

ECNP Seminar in Neuropsychopharmacology



20-22 October, 2017

Tbilisi, Georgia

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 that 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 this meeting in Estonia, Serbia, Moldova, Portugal, Ukraine, Lithuania, Macedonia, Russia, Latvia, Greece, Romania, Czech Republic, Poland, Slovak Republic, Romania and recently in Croatia, Hungary and Turkey. In some countries we have organised it 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 pilot of the 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) 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 Georgia!

Gil Zalsman
Chair ECNP Educational Committee

PROGRAMME

FRIDAY 20 OCTOBER 2017

Arrival of participants and experts

19.00 Welcome and dinner

SATURDAY 21 OCTOBER 2017

- 09.00 – 09.15 What is ECNP?
 Introductions to the programme
 Speaker: Gil Zalsman
- 09.15 – 10.00 How to phrase a research question? The case of gene environment interaction in mood disorders
 Speaker: Gil Zalsman
- 10.00 – 10.45 Methylphenidate and PTSD: A translational research
 Speaker: Avi Avital
- 10.45 – 11.30 Coffee break
- 11.30 – 12.15 A new approach to treatment of psychosis and clinical pharmacology of antipsychotics
 Speaker: Carmen Moreno
- 12.15 – 12.30 How to give a talk
 Speaker: Gil Zalsman
- 12.30 – 13.30 Lunch

Presentation participants in 3 groups in 3 parallel workshops

Round 1 13.30 – 15.00	<i>Gil Zalsman and Eka Chkonia</i> Group 1	<i>Avi Avital and Fuad Ismayilov</i> Group 2	<i>Carmen Moreno and Armen Melik-Pashayan</i> Group 3
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15.00 – 15.15 Break

15.15 – 15.45 Panel discussion: How to prepare a clinical research project and how to publish it
 Chair: Gil Zalsman
 Panel members: Avi Avital & Carmen Moreno

16:00 – 21.00 Social activity, group photo and dinner

SUNDAY 22 OCTOBER 2017

Presentations participants in 3 groups in 3 parallel workshops
(Experts rotate between the groups)

<p>Presentations participants in 3 groups in 3 parallel workshops <i>(Experts rotate between the groups)</i></p>			
Round 2 08.30 – 10.00	<p><i>Carmen Moreno and Fuad Ismayilov</i></p> <p>Group 1</p>	<p><i>Gil Zalsman and Armen Melik-Pashayan</i></p> <p>Group 2</p>	<p><i>Avi Avital and Eka Chkonia</i></p> <p>Group 3</p>
10.00 – 10.30 Coffee Break			
Round 3 10.30 – 12.00	<p><i>Avi Avital and Armen Melik-Pashayan</i></p> <p>Group 1</p>	<p><i>Carmen Moreno and Eka Chkonia</i></p> <p>Group 2</p>	<p><i>Gil Zalsman and Fuad Ismayilov</i></p> <p>Group 3</p>
12.00 – 14.00 Lunch and preparation for plenary session			
Plenary 14.00 – 15.00	14.00 – 14.20	Group 1 Presentation	
	14.20 – 14.40	Group 2 Presentation	
	14.40 – 15.00	Group 3 Presentation	

15.00 – 15.30 Break and faculty selection of awards winner
Completion of feedback forms

15.30 – 16.00 Award ceremony, concluding remark and thanks
Gil Zalsman & Eka Chkonia

FACULTY

Prof. Gil Zalsman MD, MHA



Prof. Zalsman graduated from the Hebrew University and Hadassah Medical School in Jerusalem, Israel. He completed his psychiatry residency at the Geha Mental Health Center and Tel Aviv University and the Child Psychiatry residency at Geha and then at Yale Child Study Center in Yale University, Connecticut, USA with the late Prof. Donald J Cohen. He completed a two years Post-Doctoral Fellowship with Prof. J John Mann, in the Division of Molecular Imaging and Neuropathology, Department of Psychiatry, Columbia University and New York State Psychiatric Institute, New York City, USA, where he holds an ongoing position as an Adjunct Research Scientist. He also holds a Master degree in health administration (MHA summa cum laude) from Ben Gurion University, Israel. His academic research focuses on suicidal behavior, gene-environment interactions in childhood depression and suicidal behavior and other psychiatric disorders in adolescence.

Prof. Zalsman has published more than 250 papers, of them more than 166 original papers, dozens of reviews, book chapters, two edited books and actively participated in more than a 230 scientific meetings. Currently he is the CEO and Medical Director of Geha Mental Health Center near Tel Aviv in addition to being the director of the Adolescent Day Unit. He is a full Professor in Psychiatry at Sackler School of Medicine and former director of psychiatry continuing education program.

Prof. Zalsman is the past board member and president of the child psychiatry section at the Association of European Psychiatry (EPA). Currently he is a counselor and chair of education at the executive committee of the European College of Neuropsychopharmacology (ECNP) and the past president of the Israeli Society of Biological Psychiatry (ISBP). He recently chaired the 14th European Symposium for Suicide and Suicidal Behavior (ESSSB), held in Tel Aviv and will Co-Chair the IASR/AFSP annual suicide summit in Las Vegas, November 2017.

Prof. Zalsman served as an invited speaker in the major psychiatric congresses worldwide including APA, EPA and ECNP.

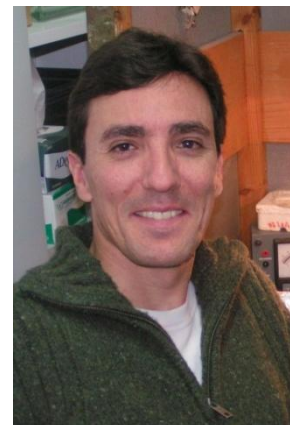
He is married with two children and resides in a Tel Aviv suburb, Israel.

Dr. Avi Avital 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.



Dr. Carmen Moreno MD, PhD



Dr. Carmen Moreno (MD, PhD) is a Child and Adult Psychiatrist at the Hospital Gregorio Marañón in Madrid and Associate Professor of the Gregorio Marañón Psychiatry Department and Complutense University School of Medicine, Madrid, Spain. Dr. Moreno completed her MD and PhD degrees at Autónoma University and Complutense University in Madrid, followed by a Research Fellowship in Child and Adolescent Psychiatry at Columbia University/New York Psychiatric Institute, New York, USA. Dr. Moreno has been focusing her career on severe early-onset psychiatric disorders, mainly psychotic and affective disorders, and autism and other neurodevelopmental disorders. She is actively involved on multinational research projects exploring key biological aspects of first-episode psychotic disorders, including multimodal neuroimaging, intermediate mechanisms such as inflammation and oxidative stress, and metabolomics. Her efforts are also focused on exploring secondary effects of psychopharmacological interventions towards development of new treatment interventions in young patients, being currently involved on independent clinical studies with PUFAS omega-3 and N-acetylcysteine.

Dr. Moreno is actively involved on the development of clinical psychopharmacology in children and adolescents. She has served as consultant for the European Medicines Agency (EMA) and is currently serving as Co-chair of the ECNP Adolescent Child and Adolescent Neuropsychopharmacology Network, integrated in the EmprEMA. She has previously served in the ECNP Membership Committee. Dr. Moreno has published more than 50 peer-reviewed original publications, numerous book chapters and has presented more than 100 scientific communications. She has participated in more than 20 research projects, including 5 with European Union funds. She has been awarded the ECNP Research Fellowship Award, and the Awards for Young Scientists and Senior Scientists of the Spanish Association of Biological Psychiatry.

Prof. Armen Melik-Pashayan, MD, PhD, DSc (Armenia)

Professor Melik-Pashayan is currently a Head of the Department of Psychiatry of Yerevan State Medical University after M. Heratsi.

He is a ECNP Ambassador in Armenia, Member of the Chairmen's Council of the Association of Psychiatrists and Narcologists of Armenia, Secretary of Education of Armenian Psychiatric Association, Member of Ethics Committee, Member of the Scientific Board, Yerevan State Medical University after M. Heratsi, Chairman of Expert Commission of the Scientific Coordination Council of Yerevan State Medical University after M. Heratsi, Chairman of Specialized Council for Thesis Defending "Psychiatry and Medical Psychology" of Yerevan State Medical University after M. Heratsi, Member of the Editorial Board of the Armenian Journal of Psychiatry. During his professional career Professor Melik-Pashayan was also Vice director, Director and Head Physician of the Republican Centre of Mental Health "Nork".



In 2001 he has received degree of Candidate of Medical Science (Ph.D) Clinical Epidemiological Research of Mental Disorders among the Child, Adolescent and Recruits Population of Armenia and in 2006 - degree of the Doctor of Medical Science. Since 2008 Head of the Department of Psychiatry Yerevan State Medical University after M. Heratsi.

His scientific interests are guided for improving the organization of mental service of child and adolescent and mental expertise of the recruits, psychopharmacology, child and adolescent psychiatry, epidemiology of psychiatric disorders.

Professor Melik-Pashayan has over 60 publications including monographs, handouts and handbook.

Prof. Fuad Ismayilov MD, PhD, DSc (Azerbaijan)



Professor Fuad Ismayilov is currently a director of the National Mental Health Centre of the Ministry of Health of Azerbaijan. He is a professor at the Department of Psychology at Baku State University since 2010 and a professor at the Department of Psychiatry at Azerbaijan Medical University since 2007.

During his professional career he worked as a psychiatrist in emergency psychiatry, psychiatric rehabilitation and general adult psychiatry at Psychiatric Hospital # 1 of MoH and Baku-city Psychiatric Hospital # 2.

Prof. Ismayilov provides various training courses on Contemporary Psychiatry, Psychological First Aid, Cognitive Behavioral Therapy, ToT on Mental Disorders at Primary Health Care, leads undergraduate and postgraduate classes on Psychiatry and Clinical Psychology. Since 2009 he is a Head of master program on Clinical Psychology at Baku State University. In 1997-2002 he also gave lectures in Forensic Psychiatry, etc. He has carried out and led international research projects.

Prof. Ismayilov is a Chair of workgroup on development Clinical Practice Guidelines (since 2008), Responsible for elaboration of residency program in Psychiatry (since 2010), Chair of work group on Mental Health Workforce Strategy (since 2012). He chaired the working group on the National Mental Health Policy and the Strategic Action Plan (2007-2010) and the workgroup on development of certification tests on Psychiatry (2009-2012).

Fuad Ismayilov is a Secretary on International Relations at the Azerbaijan Psychiatric Association, a member of the European Psychiatric Association, an editorial board member of Review of Contemporary Psychiatry and an Editor-in-chief of Azerbaijan Journal of Psychiatry.

Prof. Ismayilov has over 60 publications including textbooks, clinical guidelines and scientific papers.

Prof. Eka Chkonia MD, PhD (Georgia)

Eka Chkonia is an associate professor of psychiatry at Tbilisi State Medical University and a clinical director of the central university hospital "Tbilisi Mental Health Centre".

Since 1999, she has carried out and led many collaborative research projects with German, Swiss and Britain colleagues in clinical and social psychiatry and published more than 20 scientific articles in the high ranked medical journals as Schizophrenia Bulletin.



She has been awarded with JFDP Junior Faculty Development Program Fellowship at Rutgers University (US, 2010) and Alberto Vilar Medical Internship at the General Hospital (AKH) in Vienna in 2003 and 2012. She has received research grants from the Royal society, Volkswagen Foundation, Swiss Federal Institute of Technology in Lausanne (EPFL), The National Centre of Competence in Research (Swiss National Science foundation) and from other national and international foundations.

Since 2017 she is a honourable member of the World Psychiatric Association.


Prof. Eka Chkonai is a president of the Society of Georgian Psychiatrists.

PRESENTATIONS

How to phrase a research question? The case of gene environment interaction in mood disorders


Gil Zalsman

How to move from a research question to an hypothesis and then to an experiment that proves your hypothesis? Prof. Zalsman will bring his own story on 'gene by environment by timing interaction' hypothesis and how we can learn from it for our own questions in research.




How to phrase a research question? The case of gene environment interaction in mood disorders

Prof. Gil Zalsman MD, MHA



Director, Child and Adolescent Division
Geha Mental Health Center
Psychiatry Department
Sackler Faculty of Medicine
Tel Aviv University, Israel
&
Associate Research Scientist
Molecular Imaging Division
Psychiatry Department
Columbia University
New York, NY

ECNP Seminar 2016



Three advices for building a career in child psychiatry research

- Pick a subject
- Find a mentor
- Built a database

How do I start?

