



**ECNP**

# **ECNP Seminar in Neuropsychopharmacology**



**Volgograd**

**23-25 March 2018**



Volgograd - 2018



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## The Early Career Psychiatrists' Council of Russian Society of Psychiatrists



The Early Career Psychiatrists' Council of Russian Society of Psychiatrists coordinates the development of professional cooperation of young specialists working in the field of psychiatric health in the Russian Federation. Council members can be both professionals (e.g. psychiatrists, psychologists, psychotherapists, social workers etc) and those who are studying at the residency and postgraduate courses. The ECPs' Council is an integral part of the Russian Society of Psychiatrists. Our supervisor is the Chair of the commission for work with young scientists and specialists - Professor Natalia Petrova from Saint-Petersburg. ECPs' Council was founded in the late 1970's and is the only official organization of young psychiatrists in Russia. Currently, the ECPs' Council includes more than 500 members from 22 regions of Russia. We use our website (<http://smu.psychiatr.ru/>) to structure all information about educational opportunities. Active use social networks and newsletters allows us to fast and convenient communication with our members. The ECPs' Council main focuses are to organize our own educational projects, support and coordinate scientific initiatives and inform the Council members of all relevant professional events in Russia and abroad. Since 2016 we have started organizing webinars - the most convenient and accessible way for conducting remote training. So far, we conducted a series of webinars on psychopharmacotherapy. We are preparing series of webinars on basic neurosciences and psychotherapy. Our goal is to include our webinars to the system of continuous medical education in Russia. The most important event for Russian ECPs is the School for Early Career Psychiatrists («Suzdal School») - Russian Society of Psychiatrists educational program. This event is traditionally held once in 2 years. The last school, held in 2017, was attended by more than 400 people. The rector of the school is professor P. Morozov. We hold a correspondence Olympiad «Games of minds» for the primary identification of the most active and talented young people (starting from students' level). In 2017 more than 100 people took part in the Olympiad, of which the best were selected and encouraged by certificates for the purchase of books. In recent years several important scientific projects have been carried out under the auspices of the ECPs' Council. One of them was the IDEA project - «Inpatient Discharge: Experiences and Analysis An International Collaborative Study» (2013-2016). The study included data from 4 Russian regions. The current priority research project is the adaptation and validation of the "Diagnostic Interview for Psychosis" (DIP) in Russian. We also hold scientific meetings for young psychiatrists in various formats. In particular, we use a form of scientific meetings like colloquium. The Colloquium is a themed section of the ECPs within the major conferences of the Russian Society of Psychiatrists. Colloquium dedicated to the Symposium venue, to the scientific school and the scientific direction of each regional unit. The Colloquium includes trainings and lectures, as well as the reports of young scientists, exchange of experience. We are preparing an official translation of World Psychiatry journal into Russian. This journal has the greatest impact factor and we consider it important that Russian-speaking colleagues have easy access to the scientific information. Active members of the council regularly initiate new formats for interaction and dissemination of knowledge, not only with colleagues, but also with society. We are conducting offline (in the Dostoevsky library in Moscow) and online public lectures aimed at reducing prejudiced attitudes towards people with mental disorders and protecting their rights. In addition, every 3 months we have Digest of top articles in psychiatry and neuroscience for young psychiatrists. In conclusion, The Early Career Psychiatrists' Council is very interested in collaboration with colleagues, initiating multi-center research projects and participating in exchange programs. Also we are ready to organize courses by ourselves in our clinics. We are building a multi-stage complex system of support in the professional development of the most talented and active young scientists in our society. It would be important for us to share our experiences and spread our educational technologies. We already have an established relationship with the ECP Sections in WPA and EPA, EFPT, etc. And we are interested in the development of communication with other communities.

Contact details: <http://smu.psychiatr.ru/>, [ifedotov@psychiatr.ru](mailto:ifedotov@psychiatr.ru)

## INTRODUCTION

ECNP is an independent, non-governmental, scientific association dedicated to the science and treatment of disorders of the brain. Founded in 1987, its goal is to bring together scientists and clinicians to facilitate information-sharing and spur new discoveries.

The objective of ECNP is to serve the public good by stimulating high-quality experimental and clinical research and education in applied and translational neuroscience. It seeks to do this by:

- Co-ordinating and promoting scientific activities and consistently high-quality standards between countries in Europe.
- Bringing together all those involved in or interested in the scientific study of applied and translational neuroscience by arranging scientific meetings, seminars, and study groups.
- Providing guidance and information to the public on matters relevant to the field.
- Providing a format for the co-ordination and for development of common standards in Europe.

To fulfil this aim ECNP organises, amongst others, yearly the ECNP Congress that comprises of 6 plenary lectures, 21 symposia, 7 educational update sessions and 7 alternative format sessions. The annual meeting attracts around 5,000 psychiatrists, neuroscientists, neurologists and psychologists from around the world and is considered to be the largest congress on applied and translational neuroscience.

ECNP organises seminars, as the one you have been invited to, in areas of Europe where there are less opportunities for psychiatrists to participate in international meetings. Interaction is the keyword at these meetings and they have proved very successful both for the participants and for the experts. During the seminar we discuss clinical and research issues that the local organisers feel are needed to be covered and using these topics as a model for teaching how to ask a research question and how to plan an effective study. Leading ECNP experts that are also talented speakers will facilitate mutual discussion in small groups allowing you to present your abstract and get feedback from your colleagues and local mentors.

So far, ECNP has organised ECNP Seminars in Poland, Estonia, Turkey, Bulgaria, Slovak Republic, Hungary, Czech Republic, Moldova, Romania, Greece, Russia, Latvia and recently in Macedonia, Armenia, Georgia, Serbia and Lithuania. In some countries we have organised an ECNP Seminar more than once.

ECNP also supports on an annual basis participation of 100 junior scientists and researchers in an intensive three-day Workshop in Nice. Other educational activities of ECNP include the journal *European Neuropsychopharmacology* that promotes scientific knowledge along with publishing consensus statements. In addition, since 2009 ECNP organises a summer school of neuropsychopharmacology in Oxford and since 2012 a school of child and adolescent neuropsychopharmacology in Venice. Since 2015 a Workshop on Clinical Research Methods takes place yearly in Barcelona, Spain.

ECNP will also continue the successful ECNP Research Internships. A selected group of senior researchers will offer a short two week exploratory experience in their institutions. The hosting scientist is encouraged to establish a long term relationships with the applicant and teach a basic translational research method that the participant can use at home when he/she returns.

Please see the ECNP website ([www.ecnp.eu](http://www.ecnp.eu)) where you can find information about all the above initiatives and additional information and look for the activity that fits you.

I hope you have a fruitful and inspiring meeting in Volgograd!

Gil Zalsman  
Chair ECNP Educational Committee

## Provisional programme

# ECNP Seminar in Neuropsychopharmacology

### 23-25 March 2018, Volgograd, Russia

#### FRIDAY 23 March 2018

Arrival of participants and experts

19.00 Welcome and dinner

#### SATURDAY 24 March 2018

09.00 – 09.15 What is ECNP?

Introductions to the programme

Speaker: Avi Avital, Israel

09.15 – 10.00 Suicide and mixicity as a model for research plan and design

Speaker: Dina Popovic, Israel

10.00 – 10.45 Psychotherapies in bipolar disorder Speaker: Carla Torrent, Spain

10.45 – 11.30 Coffee break

11.30 – 12.15 Attention, Methylphenidate and PTSD: How to phrase a research question, basic statistics reminder and design Speaker: Avi Avital, Israel

12.15 – 12.30 How to give a talk Speaker: Avi Avital, Israel

12.30 – 13.30 Lunch

#### Presentation participants in 3 groups in 3 parallel workshops

Round 1 13.30 – 15.00	Avi Avital and Petr Morozov <b>Group 1</b>	Dina Popovic and Evgeny Krupitsky <b>Group 2</b>	Carla Torrent and Nataliya Petrova <b>Group 3</b>
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15.00 – 15.15 Coffee break

15.15 – 15.45 Panel discussion: How to prepare a clinical research project and how to publish it Chair: Avi Avital, Israel Panel members: ECNP Experts

16:00 – 21.00 Cultural event, group photo and dinner

#### SUNDAY 25 March 2018

Presentations participants in 3 groups in 3 parallel workshops

#### Presentations participants in 3 groups in 3 parallel workshops

Round 2 08.30 – 10.00	Carla Torrent and Nataliya Petrova <b>Group 1</b>	Avi Avital and Petr Morozov <b>Group 2</b>	Dina Popovic and Evgeny Krupitsky <b>Group 3</b>
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#### 10.00 – 10.30 Coffee Break

Round 3 10.30 – 12.00	Dina Popovic and Evgeny Krupitsky <b>Group 1</b>	Carla Torrent and Nataliya Petrova <b>Group 2</b>	Avi Avital and Petr Morozov <b>Group 3</b>
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#### 12.00 – 14.00 Lunch and preparation for plenary session

Plenary Session 14.00 – 15.00	14.00 – 14.20	<b>Group 1</b> Presentation
	14.20 – 14.40	<b>Group 2</b> Presentation
	14.40 – 15.00	<b>Group 3</b> Presentation

15.00 – 15.30 Coffee break and faculty selection of Seminar Award winner.  
Completion of feedback forms

15.30 – 16.00 Award ceremony, concluding remark and thanks Avi Avital and Yuriy Osadshiy (local coordinator)

## FACULTY



### **AVI AVITAL (SEMINAR LEADER), MD, PHD**

Avi (Avraham) Avital is assistant professor in the Faculty of Medicine, the Technion - Israel Institute of Technology, and Emek Medical Center. As a board member The Israeli Society for Biological Psychiatry (ISBP), Avi is also the head of the young basic science leadership program, operating as part of the ISBP activities.

Avi serves as a member of the ECNP education committee.

In his behavioural Neuroscience Lab, they study the effects of life circumstances on emotional and cognitive processes. Specifically, the research is focused on attention processes and social cooperation. On the translational aspect, the lab studies Schizophrenia and PTSD in animal models and clinical researches. Both basic and clinical studies are nurturing and being nurtured by each other. The entire research in the lab is involving technological equipment including software and hardware that are custom-made.

## FACULTY



### **DINA POPOVIC MD, PhD (Israel)**

Dina Popovic, is Head of Department of Psychiatry B in Sheba Medical Center, Israel. She has received her degree in Medicine, cum laude, from the University of Bologna (Italy), has specialized in Psychiatry and was awarded a PhD with European label at the University of Pisa, Italy. Dr. Dina Popovic has previously worked as psychiatrist and clinical researcher at Bipolar Disorders Program of Hospital Clinic, University of Barcelona, Spain. Her scientific interests and publications primarily include mood disorders, psychotic spectrum disorders and dual pathology, with a special focus on clinical, pharmacological, genetic and neurophysiological aspects.



## FACULTY



### **CARLA TORRENT MD, PHD (SPAIN)**

Carla Torrent has a PhD with European label in psychology, MA in Clinical Mental Health and postgraduate in clinical psychopharmacology and clinical neuropsychology at the University of Barcelona.

Since early 2014 is researcher at the Spanish National Health System with a contract Miguel Servet. It is also a research collaborator CIBERSAM (Center for Biomedical Research in Mental Health) at the Bipolar Disorder Unit headed by Prof. Eduard Vieta in the Hospital Clinic of Barcelona where she works since 2001.

She has published a large number of articles and book chapters on different aspects of eating behavior, adherence, psychological interventions with a special focus on the neuropsychological aspects of bipolar disorder. In this context she has developed and conducted a functional rehabilitation program that integrates aspects of cognitive training aimed at improving the psychosocial functioning of patients with bipolar disorder. She is a regular reviewer for several impact-factor rated international scientific journals. As teaching activity she has given several courses and workshops on mood disorders and has participated in several national and international conferences as a speaker.

## LOCAL EXPERTS



### **PETR V. MOROZOV MD, PhD, DrSci**

Professor, Department of Psychiatry, Faculty of Advanced Medical Studies, Russian National Medical Research University, Moscow.

Vice-President of the Russian Society of Psychiatrists;

Member of the Standing Committee of the World Psychiatric Association;

Honorary Member of the World Psychiatric Association;

Member of the Council, European Psychiatric Association;

Editor-in-Chief, Publisher: P.B.Gannushkin Journal "Psychiatry and Psychopharmacotherapy", "Psychiatric Diary", "Granka", "Psychiatric Disturbances in General Medicine".

Author of more than 250 papers and 6 books, among them: "Research on the Viral Hypothesis of Mental Disorders" (Karger), "Viruses, Immunity and Mental Health" (Plenum Press).

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Senior Medical Officer (Biological Psychiatry and Psychopharmacology), Division of Mental Health, World Health Organization (1979-1986).

Member of the EC of the European College of Neuropsychopharmacology (1987-1989);

Board Member/Zonal Representative for Eastern Europe, World Psychiatric Association (2011-2017);

Ambassador in Russia, European College of Neuropsychopharmacology (2012-2017);

Head of the Committee on work with Early Career Psychiatrists, Board Member, Russian Society of Psychiatrists (2010-2015);

## LOCAL EXPERTS



### NATALIIA PETROVA MD, PHD

Head of the Department of Psychiatry and Addiction  
 Saint-Petersburg State University

<b>University and postgraduate education</b>	
Student, General Medicine Program, I.P. Pavlov First Medical Institute, Leningrad	1977 – 1983
Residency (Psychiatry), Department of Psychiatry, I.P. Pavlov First Medical Institute, Leningrad	1983 – 1985
<b>Research and professional experience</b>	
Senior Researcher (Psychiatry), I.P. Pavlov First Medical Institute, Saint-Petersburg	1985 – 1999
Department of Psychiatry and Addiction, Medical faculty, Saint-Petersburg State University, Saint-Petersburg	1999 – present

### ACADEMIC HONORS AND FELLOWSHIPS:

- Psychiatrist of the highest category,
- Honorary worker of higher professional education of the Russian Federation,
- Laureate of the Russian Federation Government prize in education
- Award of St.-Petersburg state University «For pedagogical skills»

### RESEARCH INTERESTS:

#### **Professional associations' memberships and organization activities**

Board member of Russian Society of Psychiatrists  
 Head of Russian Society of Psychiatrists Committee for Young Scientists and Specialists

The Chairman of the Bekhterev psychiatric society of St. Petersburg

### **Publications**

In total 450 publications in professional journals, refereed Russian journals and international journals.<sup>4</sup>

## LOCAL EXPERTS



### **EVGENIY KRUPITSKIY MD, PhD**

Prof. Evgeny Krupitsky, is a Vice Director for Research and a Chief of the Department of Addictions at V.M. Bekhterev National Medical Research Center of Psychiatry and Neurology in St.-Petersburg, Chief of the Laboratory of Clinical Psychopharmacology of Addictions at St. Petersburg State Pavlov Medical University, Russia. Since 2006 he also holds a position of Adjunct Professor of Psychiatry at the Department of Psychiatry, University of Pennsylvania. Major focus of his research is pharmacotherapy of drug and alcohol dependence. Dr. Krupitsky received several national and international awards including European College of Neuropsychopharmacology Fellowship Award (1997), Heffter Research Institute Award for Outstanding Research in Hallucinogens (2000), National Institute Drug Abuse of National Institute of Health (USA) Award for Excellence in International Leadership (2010), and Galen Prize (Russia) (2016).

