feeding and Behaviour & Mental Health Disorders among children

Enas A.M. Abdurrahman, Tayseer M. Elzayat, Rania A. Hamed and Amira H. Hassan

Al-Azhar University, Egypt

Introduction: The benefits of breastfeeding are innumerable, such as a reduction in the risk of acute otitis media, gastroenteritis, severe lower respiratory tract infections, atopic dermatitis, asthma (young children), obesity, type 1 and 2 diabetes, childhood leukemia, additionally may reduce the risk of psychological and behavioral disorders among children.

Aim: To evaluate the effect of pattern of feeding on behavioral and mental health disorders of school-age children.

Patients and methods: This was a case-control comparative study that was carried out on a group of children aged from 6 to 12 years old divided into two groups; patient group 50 children that were diagnosed with behavioral and mental health disorders according to DSM 5 criteria of diagnosis were taken from outpatient psychiatry clinic of Al-Zahra Hospital University during the period from March 2020 to December 2020 & a control group apparently healthy children with no history of psychological manifestations matched in number, age and sex.

Result: The mean age (8.4 ± 2.2 years), 15 were female (30.0%) and 35 were male (70.0%) with a highest percentage of attention deficit hyperactive disorder (ADHD) (68.0%) followed by obsessive-compulsive disorder (OCD) (22.0%), learning disorder (8.0%) and conduct disorder (CD) (2.0%) among the studied children. The majority of cases (29) were Mixed fed (58.0%), (11) were artificially fed (22.0%), and (10) were breastfed (20.0%) and there was a highly statistically significant between artificial (bottle) feeding and breastfeeding in ADHD and learning disorders. While the OCD is significant with a breastfeeding, duration of less than 6 months. In addition to; there was a highly statistically significant difference between the age of weaning at 3rd to 6th months and consumption of sugary foods at school age time in cases compared to the control group.

Conclusions: Breastfeeding has been demonstrated that to be inversely associated to behavioral and mental health disorders as increase the duration of breastfeeding associated with decrease the incidence of psychological and behavioral disorders.

Keywords: Behavioral, mental disorders, breast feeding, artificial feeding, mixed feeding.

Enasabdurrahman1@gmail.com

3rd World Congress on
MENTAL HEALTH
&
8th International Conference on
BRAIN DISORDERS AND THERAPEUTICS

February 03, 2022 | Webinar

Gender differences in Substance Use Disorder

Mahmoud Morsy

Ain Shams University, Egypt

The essential feature of a Substance Use Disorder (SUD) is a cluster of Cognitive, Behavioral, and Physiological symptoms indicating that an individual continues using the substance despite significant substance-related problems. SUDs have a broad range of severity, from mild to severe; the assessment of severity is based on a number of established criteria of symptoms.

Gender differences in the rates of substance abuse have been consistently observed in the general population and treatment-seeking patients, with men showing significantly higher rates of substance use, abuse, and dependence.

However, recent epidemiological surveys suggest that this gap between men and women has narrowed in recent decades. Clinicians and program administrators are increasingly becoming aware of the important differences between men and women in terms of the physical effects of substance use and the specific issues related to SUDs. They are also recognizing that these differences have an impact on treatment, that gender does have an influence.

When the specific needs of women are addressed from the outset, improved treatment engagement, retention, and outcomes are achieved.

Women describe unique reasons for using drugs, including controlling weight, fighting exhaustion, coping with pain, and attempts to self-treat mental health problems.

Consequences of substance use in women have a serious outcome on her family health like HIV infection, stillbirth fetus, neonatal withdrawal syndrome, and on society like street children and prostitution.

mahmoudmorssy84@hotmail.com