Research question



**Create your own
DATA BASE!!!**



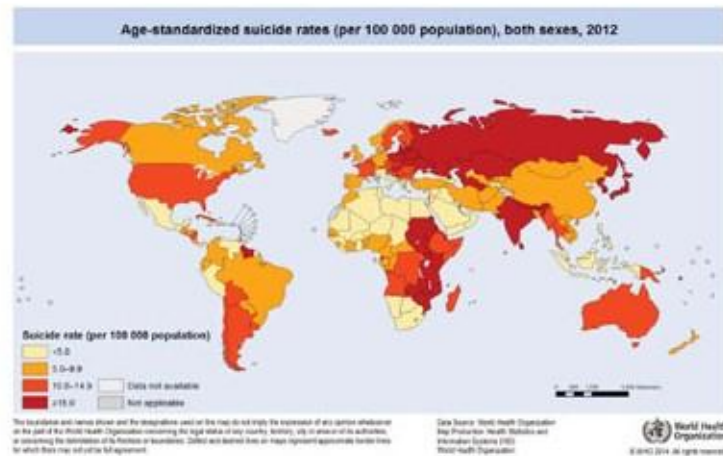
■ The phenomena

SUICIDE



- 1,000,000 people a year worldwide
- Over 150,000 in Europe
- About 65,000 in the EU countries
- Males 5 times more
- Attempts X10. Mostly females

World Suicide Rates (WHO)



If you don't ask you don't know

- 90% of suicide victims suffered from a mental disorder
- 60% of suicide victims met their primary care physician in the month prior to suicide

Mann et al., JAMA, 2005

- Asking is not dangerous

Gould et al., JAMA 2006



Definitions

- “An act of self harm with at least partial intent to die” (Posner et al., 2010)
- CSSRS
- Spectrum Theory: ideation- gestures- attempt (aborted/disrupted)-attempt-completed

■ Risk Assessment

Risk Assessment

- Male!!!
- Psychopathology (MDD)
- Previous attempt
- Impulsive aggression
- Loss
- Leaving alone
- Support system

Risk Assessment

- Substance abuse
- Problem with the law
- Genetics
- Hopelessness- Despair
- Helplessness
- Poor decision making

Evaluation after a suicide attempt

- Timing and location
- Letter (SMS/email)
- Violence and irreversibility of method
- Medical lethality (note: potential)
- Access to means
- Support system
- Collaboration with therapist
- Personal connection

■ Treatment

Tx of the suicidal patients

- Safety plan
- Restriction of means
- No-suicide contract
- Effective treatment of depression
- Aggressive treatment of psychopathology!!
- Postcard approach-continuous care
- Specific psychotherapies
- Human compassion and true care

Evidence- Based Psychotherapies for Depression and Suicidal Behavior

- **CBT, CBT-A**
- **DBT- specifically for BLPD NSSI**
- **IPT, IPT-A**
- **MBCT**

■ Basic Research

Neurobiology



Familial Transmission and Gene-Environment Interaction

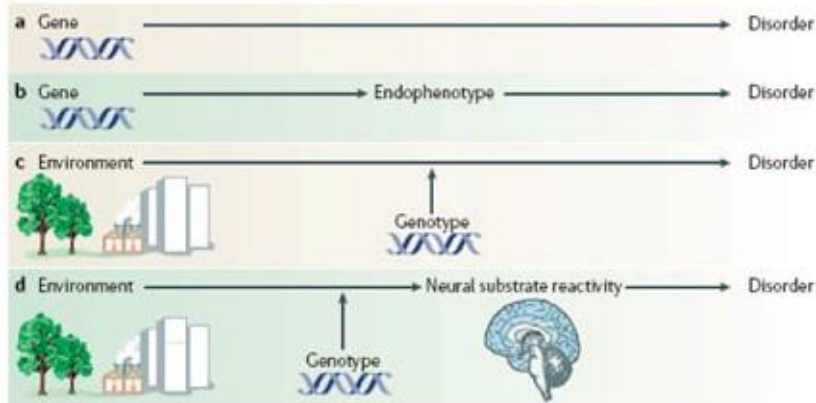


Figure 1 | Approaches to psychiatric genetics research. **a** | The gene-to-disorder approach assumes direct linear relations between genes and disorder. **b** | The endophenotype approach replaces the disorder outcomes with intermediate phenotypes. **c** | The gene-environment interaction approach assumes that genes moderate the effect of environmental pathogens on disorder. **d** | Neuroscience complements the latter research by specifying the proximal role of nervous system reactivity in the gene-environment interaction.

Caspi and Moffitt, Nature Reviews Neuroscience, July 2006, with permission



GWAS

A pilot genome-wide association and gene expression array study of suicide with and without major depression

Zalsman et al., The World Journal of Biological Psychiatry, 2011



GxE → D

Childhood Adversity

Influence of Life Stress on Depression: Moderation by a Polymorphism in the 5-HTT Gene

Avshalom Caspi,^{1,2} Karen Sugden,¹ Terrie E. Moffitt,^{1,2*}
Alan Taylor,¹ Ian W. Craig,¹ Honalee Harrington,²
Joseph McClay,¹ Jonathan Mill,¹ Judy Martin,³
Antony Braithwaite,⁴ Richie Poulton³

In a prospective-longitudinal study of a representative birth cohort, we tested why stressful experiences lead to depression in some people but not in others. A functional polymorphism in the promoter region of the serotonin transporter (5-HTT) gene was found to moderate the influence of stressful life events on depression. Individuals with one or two copies of the short allele of the 5-HTT promoter polymorphism exhibited more depressive symptoms, diagnosable depression, and suicidality in relation to stressful life events than individuals homozygous for the long allele. This epidemiological study thus provides evidence of a gene-by-environment interaction, in which an individual's response to environmental insults is moderated by his or her genetic makeup.

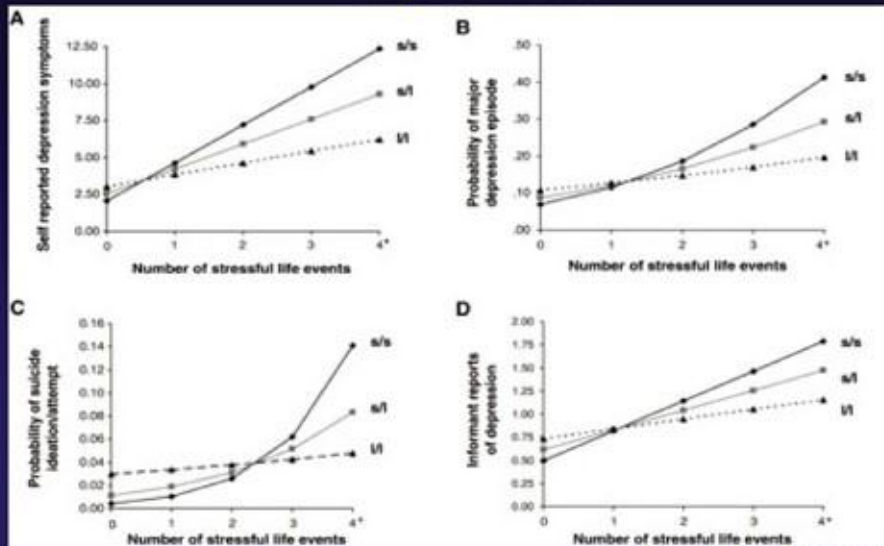
5-HTT-LPR - serotonin transporter linked polymorphism region



A functional polymorphism consists of two common alleles, a short (S) and long (L) variants, differing by 44 bp
 $S \ll L$

Lesch et al. 1994, Heils et al. 1996

5HTTLPR Gene X Environment Interaction Caspi et al. 2003

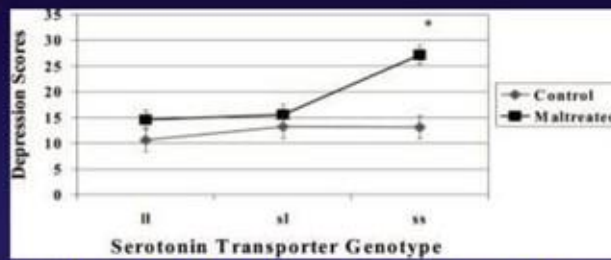


Caspi et al. Science, 2003

Social supports and serotonin transporter gene moderate depression in maltreated children.

Kaufman J et al. *Proc Natl Acad Sci USA* 2004; 101:17316-17321

(N=101)



Maltreated children (57 age 10-15; were removed from their parents' care) with the s/s genotype and no positive supports had the highest depression ratings.

Positive supports reduced risk.

Gene-environment interactions on adolescent depression
TC Eley et al

♀

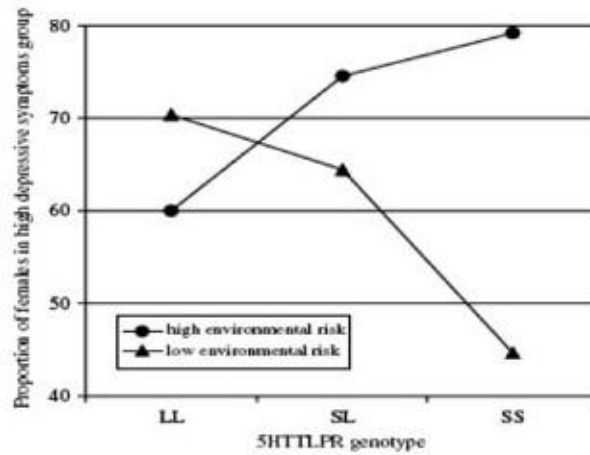


Figure 1 Proportion of female subjects with a high level of depression by environmental risk group and genotype.

N=1990, age 10-20

Eley et al., *Mol Psychiatry* 2004

Article

Association of a Triallelic Serotonin Transporter Gene Promoter Region (5-HTTLPR) Polymorphism With Stressful Life Events and Severity of Depression

Gil Zalsman, M.D.
 Yung-yu Huang, M.S.
 Maria A. Oquendo, M.D.
 Ainsley K. Burke, Ph.D.
 Xian-zhang Hu, M.D, Ph.D.
 David A. Brent, M.D.
 Steven P. Ellis, Ph.D.
 David Goldman, M.D.
 J. John Mann, M.D.

Objective: The lower expressing allele of the serotonin transporter gene 5' promoter region (5-HTTLPR) polymorphism is reported to be associated with susceptibility to depression and suicidality in response to stressful life events. The authors examined the relationship of a triallelic 5-HTTLPR polymorphism to stressful life events, severity of major depression, and suicidality.

Method: Mood disorder subjects (N=191) and healthy volunteers (N=125), all Caucasian subjects of European origin, were genotyped for the triallelic 5-HTTLPR polymorphism (higher expressing allele: L₂; lower expressing alleles: L₁, S). All subjects underwent structured clinical interviews to determine DSM-IV diagnoses,

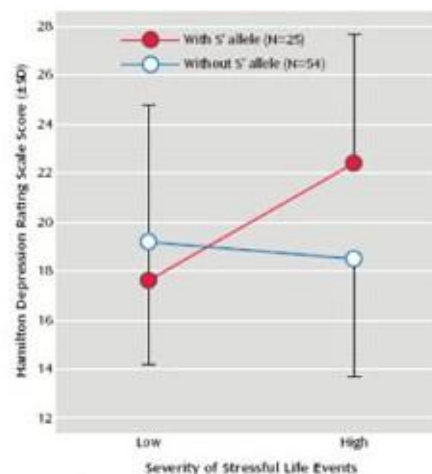
ratings of psychopathology, stressful life events, developmental history, and suicidal behavior. CSF 5-HIAA was assayed in a subgroup of subjects.

Results: Lower expressing alleles independently predicted greater depression severity and predicted greater severity of major depression with moderate to severe life events compared with the higher expressing L₂ allele. No associations with suicidal behavior and CSF 5-HIAA were found.

Conclusions: Lower expressing transporter alleles, directly and by increasing the impact of stressful life events on severity, explain 31% of the variance in major depression severity. The biological phenotype responsible for these effects remains to be elucidated.

Am J Psychiatry 2006; 163:1588-1593

FIGURE 1. Relationship of Depression Severity and Stressful Life Events by 5-HTTLPR Genotype^a



^a Stressful life events score measured by St. Paul-Ramsey Scale (30, 31). High and low stressful life events were defined using a median split. The overall model was significant (F=2.22, df=13, 78, p<0.02), and independent effects were found for genotype (F=4.71, df=2, 78, p<0.02) and the interaction of genotype and St. Paul-Ramsey Scale score (F=2.27, df=6, 78, p<0.05).

Zalsman et al. *Am J Psychiatry* 2006, 163:1588-1593

OOPS!!!!



- Risch N et al. JAMA, 2009;302:492

Meta-analysis of 14 studies found no significant association (OR=1.05)

Karg et al. 2011



META-ANALYSIS

ONLINE FIRST

The Serotonin Transporter Promoter Variant (5-HTTLPR), Stress, and Depression Meta-analysis Revisited

Evidence of Genetic Moderation

Katja Karg, BSc; Margit Burmeister, PhD; Kerby Shedden, PhD; Srijan Sen, MD, PhD

Arch Gen Psychiatry.
Published online January 3, 2011.

Data Synthesis: We included 54 studies and found strong evidence that 5-HTTLPR moderates the relationship be-

tween stress and depression, with the 5-HTTLPR s allele associated with an increased risk of developing depression under stress ($P = .00002$). When stratifying our analysis by the type of stressor studied, we found strong evidence for an association between the s allele and increased stress sensitivity in the childhood maltreatment ($P = .00007$) and the specific medical condition ($P = .0004$) groups of studies but only marginal evidence for an association in the stressful life events group ($P = .03$). When restricting our analysis to the studies included in the previous meta-analyses, we found no evidence of association (Munafò et al studies, $P = .16$; Risch et al studies, $P = .11$). This suggests that the difference in results between meta-analyses was due to the different set of included studies rather than the meta-analytic technique.



Are brains of children and adolescents different?

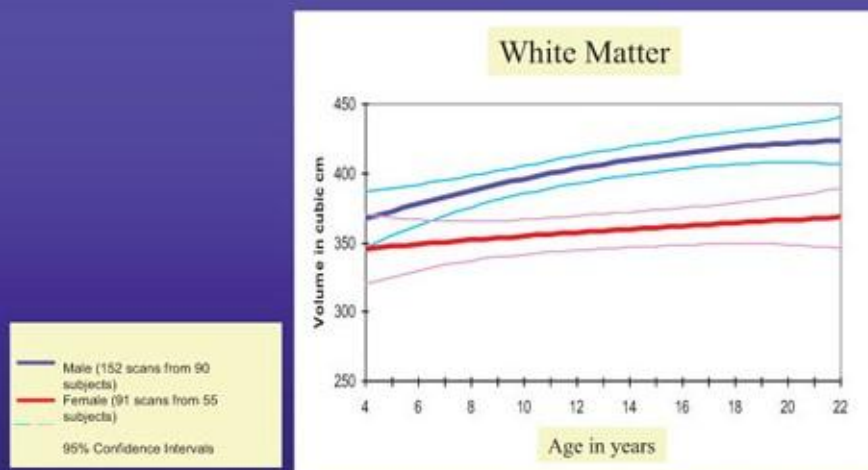
****Almost no suicides under 10**

Normal Brain Development

243 Scans from 145 healthy children

1. Giedd JN, et al., Child psychiatry branch of the NIMH longitudinal structural MRI study of human brain development. *Neuropsychopharmacology*. 2015
2. Giedd JN. The amazing teen brain. *Sci Am*. 2015

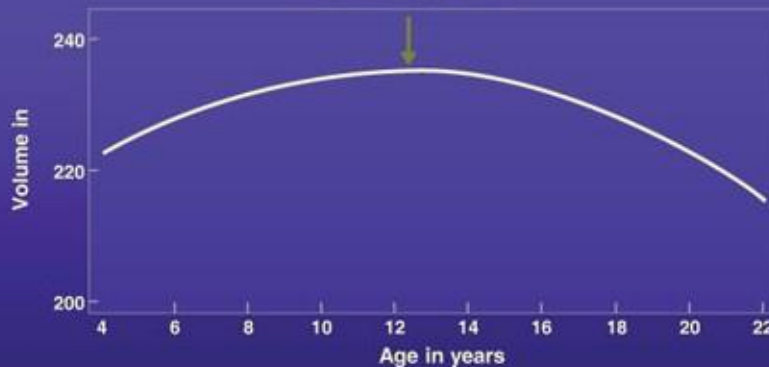
White Matter



From Jay Giedd, NIMH with permission

Are brains of children and adolescents different? Gray Matter

Brain Development in Healthy Children & Adolescents
Longitudinal and Cross-Sectional Data
(243 Scans from 145 Subjects)
Frontal Gray Matter



From Jay Giedd, NIMH with permission



Pruning

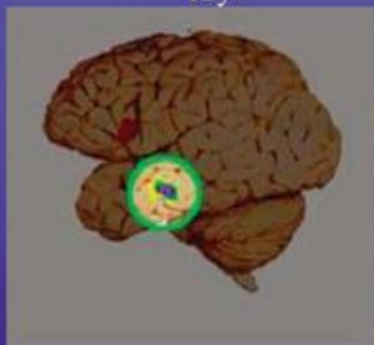
The process of removing certain above-ground elements from a plant; in landscaping this process usually involves removal of diseased, non-productive, or otherwise unwanted portions from a plant

Are brains of adolescents and adults are different?