# PRESENTATIONS

## AVI AVITAL (SEMINAR LEADER, ISRAEL) ECNP Introduction



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**1. What is ECNP?**

- Independent pan-European scientific association
- For the science and treatment of disorders of the brain

*To advance the science of the brain, promote better treatment and enhance brain health*

www.ecnp.eu

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**2. ECNP for Junior Scientists**

- **Two Schools**  
Week-long programme of intensive training for 50 young psychiatrists:
  - ECNP School of Neuropsychopharmacology (Oxford, UK)
  - ECNP School of Child and Adolescent Neuropsychopharmacology (Venice, Italy)
- **Two Workshops**  
Three-day interactive workshop for 100 junior scientists
  - ECNP Workshop for Junior Scientists in Europe (Nice, France)Three-day interactive workshop for 50 junior scientists to improve research skills
  - ECNP Workshop on Clinical Research Methods (Barcelona, Spain)

No registration fees, accommodation provided. Support for travel available.

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## 2. ECNP for Junior Scientists *(continued)*

### • ECNP Research Internship

Short-term research internship opportunities for junior researchers, across the spectrum of applied and translational neuroscience

- 15 places available per year for a two-week visit

### • ECNP Seminars

Two-day interactive training course for future leading scientists in neuropsychopharmacology in European countries whose researchers and practitioners have limited opportunities to attend international meetings.

- 4 Seminars per year, max. 50 participants each



[www.ecnp.eu](http://www.ecnp.eu)

## 3. ECNP Congress

*Europe's largest meeting on applied and translational neuroscience*

The Congress brings together a vibrant group of psychiatrists, neuroscientists, neurologists and psychologists from around the world to discuss the latest developments in the science and treatment of brain disorders.

- Free registration for junior scientist poster presenters
- Funding available for junior scientists:
  - 40 ECNP Travel Awards (€ 500 each)
  - 40 ECNP CDE Grants (€500 each)
  - 4 ECNP Seminar Award (€ 1,000 per Seminar Award Winner)



## 31<sup>st</sup> ECNP Congress

Barcelona, Spain  
6-9 October 2017

Europe's largest meeting for applied and translational neuroscience



<https://2018.ecnp.eu/>



#### 4. Neuroscience-based Nomenclature

- International collaboration to reform the nomenclature of psychotropic drugs
- 20,000 downloads

**NbN** NEUROSCIENCE  
BASED NOMENCLATURE

**NbN** C&A  
NEUROSCIENCE  
based NOMENCLATURE  
Child & Adolescent



[www.ecnp.eu](http://www.ecnp.eu)



#### 5. What are going to do here?

[www.ecnp.eu](http://www.ecnp.eu)



# ECNP

european college of  
neuropsychopharmacology

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**AVI AVITAL (SEMINAR LEADER, ISRAEL)**




**Attention, Methylphenidate and PTSD: How to phrase a research question, basic statistics reminder and design**



**Attention, Methylphenidate and PTSD:**  
**How to phrase a research question,**  
**basic statistics reminder and design**

Avraham (Avi) Avital, Ph.D  
*Behavioral Neuroscience lab, Department of Physiology*  
*Rappaport Faculty of Medicine and Emek medical center*  
*Techion- Israel Institute of Technology*

**Outline**

-  MPH abuse.
  
-  Implication of stress-sensitive period in an animal model for PTSD and examining possible treatment.
  
-  Social cooperation.

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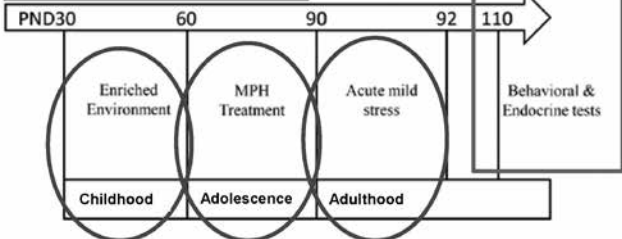
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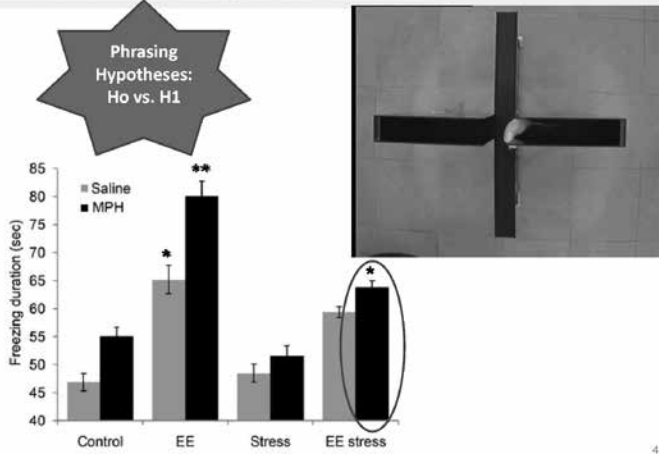
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**Rat model**



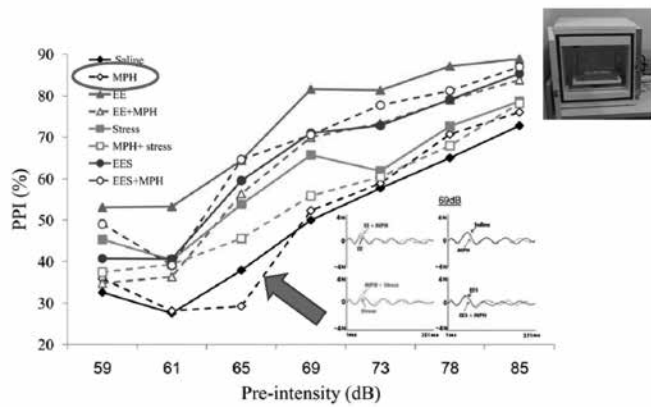


### Results – Anxiety/stress



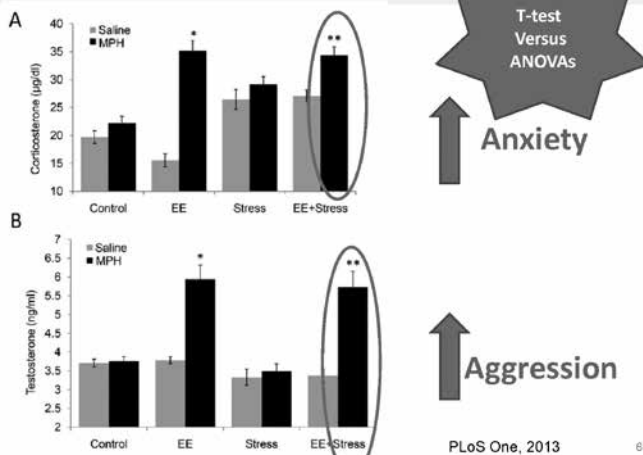
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### Results – ASAT by PPI



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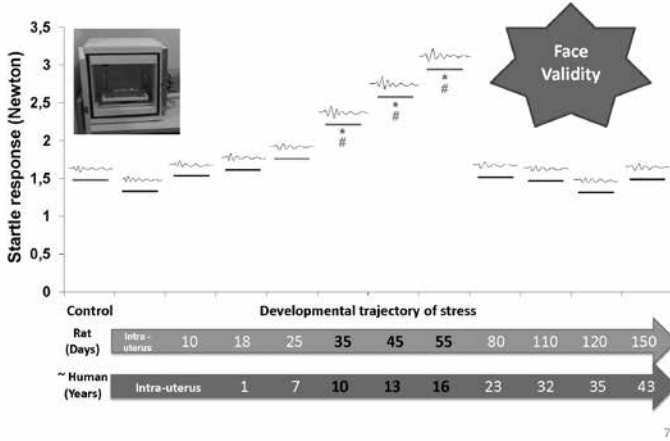
### Results



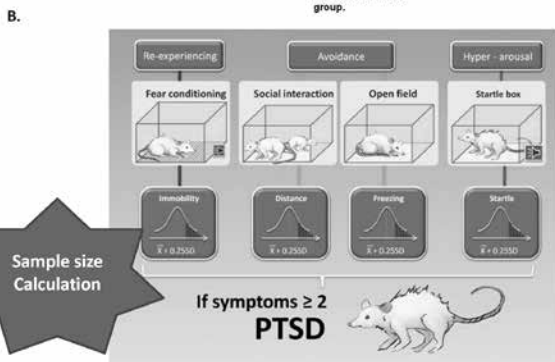
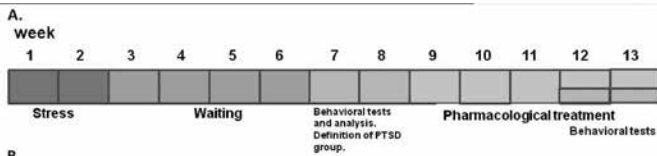
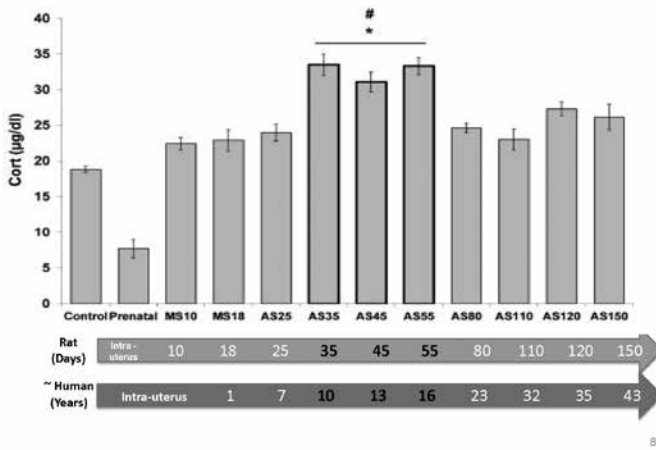
PLoS One, 2013

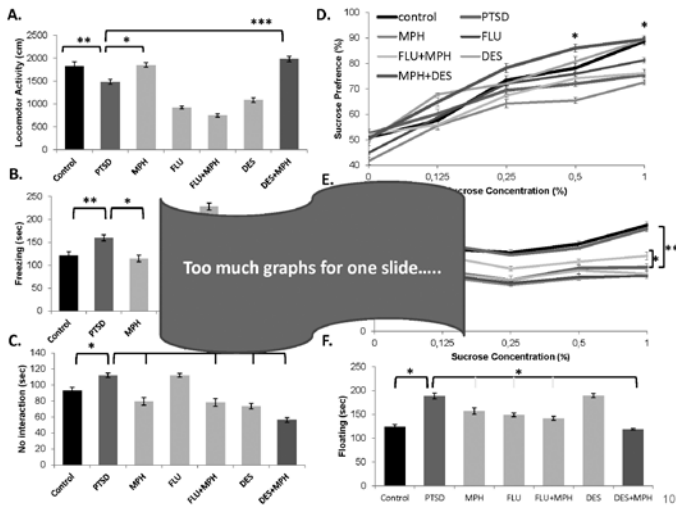
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## Results



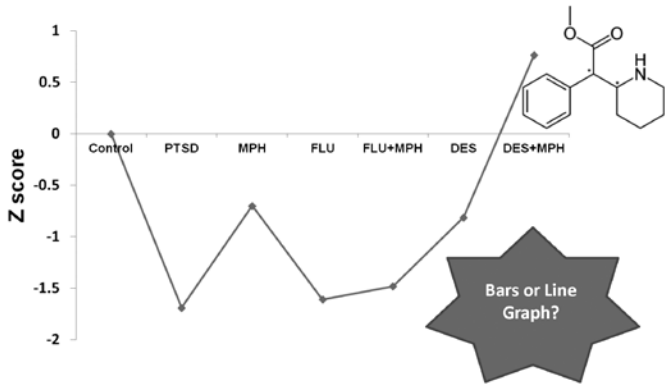
## Results





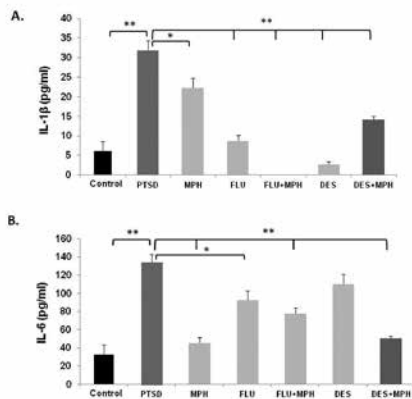
Too much graphs for one slide.....

### Summary



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### Results - possible mechanism



12

## Conclusions

Considering the versatile emotional and cognitive symptoms of PTSD, our results suggest a new duo-treatment for PTSD comprised of antidepressant (Desipramine) and psycho-stimulant (Methylphenidate) that partially share Norepinephrine-reuptake-inhibition mechanism.