**Pick of suicidality during in adolescence

Reading Emotions Differently

12y



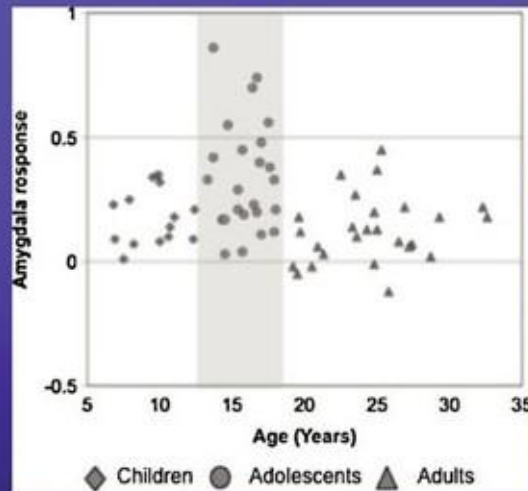
22y



When reading emotion, teens (**left**) rely more on the amygdala, while adults (**right**) rely more on the frontal cortex.

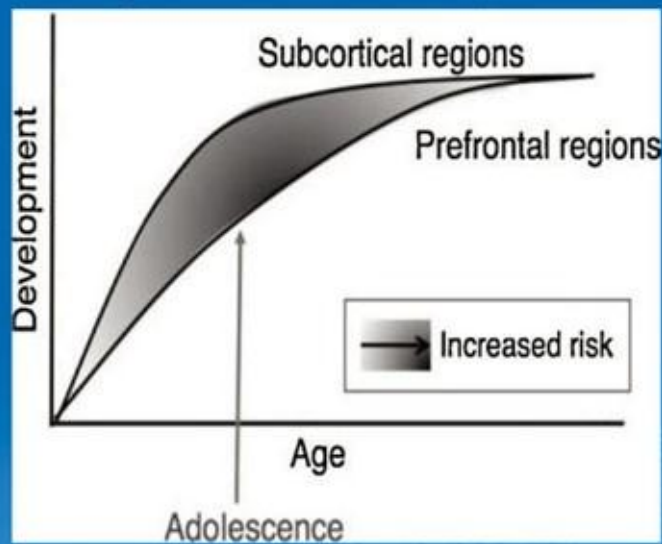
Deborah Yurgelon-Todd, 2000

Amygdala response to fearful faces as a function of age.



Casey et al., *Dev Psychobiol* 52: 225–235, 2010.
 Hare et al., *Biological Psychiatry* 63:927-934, 2008.

later development of prefrontal regions relative to subcortical regions involved in emotional processes.



Casey et al., *Dev Psychobiol* 52: 225–235, 2010.

European Neuropsychopharmacology (2015) 25, 2075–2085



www.elsevier.com/locate/europharm



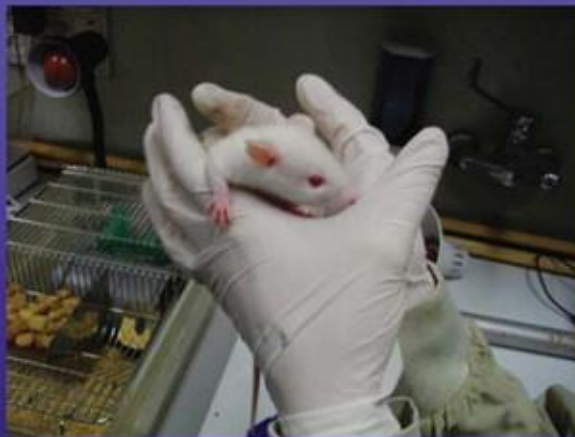
Genetic vulnerability, timing of short-term stress and mood regulation: A rodent diffusion tensor imaging study



Gil Zalsman^{a,b,*}, Avihay Gutman^{c,d}, Liat Shbiro^d, Ruth Rosenan^d,
J. John Mann^b, Aron Weller^d

Zalsman et al., Eur Neuropsychopharmacology 2015

WKY



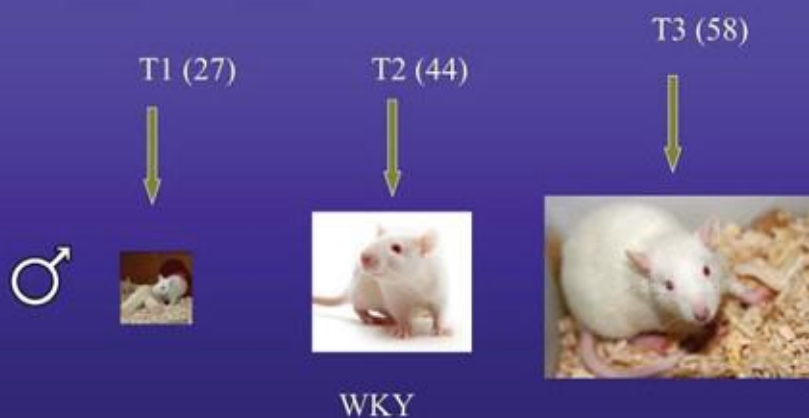
WKY



The Wistar Kyoto (WKY) rat, is stress-reactive, and is considered as a “genetic animal model of depression” with anxiety-like behaviors

(Exposure to stress) at different developmental windows

G x E x Gender x T



Stress manipulations

- Elevated maze .1
- Restraints .2
- Wet cage .3



Elevated maze



Wet cage



Restraints



Behavioral tests for “depression”

1. **Forced Swim Test X2**
2. **Saccharine test**
3. **Open field with novel object**

Saccharin test for anhedonia



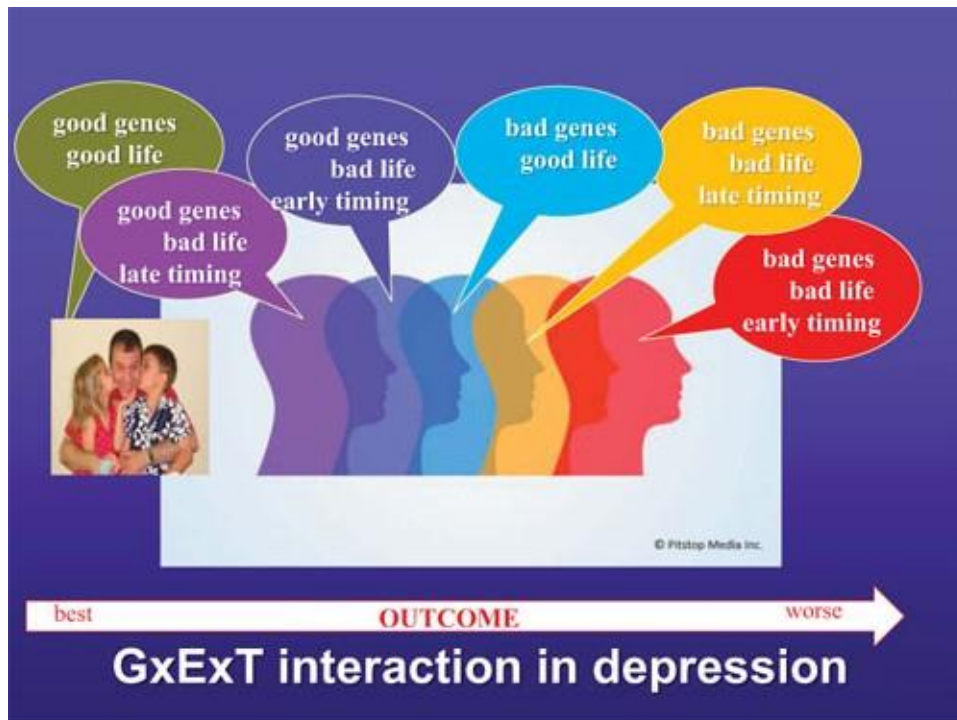
Open field



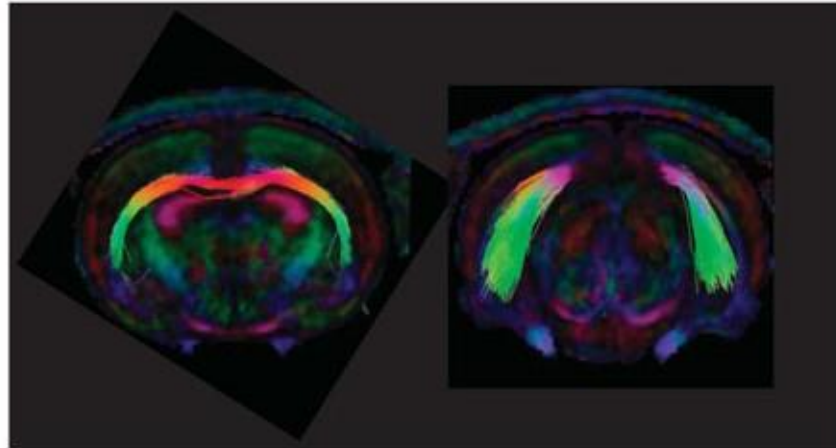
Rats MRI and brain perfusion



Tel Aviv University MRI



Fiber tracking



Corpus Callosum (CC)

My Message



- Suicidal behavior is not rare after puberty
- Complete suicide is rare and hard to predict
- Risk assessment and recording is essential
- Pharmacotherapy include SSRIs, Lithium, Clozapine, ECT and maybe Ketamine
- SSRIs do not cause more completed suicides
- Animal model prove GxExT interaction
- Prevention in the national level is effective
- Connection and Compassion are critical

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www.zalsman.org



Methylphenidate and PTSD: A translational research

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.

Finally, I'll introduce a translational research from rats' auditory sustained attention test to human study.

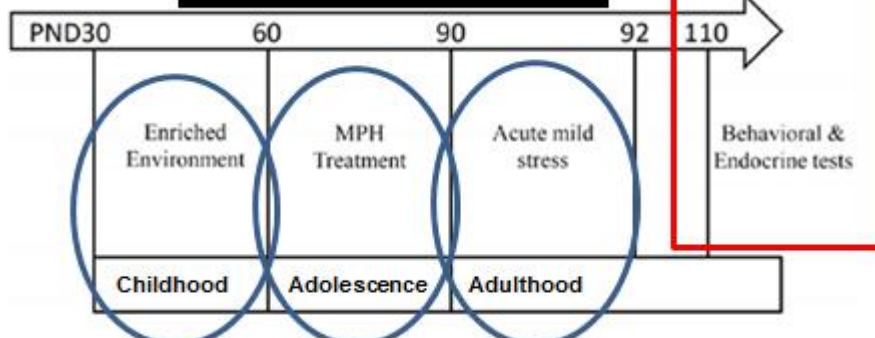


Methylphenidate and PTSD: a translational research

Avraham (Avi) Avital, Ph.D

*Behavioral Neuroscience lab, Department of Physiology
Rappaport Faculty of Medicine and Emek medical center
Technion - Israel Institute of Technology*

Rat model



2

Introduction

Methylphenidate and Desipramine Combined Treatment Improves PTSD Symptomatology in a Rat Model

The characteristic symptoms of post-traumatic stress disorder (PTSD) include: re-experiencing, avoidance and hyper-arousal.

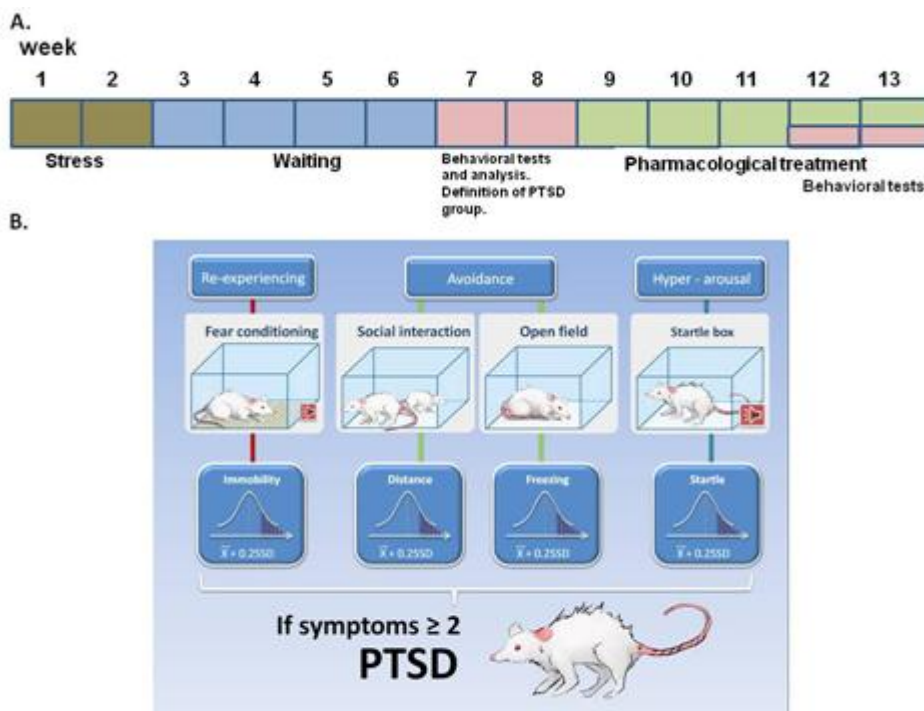
Nowadays, the common treatment for PTSD includes various antidepressants. However, these treatments focus on the anxiety, depression, flattened affect or detachment symptoms and less on attention problems.



To determine whether, in addition to the common antidepressants, Methylphenidate (Ritalin) treatment will affect PTSD core symptoms.

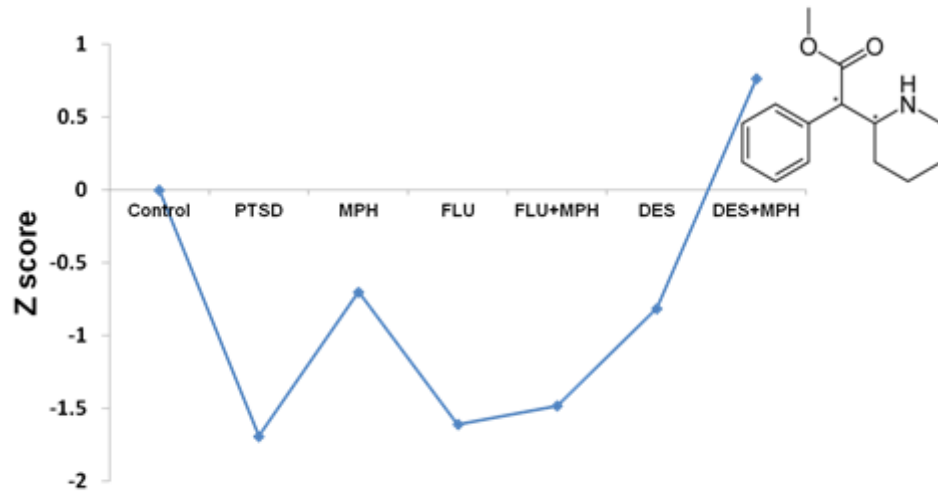
Translational Psychiatry, 2014

4



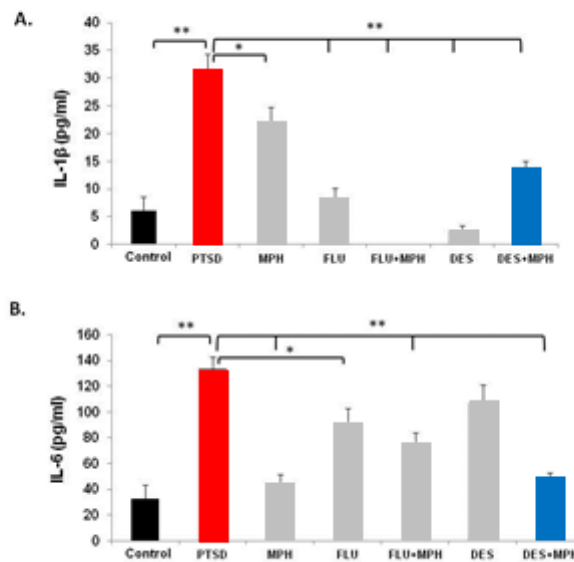
5

Summary



6

Results - possible mechanism



7

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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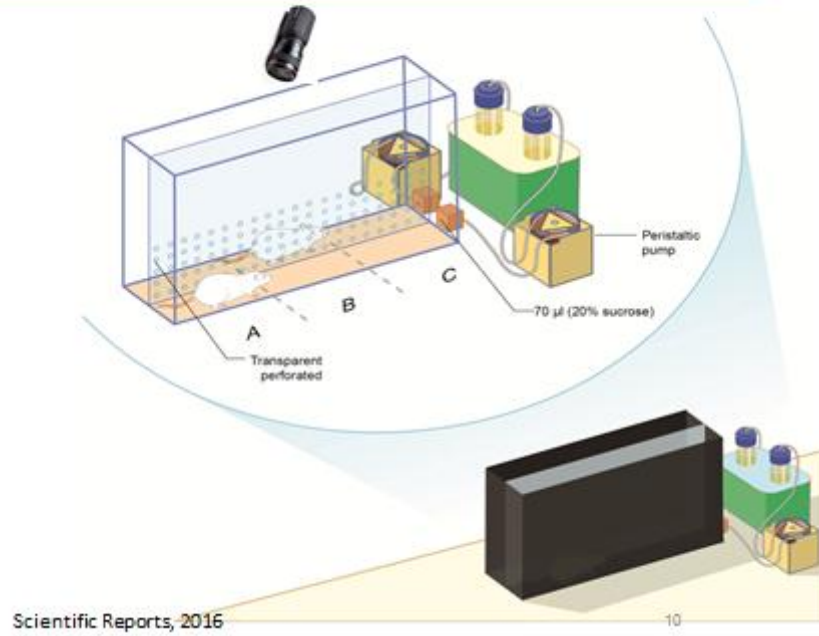
Stress as well as PTSD accompanied by poor social abilities.



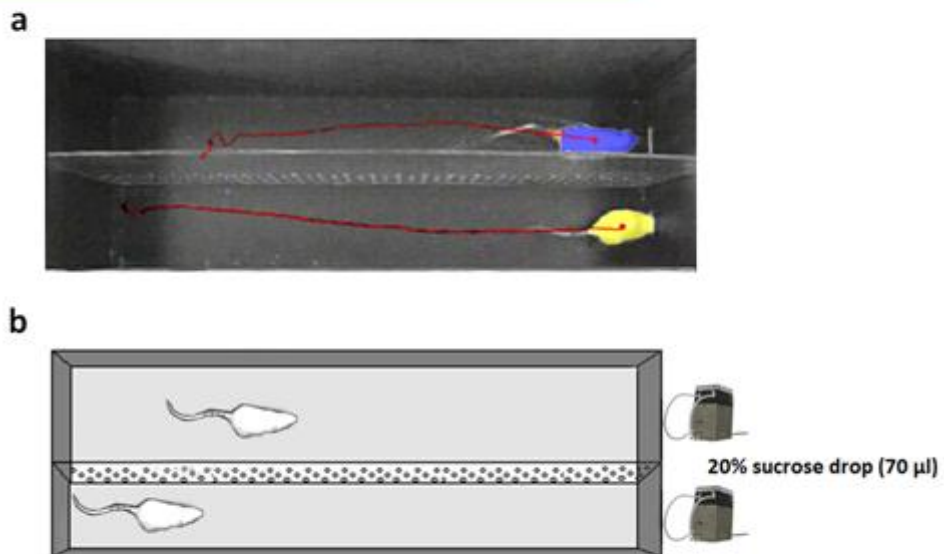
To establish a valid model that will enable to examine the biological/physiological aspects of social cooperation

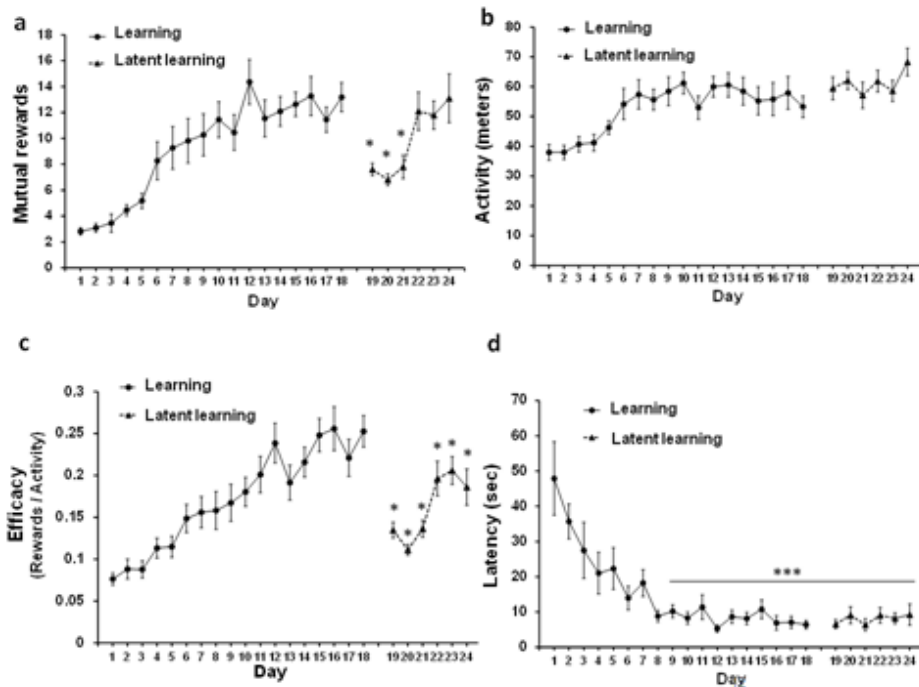
9

Fully Automated Novel Cooperation Maze



Social cooperation





Introduction

- ADHD is characterized by inattention, hyperactivity, and impulsivity, including the inability to screen out distracting stimuli.
- Auditory Sustained Attention Test (ASAT) was measured using an **EMG based** startle response system using **custom made software for auditory stimulation and EMG analysis**.
- The present study investigated the modifications of ASAT characteristics in children and adolescents suffering from ADHD, with or without methylphenidate (MPH).

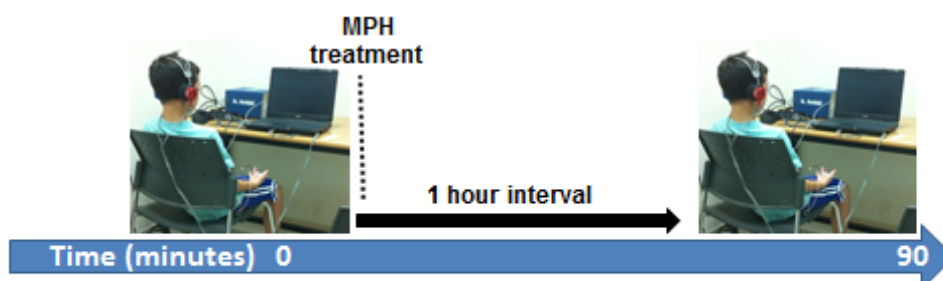
Aims

- Two research questions were tested:
 1. Does ADHD associated with impaired ASAT?
 2. Does MPH increase ASAT among children and adolescents suffering from ADHD?

14

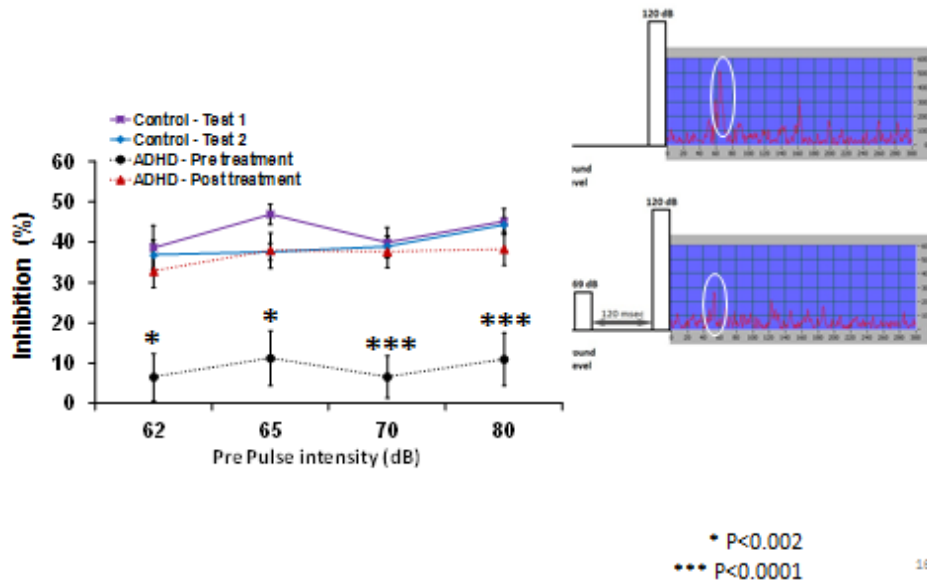
Subjects and Procedure

Children and adolescents diagnosed with ADHD (n = 43) completed two sessions of ASAT test; with or without their routine MPH treatment.



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Results – ASAT



Conclusion

- MPH had no effect on startle response
- ADHD is associated with impaired ASAT
- MPH improves ASAT among children and adolescents suffering from ADHD.

Together, ASAT may serve as a physiological marker for attention and attention deficit

A new approach to treatment of psychosis and clinical pharmacology of antipsychotics

Carmen Moreno

Development of antipsychotic treatments has been focusing until recently on dopamine pathways, known to be altered in psychosis. Most antipsychotic drugs have been developed targeting D2 dopamine receptors, as D2 blockade is related to clinical efficacy measured as improvement in positive psychotic symptoms. However, it is also related to adverse events such as extrapyramidal symptoms, impairment of negative symptoms, and worsening on cognition. Heterogeneity of psychosis is key in the development of pharmacological options for this syndrome, as positive symptoms are most easily recognized in the acute setting, but negative and cognitive symptoms are pervasive on most psychotic disorders, have great impact on long-term functioning and increase the complexity of treatment. Biological and psychological factors, including medical and psychiatric comorbidities, have also great impact on functionality, and adverse events such as weight gain and sedation may worsen them.

New insights suggest that treatment approaches to psychosis need to move from the single-disease paradigm towards treatment developments focusing on understanding the pathogenesis and different mechanisms of psychopathology, using experimental medicine methods based on new target identification, and targeting domains of brain function relevant to psychopathology across different units of analysis (such as genes, circuits or behaviors). In this vein, recent developments are studying non-dopaminergic strategies targeting symptomatic dimensions other than positive symptoms as well as treatment potential of other mechanisms involved in the pathophysiology of schizophrenia such as inflammation. Preventive strategies such as primary prevention of vulnerability or treatment at vulnerability stages previous to psychosis onset are also being studied with promising initial results.