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**Stress as well as PTSD accompanied by poor social abilities.**

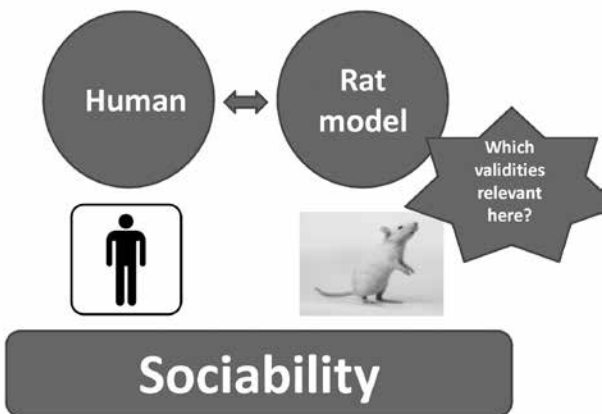


To establish a valid model that will enable to examine the biological/physiological aspects of social cooperation



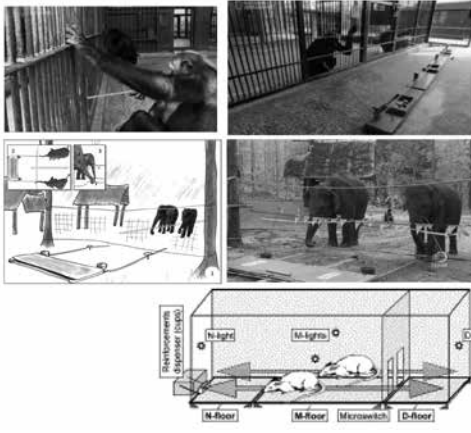
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## To cooperate or not to cooperate?



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### Exp. controlled environment



Hare et al., 2007 (Current Biology)

Plotnik et al., 2013 (PNAS)

Schuster, Berger & Swanson 1993 (*J. Exp. Psychol.*)

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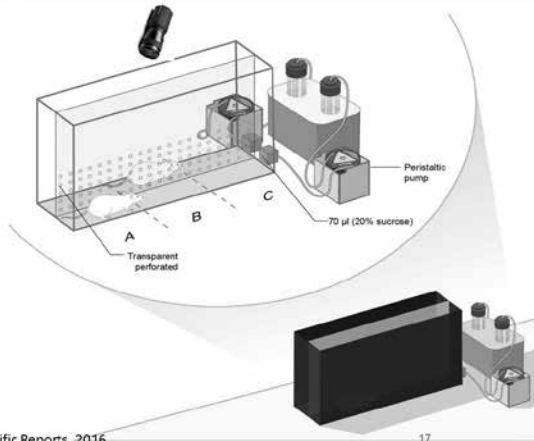
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### Fully Automated Novel Cooperation Maze



Scientific Reports, 2016

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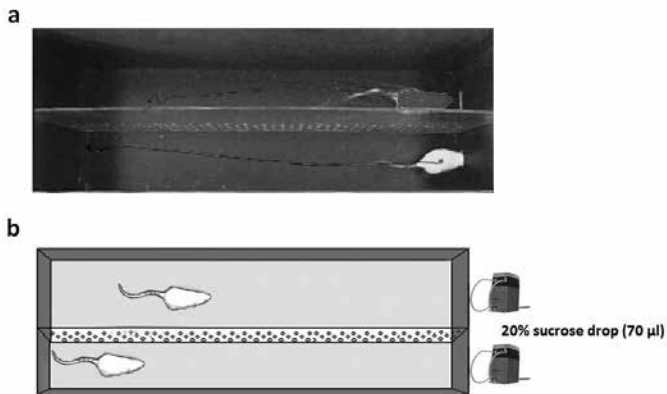
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### Social cooperation



20% sucrose drop (70 µl)

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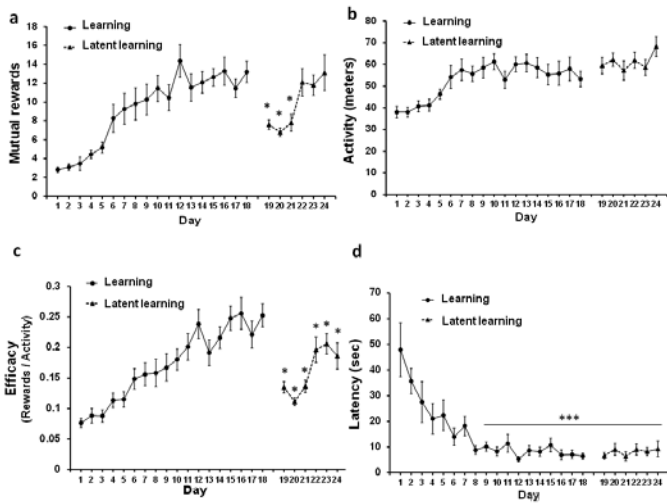
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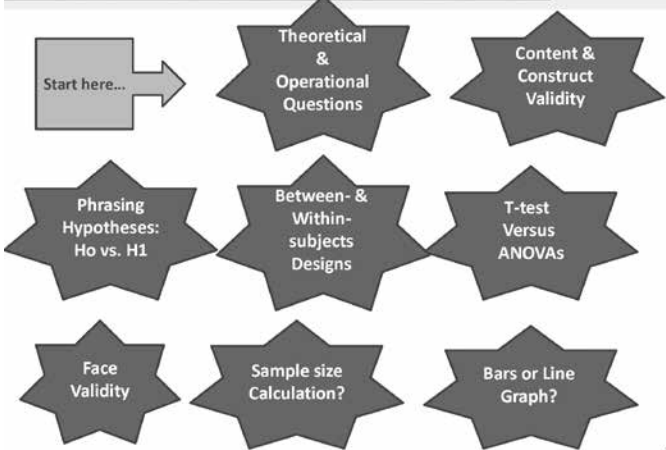
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**What we have learnt?**




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## AVI AVITAL (SEMINAR LEADER, ISRAEL) How to give a presentation



How to prepare a scientific presentation

Avi Avital

www.ecnp.eu 1

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**Learning**

- Definition of *any* kind of learning?



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**Learning**

- Definition of *any* kind of learning= a steady change in behavior as a result of an experience
- The change has to happen in your audience
- Effective learning is an active process



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### Before you start

- Who is your audience?
- What is your desired outcome?
- How much time do you have?
- What are the key messages?
- Is your PP presentation working?



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### Common Causes of Ineffective Presentations

- Failure to prepare the talk
- Cut and paste from your paper
- Gaps in logic
- Poor delivery (speaker)
- Poor time planning
- Too many slides

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### Organising a Presentation

- I. Outline
- II. Problem and background
- III. Design and methods
- IV. Major findings** - the heart of your talk
- V. Conclusion, limitations and recommendations

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### Introduction

- Context
- Study question
- Relevant knowledge on issue



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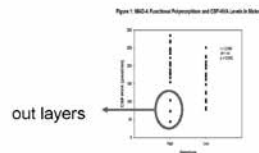
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### Major Findings

- Text and or table/graph
- One slide for each
- Message should be clear
- Figures are the best



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### Conclusion and Recommendations

- What have we learnt?
- Key points
- Clinical Implications
- Clear closure (pause, high note, thanks)



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### Making Slides

- Main points only
- One idea per slide
- Few words (5-10 per line)
- Strong statements: active voice
- 1 slide per 1 minute

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### Making Slides *(Continued)*

- Every slide should have a heading
- Lists should contain no more than 3-4 items
- Limit text blocks to no more than two lines each
- Visuals



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### Making Slides *(Continued)*

- Type size should be 24 points or larger:
  - 18 point
  - 20 point
  - 24 point
  - 28 point
  - 36 point
- References can be in 14 point font

[www.ecnp.eu](http://www.ecnp.eu)

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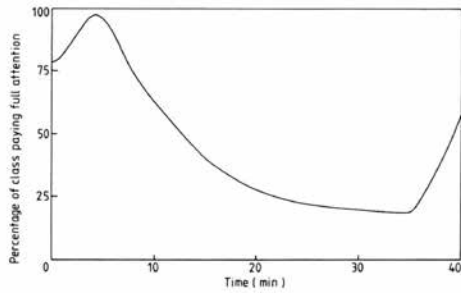
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## Making Slides (Continued)

- Best contrasts

**Yellow on Blue**  
**or**  
**Black on White**

## Audience Attention Curve



## The TED Style

- Move when possible (unexpected tract)
- Contact
- Time yourself precisely
- Change tones
- Use humor when appropriate
- Enjoy....



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## The Learning Rule

*“Tell me and I will forget, show  
me and I will remember, involve  
me and I will understand”*

[www.ecnp.eu](http://www.ecnp.eu)



**ECNP**

european college of  
neuropsychopharmacology

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**Attention, Methylphenidate and PTSD: How to phrase a research question, basic statistics reminder and design**  
**Prof. Avraham (Avi) Avital**

In my lab we are interested in understanding the involvement of executive functions in health and disease. Specifically, we have been investigating attention processes and the ability to perform social cooperation.

In my talk I'll present some of our recent studies emphasizing the role of a sensitive developmental time window to stress, and the involvement of the attention system in the ability to cope with post-traumatic stress disorder (PTSD) symptoms. An emphasis will be on possible new combination of treatments that exert beneficial effects on PTSD's symptomology.

Additionally, I'll present our computerized social cooperation maze for rodents and its relevance to PTSD. Importantly, all of the abovementioned studies will serve to demonstrate basic methodological and statistical aspects, including: Theoretical & Operational questions; Content & construct validity; Phrasing Hypotheses:  $H_0$  vs.  $H_1$ ; Between- & Within-subjects designs; T-test versus ANOVAs; Face validity; Sample size calculation; Bars or line graph; and more....

DINA POPOVIC (ISRAEL)

Suicide and mixicity as a model for research plan and design

Suicide and mixicity as a model for research plan and design

Dina Popovic, MD, PhD

Volgograd, 24.3.2018

Psychiatry B, Sheba Medical Center, Tel Hashomer, Israel

Bipolar Disorders Program, Institute of Neuroscience, Hospital Clinic, University of Barcelona, Barcelona, Spain

popovic.dina@gmail.com




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Conflict of interests

Company	Speaker	Advisor	Medical writer
Bristol-Myers Squibb	X		
Ferrer	X		X
Forum Pharmaceuticals		X	
Janssen-Cilag	X		
Lundbeck	X		
Merck Sharp & Dohme	X		
Sanofi	X		X

Books Copyright: Cambridge University Press, Panamericana

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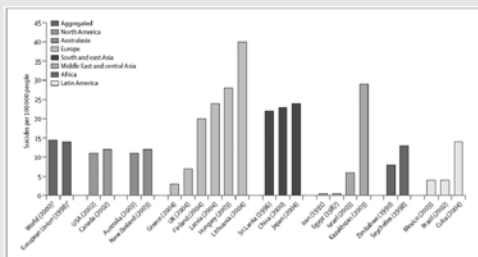
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2012: 804.000 people have died from suicide ("global" mortality rate of 11.4/100,000, or one death every 50 seconds).

M/F rate 3.5-4.1:1.

In developed countries 90% of suicide is due to mental pathology and 22% of suicides are associated with alcohol use.



[http://www.who.int/mental\\_health/prevention/suicide/suicidepress/en/index.html](http://www.who.int/mental_health/prevention/suicide/suicidepress/en/index.html)  
Hawton & van Heeringen, Lancet, 2009

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## Suicide in MDs

Relative risk (RR) doctors/general population<sup>1</sup>

Male RR 1.41 [95% CI 1.21–1.65]

Female RR 2.27 [95% CI 1.90–2.73]

Methods (vs general population)<sup>2</sup>

Substances (drugs) OR 3.75 [95% CI 2.85-4.68]

Cuts OR 3.18 [95% CI 1.85-5.4]



By specialization<sup>3</sup>

Anesthesiology

Psychiatry

General practice

Schernhammer & Colditz, Am J Psychiatry 2005; <sup>2</sup>Hawton et al. Q J Med 2000; <sup>3</sup>Hawton et al. J Epidemiol Community Health 2001

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## Psychiatric disorders are associated with high suicide and suicide attempts rates

- ① Many Axis I and II pathologies have 10x higher suicide risk than the general population
- ① Life-time suicide prevalence in schizophrenia 4-5%<sup>1,2</sup> to 13%<sup>3-7</sup>, 6-15% in affective disorders
- ① Prevalence of suicide attempts (SA): 30-40% MDE, 50% in BD



<sup>1</sup>Palmer,2005; <sup>2</sup>Inskip, 1998; <sup>3</sup>Miles,1977; <sup>4</sup>Caldwell and Gottesman,1990; <sup>5</sup>Bleuler,1978, <sup>6,7</sup>Tsuang 1978,1999; Popovic,APS, 2015

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## Suicide in psychiatry: mortality studies

- Graunt, 1662: I commentary on "mortality of lunacy"
- Farr, 1841: First systematic measurement "*mortality of lunatics in England and Wales varies from 3-14 times (higher) than the general population.. Some of the deaths in excess can be attributed to the lunacy...*", although most were due to the conditions in the asylums.
- Bleuler, 1911: Suicidal drive defined as "the most severe schizophrenic symptom"

Popovic et al.,2015; Brown, 2007; Carlborg et al., 2010



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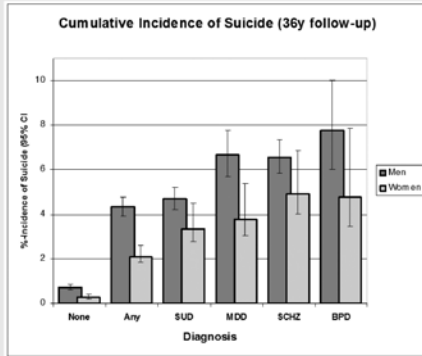
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Introducción

### Suicide in psychiatric patients



Nordentoft et al. *Arch Gen Psychiatry*, 2011.

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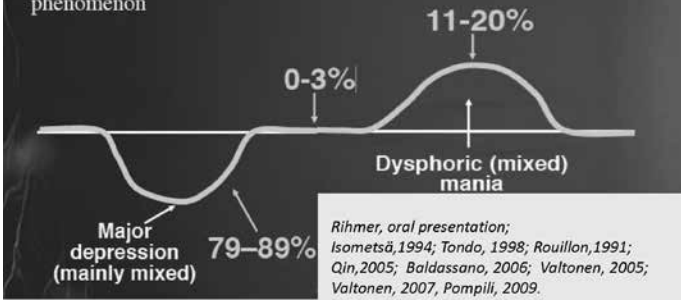
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### When do BD patients commit suicide?

Suicidal behaviour in mood disorders is state- and severity dependent phenomenon




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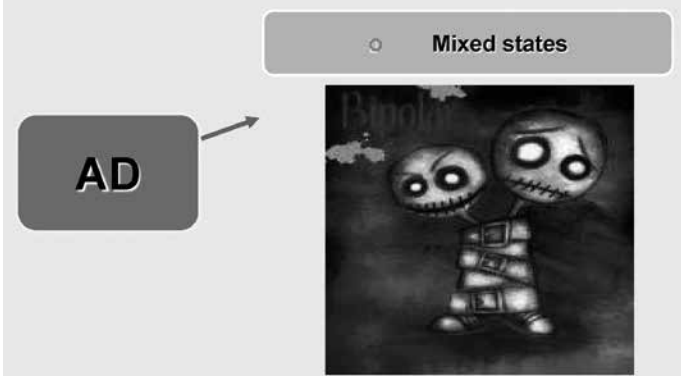
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### Antidepressants and Mixed States




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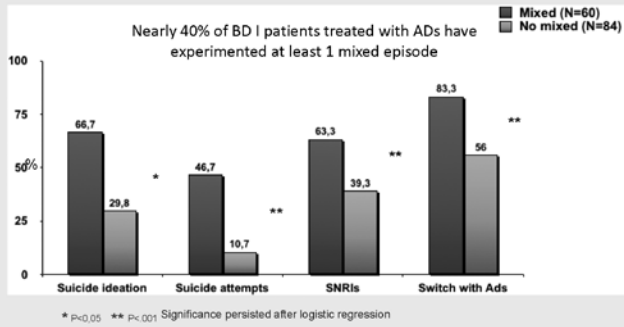
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## Mixed states and ADs: a cross-sectional study in patients with BD I



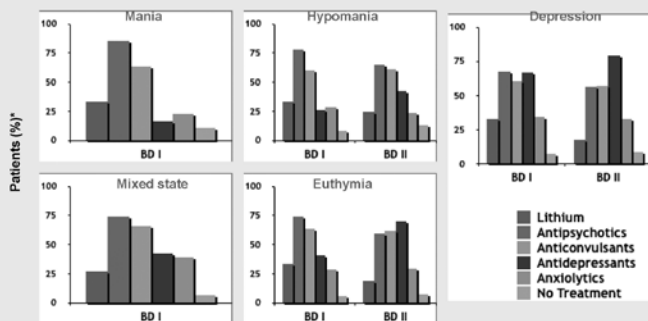
Valenti et al., *Bipolar Disord*, 2011

## Antidepressants and mixed states

- ADs use discouraged in mixed states, even in the presence of subsyndromic symptoms<sup>1,2</sup>
- EMBLEM and WAVE-BD study show that many BD patients are treated with ADs during mixed states<sup>3</sup>
- Mixed depressive states and agitation could represent the link between use of ADs and increased suicide risk<sup>2,4</sup>

1. Vieta, 2005; 2. Goldberg et al, 2009; 3. Rosa et al., 2010; 4. El-Mallakh et al, 2008

## WAVE-bd Study: Current Treatment of Bipolar Disorder



Vieta et al., *Int J Neuropsychopharmacol* 2013.

## Antidepressives: an open question

○ Suicide risk?

ADs




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### ISBD Recommendations for Antidepressant Use in Bipolar Disorder

#### Antidepressant Monotherapy

- ⚠ Should be avoided in BD I
- ⚠ Should be avoided in bipolar I and II depression with  $\geq 2$  concomitant core manic symptoms

#### Acute Treatment

- ⚠ Adjunctive antidepressants should be avoided for an acute bipolar I or II depressive episode with 2 concomitant core manic symptoms, in the presence of psychomotor agitation or rapid cycling
- ⚠ Antidepressants should be used only if there is a history of positive response
- ⚠ Antidepressants should be avoided during mixed states

*Pacchiarotti et al., AJP, 2013*

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### ISBD Recommendations for Antidepressant Use in Bipolar Disorder

#### Maintenance Treatment

- ⚠ Maintenance treatment with antidepressants may be considered if a patient relapses into a depressive episode after stopping antidepressant therapy

*Pacchiarotti et al., AJP, 2013*

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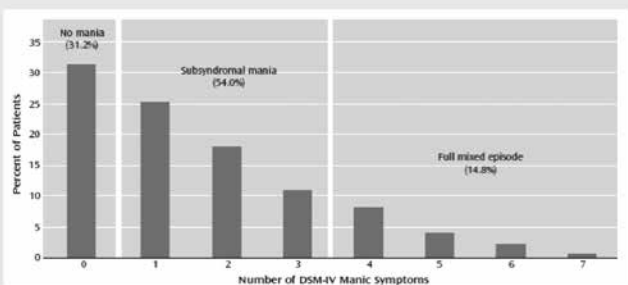
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### Mixed/Agitated Depression & Mixed Mania increase the risk of suicide behaviour

Perugi et al, J Affect Disord, 2001; 67: 105-114  
 Sato et al, Acta psychiat Scand, 2003; 107: 268-274  
 Benazzi, Psychother Psychosom, 2005; 74: 61-62  
 Swann et al, Bipol Disord, 2007; 9: 206-212.  
 Maj et al, J Clin Psychiat, 2006; 67: 712-719.  
 Akiskal et al, J Affect Disord, 2005; 85: 245-258.  
 Bal z s et al, J Affect Disord, 2006; 91: 133-138. \*  
 Goldberg et al, Amer J Psychiat, 2009; 116: 173-181.  
 Valenti et l, Bipol Disord, 2011; 13: 145-154.  
 Pachiarotti et al, J Affect Disord 2013; 149: 56-66.  
 Koukopoulos, Koukopoulos, P.C. N. Amer, 1999; 22: 457-464.  
 Sz d c zky et al, Eur Psychiat, 2000; 15: 343-347  
 Bush et al, J Clin Psychiat, 2003; 64: 14-19  
 Benazzi, Psych Res, 2003; 120: 273-282  
 Maj et al, Amer J Psychiat, 2003; 160: 2134-2140  
 Cassano et al, Amer J Psychiat, 2004; 161: 1264-1269  
 Benazzi, Psychother Psychosom, 2005; 74: 61-62.  
 Dilsaver et al, Amer J Psychiat, 1994; 151: 1312-1315  
 Strakowski et al, Amer J Psychiat, 1995; 153: 674-676  
 Sato et al, Compr Psychiat, 2004; 45: 62-69

### Manic symptoms during depressive episodes in 1.380 BP patients (STEP-BD)



Goldberg et al., AJP, 2009

### BRIDGE-II-Mix Study

- Cross-sectional multinational study
- Aims: to determine the frequency of mixed states in patients with MDE according to various definitions and to compare their clinical validity
- 239 psychiatrists in 8 countries
- 2811 patients with MDE

## BRIDGE-II-Mix Study

» Depressive mixed state (3 or more (hypo)manic symptoms) was present in 1/3 of patients with depression




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## BRIDGE-II-Mix: Suicide attempts

- 628 (22.34%) reported suicide attempts(SA)

### Socio-demographic and clinical characteristics of patients with previous suicide attempts

- female sex (72.5%,  $p=.028$ )
- familiarity for BD (20.5%,  $p<.0001$ )
- psychotic symptoms (15.1%,  $p<.0001$ )
- atypical characteristics (9.2%,  $p=0.009$ )
- $\geq 3$  MDEs (72.1%,  $p<.0001$ )
- Illness onset  $<30$  years (43.6%,  $p<.0001$ )

Popovic et al., APS, 2015

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## BRIDGE-II MIX: Suicide attempts

- Comorbidity:
  - Alcohol/substance abuse (OR 1.828 (1.11- 3.01),  $p<0.018$ )
  - Borderline personality disorder (OR 5.155 (3.72-7.14),  $p<.0001$ )

(after logistic regression)
- Treated with more ADs,APs,MSs,BDZs and ECT ( $p<0.0001$ )
- Treated with  $>3$  drugs ( $p<0.0001$ )

Popovic et al., APS, 2015




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## BRIDGE-II-Mix Suicide attempts

Previous response to ADs

Switches \*

Treatment resistance \*

Irritability \*



Mood instability \*

(Hypo)manic symptoms

- Irritable mood
- Mood lability
- Distractability
- Risky behaviour
- Psychomotor agitation
- Impulsivity

(\*p<0.0001)

Popovic et al., 2015

## Frequency of mixed depression

Depressive Mixed

State

DSM-5 criteria (MDE + 3 non overlapping hypomanic criteria)	75 (11.9)	137 (6.3)	2.03 (1.51-2.73)	<.0001
RBDC Mixed Depression (MDE + 3 or more hypomanic symptoms)	250 (39.8)	568 (26.0)	1.88 (1.56-2.27)	<.0001

Popovic et al., 2015

## Frequency of BD

Diagnostic	MDE-SA n (%)	MDE-NSA n (%)	OR (CI 95%)	p
<b>Distribution of BD</b>				
BD (according to DSM-IV)	126 (20.1)	338 (15.5)	1.37 (1.09-1.72)	<.007
- BD I (DSM-IV)	86 (13.7)	202 (9.3)	1.56 (1.19-2.04)	<.002
- BD II (DSM-IV)	40 (6.4)	136 (6.2)	1.02 (0.71-1.47)	ns
Bipolar Specifier	337 (61.8)	833 (46.3)	1.88 (1.57-2.25)	<.0001
- BD I (Specifier)	235 (37.4)	472 (21.6)	2.17 (1.79-2.72)	<.0001
- BD II (Specifier)	102 (16.2)	361 (16.5)	0.98 (0.77-1.24)	ns

Popovic et al., 2015

## Limitations of this- and other studies: Can we really predict suicide?

- ✦ A rare event (low base rate) is always hard to predict (*easier to predict who out of 100 very high risk suicide psychiatric patients will not commit suicide*)
- ✦ Less than 2% of mental patients scoring very high on the suicide scale will commit suicide<sup>2</sup> hence, unnecessary precautions will be taken for 98% of the patients

1 Pokorny, 1983; 2 Cooper et al., 2006; 3 Met-analysis by Large et al, 2011

## Does hospitalization and seclusion in a safe environment decrease or increase risk for suicide?

The high rate of psychiatric inpatient suicide<sup>1, 2</sup> may depend on:

- Selection bias:
  - individuals prone to commit suicide are more likely to be psychiatric inpatients
  - the inpatient setting fails to provide protection from suicide<sup>3</sup>
- Causation:
  - Demoralization, trauma, stigma, despair, and loss of social role, associated with being a psychiatric inpatient may cause suicide (*nosocomial*)<sup>4</sup>

Psychiatric bed closures were associated with reduction in suicide<sup>5,6</sup>

1 Walsh et al, APS, 2015; 2 WHO, World Health Organisation, Suicide Data. [http://www.who.int/gho/mental\\_health/en/](http://www.who.int/gho/mental_health/en/) 2016 3 Kapur et al 2013; 4 Large et al 2014; 5 Pridmore et al 2015; 6 Procter et al 2013;

## Is suicide driven by the butterfly effect?

- ✦ The **butterfly effect** is the *sensitive dependence on initial conditions*, where a small change at one place in a deterministic nonlinear system can result in large differences to a later state

*(a hurricane's formation being contingent on whether or not a distant butterfly had flapped its wings several weeks before)*

- ✦ Statistical models used for predicting suicide are all linear (incremental) i.e. give equal weight to individual risk factors
- ✦ However, it is possible that suicide is best described by non-linear model(s)<sup>1</sup>
- ✦ It is possible that a totally unexpected factor with little intrinsic weight, but acting at a critical moment or in a critical constellation triggers a cascade of events ultimately leading to suicide

1 Schiepek et al 2011

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## Conclusions

- The impact of mental disorders on suicide is substantial; assess suicide risk factors- although this does not necessarily mean ability to prevent suicide
- Dubious efficacy and safety of ADs in BD. Negative predictors: (hypo)manic switches/ mixed states/suicidal ideation
- Important differences between patients with previous SA and those without (familiarity for BD, atypical and melancholic features, response to ADs)

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## Conclusions

- Ⓧ **Early identification of risk factors such as behaviour at risk, psychomotor agitation and impulsivity may help implement specific strategies and reduce suicide rates**
- Correct diagnosis and treatment of mixed episodes may help prevent suicide




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Abu Salah Husein
Adama Rachel
Biadsa Mohammed
Brii Shlomit
Dobrodrli Dimiri
Winer Zhanna
Zemer-Tov Mira
Dr.Hagin Michal
Haim Andrei
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**Dina Popovic, MD, PhD**

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### **Suicide and Mixity as a model of research plan and design**

The impact of mental disorders on mortality from suicide is substantial, but insufficiently recognized as a public health problem. While suicidal behaviour is determined by a complex combination of risk factors and environmental circumstances, available data concerning suicide risk presents a confusing array of unreplicated findings with potentially confounding factors. During this presentation, the most important risk factors will be critically reviewed. Thereafter, the main results which emerged from the large international study BRIDGE-II-MIX will be presented. BRIDGE-II-MIX study aimed to provide a reliable estimate of the frequency of mixed states in a large international sample of patients diagnosed with major depressive episode (MDE) according to several sets of criteria, then to compare the clinical validity of the several proposed criteria by examining specific features, such as suicidality. The characteristics of patients diagnosed with MDE who present history of suicide attempt(s) with patients without previous suicide attempts within this large international sample will be presented. The current DSM 5 criteria for mixed states specifier will thereafter be debated. Finally, the role of antidepressants in the induction of mixed states and suicidality will be discussed.