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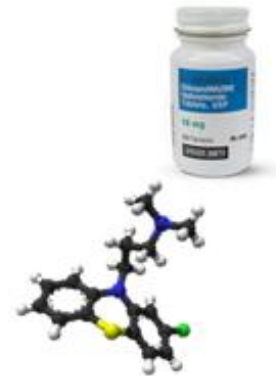
A new approach to treatment of psychosis and clinical pharmacology of antipsychotics

Carmen Moreno MD, PhD
*Child and Adolescent Psychiatry Department
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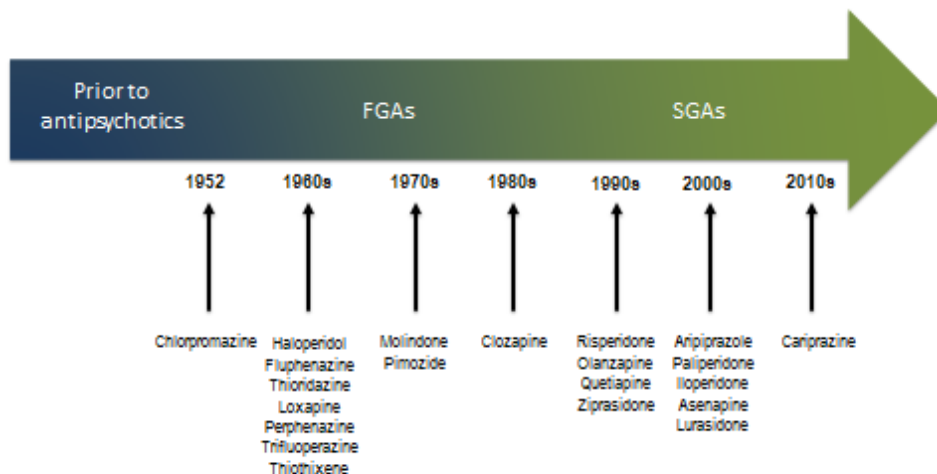


Hospital General Universitario
Gregorio Marañón
Comunidad de Madrid



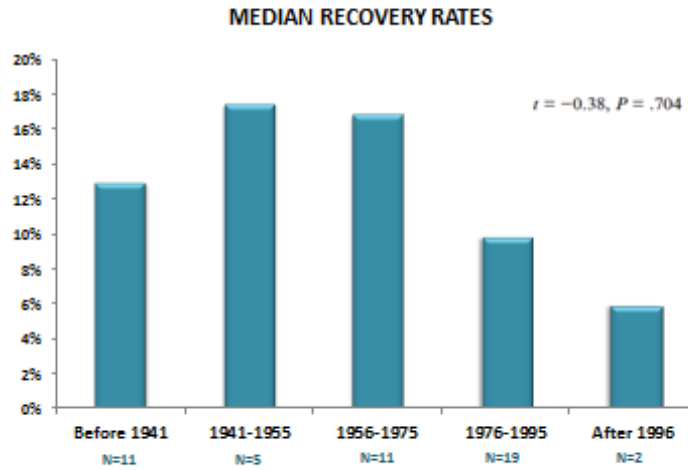
- 19th century: the discovery of phenothiazines has its origin in the development of German dye industry
- Up to 1940 they were employed as antiseptics, antihelminthics and antimalarials
- Finally, in the context of research on antihistaminic substances in France after World War II chlorpromazine was used in anaesthesiology

Historical development of antipsychotic medications



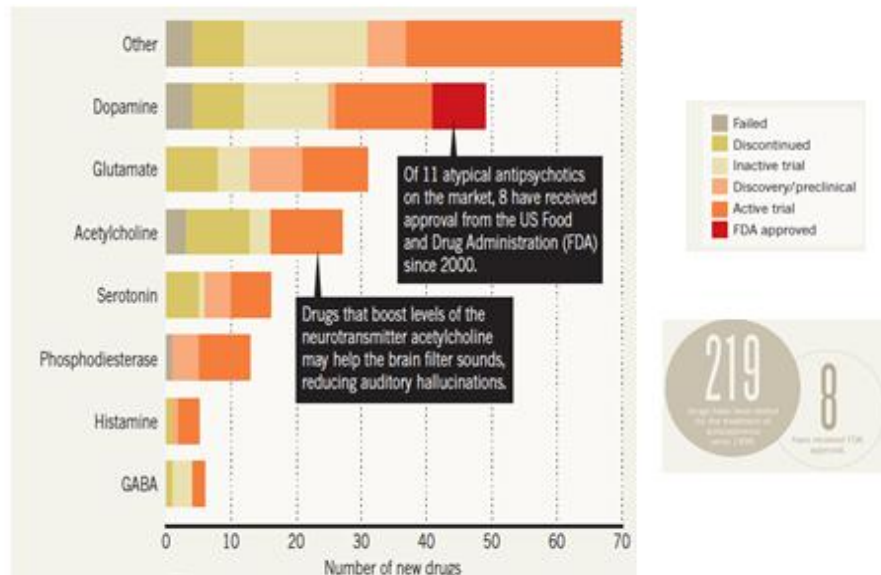
A Systematic Review and Meta-Analysis of Recovery in Schizophrenia

Erika Jääskeläinen^{1,2}, Paulina Juola¹, Noora Hirvonen^{1,2}, John J. McGrath^{3,4}, Sukanta Saha³, Matti Isohanni¹, Juha Veijola¹, and Jouko Miettunen^{1,5,6}



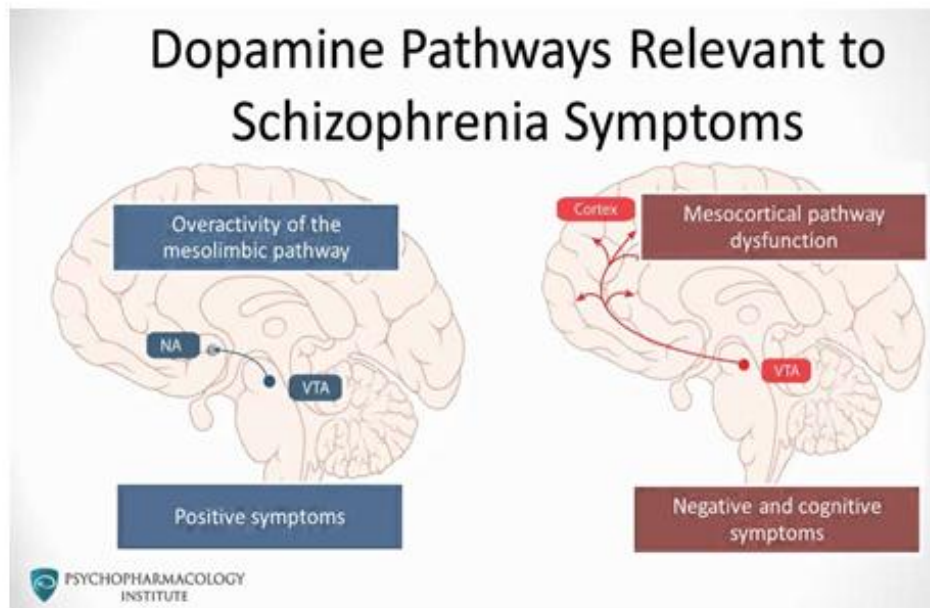
N=Number of studies

Schizophrenia Bulletin, 2012

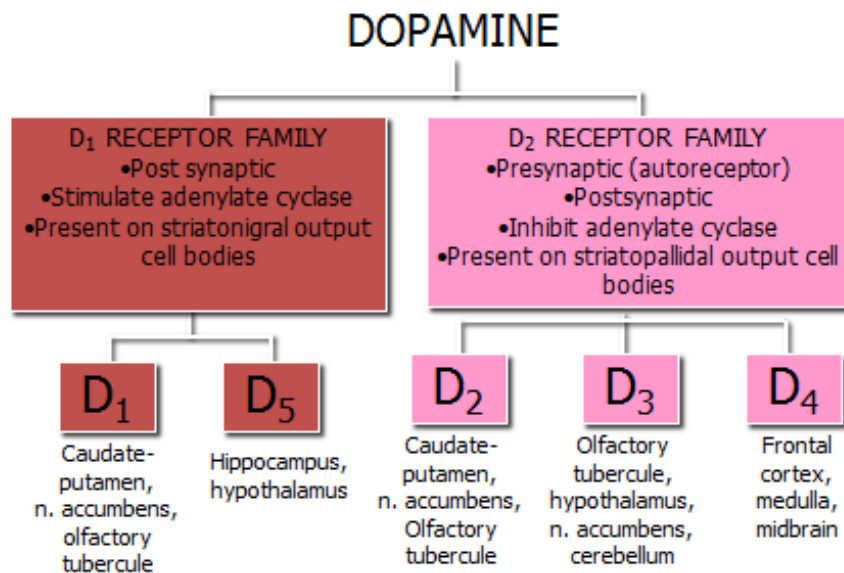


3 APRIL 2014 | VOL 508 | NATURE | 53

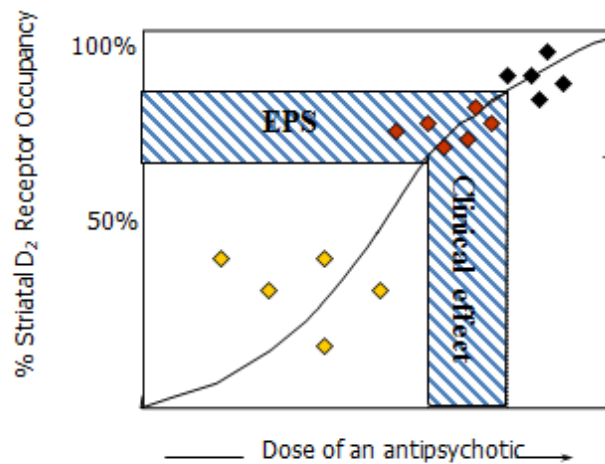
Dopamine Pathways Relevant to Schizophrenia Symptoms



Classification of Dopamine Receptors



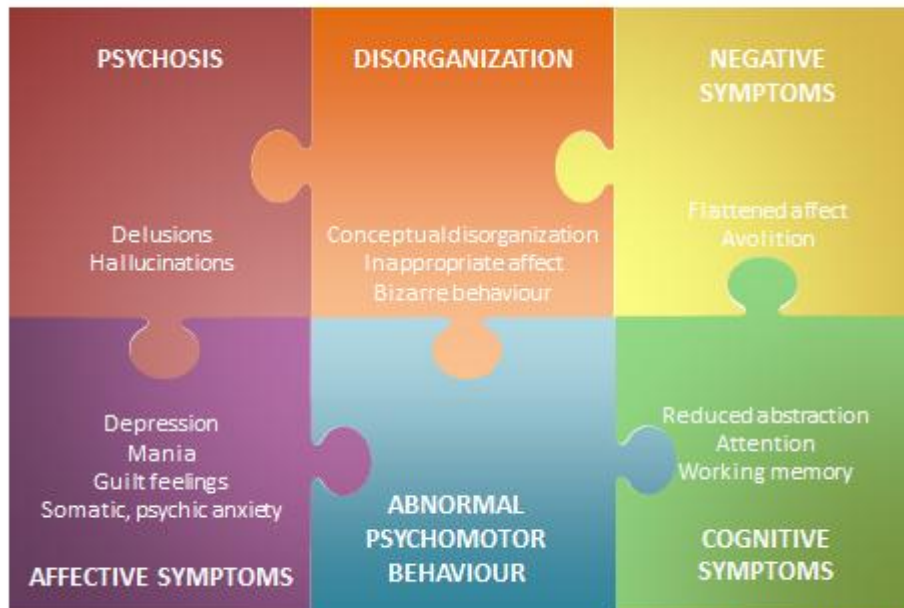
Relationship between D₂ receptor occupancy, EPS and response



(after, Farde et al, 1992, Nyberg et al 1996, Pickar et al 1996 & Kapur et al 2000)

EFFICACY OF ANTIPSYCHOTICS ON DIFFERENT SYMPTOM DOMAINS

Symptom dimensions in schizophrenia

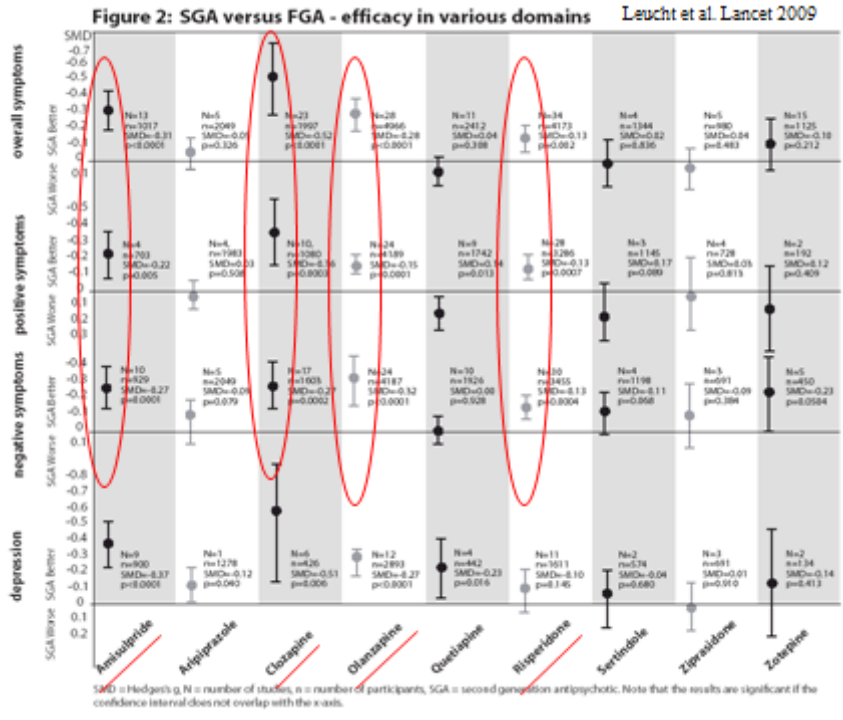


Based on Heckers et al., Schizophr Res 2013

Schizophrenia: more than positive symptoms

- **Positive symptoms** are the most easily recognised in the acute setting.
- But **negative and cognitive symptoms** need to be considered of:
 - Independent neurobiological substrate
 - greater influence on long-term functioning
 - increase the complexity of treatment
 - associated with a detrimental impact on patient self-care
 - increases family concern due to patient's lack of activity and limited occupational and social functioning