## CARLA TORRENT (SPAIN) Psychotherapies in bipolar disorder

ECNP Seminar Volgograd 24-25 march 2018

### Psychotherapy in bipolar disorders

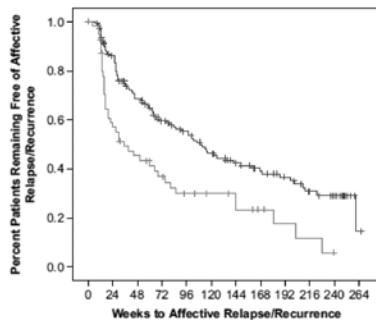
Carla Torrent  
Bipolar Disorders Program  
Hospital Clínic de Barcelona



### Targets for Psychotherapy

- Enhance medication adherence
- Early detection and intervention
- Stress and lifestyle management
- Treatment of bipolar depression
- Treatment of comorbid conditions
- Modify stressors that could trigger episodes
- Increase exercise

### Subsyndromal symptoms and psychosocial stress predict earlier recurrence. A 5 year-study



De Dios et al, 2012

### Role of Psychosocial Factors in Bipolar Disorder

- Psychosocial stressors impact the course of bipolar disorder:
  - Family stress (expressed emotion)
  - Negative life events
  - Cognitive style
  - Sleep disruptions
  - Anxiety comorbidity

<sup>1</sup> Miklowitz et al. (1988)  
<sup>2</sup> Johnson & Miller, (1997); Elicott et al. (1990)  
<sup>3</sup> Reilly-Harrington et al., 1999  
<sup>4</sup> Malkoff-Schwartz et al. (1998)  
<sup>5</sup> Simon et al. (2004); Otto et al. (2006)

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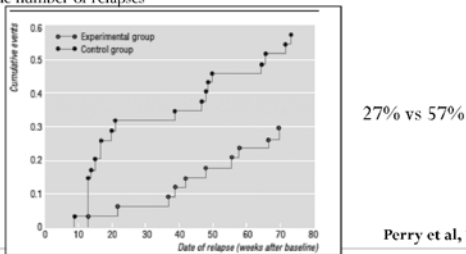
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### Efficacy of Teaching Bipolar Patients Early Detection of Prodromal Signs

- N= 69 patients
- Test an intervention aimed to teach the patients to detect and manage early signs of relapse.
- Results showed that teaching patients to recognise manic prodromes and seek early treatment significantly increased time to the next manic relapse and reduced the number of relapses




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### Evidenced based guidelines to treat bipolar disorder

Phase of illness	Modality and Format	Underlying methodology	Recommended Treatment	GRADE
Manic episode	Medication: hierarchy of effective treatments	Coherent plausible NMA; RCTs	Dopamine antagonists, valproate, lithium	****
Depressive episode	Medication: choice of alternative treatments (NMA not likely to be stable)	Downgraded RCTs (risk of unblinding)	Quetiapine	***
		Downgraded RCTs (small size)	Olanzapine, Olanzapine plus fluoxetine, Lamotrigine	***
	Psychotherapy (as add on to medication)	RCTs	Lamotrigine/Lamotrigine as combination	****
		Downgraded RCTs	FFT, CBT, IPT	**
Psychotherapy alone	Extrapolation from unipolar depression	CBT	*	
Long term	Medication: hierarchy of effective treatments (NMA supportive not decisive)	RCTs, double upgraded observational studies	Lithium (Mania, depression, suicide)	****
		Downgraded RCTs, double upgraded observational studies	Dopamine antagonists and partial agonists, valproate (mainly mania)	****
		RCTs, double upgraded observational studies	Lamotrigine (depression)	****
	Psychotherapy (as add on to medication)	RCTs	Psychoeducation/FFT	****
Downgraded RCTs		CBT, IPT	**	

Goodwin et al, 2016

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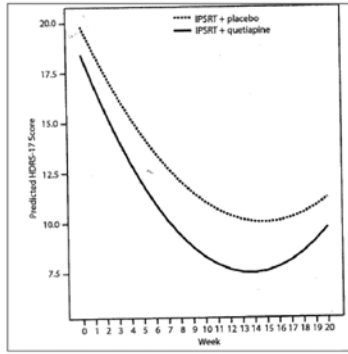
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### Psychotherapy alone and combined with medication as treatments for bipolar II depression

- N=92 Bipolar II depression
- IPSRT+Quetiapine yielded significantly faster improvement on clinical symptomatology
- Both groups improved significantly over time with comparable rates
- ISPRT+quetiapine was associated with significantly higher body mass index and rates of dry mouth



Swartz et al, JCP, 2017

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### Meta Analysis of Eight Published Trials

Citation	Total	Effect	Lower	Upper	PValue
Cochran (1984)	28	.04	.00	.31	.00
Scott et al. (2001)	42	.12	.02	.78	.02
Frank et al. (1999)	40	.38	.09	1.55	.17
Perry et al. (1999)	69	2.12	.51	8.77	.29
Perry et al. (1999)	69	.54	.19	1.56	.25
Lam et al. (2003)	103	.26	.11	.62	.00
Miklowitz et al. (2003)	101	.46	.19	1.11	.08
Colom et al. (2003)	120	.41	.20	.86	.02
<b>Fixed Combined (8)</b>	<b>528</b>	<b>.39</b>	<b>.27</b>	<b>.56</b>	<b>.00</b>
<b>Random Combined</b>	<b>528</b>	<b>.38</b>	<b>.22</b>	<b>.66</b>	<b>.00</b>

Logarithmic Scale of Odds Ratio  
Scott & Colom, 2005

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### Some of the Influential, Psychosocial Clinical Trials

- Medication adherence<sup>1</sup>
- Detection of prodromal episodes, early intervention<sup>2</sup>
- Individual CBT for Relapse Prevention<sup>3</sup>
- Individual IPSRT for Relapse Prevention<sup>4</sup>
- Family Interventions for Relapse Prevention<sup>5</sup>
- Group Psychoeducation for Relapse Prevention<sup>6</sup>
- Individual CBT for Episode Treatment<sup>7</sup>
- Intensive CBT, IPSRT, or FFT for Bipolar Depression<sup>8</sup>

1. Cochran (1983)  
 2. Perry et al. (1999)  
 3. Lam et al. (2000), Lam et al. (2003), Scott et al. (2001)  
 4. Frank et al. (1997); Frank et al. (1999)  
 5. Miklowitz et al. (2003); Rea et al. (2003); Simoneau et al. (1999); also Clarkin et al. (1998)  
 6. Colom et al. (2003)  
 7. Scott et al. (2006)  
 8. Miklowitz et al. 2007

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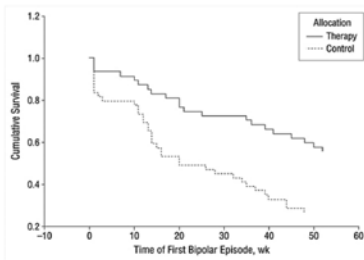
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### An Early CBT Success

- 103 bipolar patients randomized to CBT or TAU
- 12-18 sessions individual CBT
  - Information
  - Monitoring of mood & cognitions (early intervention)
  - Management of sleep and routine
  - Attention to "making up for lost time"
- 8 dropout in each condition



Lam et al., 2003, Arch Gen Psychiatry, 60:145-152

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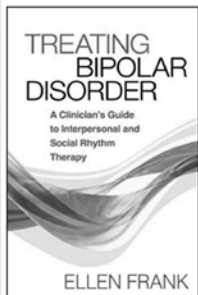
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### Essential elements of Interpersonal and Social Rythm Therapy (IPSRT)



- Social rythm therapy
  - Regularize dauly routines
  - Emphasizes the link between regular routines and moods
  - Uses Social Rythm Metric to monitor routines
- Interpersonal psychotherapy
  - Emphasizes link between mood and life events
  - Focus on interpersonal problem area (grief, role transition, role disputes, interpersonal deficits)

Frank et al, 2000; Klerman et al, 1984

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### Group Psychoeducation vs. Standard Care

- 21 Weeks of Randomized Treatment, 2-year follow-up
- 120 outpatients in remission for 6 months
- Standard Care
  - Treatment algorithms
  - Monthly sessions
  - Serum levels of medications assessed
- Group Treatment 21 90-minute sessions
- Outcome
  - Recurrences at endpoint: 38% in group vs. 60% in SC
  - Recurrences at 2 years: 67% in group vs. 92% in SC

Colom F. et al. Arch Gen Psychiatry. 2003;60:402-407.

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## Family-Focused Treatment (FFT) of bipolar disorder

- Up to 21 sessions over 9 months
- Begins with assessment of patient and family
- Engagement phase
- Psychoeducation about bipolar disorder (symptoms, early recognition, etiology, treatment, self-management)
- Communication enhancement training (behavioral rehearsal of effective speaking and listening strategies)
- Problem-solving skills training

Miklowitz et al, 2007

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## Family-Focused Treatment

### Elements

- Psychoeducation about bipolar disorder
- Communication-enhancement training
- Problem-solving training

### Outcome

- Adjunctive FFT appears to effect
  - Depressive symptoms
  - Manic symptoms
  - Rehospitalization times

Miklowitz DJ, et al. Arch Gen Psychiatry. 1988;45:225-231

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## Online and Mobile Technologies for Self-Management in Bipolar Disorder: A Systematic Review

Emma Gliddon  
 IMPACT Strategic Research Centre, Deakin University

Steven J. Barnes  
 University of British Columbia

Greg Murray  
 Swinburne University

Erin E. Michalak  
 University of British Columbia

Self-Management Categories Identified in eHealth and mHealth Tools for Bipolar Disorder (BD)

Variable	Approaches to self-management						
	1	2	3	4	5	6	7
eHealth programs							
ORBIT	x	x	x	x	x	x	x
MoodSwings	x	x	x	x	x	x	x
Beating Bipolar	x	x	x	x	x	x	x
Bipolar Education Program	x	x	x	x	x	x	x
RecoveryRoad	x	x	x	x	x	x	x
Living With Bipolar	x	x	x	x	x	x	x
ICBT	x	x	x	x	x	x	x
MoodChart	x	x	x	x	x	x	x
MyRecoveryPlan	x	x	x	x	x	x	x
mHealth programs							
PRISM	x	x	x	x	x	x	x
Improving adherence in BD	x	x	x	x	x	x	x

Note. PRISM = Personalized Real-Time Intervention for Stabilizing Mood; ICBT = Internet cognitive-behavioral therapy; 1 = Maintaining a healthy lifestyle; 2 = Ongoing monitoring; 3 = Relaxation; 4 = Education; 5 = Communication with others; 6 = Planning for and taking action; 7 = Maintaining hope.

- Ongoing monitoring
- Maintaining hope
- Education
- Planning for and taking action
- Communication with others
- Maintaining a healthy lifestyle
- Relaxation

Gliddon et al, 2017

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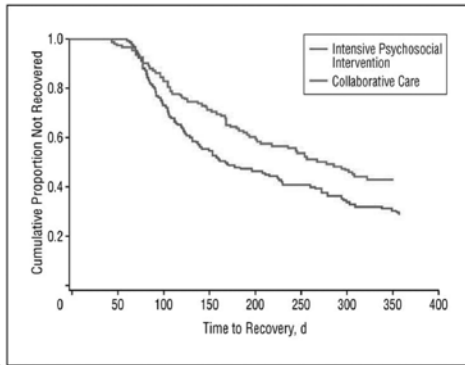
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## CBT, IPSRT, FFT vs. Collab Care for Bipolar Depression

Miklowitz et al., 2007, Archives Gen Psychiatry

N=293




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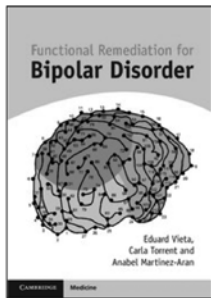
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## Functional Remediation in bipolar disorder



- Intervention addressing neurocognitive issues such as attention, memory and executive functions
- Focusing specially on enhancing functioning in daily routine.
- Including psychoeducation about cognitive deficits and providing strategies to manage cognitive deficits mainly in the domains of attention, memory and executive functions.
- Family is involved in the process to facilitate practice and strategies reinforcement
- Most of the techniques are based on paper-and-pencil tasks and group activities.

Martínez-Arán et al, 2011

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25 years of EMDR: The EMDR therapy protocol, hypotheses of its mechanism of action and a systematic review of its efficacy in the treatment of post-traumatic stress disorder

Patricia Novo Navarro<sup>a,b,c</sup>, Ramón Landin-Romero<sup>d,e,f,g</sup>, Rocio Guardiola-Wanden-Berghe<sup>b,c</sup>, Ana Moreno-Alcázar<sup>c,d</sup>, Alicia Valiente-Gómez<sup>c,d</sup>, Walter Lupo<sup>h</sup>, Francisca Garcia<sup>i</sup>, Isabel Fernández<sup>j</sup>, Victor Pérez<sup>b,c</sup> y Benedikt L. Amann<sup>c,d,k</sup>

### Scientific evidence:

- 20 RCT in PTSD
- Underwent scrutiny of various independent meta-analysis
- Recommended by WHO (2013) as first-line treatment in PTSD

### Structured 8 phase protocol:

1. History
2. Preparation (BLS)
3. Evaluation of trauma, negative cognition, emotions and physical symptoms (SUD, VOC)
4. Desensibilisation: 30-40 s BLS, to SUD 0
5. Installation of positive cognition
6. Body check
7. Closure
8. Re-Evaluation in next session

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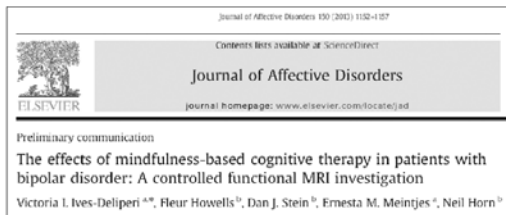
## Mindfulness

STUDY PROTOCOL

Open Access

### Mindfulness-based cognitive therapy versus psychoeducational intervention in bipolar outpatients with sub-threshold depressive symptoms: a randomized controlled trial

Guillermo Lahera<sup>1</sup>, Carmen Bayón<sup>2</sup>, María Fe Bravo-Ortiz<sup>2</sup>, Beatriz Rodríguez-Vega<sup>2</sup>, Sara Barbeito<sup>3</sup>, Margarita Sáenz<sup>3</sup>, Caridad Avedillo<sup>3</sup>, Rosa Villanueva<sup>2</sup>, Amaia Ugare<sup>2</sup>, Ana González-Pirco<sup>3</sup> and Consuelo de Dios<sup>4\*</sup>



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## CONCLUSIONS

- Adjunctive psychological treatments can improve the illness outcomes
- Ideally, any intervention should be introduced as soon as possible in order to improve prognosis
- Psychological treatments should always be selected and adjusted in the context of personalized patients care.
- New treatments and the adaptation of other therapeutic approaches in the field of bipolar disorder have begun to be studied providing a promising future for the treatment of bipolar disorder.

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## PSYCHOTHERAPY IN BIPOLAR DISORDER

Carla Torrent

Bipolar disorder is a chronic condition characterized primarily by recurring affective episodes of depression, (hypo)mania and mixed states being one of the leading causes of disability worldwide. Even after drug treatment, up to half of patients with bipolar disorder have been reported to experience relapses and/or recurrence of major affective episodes within a 2-year follow-up period. There remain many unmet needs in the therapeutics of this disorder, highlighting the need for develop new novel pharmacologic treatments in combination with adjunctive psychosocial treatments.

At least four psychotherapy approaches for bipolar disorder have been shown to be of benefit when added to pharmacological treatment, such are: cognitive-behavioral therapy, psychoeducation, interpersonal and social rhythm therapy and family intervention. The efficacy of some specific adjunctive psychosocial interventions have been proven not only in short but also long-term follow-up. Adjunctive psychotherapies for bipolar disorder are based on educating patients or caregivers on the identification of early warning signs and symptoms, and of relapse indicators, on the regulation of lifestyle and on stress-management strategies.

One important issue, according to several studies, is the fact that the psychosocial interventions might lose efficacy with each relapse, which highlights the importance of staging and cognitive impairment in this population. In response to the need to improve cognitive dysfunctions and its negative implication in psychosocial functioning we developed the functional remediation program which aims to treat not only neurocognition but also functional impairment involving neurocognitive techniques and training, psychoeducation on cognition-related issues and problem-solving within an ecological framework.

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## ABSTRACTS OF PARTICIPANTS

### **Elvina Akhmetova**

#### *Abstract*

The aim of our research was to assess the impact social environment, personality characteristics and genetic predispositions on the risk using synthetic cannabinoids (SCB) on the schoolchildren in the Republic of Bashkortostan (RB). 8859 schoolchildren in the RB became the object of our research. The testing was conducted in accordance with the orders of the Ministry of Education of the Republic of Bashkortostan dated 07.09.2015 № 1755. We used psihofiziologicheskie surveys, molecular genetic, and statistical methods. We have identified leading personal, macro-social, micro-social and genetic factors contributing to the use of SCB among schoolchildren in the RB.

### **Daniil Archakov**

#### *Abstract*

The aim of our study was to analyze the frequency and duration of benzodiazepines use in the same patients over a period of three years. The study included 132 patients diagnosed with panic disorder, generalized anxiety disorder who sought help for the first time. All patients at the beginning of therapy took benzodiazepines for up to 7 days and at a dose of up to 2 mg per day along with SSRIs. In the results we can see that the majority of patients (60) no longer took benzodiazepines for the reported 3 years, 26 patients were occasionally taken up to 3 mg per week during the first month of therapy, 30 patients were occasionally taken up to 2 mg per week during the first 3 months of therapy, 10 patients resorted to reception of benzodiazepines within the first year from the start of therapy and only 6 patients continue episodically no more than 2 mg per week to use benzodiazepines. No patient after 3 years of observation has any evidence of dependence on this group of drugs.

### **Azat Asadullin**

#### *Abstract*

The aim of our study was to analyze the dynamics of distribution, structure of consumption of narcotic drugs, psychactive substances and new synthetic drugs from 2013 to 2016, in the Republic of Bashkortostan, with in-depth clinical and genetic study of peculiarities of formation of the drug abuse to synthetic cathinones. We used clinical, clinical-psychopathological, experimental-psychological, chemical-toxicological, genetic and statistical methods. We examined 33945 people aged 15 to 55 years old. For the study of mental and behavioral disorders, psychological characteristics of patients that are dependent on synthetic cathinones, conducted in-depth clinical and experimental-psychological and genetic survey of 349 people.

### **Anastasiia Boiko (Ivanova)**

#### *Abstract*

Antipsychotics can cause side effects, which reduce patients quality of life. The pathogenesis of drug-induced tardive dyskinesia (TD) has not been studied enough, but the important role of genetic factors is definitely shown. The aim of the study is to elucidate the possible role of 22 polymorphisms of muscarinic receptor genes (CHRM1, CHRM2, CHRM4) in the pathogenesis of tardive dyskinesia in patients with schizophrenia. In total 472 patients with schizophrenia (121 patients with TD and 351 patients without it) receiving long-term antipsychotic treatment were included. There were identified associations between muscarinic receptors and developing of antipsychotic-induced tardive dyskinesia.

This work is supported by RSF grant # 17-75-10055

### **Lidia Bravve**

#### *Abstract*

A lot of researches are conducted to establish pathogenetic links which are involved in schizophrenia progression. Our aim was to determine how changes the concentration of inflammatory cytokines in blood serum samples of schizophrenia patients and health people. So we define levels of interleukin-1, IL-2 and IL-6 in peripheral blood of the investigated groups by immunologic method to reveal the condition of immune system in the both groups.

Moreover, in the group with mental disorder are included persons with catatonia and paranoid syndromes. We also tried to establish relationship between the clinical expression of schizophrenia and concentration of cytokines.

### **Anastasia Brigadirova**

#### *Abstract*

To what extent is a combination of biphenyl and benzimidazole scaffolds would be effective to develop a lead molecule with antidiabetic activity (PTP1B inhibition, AMPK activation, etc.)? During my studies I have found that my interests are focused particularly in the area of pharmacology, with an emphasis on drug discovery process, especially new ligands with antidiabetic or antihypertensive activity. I would like to work with in vivo pharmacology studies including in vivo model development and compound screening in pharmacodynamic and efficacy models. My interest lies in learning all I can in this field, so I can utilize the knowledge together with my existing skills in order to get involved and work on any research project by Novartis. It would be my pleasure to help Novartis team.

## **Artem Buleyko**

### *Abstract*

The aim of the work was to study the features of the clinical picture of schizophrenia with alcohol abuse comorbidity, taking into account the possible influence of gender and genetic factors. The association of comorbid alcohol abuse with a long duration of an exacerbation in women has been revealed. The connection of the Val158Met allele of the COMT gene with an earlier debut and deterioration in remission in men has been found. The development of alcohol abuse in patients with schizophrenia is associated with an earlier debut of the disease.

## **Dina Charnaia**

### *Abstract*

The relevance of the study is determined by the difficulty of differential diagnosis of progredient schizophrenia and schizotypal disorders, as well as vagueness in typologies and boundaries of the disorders accompanied by the mental automatism.

The research objective is to study the pathogenesis of mental automatism in schizotypal disorder by means of studying the pathological processes of meaning-making.

Materials of the study:

Statements of 30 patients with the experiences of the «inner dialogues» treated in day hospital of City Psychoneurological Dispensary №7.

Methods applied:

- 1) Clinical-psychopathological method;
- 2) Clinical and semantic analysis of the lexicon;
- 3) The rating Scale of positive and negative syndromes (PANSS).

The Results:

1. On the scale of PANSS indicators of the severity of positive symptoms ranged from 10 to 21 points : negative symptoms – from 12 to 24 points , the general symptoms – from 34 to 50 , the total score from 61 to 85 points .

2. In the lexico-semantic structure of the statement the three common semantic features and three theme lines were identified:

A) The theme line «Alienation» includes lexical units sharing common semantic features of «integrity loss»

B) The theme line of «Presence» includes lexical units united by the common semantic feature «Other activity».

C) The Theme line of «Observer» includes lexical units united by the common semantic feature of «Passivity».

The whole vocabulary units of these theme lines are combined with the common semantic feature of «Splitting» in the general theme line of «Dialogue». Thus, the vocabulary of the theme line «Dialogue» defines the specific verbal expression of the mental automatism in schizotypal disorder.

## **Evgeniia Chibikova**

### *Abstract*

Clinical Case of Rett Syndrome symptoms interpreted as Depakine adverse effects

Patient K., 3 years old, female, brought to Child Psychiatry Department by her mother complaining on alalia, mental retardation, stereotypical movements, psychomotor skills loss. Data from medical history: family history of psychiatric disorders, complicated pregnancy and delivery, indolent delay in psychomotor development. Being 9 months old, the patient experienced a seizure and after neurological examination was prescribed with Depakine. After 3 months of its administration, patient's mother noticed reduction of psychomotor skills, uncooperativeness, stereotypical movements and problems with breath and evaluated these symptoms as adverse effects of Depakine, although the patient presented typical clinical finding of Rett syndrome and corresponded to its basic criteria. The patient was referred to a genetician for diagnosis confirmation.

## **Mariia Dorofeikova**

### *Abstract*

My PhD thesis was on correlates of cognitive dysfunction in schizophrenia. Main results were:

- Cognitive impairment in schizophrenia is highly heterogeneous and individual.
- It depends on the age of onset, family history, positive but not negative symptoms.
- Executive functioning correlates with most other cognitive domains.
- NSE, S100B, CRP reflect the course of schizophrenia and therapeutic response.
- BDNF levels correlated with processing speed and skill development.

## **Anna Drushlyakova**

### *Abstract*

Numerous studies show that more than in half of cases of headache cephalalgia is objectively caused by a pathology in cervical part of the spine. The symptoms of cervicogenic headache were described at the beginning of the last century. But still a lot of controversial issues related to the diagnosis of cervicogenic headache. My study gives the concept of cervicogenic headache, the mechanisms of symptoms of cervicogenic headache considering the anatomical and physiological characteristics of the cervical region and the role of emotional changes in the development of cervicogenic headache. The study talks about the medicamental and non-medicamental treatment of cervicogenic headache.

### **Veronika Dvoryaninova**

#### *Abstract*

The main aim of research is studying the structure of psycho-pathological disorders among relatives of children suffering from early child autism, in comparison with a control group of relatives of healthy children. Statistically significant differences between the study groups identified. Among parents of children with autism are significantly more likely to identify endogenous procedural disorders, mood disorders endogenous structure, as well as generalized anxiety disorder. The obtained data confirm the hereditary nature of the disease, and also, given the high comorbidity of autism spectrum disorders with depressive and anxiety disorders suggests the existence of common elements in the mechanisms of development of these psychopathological disorders and autism.

### **Irina Filchenko**

#### *Abstract*

Glucagon-like peptide-1 (GLP-1) receptors are present in brain, thus GLP-1 receptor agonists may be used not only to decrease glycaemia but also for neuroprotection. We evaluated neuroprotective effect of liraglutide in transient focal brain ischemia in rats without T2DM and with T2DM. Non-diabetic liraglutide-treated rats had significantly smaller brain infarct volume and neurological deficit in comparison with control animals. Diabetic liraglutide-treated rats had significantly smaller brain infarct volume in comparison both with animals that received isotonic NaCl and with metformin-treated animals. There were no significant differences in neurological deficit between the groups of liraglutide-treated, metformin-treated and control rats. There were no significant differences in brain infarct volume between the groups of metformin-treated and control rats. Liraglutide has an independent neuroprotective effect in transient focal brain ischemia, not related to glycemic control improvement. Thus, GLP-1 receptor agonists may be promising in stroke prevention in T2DM.

### **Anna Fomenko**

#### *Abstract*

Postnatal depression is an important medical and social problem. A prescription of therapy for mothers who realizes breast feeding is rather difficult. During my investigational work I tried to demonstrate the effectiveness of non-medical therapy of mothers with postpartum depression. The results of the statistical calculation of the obtained data confirm that the light-therapy should reduce the intensity of the clinical sings of the semi-severe postpartum depression. However, in case of the disease progression or initially severe clinical symptoms, drug therapy should be administered. Remain the question – what medication is compared with the breast feeding?

## **Timur Gazizullin**

### *Abstract*

Social predictors in medication of paranoid schizophrenia

We have conducted an analysis of the main social factors of patients with paranoid schizophrenia had medicated by atypical antipsychotics (sertindole and aripiprazole). The study included 100 patients aged from 17 to 62. Depending on the reduction of PANSS total score, all patients were divided into groups of responders (total score reduction  $\geq 20\%$ ) and nonresponders ( $\leq 20\%$ ).

The number of patients – responders amounted to 46 (46%), patients nonresponders – 54 (54%).

Comparative analysis of the two therapeutic categories showed that average age of patients nonresponders significantly older ( $p \leq 0.05$ ) than patients – responders (38.8 vs 34,96 yrs). The duration of the disease among nonresponders was higher compared with responders (17.73 vs 12.36 yrs). In the group of responders, the level of social guardianship and care from relatives and friends was higher (84,78% - responders vs 68,52% nonresponder), however, the rate of disability is lower than nonresponders (65.22% - responders vs 81,48% - nonresponder), which indirectly indicates a more severe degree of disability and social functioning among nonresponders, more serious negative symptoms of schizophrenia.

A group of nonresponders was characterized by a lower level of education. Patients – responders was significantly higher met higher education, many patients have retained the skills to work and continued to work at his original profession. Factor of somatic and substance abuse history was not significantly different between the patients – the responders and nonresponders.

## **Elena Gorina**

### *Abstract*

Purpose of the research: studying the influence of the psychoeducation process on the dynamics of the mental state insane patients and overcoming their stigmatisation.

The substantive content of the program includes information about the disease: causes of the disease, course of the disease, disease prognosis, on ways of recognizing painful symptoms, variants of drug therapy, the importance of adherence to treatment.

The analysis of the effectiveness of the psychoeducational program showed that during the course of the classes the interest of patients interest of patients increased and relationships among patients (group members) improved Also positive dynamics of clinical indicators was confirmed by the data of psychological research.

## **Madina Guseva**

### *Abstract*

Information about specific abnormal eye movement and their possible place in neurobiology of schizophrenia are the subject of discuss over the years. In our study, we have explored characteristics of eye movement of 20 schizophrenia cases and 25 control cases. Eye movements were recorded during smooth pursuit to the object on the computer screen. Patients with schizophrenia demonstrated specific deviation from controls cases and fixed trajectory. Based on this, we calculated math characteristics of specific deviation, and identified their value for both groups.