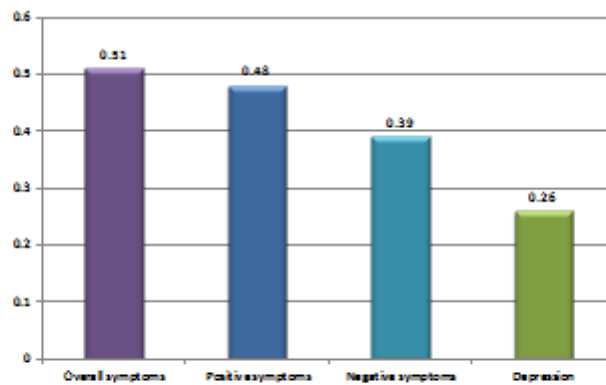
Carpenter et al 1988; Arango et al 2005; Meyer 2007; Rapado-Castro et al 2010



ORIGINAL ARTICLE

**How effective are second-generation antipsychotic drugs?
A meta-analysis of placebo-controlled trials**

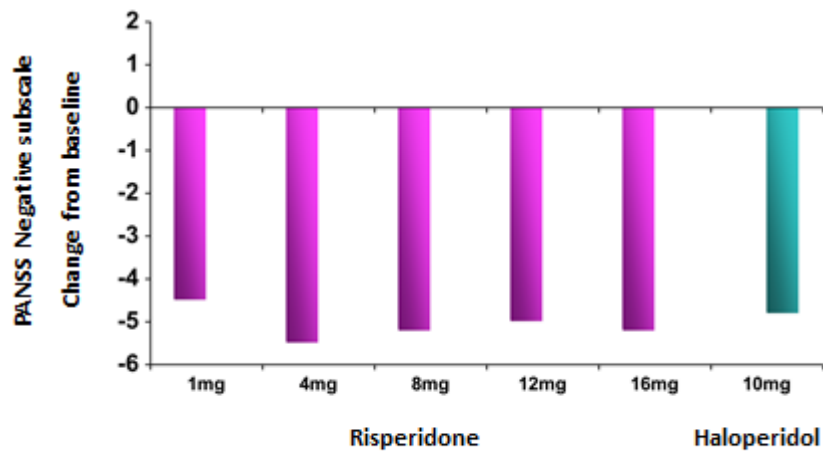
S Leucht¹, D Arbter¹, RR Engel², W Kissling¹ and JM Davis³



Pooled effect sizes of SGA vs placebo

Molecular Psychiatry (2009) 14, 429–447

PANSS Negative symptoms: Change from baseline



Antipsychotics and negative symptoms

- SGA do not seem to improve primary enduring negative symptoms (Arango et al 2004)
- Patients with negative symptoms are at higher risk to develop Metabolic Syndrome (Arango et al 2008)

NEW APPROACHES FOR TREATMENT OF PSYCHOSIS

Barriers for drug development for schizophrenia

Adherence to a single disease paradigm where psychosis represents the latent disease structure.

Inappropriate testing of antipsychotic efficacy in symptom domains other than positive symptoms

Insufficient consideration for the neurodevelopmental basis of schizophrenia

"One-size fits all" approaches, with insufficient consideration for individual differences based on genetic, neurobiological or clinical factors



Except for clozapine, drug discovery efforts have yielded dopamine antagonists with comparable efficacy for positive symptom treatment, and little to no efficacy for treatment of cognitive and negative symptoms

There has not been a significant change in the functional prognosis and rates of recovery of schizophrenia in the past century

Where should we put our effort in...

- Understanding the pathogenesis and mechanisms of psychopathology
- Targeting domains of brain function relevant to psychopathology across parallel units of analysis (genes, molecules, cells, circuits, behavior, etc.)
- Treatment development using experimental medicine methods:
 - Pathogenesis-derived targets
 - Documentation of target engagement
 - Proof-of-concept studies for efficacy signal

Steps to overcome barriers for pharma development in schizophrenia

- Development of non-dopaminergic strategies targeting symptomatic dimensions other than positive symptoms.
- Targeting of other mechanisms involved in the pathophysiology of schizophrenia (e.g. inflammation, immunity)
- Repurposing of strategies available for other conditions.
- Study of more homogeneous subgroups
- Translational approaches
- Strategies aimed at modifying neurodevelopmental trajectories and primary and secondary preventative strategies

Concluding remarks

- Change the paradigm of D2 blockade
- Targeting mechanisms of action related to pathogenesis and mechanisms of psychopathology
- Primary prevention of vulnerability or treat disorder at vulnerability stage or secondary prevention of psychosis

GROUP PRESENTATIONS



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Group 1
Georgia Seminar
Mariam Okruashvili 2017

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What we learned- first session

- [Complex motion processing in schizophrenia patients by Mariam Okruashvili](#)
- **Combining apparent motion processing and non-retinotopic interpretation. Use the Ternus-Pikler Display.**
- We found patients to perform almost identical to controls. None of the correlations was significant.

- **Should be explained methods simply.**
- **Underline what is the important in the research.**

What we learned- first session

- [ECT use in the resistant form of OCD with MDD by Talibova Kamala](#)

ECT should be used for treatment in treatment-resistant OCD with MDD

- Less information on each slide
- Expand the case study to research
- Case was unique

What we learned- first session

- **Mental disorder and crime – by Natia Oniani**

Importance of proper treatment in mental disorders to avoid violence

- The pose and voice tone of presenter
- How to make the presentation more attractive-Photos and media

What we learned- second session

- **Case study – treatment resistant schizophrenia by Mariam Gioegadze**
- **How to treat the patients with persistent hallucinations**

- Write the international names of medications.
- To use ECT for treatment

What we learned- second session

- Case study-Management of OCD and BP II by Kerimova Sabina
- Complicated treatments of commorbidity.

- Make better differential diagnosis
- Go to guidelines
- To give relevant information in more details

What we learned- second session

- Suicide and suicide attempts in people with Severe Mental Disorder in Armenia by Aram Mamikonyan
- The overall rate of suicide attempt is significantly higher among those with mood disorders (bipolar disorder and major depression) compared to those with schizophrenia.

- It's important to use international methods for research
- Improve graphics (% or average numbers)
- Use limitations for study

What we learned- thirth session

- [Association of Sleep Quality and Neurocognitive Dysfunction in patients with Depression by Eka Berdzenishvili](#)
- The importance of methodology and objective measurement in research

- Focus on finding the causality between attention impairment and sleep disorder
- Improve methodology by adding objective measurement of sleep by Actigraph
- Take small steps toward the goal

What we learned- thirth session

- [Prevalence of psychiatric disorders among Armenian's rural nation by Srбуhi Melkonyan](#)
- prevalence of anxiety disorders(AD) among 18-40years old men,does any connection exist between unhealthy lifestyle and AD

- Add Hamilton scale for checking level of anxiety
- Better do it without patient's name

What we learned- thirth session

- [Peronality disordes in Prrisoners by Karen Aslanyan](#)
- The prevalence of personality disorders in prisons of Armenia and importance of rehabilitation

- To look at prisoners personality disorders before imprisonment
- Make comperisons between policeman prisoners and non-policeman prisoners



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Group 2

Tbilisi Seminar

Eteri Machavariani

2017

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What we learned – first session

- **Developing of Tool of Quality Assurance of Mental Health Inpatient Services in Azerbaijan – Gumru Ahmadova**

-> WHO Quality Right Toolkit is a valid indicator of quality of life in context of human rights. Patients, family members and staff members participated.

- **Statistical analysis should be included, especially with larger data**
- **Conflict of Interests disclosure should be included**
- **In case of many results, only a few significant can be shown on presentation**

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What we learned – first session

- **Quality of Life in Patients with Schizophrenia in Armenia – Ashkhen Poghosyan**

-> **Case report demonstrating improvement of quality of life after taking atypical antipsychotics.**

- **A few case reports can be grouped and reviewed together**
- **Case reports are good to show an important finding, not an anecdotal case**

What we learned – first session

- **The Discriminative Ability of the Strengths and Difficulties Questionnaire in Outpatient Practice – Narmin Novruzova**

-> **Azeri SDQ is an effective screening instrument for psychiatric disorders in children and adolescents. It can be used for early identification in primary healthcare.**

- **Tables or charts can be used instead of descriptive slides**

What we learned – second session

- Electrophysiological Correlates of Visual Backward Masking in First-Episode Psychosis – Maya Roinishvili

-> Visual Backward Masking patterns form an endophenotype of Schizophrenia spectrum disorders which reflects the deficit on early stage of the disease

- Defining abbreviations and variables is important
- A video can be used to show the process of testing
- When results are big and important – pay them due respect

What we learned – second session

- Use of “California Rocket Fuel” in treatment-resistant OCD Patients – Aynur Zeynalova

-> “California Rocket Fuel”, a mix of antidepressant medications Venlafaxine & Mirtazepine can be used in treatment resistant OCD

- Control Group took different medications – makes difficult to compare the results
- Visual part of the presentation – contrast is important
- Contact details at the end – very important for networking

What we learned – second session

- **The Effectiveness of Psychosocial Interventions in Patients with the First Episode of Schizophrenia – Vahan Simonyan**

-> Psychosocial intervention paired with low doses of antipsychotics have overall positive effects on thinking, gnosis, praxis and memory.

- Every slide should be self-explanatory
- Dosage of the medication – exact figures
- It's always recommended to site limitations of the study
- A similar study would benefit from having a control group

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What we learned – third session

- **Spread Level of Some Psychological Specifications and Addiction on Internet between Students and its Connection with various Risk Factors in Azerbaijan – Yasaman Samadova**

-> Study of 1000 students from different universities showed correlation between affective disorders & internet addiction

- What were the choosing criteria of the target group?
- Method of testing, how many people refused/participated
- Describe Variables (e.g. high, low, middle - what they mean?)

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What we learned – third session

- **The Stigma of Mental Health in Georgia – Eteri Machavariani**

-> Overall stigma levels are high among Georgian population and they vary according to sex, age and place of residence

- **Methods – explain the randomization process**
- **With big data – make a table with prevalence, statistical data, etc.**
- **Site the studies using the same tool (questionnaire)**
- **Always site the funding, especially in a bigger project**

What we learned – third session

- **The Problem of Partial Sanity in Forensic-Psychiatric Expertise in Republic of Armenia – Adelaida Gevorgyan**

-> The diagnosis of Partial Sanity is relatively new in law practice in Armenia. It is a challenge to implement it in daily practice.

- **Get to know your audience: in case of using specialized terms, they should be explained**



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Group 3

Tbilisi Seminar

Ani Hovhannisyan, Armenia 2017

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What we learned- first session

- The mediating role of depression and anxiety in relation between PTSD and somatic complaints and its implications for management of military mental health service-Sikharulidze Giorgi

-> **The most important outcome -> Voice tone -> Visible slides**

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

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2

What we learned- first session

- Comparative study of influence of depression, anxiety, stress and coping strategies on congestive heart failure patients quality of life by Alieva Roya

-> clear definition of use of this specific instrument
-> to give objectives of feasible results -> to mention the persons who interviewed

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

What we learned- second session

- Impact of family member to the condition of psychotic depression in-patient rather than amitriptyline+sulpiride by Maharramov Elshan

-> to make relevant and attractive title -> to pick unique case -> to pay attention to details (treatment)

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

What we learned- second session

- Verbal memory deficit in patients with schizophrenia by Adamia Ia

-> to make clear graphs -> to present only the information you are sure about -> to emphasize the main new thing

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

What we learned- second session

- Effectiveness of Lamotrigine in combined treatment of recurrent depression with frequent episodes in young women by Alieva Gunel

-> to focus on structure -> to answer questions of objective in discussion -> to accentuate and visualize the results

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

What we learned- third session

- Observational study: Suicidal behavior in patients with Borderline Personality Disorder by Najafova Sabina

-> KIS – Keep It Simple -> body language and effective presentation skills -> to add information about similar studies in this specific topic

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



One for all, all for one!
P.S. We were not sleeping 😊

PARTICIPANTS

Armenia

1. Adelaida Gevorgyan
2. Ani Hovhannisyan
3. Aram Mamikonyan
4. Arsen Hayrian
5. Ashkhen Poghosyan
6. Hexine Mazmanyanyan
7. Inessa Muradyan
8. Karen Aslanyan
9. Marietta Khurshudyan
10. Srбуhi Melkonyan
11. Tatevik Balasanyan
12. Vahan Simonyan

Azerbaijan

1. Aynur Zeynalova
2. Aydan Ismayilova
3. Elshan Maharramov
4. Gumru Ahmadova
5. Gunel Aliyeva
6. Jamila Ismayilova
7. Kamala Talibova
8. Narmin Novruzova
9. Roya Aliyeva
10. Sabina Kerimova
11. Sabina Najafova
12. Yasaman Samadova

Georgia

1. Akaki Burkadze
2. Ekaterine Berdzenishvili
3. Eteri Machavariani
4. Giorgi Sikharulidze
5. Ia Adamia
6. Ketevan Silagadze
7. Mariam Giorgadze
8. Mariam Okruashvili
9. Maya Roinishvili
10. Medea Zirakashvili
11. Natia Oniani
12. Tinatin Gamkrelidze



ABSTRACTS OF THE PARTICIPANTS

The problem of partial sanity in forensic-psychiatric expertise in Republic of Armenia

Adelaida Gevorgyan, Armenia

Aim: to establish the defining criteria for recognizing partially sanity in examinees of forensic-psychiatric expertise in Republic of Armenia.

Methods and materials: we examined 230 acts of forensic-psychiatric expertise. 140 of them were declared sane, 68 – partially sane and 22 – insane. Clinical description and anamnestic data of examinees were analyzed.

Results: 7 clinical and anamnestic features were distinguished: low intellect level, decreased short-term memory, labile emotional and volitional sphere, situational reactions as continuous personality decompensation, unhealthy organic background from childhood, description of personality accentuation in military age examination.

Conclusion: We suggest during the forensic-psychiatric expertise for further full and partial sanity criteria estimation to use more specific clinical and quantitative assessment methods for data collection.

Patient satisfaction with the quality of hospital care in psychiatry department

Akaki Burkadze, Georgia

With the development of the world health system, the methods for evaluating each ring of this system are improved. The measurement requires fine-tuning the evaluation criteria and synthesizing collected data. Hence, a new discipline emerges, which gives an opportunity to evaluate health management and identify weaknesses, which in the end, affect patients' health situation, life expectancy, financial costs and satisfaction. Patients' satisfaction is the research object of this thesis. The aim of this study is to evaluate the effectiveness of various rings of the system, using the survey of patients.

The study was carried out for various divisions of the clinic, using closed and open questions. Patients evaluate various rings, share their opinion and recommendations. The study relies on corresponding English and Georgian academic literature.

Hospitals recognize the importance of delivering patient satisfaction as a strategic variable and a crucial determinant of success. The aim of this study is to evaluate the patient satisfaction with the quality of hospital care.

Methods: The tenets of the research are based on the survey conducted protecting the patients' anonymity. The questionnaire was designed in order to identify patients' views and opinions about shortcomings and advantages of hospital care. Study of patients' opinions and attitudes enabled us to discuss the occurring problems in hospital care. The questionnaire reflects patients' attitude to such aspects of hospital care as registration office, waiting, attitude of the medical staff, availability of various medical services, patient's expenses.

Results: Knowing patient characteristics which govern satisfaction regarding health care, can be effectively utilized, to modify health system and increase patient satisfaction. The results will be presented graphically.

The research found out that patients, despite the fact that they are not professionals, have their own priorities and hence, pay attention to human relations more than to the treatment itself. Patients expressed satisfaction with nurse services. So, professional and well-trained nurses with proper

compensation should be a priority for the clinics, which aim for high patient satisfaction. Universal healthcare program has a role in this case, as well. Patients do not bother thinking about how much money is necessary for the treatment and hence, start thinking about more minor aspects of delivered health services, asking for TV, prolongation of visiting times and increase in the number of allowed visitors.

Patients avoided reporting negative concerns regarding the medical staff. The subjective reason for this behavior could have been cultural traits. In this case, complaint boxes with the guarantee of confidentiality could help solve the problem.

For the future, it is desirable to study patient satisfaction in other clinics, too and make the results of these studies publicly available. This is important not only for fostering competition but for creating and developing patient-oriented healthcare system as well.

Effects of Border Tensions on Residents of Armenia

Ani Hovhannisyan, Armenia

As Armenia has serious political problems with neighbouring countries and Armenian border is always in tension.

We have developed design of study for assessment of effects of border tensions on people who live in borderline villages and in the capital of Armenia.

We are planning to examine the effect of different stressful events on disorders in the individual's behaviour: a single event producing severe, long-term stress; a short-term event of mild stress, which repeats itself over a long period of time; and the cumulative effect of stressful events producing severe long-term stress.

Besides, we would like to know the level of expression of stress disorders as independent and comorbid disorders.

And we need to develop of program of psychological help and support for these people.

Suicide and suicide attempts in people with severe mental disorders in Armenia

Aram Mamikonyan, Armenia

Suicidal behavior is a major contributor to morbidity and mortality worldwide. Severe mental disorders, including schizophrenia, bipolar disorder and psychotic depression, are associated with increased risk of suicide and suicide attempts compared to the general population.

The aim was to study suicidal behavior in patients with different mental disorders in psychiatry department of "Avan" Psychiatric clinics of Psychiatric Medical Center.

Results: The overall rate of suicide attempt was significantly higher among those with mood disorders (bipolar disorder and major depression) compared to those with schizophrenia. People with schizophrenia are more likely to use serious and violent methods in response to hallucinatory voices and delusions compared to patients with major depression.

Conclusion: Suicide and suicidal behavior are shown to be common problems in this cohort and severe mental disorders are important risk factors for the behavior. It is very important to develop program for preventing suicides among mentally ill patients.

Quality of life of schizophrenic patients with atypical antipsychotic treatment

Arsen Hayrian, Armenia

It is known that schizophrenia is a severe, disabling, lifelong disorder, associated with severe social and occupational dysfunction.

Promotion a great interest in assessing the quality of life of schizophrenic patients also was in result of the appearance of the atypical antipsychotic drugs with different therapeutic and side-effect profiles, has.

The aim of the study: The impact of treatment with olanzapine compared with haloperidol on quality of life in schizophrenic inpatients.

Method: In the study we included 60 patients suffering from schizophrenia from Nubarashen Psychiatric Clinic. For assessing quality of life in schizophrenic patients we used - The Medical Outcomes Study Short Form 36-item (SF-36).

Results: Low side effects of atypical antipsychotic treatment comparing with typical antipsychotics showed better Quality of life of schizophrenic patients. Moreover the combination of psychopharmacological and psychotherapeutic treatment improve lead to improvement quality of life.

Quality of life in patients with schizophrenia in Armenia

Ashkhen Poghosyan, Armenia

In the last two decades, there has been increasing interest in quality of life in schizophrenic patients, since schizophrenia is a severe, disabling, lifelong disorder, associated with severe social and occupational dysfunction.

The aim of present study was to compare quality of life outcomes between atypical and typical antipsychotics in schizophrenic patients.

Method: For assessment Quality of life we used The Medical Outcomes Study Short Form 36-item (SF-36).

Results: A total of 78 outpatients with a diagnosis of schizophrenia or schizophreniform or schizoaffective disorder and scores on the BPRS (Brief Psychiatric Rating Scale) ≥ 18 were assessed using the QLS. The Questionnaires were administered at baseline and at the end of the acute phase of the study (week 6).

The impact of olanzapine on quality of life has also been compared with the impact of haloperidol in a 6-week therapy. However, in the SF-36 no statistically significant differences were obtained between the treatment groups.

Conclusion: the received results showed that both type of antipsychotic therapy improved quality of life in schizophrenic patients. Nevertheless the development of atypical antipsychotics with broader efficacy and lower incidence of extrapyramidal side effects than typical neuroleptics has promoted greater interest from the patient's perspective.

How to differ dissociative conversion disorder with psychotic symptoms from schizophrenia

Aydan Ismayilova, Azerbaijan

Introduction: The dissociative and conversion disorders comprise what used to be called "hysteria": symptoms and syndromes suggestive of neurological disease, but which occur in the absence of diagnosable insult, injury, or disease in the brain. The dissociative disorders include amnesia, defined as a loss of autobiographical memory (either general, covering an entire period in the person's life, or selective, covering only certain classes of events); fugue, a general amnesia coupled with loss of identity and, perhaps, relocation.

Case: 24 year old man visited psychiatrist with complications such as apathy, angry mood. His mother said that he tells about car that he have not. He often went out of home, but without any goal. By the words of his mother, 6 years ago he joined the army. There was a incident between him and solder and he stab a knife him. After this incident he was arrested, but in prison without any reason him was injected aminazin. He spent in prison 4 year. After coming to home he began to say that there are many little insects under the skin of his head. And he must take them away. Also he says that there is a rubber rings in his neck. With help of needle he tried to remove them. His mother said that he have a disturbed memory, often forgets where he was going, what was doing. On the other hand, he deport himself as though "monument", sometimes there are no reactions to others compellations.

When he was at a visit, his mouth was open. His mother said that he can't close it, because something hinders to him. And he complains, that his tongue hurts. Somebody is keeping his tongue out of the mouth. But when I asked him to write his complications, he closed his mouth. During visit he looked around with interest, as though child.

I asked her mother to do MRI examination for him. Results of MRI was clear. At the case conference was diagnosed dissociative conversion disorder. Was written fluoxetine 20 mg twice a day, depakine-chrono 300 mg twice a day, risperidone 2 mg once a day, piracetam 400 mg twice a day. Was recommended to visit a doctor after 2 week.

Conclusion: In this abstract we discussed the dissociative and conversion disorder. Patients with this disorder may complains different complaints, sometimes it may mussed up with schizophrenia. But if be attentive, dissociative and conversion disorder have not a imperative hallucinations, autism and etc.

Use of "California Rocket Fuel" in treatment-resistant OCD patients

Aynur Zeynalova, Azerbaijan

Objective: This study is aimed to investigate combined administration of Venlafaxine and Mirtazapine in treatment at resistant patients with OCD.

Method: This study included 27 patients suffering from OCD with no significant effect after six month treatment. All the patients were randomly divided into two groups: 13 patients main group and 14 patients control group. The patients in main group were administrated with Venlafaxine 150-300 mg. daily and Mirtazapine 15-45 mg. daily. The patients in control group received treatment as usual. The Y-BOCS-II, Toronto Side Effect Scale (TSES) and The Clinical Global Impression-Severity (CGI-S) were used to access the outcomes.

Result: The patients provided with "California Rocket Fuel" revealed statistically significant degrees of both obsessions and compulsion symptoms as compared to the controls. Antidepressant side effects did not differ significantly between two groups.

Conclusion: Combination of venlafaxine and mirtazapine is an effective strategy in treatment of resistant OCD patients.

Association of dissociative symptoms and neurocognitive dysfunction in patients with depression

Ekaterine Berdzenishvili, Georgia (Award winner)

Introduction: It is widely reported that persons with major depressive disorder (MDD) show impaired performance on cognitive functioning, including frontotemporally mediated cognitive functions [1]. The presence of cognitive dysfunction among patients with dissociative symptoms in trauma-related disorders may contribute to poorer treatment outcomes [2]. Patients with major depressive disorder (MDD) frequently report dissociative symptoms [3].

Here we investigate association of dissociative symptoms and neurocognitive dysfunction in patients with depression. We predicted that higher levels of dissociative symptoms among persons with MDD would be associated with lower scores on objective measures of frontotemporally mediated neurocognitive functions.

Methods: Patients who met DSM-V diagnostic criteria for a primary diagnosis of recurrent MDD were recruited. The Hamilton Rating Scale for Depression (HAM-D) was administered to assess the severity of depressive symptoms. To assess dissociative symptoms participants completed the Multiscale Dissociation Inventory (MDI). Two groups of patients were selected and matched. One group consisted of 13 patients having MDD and dissociative symptoms and second group consisted of 12 patients having MDD only. To measure frontotemporally mediated cognitive functioning following tests were administered: Wisconsin Card Sorting Test; Conners' Continuous Performance Test (CPT).

To examine group differences on clinical and neuropsychological scores, two-tailed independent samples t-tests was performed.

Results: Depersonalization symptoms on the MDI were associated with the CPT Hit Reaction Time Interstimulus Interval Change t-score variable (a measure of vigilance), such that higher levels of depersonalization were related to better performance in a less active environment.

Conclusions: Our results suggest that dissociation is related to specific subtle impairments in neurocognitive functioning. The findings point towards the need to further examine the impact of dissociation on functioning in patients with depression.

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Impact of family member to the condition of psychotic depressive in-patient rather than amitriptyline + sulpiride

Elshan Maharramov, Azerbaijan

Background: Patients with psychotic depression experience the symptoms of a major depressive episode, along with one or more psychotic symptoms including delusions and hallucinations. Common themes of delusions include guilt, punishment, personal inadequacy or disease. Pharmaceutical treatment can include tricyclic antidepressants, atypical antipsychotics or combinations of antidepressants with antipsychotics. Besides of the treatment family members and their social problems have great impact to the condition of patients. We report you the case of a patient with psychotic depression whom we treated with amitriptyline + sulpiride successfully, but meeting with her daughter made her condition worse again.

Case presentation: 45 years old female in-patient diagnosed psychotic depression. She doesn't eat, speak and answer questions slowly, 2 times attempted suicide. She felt herself guilty about

everything in their family problems. We began to treat her with amitriptyline + sulpiride. 2 month' later her condition was better. She began to eat well, was active in department. Ones she met with her daughter and they spoke about family problems. From that time her condition got worse as it was in first time. Then we didn't allow her to meet with daughter and during 4 month' her condition got better.

Conclusion: Psychotic depression can be treated by antidepressant + antipsychotic combination. But we need to take into account that family members and their social problems have great impact in patients' treatment.

The Stigma of Mental Illness in Georgia

Eteri Machavariani, Georgia

Stigma is a complex construct that includes public, self, and structural components. It directly affects people with mental illness, as well as their support system (Thorncroft et al., 2009). Many people with serious mental illness are challenged doubly. On the one hand, they struggle with symptoms of the disease. On the other, they are challenged by the societal stereotypes and prejudice arising from misconceptions about mental illness. As a result of both, people with mental illness are limited in their opportunities to have a good quality of life, well-paid jobs, safe housing, satisfactory health care, and participation in social life. The aim of the investigation was to assess mental health literacy and attitude toward people with mental illnesses in general population of The Republic of Georgia.

The Mediating Role of Depression and Anxiety in relation between PTSD and Somatic Complaints and its implications for Management of Military Mental Health Services

Giorgi Sikharulidze, MD; Georgia

Giorgi Sikharulidze, MD.^{1,2}, N van Geloven, PhD.³, Estate Lelashvili MSc⁴, Eric Vermetten, MD., PhD.^{1,5,6}

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Background: Several studies have demonstrated the relationship between PTSD, somatic symptoms and the role of co-morbid depression and anxiety. No studies of this kind have been performed in the Georgian Armed Forces until present time.

Method: The participants included 2 799 veterans taking part in survey after a 6-month deployment in 2014 and 2015. Measures included the PTSD checklist (PCL-5) and Patient Health Questionnaire (PHQ), including subscales of anxiety, depression and somatic complaints. All participant were male, Caucasian. To establish the mediating effect of depression and anxiety according to the model stated by Baron and Kenny, logistic regressions were performed by converting somatic complaints scores into dichotomous variable (cut-off scores ≥ 5 and ≥ 10).

Results: The log odds ratio expressing the degree of association between PTS score and somatic complaints lowered by approximately 50% when adjusting for anxiety score; by approximately 55% - when adjusting for depression score and by approximately 67% - when adjusting for both anxiety and depression.