## **Vlada Ignateva**

### *Abstract*

In this work, the clinical case of the primary patient, 1995, is examined, with the diagnosis: a schizotypal personality disorder.

In the clinic of the disease this patient had psychopathic disorders, a tendency to paralogic, symbolic thinking, pronounced resonance, a strong-willed reduction with a relatively established emotional component. Against the background of therapy, there was an impression of dissimulation of experiences and psycho-productive symptoms.

Possible risk factors and the first manifestations of the symptoms of the disease are described. The features of therapy tactics, the spectrum of pharmacotherapy are analyzed. Differences in the symptomatology of this state of the patient from disorders observed in schizophrenia were revealed. The results of a comprehensive (clinical and clinical-psychological) examination are presented.

## **Dmitriy Ivashchenko**

### *Abstract*

AIM. To determine associations of adverse reactions to Phenazepam with polymorphisms of CYP3A5, CYP2C9, CYP2C19, CYP2D6 and ABCB1 genetic polymorphisms.

MATERIALS AND METHODS. 102 male patients with non-complicated alcohol withdrawal syndrome (F 10.3 by ICD-10) were involved into the study in 24 hours after their admission to hospital and were prescribed Phenazepam for 6 days. 5 ml of venous blood was collected from each participant for genotyping to detect CYP3A5\*3, CYP2C9\*2, CYP2C9\*3, CYP2C19\*2, CYP2C19\*3, CYP2C19\*17 and CYP2D6\*4 polymorphisms by real-time polymerase chain reaction. Safety of therapy was evaluated with UKU Side Effects Rating Scale at 6th day of treatment.

RESULTS. Polymorphisms CYP3A5\*3, CYP2C9\*3, CYP2C19\*2 and ABCB1 3435C>T were significantly associated with several adverse reactions according to UKU Scale. Carriers of those biomarkers more often had accommodation disturbances, polyuria/polydipsia, constipation, orthostatic dizziness. There were no substantial associations of CYP2C19\*17, CYP2C9\*2, CYP2D6\*4 with phenazepam-induced adverse reactions.

CONCLUSION. Results determined leading role of CYP3A5\*3, CYP2C9\*3, ABCB1 3435C>T polymorphisms as biomarkers of phenazepam's safety in patients with alcohol withdrawal syndrome.

## **Sofia Kanevskaya**

### *Abstract*

Svetlana L., 17 came with self-harm inclinations, together with guilt feeling, headaches, and megrim. She considered herself "fat and ugly" since she was 6. At the age of 13 she recognized her homosexuality, felt guilt and frustration. She started having headaches, hearing a woman's voice, accusing her of ugliness, worthlessness, saying she should die.

She was hospitalized twice. Nevertheless, 9 month in a mental hospital with different combinations of antidepressants, antipsychotics, anticonvulsants, nootropics, CST and CBT without improvement she was admitted handicapped, and diagnosed with undifferentiated schizophrenia.

She came to our clinic for ambulatory care. Her case causes lots of disagreement.

## **Yulia Katernaya**

### *Abstract*

The aim of the study was to investigate the influence of social factors on the development of non-psychotic mental disorders among adolescents who have never applied for psychiatric and substance abuse help. 1137 school students at the age of 10–19 years training at 7–11 classes were examined. The conducted research has shown that adverse social and family factors have interrelation with mental violations among school students. The conflictual relations and family violence had the greatest value among family factors. The same dysfunctional relationships with peers and training in schools, which places high requirements were most important among social factors.

## **Ekaterina Kozhadey**

### *Abstract*

The study is devoted to the correlation between women's aim for maternity and matrimony and adaptive postpartum reaction. Postpartum adaptive reaction phenomena (baby-blues, postpartum depression and postpartum psychosis) are examined. The Edinbrugh postnatal depression scale, PARI, Stolin's test are used. Mothers whose children were treated in Perinatal centre of Pediatric University had been examined. One case of heavy postpartum depression with demonstration of concealed infanticide is stated. Men's aim for hypothetic birth of sick infant are studied. In conclusion the problems of medicinal and psychotherapeutic correction of postpartum affective disorders are discussed.

## **Dmitry Kutovoy**

### *Abstract*

Hundreds and thousands of genetic studies are conducted annually in the field of psychiatry. Publicly available data on the influence of genes and genetic associations on the development of mental disorders. We accumulate a large amount of information about the biological basis of many mental abnormalities.

In this connection, closer cooperation between genetics and psychiatry at a deeper professional level seems increasingly necessary. An effective investigation of the genotype requires a correct and detailed study of the patient's phenotype, individual characteristics of the manifestation of mental illness.

Combining the data of genomic sequencing and deep phenotyping can play an extremely important role not only in the study of the etiology of mental disorders, but also in the development of an individual approach to their treatment.

To this end, we are developing the ontology of PsyGenCheck. Due to this ontology it will be possible to diagnose a mental illness in all modern classifiers, carry out a deep phenotyping of the patient, and then correlate the results with the data of genetic and biochemical research, allowing you to choose the best individual psychopharmacotherapy.

### **Ildana Kuzmina**

#### *Abstract*

Our study objective was to assess the impact of prediction patients with Rett syndrome. We examined patients from Resp.Tatarstan. We studied them hereditary, development and concomitant diseases. Atypical Rett syndrome has more favorable forecast. The sample included 10 patients with Rett syndrome.

Results: Our study is not finished.

We examine patients with their parents and medical documents

### **Roman Litvinov**

#### *Abstract*

Metals are implicated in the pathogenesis of many neurodegenerative diseases. Thus, the high serum levels of copper, ferrum are involved in the posttranslational protein modifications in Alzheimer's, Parkinson's and Huntington's diseases often associated with metal intoxications. The biological metal chelating activity of these new compounds, combined with the ability to block glutamate receptors can provide the wide clinical applications. Novel compounds combining chelating and neurotransmitter modulating properties can be used to prevent the neurodegeneration processes (when applied at the beginning of disease) or suppress the symptoms of neuronal deficit during disease progression. Previously I founded that pyrimidine derivatives can bind the metals and, in my opinion, these compounds may prevent the diabetes mellitus associated neuronal complications, such as pre-beta amyloid formation.

### **Galina Lyanaya**

#### *Abstract*

Gender identity disorder syndrome traditionally is considered as a synonym of gender dysphoria or a part of it. Our research showed that nowadays it can also exist separately and should be analyzed as a part of endogenous disorder of personality or affective or schizophrenic register. We found out that gender identity disorder can be a symptom of depersonalization, dismorfofobia syndromes or hysterical disorders. These three groups vary considerably in the course the disease will take and its outcome. According to this there should be different methods of therapy.

### **Ekaterina Makeeva**

#### *Abstract*

Asthenia is psychopathologically heterogenous disorder. The modern transnosological approach in psychiatry allows to study clinical syndromes independently from their nosological nature. We propose a dichotomous transnosological model of asthenia: 1) exogenous asthenia (associated with central toxic effects of chemotherapy in cancer patients), and 2) endogenous asthenia (associated with schizophrenia negative symptoms). The model propose different diagnostic features and treatment options for asthenia: nootropic/anti-asthenic and stimulators drugs in somatogenic asthenia, and atypical antipsychotics for negative symptoms correction in endogenous (schizophrenic) asthenia.

## **Dmitrii Maltsev**

### *Abstract*

Despite the fact that the spectrum of existing anxiolytic drugs is quite wide, in clinical practice there is a significant deficit of effective medicines due to the peculiarities of individual sensitivity to therapy, as well as low effectiveness and side effects. In this regard, on a par with the already existing groups of anti-anxiety drugs, new classes of anxiolytics are being intensively developed. Thus, a significant part of scientific research is aimed on finding compounds with alternative mechanisms of action, not only characteristic of GABA-mediated benzodiazepine drugs. Examples are: a serotonin receptor agonist – buspirone (azapiron derivative), and a  $\sigma$ 1-receptor ligand - afobazole (a benzimidazole derivative). Strategies for pharmacological correction of anxiety with the help of influence on serotonin, glutamate and dopamine receptors, effects on neuromodulation of Y peptide and endocannabinoids have being actively developed.

Given the wide receptor profile of benzimidazole derivatives, as well as taking into account the substantial practical reserve associated with the study of the anxiolytic potential of cyclic azole derivatives, realized through the 5-HT<sub>2A</sub>-, 5-HT<sub>3</sub>-link, it seems expedient to develop and create new biologically active compounds with anxiolytic properties in the series of compounds with a diazepam structure, due to optimization by means of overlapping with the benzimidazole moiety. This combination of functional groups will increase the anxiolytic potential of the compounds due to the multitarget receptor mechanism, including the effect on the monoamine component, GABA and histamine receptors, and will help to identify innovative candidates in drugs with anxiolytic action. Thus, an optimized diazepam scaffold will allow to maintain the level of anti-anxiety action by reducing the negative effects (sedative, myorelaxation and hypnotics).

## **Dkhaval Mavani**

### *Abstract*

**Aim:** to study the similarities and differences between two forms of computer addiction (CA) – primary (PCA), as a single disorder and combined (CCA), having a combination of CA and another psychiatric disorder.

**Materials and methods:** the study included 93 adolescents with CA. **Methods:** clinical-psychopathological, statistical.

**Results:** in both forms of CA clinical picture was determined by identical addiction syndromes – psychophysical addiction, altered reactivity and consequence syndrome. The main motive in PCA was to gain entertainment, while in CCA - getting rid of problems and symptoms related to comorbid psychiatric disorder. In PCA compulsive desire dominated without any struggle between motives, while CCA had large amount of motive conflicts (obsessive level). In PCA this pathological desire was one of the ways to get extra enjoyment, whereas in CCA it was the only way to obtain positive emotions. The consequence syndrome was identified in both groups and included the biological and social problems as well as personality changes.

**Conclusions:** The clinical picture of primary and combined forms of CA is defined by a single syndromic model. Differences in the clinical picture are mostly due to combined (comorbid) mental disorders in CCA.

### **Tamara Merkulova**

#### *Abstract*

Nowadays opioid addiction is acute social problem. OPRM1 – gene coding  $\mu$ -opioid receptor. Single nucleotide polymorphisms (SNPs) of this gene can cause the changes in the structure of  $\mu$ -opioid receptor. One of the SNPs common in persons with opioid addiction is rs1799971 (A118G).

SNP rs1799971 in gene OPRM1 causes increasing receptor's sensitivity to the ligand and decreasing in OPRM1 expression.

During the analysis of literature data, was founded that the presence of polymorphism rs1799971 is accompanied by an accelerated development of opioid abuse.

### **Georgii Mishanov**

#### *Abstract*

The goal of the study is evaluation of the dynamics of clinical manifestations of autism in children. In a complex with the basic program of rehabilitation is used the method of a biological feedback - alpha-training, beta training, a skin-galvanic reaction, a method of regulation of breath. ADOS, CARS, ATEC are used to study the dynamics of clinical manifestations. The effectiveness of this technique is determined in the framework of correction of autistic disorders. The obtained data will be used for the development of individual rehabilitation programs for children with autism.

### **Angelina Mishukova**

#### *Abstract*

Recently, the question of «designer» drugs use has become increasingly important. While their popularity is growing, the number of studies on a given topic remains extremely few, which necessitates more detailed study of this issue. In the course of this work, we examined 20 patients of the narcological hospital using the Hamilton, Covi, MMAS-4 and Mini-mult scales to identify the structure of anxiety-depressive disorders in patients of this group.

### **Tatiana Morenec**

#### *Abstract*

Psychiatric care for severe forms of suicidal behavior is stationary. Deactivation of suicidal thoughts is achieved by drug treatment of psychopathological symptoms. The proportion of suicidal attempts while in hospital is low, but it is extremely important for studying genesis of suicides and suicide prevention. The purpose of this research was to improve care for suicidal patients in a psychiatric hospital. 60 cases of suicidal acts during treatment in a psychiatric hospital were analyzed in this research in order to identify risk factors for suicidal disadaptation. Treatment and rehabilitation programs, developed according to the identified factors, will improve the quality of suicidal care by reducing the level of suicidal activity.

## **Evgeny Morkovin**

### *Abstract*

Several clinical trials shown the benefits of herbal formulations in neurodegenerative disorders, e.g. traditional Kampo medicine Yokukansan, which was found to decrease the behavioral and psychological symptoms of dementia. We found that chronic Yokukansan intake in aged mice could affect the aggrecan expression, neural inflammation and microglial activation in hippocampus.

## **Anna Mukhorina**

### *Abstract*

Despite the long study of vershroben-phenomenon, its boundaries and diagnostic criteria remain uncertain. Also it is considered from two polar positions: within the framework of personality disorder and as a defect in schizophrenia. The analysis of the literature and clinical material made it possible to formulate the main properties of the vershroben-phenomenon – deficit type in schizophrenia and schizophrenia spectrum disorders. As a result, its typological and clinical heterogeneity in schizophrenia and schizophrenia spectrum disorders was found. Detected patterns are promising in the framework of the prognosis, nosology and the social context of disorders, occurring with vershroben-type deficit.

## **Polina Nosova**

### *Abstract*

**Aim.** Pharmacoepidemiologic analysis of prescriptions of psychotropic drugs in schizophrenia in “teaching” and “non-teaching” hospitals.

**Methods.** Pharmacoepidemiological retrospective investigation was provided. 222 medical cards of patients with paranoid schizophrenia hospitalized in 2010 were analyzed.

**Results.** Simultaneously prescriptions neuroleptics and antidepressants have registered rarely ( $p \leq 0,05$ ) in “non-teaching” hospital. This is correspond to international recommendation for schizophrenia treatment. Quality of medical documentation completion was better in “teaching” hospital, which allowed evaluating adverse effects of psychotropic therapy more exactly. Prescriptions only one atypical neuroleptic were very rarely (<5%). Maintenance of recommendation for treatment schizophrenia can improve effectiveness and safety psychopharmacotherapy.

## **Mariya Omelchenko**

### *Abstract*

The Study is aimed to develop a personalized approach to the identification and therapeutic management of the patients from the group of psychotic risk and to evaluate its effectiveness. Initially there were selected 127 young male patients (16-25 years old) from the group of psychotic risk with non-psychotic forms of mental disorders. There were reexamined 66 patients; the period of examination at the moment of catamnesis was not less than 3 years.

The proposed algorithm is to identify patients from the group with psychotic risk on the basis of identification the attenuating psychotic symptoms, correlation with the severity of affective symptoms, assessment of premorbid level of functioning, as well as the identification of hereditary abnormalities. The therapeutic activities were developed for the patients from the group of psychotic risk and their effectiveness was evaluated for a three-year catamnesis. It is determined that the early appointment of complex treatment with the adequate doses of antipsychotic drugs substantially reduces the risk of manifestations of psychosis, but has little effect on the outcome of the disease with the formation of unfavorable variants in half of cases, that causes the necessity to study more detailed the reasons for this as well as the search and development of additional therapeutic measures.

## **Nazar Osadchenko**

### *Abstract*

Cerebrovascular insufficiency is one of the most frequent reasons of people mortality. Different variants of stenosis of carotid artery in laboratory animals are in use as models of this disease. We are developing the method of modeling and assessment of neonatal cerebrovascular insufficiency in rats using surgery technics based on ligation of carotid artery accompanied by artificial hypoxia.

## **Maria Parpara (Bobrova)**

### *Abstract*

The aim of the study was to analyze the relationship among personality and cognitive disturbances in patients with SD.

**Material and Methods:** 86 patients with SD were studied with the help of clinical and psychological tests, Toronto Alexithymia Scale, Somatosensory Amplification Scale, Addenbrooke's Cognitive Examination, Frontal Assessment Battery, Dissociation Scale.

**Results:** types of behavior patterns of patients with SD were revealed with the help of MMPI. Patients with SD were characterized by high dissociation, alexithymia, disturbances of memory and spatial gnosis.

## **Anna Piatoikina**

### *Abstract*

The purpose of the research is to study the dynamics of speech disorders. There are used alternative and augmentative communications - PECS, electronic tablets COMPAS, Communicator-5. These techniques allow to form receptive and expressive speech, increase the degree of involvement in social interaction. The principle of alternative communication will be used in the device for the rehabilitation of children with speech disorders in autism.

## **Yuriy Poroshin**

### *Abstract*

**Objectives.** The aim of the work was to study the issues of the social rehabilitation in men with the psychotic disorders and mental retardation in the general psychiatric division of the psychiatric hospital.

**Materials and methods.** The research sample included 106 patients, who underwent examination and treatment in general psychiatric division.

**Conclusions.** The questions of social rehabilitation and work capacity remain unresolved in relation to more than a half of the patients. Modern approaches to the rehabilitation of this category of patients require a closer interaction of social and health services, as well as continuity in the work of rehabilitation structures and divisions.

## **Sergei Potanin**

### *Abstract*

My scientific research was about the individual variability of the antipsychotics concentration in plasma and its influence on the treatment efficacy among patients with schizophrenia exacerbation. 41 patients hospitalized to the city mental health hospital and treated according to the routine practice were included in the study. On 2-5 and 26-30 days PANSS rating was made. Blood sampling for antipsychotics plasma level was performed twice - at 7-10 day and at 26-30 day.

In 66% of patients (27 subjects) were found deviations from the optimal antipsychotic's plasma level in at least one of the test points. Patients with optimal concentration showed a significantly better treatment response based on PANSS scores.

## **Darya Ruban**

### *Abstract*

*The patient 28 years old was admitted to hospital with a diagnosis of mild mental retardation. Complaints: shortened sleep, anxiety, tearfulness, «voices», which only she hears, episodes of doubts about her belonging to some parts of the body, the possibility to control them. The disorder was stopped by an antipsychotic. Social functioning has been restored completely. Catamnesis 4 years. The maintenance dose of the neuroleptic has been canceled. The mood fell, sleep disturbed, anxiety arose after then. The reception of an antipsychotic is resumed. The condition returned to normal.*



## **Victoria Ruzhenkova**

### *Abstract*

This research is devoted to the study of educational stress influence on the manifestation of borderline mental disorders in medical students. A sample of 570 Russian-speaking and 260 foreign students was examined using the clinical-psychopathological and psychometric methods. The most significant stress factors are high training load, strictness of teachers, living away from parents, difficulties in organizing and planning time. A high specific weight (41.6%) of the anxiety and anxiety-phobic disorders, somatoform autonomic dysfunction (19%) and asthenia (80%) has been revealed. A half - 23.2% of students asked for help and was prescribed for psychopharmacotherapy and psychotherapy.

## **Lilia Safullina**

### *Abstract*

**Objective:** to improve the early detection and rehabilitation of children with autism spectrum disorders.

**Objectives of the study:**

1. To reveal the severity of speech disorders in children with ASD.
2. To assess the level of influence of speech disorders on the formation of adaptive behavior in the early preschool period.
3. Investigate the dynamics of the development of basic functions for the adequate formation of the prerequisites for intellectual development and adaptive behavior.

**Materials and methods:**

This study was conducted on the basis of the Kazan State Medical University in the Republican Clinical Psychiatric Hospital, Children's department (Kazan, Russia). Inclusion criteria was: children aged from 3 to 6 years that met the basic diagnostic criteria for the diagnosis of F84.0 for ICD-10 and CARS clinical scales, M-CHAT-R / F; exclusion criteria was: other disintegrative disorders, hyperactive disorders, autistic disorders in genetically determined chromosomal pathologies. We estimated the possible relationship between the severity of speech disorders and the speech therapy consultation and the level of their adaptive potential using the Vineland Adaptive Behavior Scale-VABS.

**Results of the study:**

Revealed a directly proportional relationship between specific speech disorders and individual forms (syndromes) of disadaptive behavior and children with ASD.

## **Viktoriya Shentsova**

### *Abstract*

Patient, 49 years old. When she came to the hospital, she was complaining of the anxiety, the shallow sleep, the fear that she might lose her work, unstable mood, difficulties at work. She arrived at the hospital for the first time. Her mother and her aunt were suffering from Huntington's chorea. She had fallen ill about a year ago. She studied and delivered religious books, went to a religious sect. Half a year ago she was a conflict with her boss. Her memory became worse, she was not certified at work, she couldn't deal cope her duties at work, she stopped to take care of herself. At the moment she is having medical treatment at the hospital. All her free time she reads and rewrites religious books. She makes involuntary moves with her shoulder joint, waves her arms at random, cannot stand still for a few seconds. She is absent-minded, cannot memorize new information. She avoids getting in touch with anyone. She is always alone.

## **Olga Simak**

### *Abstract*

The social functioning of schizophrenic patients within a family or partnership was investigated in accordance with the bio-psycho-social approach of the authors. Particular attention is paid to the mental health of partners of patients with schizophrenia. The level of family anxiety and the level of aggression in the family of a patient with schizophrenia was also evaluated. The factors evaluation required for the development of secondary and tertiary prevention of schizophrenia and rehabilitation programs of patients and their families. This study is significant for improving the care of patients with schizophrenia, improving psychosocial rehabilitation, and preventing the development of mental disorders among family members.

## **Julia Sivonen**

### *Abstract*

Neuroleptical treatment of patients, who have serious somatic diseases, should be based on somatic status of the patient, and doses are usually lower than average therapeutic ones. Besides, in that case, tolerance to neuroleptics can change. So, firstly the treatment of somatic disease could help to find the right therapy of psychiatric disease. Here is the case of 53-year-old Man with first diagnosed schizophrenia, serious bilateral pneumonia and arterial hypertension. During treatment with small doses of neuroleptics neuroleptic syndrome appears and only after therapy of somatic diseases we could use therapeutic doses of neuroleptics and improve his state.

## **Dmitriy Sosin**

### *Abstract*

In our study, 106 men and women with a diagnosis of schizophrenia receiving treatment in a psychiatric hospital. Patients were treated with clinical-psychopathological and psychometric methods of examination. Scales were used: PANS for assessing mental state, BACS for assessing cognitive functions. At the present time, the definition of polymorphic carriage of variants of COMT, DISC1, BDNF, and HTR2A genes is being carried out. The aim of the study is the correlation between the severity of psychotic symptoms, as well as cognitive impairment with the carriage of polymorphic variants of the genes COMT, DISC1, BDNF, HTR2A.

## **Evgeny Sychugov**

### *Abstract*

Dynamic interaction between structurally and functionally dissimilar larger cerebral hemispheres is recognized as one of the main thing its integrative activity. The research of Tim J.Crow surveying schizophrenia as result of loss of hemispheric specialization and leading to disturbance of hemispheric interaction got a broad popularity. According to this theory a functional failure of the right hemisphere leads to hyper activation left that is confirmed by numerous modern researches. However, the question of whether it should be taken into account schizophrenia model of the isolated suffering of one of hemispheres, or result of disturbance in hemispheric interaction is still discussable .

## **Anna Tsvetkova**

### *Abstract*

The main difficulty in differential diagnostics and choosing reasonable therapy used for hysterical depression of psychogenic and endogenous origin in case of coarctated pre schizophrenia is caused by variation of clinical characteristics.

The article describes a medical case of thirty four year old patient who consulted a psychiatrist. Expected clinical response wasn't obtained by various treatment options. So that it's advisable to make differentiation not on the basis of clinical characteristics particularity but based on examination and studying of conditional pathogenesis which is a recent problem. A treatment planning should be made more in the light of patogenetic than etiotropic aspect.

## **Kirill Vasilchenko**

### *Abstract*

The existence of internalized stigma among psychiatric patients is maintained by different components inside of its structure. Mental state is one part of that. Hence, level of stigma is able to be reduced by medication. The aim of our study is to investigate whether self-stigma level depends on efficacy of pharmacological treatment, side effects or patient compliance. The study was conducted on 117 early episode patients. Correlation between drug generation, side effects and level of stigma has been discovered. New anti-internalized stigma algorithms are based on these findings.

## **Anastasia Vasilieva**

### *Abstract*

The obtained data testifies about pronounced neurodestruction of brain substances in patients with schizophrenia alone manifestation, including to involvement of brain glutamate system in pathological process. Thus high level of neurotrophic factor indicates on early inclusion compensatory-protective (neuroprotective) brain mechanisms at patients with acute psychotic state. In process of remission formation, not all studied parameters undergo positive dynamics: decrease neuromarkers, however activation neuroreparation processes and BDNF level remains high.

## **Marina Vetrova**

### *Abstract*

My research efforts include investigation of healthcare and treatment problems in people living with HIV infection (PLWH) with substance use disorders (SUD). Areas of investigation include pharmacological treatment of SUD and psychological interventions to address stigma as a barrier to care utilization in PLWH with SUD. My research combines quantitative and qualitative analysis to assess the contexts of double stigma of HIV and SUD in medical settings. I am conducting a clinical trial of partial agonists for ethanol and tobacco elimination in HIV-infected heavy drinkers to compare effects on alcohol consumption, smoking and inflammation as contributors for serious mortality among PLWH.

## **Iuliia Iakovleva**

### *Abstract*

86 children and adolescents, 62 boys, 24 girls were examined by clinical and psychopathological methods to identify and study clinical features of anxiety disorders at different ages for correct therapy. In Group I, the situational anxiety dominated the personal anxiety ( $p < 0,005$ ); in Group III, on the contrary, the personal anxiety prevailed more often than the situational one ( $p < 0,005$ ); in Group II, the indicators were not significantly different. Social phobia prevailed in adolescence in 70,4% ( $n=19$ ) ( $p < 0,01$ ; I < III). As comorbid disorders children had tics in 32% cases, stuttering in 12% , enuresis in 19%, and adolescents more frequently had ideational obsessions, suicides in 28%. Group I didn't require of antidepressants treatment. In cases of Group II short courses of antidepressants (fluvoxamin) took place. Group III to use long courses of antidepressants (SIRS) and one-time of tranquillizators. In the case of comorbid disorders, added symptomatic treatment. Studying of the clinical picture of anxiety disorders in children and adolescents allows determining the strategy of drug therapy for different age groups.

## **Anna Yashikhina**

### *Abstract*

To improve the identification of PD and the creation of correctional programs tailored to the cognitive structure of patients was studied 102 people with different variants of PD, using the Wechsler Adult Intelligence Scale. Were allocated a common «deficit» zone is characteristic for all variants of PD: lack of development of attention and memory, arithmetic ability and a low ability to establish causal relationships. Was obtained in the same significant differences in the cognitive structure of patients with different variants of PD: PD with hysterical patients possess high, and patients with dissocial and emotionally unstable and PD have a low quality of cognitive organization.

## **Mikhail Zastrozhin**

### *Abstract*

The objectives of our study were to evaluate the correlation between DRD2, SLC6A3 (DAT) and COMT genetic polymorphisms and to investigate their effect on the development of adverse drug reactions in patients with alcohol-use disorder who received haloperidol. The study included 64 male patients (average age  $41.38 \pm 10.14$  years). Results of this study detected a statistically significant difference in the adverse drug reaction intensity in patients receiving haloperidol with genotypes 9/10 and 10/10 of polymorphic marker SLC6A3 rs28363170. In patients receiving haloperidol in tablets, the increases in the UKU Side-Effect Rating Scale (UKU) score of  $9.96 \pm 2.24$  (10/10) versus  $13 \pm 2.37$  (9/10;  $p < 0.001$ ) and in the Simpson-Angus Scale (SAS) score of  $5.04 \pm 1.59$  (10/10) versus  $6.41 \pm 1.33$  (9/10;  $p = 0.006$ ) were revealed.

## **Victor Zhilin**

### *Abstract*

The isolation of schizophrenia proceeding with the predominance of hysterical disorders in the XX century is based on the criterion of psychopathological positive symptoms transformation. Based upon the information provided in literature, a detailed analysis of the negative symptoms structure is beyond the scope of researchers. Their works, aimed at identifying negative symptoms with schizophrenic defect, illustrate the clinical unity of the pathology studied with the «classical» forms of the endogenous process. The need for such research increases due to suggestion offered by modern authors, according to which negative symptoms - multidimensional, typologically differentiated psychopathological category.







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