Conclusion: The present study helps us to understand the mediating role of depression and anxiety when the symptoms of PTSD and somatic complaints are present. These new findings may have

implications for the management as well as treatment of PTSD, especially, for the specialists who are involved in planning treatment for veterans.

Developing of Tool for Quality Assurance of Mental Health Inpatient Services in Azerbaijan

Gumru Ahmadova, MD, Azerbaijan

The quality of care in mental health institutions is a serious concern in modern psychiatry. People with mental disabilities often face violation of their human rights. They often expose physical and sexual abuse, neglect, stigma, discrimination. Despite implementing the Mental Health Strategy adopted in 2011 in Azerbaijan, there is a lack of monitoring and evaluation of the provided services.

The main goal of the study is to develop an instrument to monitor and evaluate the quality of mental health services in the context of human rights in Azerbaijan and to determine the reference intervals associated with good quality.

The study utilized observational cross-sectional design to examine the human rights, quality of life of inpatients and their satisfaction with the services in the Psychiatric Hospital N#1. A total number of 160 participants entered the study (100 inpatients, 30 family members and 30 staff members). The WHO Quality Rights Toolkit, the Schizophrenia Quality of Life Scale-Revision 4 and the Client Satisfaction Questionnaire were used as the main tools.

The results showed that the quality of services and the human rights the hospital were not fully met, precluding the provision of comprehensive and high-quality services for the persons with severe mental disorders. Unmet needs were higher in areas such as the right to exercise legal capacity, the right to personal liberty and security, and the right to live independently and to be part of the community. Some improvements were also necessary to meet needs concerning the right to an adequate standard of living, to enjoyment of the highest attainable standard of health and freedom from torture or cruel, inhuman or degrading treatment or punishment are protected and respected. Despite the level of the quality of life and satisfaction with services are average, there was a positive improvement in comparison with previous studies. The findings can be used for further improvement of the psychiatric services at Azerbaijan.

Key words: quality, human rights, violation, monitoring, Azerbaijan.

Effectiveness of Lamotrigine in combined treatment of recurrent depression with frequent episodes in young women

Gunel Aliyeva, Azerbaijan

National Mental Health Center of the Ministry of the Health, Baku, Azerbaijan

Methods: The study participants were 21 young female patients suffering from depression and experiencing three or more depressive episodes during 12 month. Along with previously provided treatment with antidepressants the patients received Lamotrigine from 50 till 200 mg twice a day. Depressive symptoms we evaluated with Hamilton Depression Rating Scale (HDRS). Also a Quality of Life Scale and Rosenberg Self-esteem Scale were used in this study.

Results: 15 out of 21 patients presented remission over 8 month after administering Lamotrigine. The rest 6 patient's number of episodes has been reduced. Lamotrigine and antidepressant combined treatment had positive effect on the patients quality of life and self-esteem.

Conclusion: The data obtained confirmed suitability of adding Lamotrigine in prevention of depressive episodes recurrence.

Problem of depression in patients with schizophrenia

Hexine Mazmanyán, Armenia

Depressive symptoms are frequent clinical features in patients with schizophrenia. Most severe complication of depression in patients with schizophrenia is suicide.

Unfortunately some diagnostic difficulties exist and very important differentiate primary negative symptoms of schizophrenia several and depression, because they have some similar features.

Our aim was to study prevalence of depression in 50 patients with schizophrenia in Nork psychiatric clinic. Was used next assessment instrument - We Calgary Depression Scale for Schizophrenia (CDSS) (Addington D. et al., 1992).

Results: The obtain results revealed that 34% of schizophrenia patients experience course-related depression. Depression in patients with schizophrenia is linked to reduced social and vocational functioning, increased likelihood of psychotic relapse and rehospitalization, and other problems.

Conclusion: Depression is associated with a less favorable patient course and poorer outcomes compared to patients with schizophrenia without depression.

Verbal memory deficit in patients with schizophrenia

Ia Adamia, Georgia

We have investigated twenty-two schizophrenia inpatients and twenty healthy controls in order to study the prevalence and features of verbal memory deficit in schizophrenia.

The diagnoses have been made according the DSM-IV criteria. Negative and positive symptoms have been evaluated with the Scale for the Assessment of Positive Symptoms (SAPS) and Scale for the Assessment of Positive Negative Symptoms (SANS). The exclusion criteria were neurological diseases, drug and alcohol abuse, clinically significant head injury, or mental retardation.

The schizophrenia patients showed significant impairment of the verbal memory in all domains. The verbal test performance did not correlate with severity of symptoms this finding cannot be attributed to the deficiency due to active psychotic symptoms, or medication effects. Impaired performance in verbal working memory tasks appears to be associated with the general cognitive deficits.

Sleep problems in patients with schizophrenia

Inessa Muradyan, Armenia

Sleep disturbance is a major problem for people with schizophrenia. Disturbed sleep can be found in 30-80% of schizophrenic patients, depending on the degree of psychotic symptomatology. Causes of the sleep problems including poor sleep hygiene, positive symptoms, and affective symptoms, followed by medications and negative symptoms as well as high comorbidity of physical health problems in people diagnosed with schizophrenia may also contribute to poor sleep.

The aim of this study was to reveal prevalence of sleep disturbances in patients with schizophrenia and management of it in Nork Psychiatric clinic. We examined patients with diagnose schizophrenia.

The obtained results showed that more than half of patients had various sleep disturbances: Difficulties falling asleep (insomnia) and oversleeping (hypersomnia) were the most commonly reported sleep complaints, followed by issues with the timing of sleep (circadian rhythm disturbance).

Treating sleep problems in general was using sleep hygiene techniques and in the cases of acute insomnia using of hypnotics for short periods. Unfortunately, CBT method was not used despite the fact of high effectiveness of this method.

Treatment of People with Dual Diagnosis

Jamila Ismayilova, Azerbaijan

Belugina Olga¹ Ismayilova Jamila²

¹Belarusian state medical university, Department of psychiatry and medical psychology, assistant professor (Belarus, Minsk)

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This publication provides an overview of symposium and poster presentations of 24th EPA Congress (12-15 March 2016, Madrid, Spain) that cover contemporary problems of modern treatment approach of people with dual diagnosis.

Patients with dual diagnosis are often unrecognized. It is important to take into account that patients with mental illnesses may also have addiction (ex. alcohol, drug, cocaine, nicotine) Moreover, many psychiatric disorders (ex. ADHD, anxiety, bipolar disorder) are a risk of substance use. Prevalence of comorbid substance use among schizophrenic patients are 4.6 times higher than general population. People with dual diagnosis should be treated differently, considering their substance use problems. Benzodiazepines, anticonvulsant and antihypertensive drugs should be used in treatment in order to reduce the severity of withdrawal symptoms naltrexone, nalmeferne, acamprosate, ondansetron (5-HT₃ receptor antagonist) are recommended. During psychotic episode treatment with new antipsychotic drugs as aripiprazole or clozapine are suggested.

Novel treatment approaches including pharmacotherapy as well as cognitive-behaviour therapy, group psychotherapy and rehabilitation programs may improve outcome and quality of life of patients with dual diagnosis.

Keywords: dual diagnosis, addiction, mental illnesses, schizophrenia, treatment.

ECT use in the resistant form of obsessive-compulsive disorder with a major depression

Kamala Talibova, Azerbaijan

Electroconvulsive therapy (ECT) is a procedure, which is carried out under general anesthesia, in which small electric currents are passed through the brain, intentionally triggering a brief seizure. **ECT** seems to cause changes in brain chemistry that can quickly reverse symptoms of certain mental illnesses. A usual course of ECT involves multiple administrations, typically given two or three times per week until the patient is no longer suffering symptoms. ECT is administered under anesthetic with a muscle relaxant. Electroconvulsive therapy can differ in its application in three ways: electrode placement, frequency of treatments, and the electrical waveform of the stimulus.

Key words: Obsessive-compulsive disorder, electroconvulsive therapy, antidepressant, antipsychotic

BC was a 32-year-old man. He addressed to the psychiatric unit 2 years ago for the treatment of OCD with unwanted recurrent thoughts which had continued for the past ten years. During this 10-year period the patient received different treatments with almost all forms of antidepressants and neuroleptics in different countries such as Turkey, Iran etc. He had six hospitalizations in different institutions. As a result of these treatments there weren't remarkable improvements in his condition. During the most recent hospitalization at our hospital, he was diagnosed with Obsessive-Compulsive Disorder and Major Depression and was treated with paroxetine 40 mg/day and

aripiprazole 15-45mg/day. The patient used to be a boxer. 10 years ago he lost in the ring. After a while he started to experience sadness, anhedonia, anergia, and crying as a result of the thoughts that he was not valuable person for his relatives, close friends, family members anymore. In addition, he used to curse a lot and at the same time, owned some religious beliefs. The patient suffered from obsessional thoughts that The God was punishing him for his bad habits through the way of making him become a woman and get female features. Such obsessional thoughts about changing his appearance stopped him from working, communicating with others. He even stopped going out, shaving himself daily for not to be seemed more womanly. The patient had suicidal thoughts and two attempts to realize them. He was treated with numerous psychotropic medications and CBT at various institutions. He was mainly prescribed antidepressants, SSRIs, escitalopram, and trazodone, concomitant with anxiolytics, hydroxyzine and aripiprazole. Information about the exact dosage and duration of these medications could not be ascertained. We stopped this treatment with that remedies. He was diagnosed with refractory obsessive-compulsive disorder. Then, 10 procedures of ECT were applied. A marked improvement could be observed after five procedures and almost a total remission of symptoms occurred by the ten session. The score of Y-BOCS after ECT treatment was 2.

After 5th session we prescribed aripiprazole 30 mg/ day.

After the ECT course, paroxetine 20mg/ day was added to this treatment. He was discharged in clinical remission and is still in remission after this long time. Now he is able to control his obsessional thoughts, and returned back to normal lifestyle, started to work and develop his interpersonal skills. All in all, the patient's rehabilitation improved by 80%.

Personality disorders in prisoners

Karen Aslanyan, Armenia

Personality disorders are a common form of mental health problems seen in prisons. Managing antisocial personality disorder and emotionally unstable personality in prison is a challenge to any staff and mental health team.

Patients with personality disorders are at a high risk of getting into conflict with the law because of self-injurious behavior, sexual offences, violence, substance use, murder and recidivism. We examined 45 prisoners. We put diagnoses according to the International Classification of Diseases -10.

Results: We revealed personality disorder in 30% of the prison inmates like Antisocial Disorder, Borderline Disorder, Paranoid Disorder, Narcissistic Disorder and Schizoid disorder. Presence of antisocial personality disorder is a high risk for developing mental illness and suicide.

Conclusion: The prison staff should be aware of the symptoms of these personality disorders and need to be trained in managing suicide and deliberate self-harm.

Validation of a Georgian version of the Neurological Disorders Depression Inventory for Epilepsy (NDDI-E) – preliminary results

Ketevan Silagadze, Georgia

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Introduction: Depression is a frequent and serious co-morbidity affecting about one third of individuals with epilepsy. However, this problem is often neglected because the lack of valid

instruments on native language. Having a reliable screening tool will be very valuable for early identification and adequate management of depression. Aim of the study was to adapt and validate a Georgian questionnaire of the “Neurological Disorders Depression Inventory for Epilepsy” (NDDI-E).

Methods: A translation-back-translation and cross-cultural adaptation procedures were provided for NDDI-E. 80 adult (18-60 years) patients completed Georgian version of NDDI-E and Beck Depression Inventory (BDI) questionnaires. All patients had consultation of psychiatrist. Internal consistency and concurrent validity was assessed. Receiver Operating Characteristics (ROC) was calculated and assessed for different cutoff values.

Results: 17 patients received a diagnosis of major depression according to ICD-10 criteria. Internal consistency (Cronbach’s alpha) was 0.713. ROC showed an area under the curve of 0.977. Applying a cutoff score of ≥ 16 resulted in sensitivity 0.94 and specificity of 0.92. Screening questionnaire showed significant positive correlation with the BDI scores (Pearson’s $r = 0.684$) indicating to a good concurrent validity.

Discussion: The Georgian version of the NDDI-E seems to be a reliable tool for detection of depressive disorders in individuals with epilepsy. Incorporation of this questionnaire in a daily practice would contribute in improvement of management of the disease.

Characteristics of Post-Schizophrenic Depression

Mariam Giorgadze, Georgia

Since depressive symptoms are prevalent under-recognized and clinically important problems in patients with schizophrenia, the pattern of symptoms and associated features of depressive symptoms, as well, as inclusion of psychopathology and neurodynamic variations in personality structure of patients with chronic schizophrenia deserve more investigation.

We aimed to identify clinical and experimental-psychological features of post-schizophrenic depression. The longitudinal study has been designed to investigate patients with paranoid schizophrenia. As a result of the careful clinical and psychological analyses due to psychopathology we defined four types of depression. From which two types of depression – agitated and asthenic prevailed in active phase of schizophrenia and remained two hypochondriac and apathetic mainly occurred during stabilization. This finding would have prognostic value.

Furthermore, we examined personality changes leaded by cognitive symptoms and specified psychopathological and neurodynamical input in alteration of personality structure with word association experiment by A.D. Zurabashvili. As the semantics of trigger words became more complex the qualitative impairment deepened. Lower pathological associations have overcome scanty logical thinking and fluctuation of latency time with thought blocking became prominent.

Complex motion processing in schizophrenia patients

Mariam Okruashvili, Georgia

Schizophrenia impairs cognitive functions as much as perception. For example, patients perceive global motion in random dot kinematograms less strongly, because, as it is argued, the integration of the dots into a single Gestalt is complex and deteriorated. Similarly, the perception of apparent motion is impaired, because filling-in of the illusory trajectory requires complex processing. Here, we investigated very complex motion processing using the Ternus- Pikler display. First, we tested whether the perception of global apparent motion is impaired in schizophrenia patients compared to healthy controls. The task requires both the grouping of multiple elements into a coherent Gestalt

and the filling-in of its illusory motion trajectory. Second, we tested the perception of rotation in the same stimulus, which in addition requires the computation of non-retinotopic motion. Contrary to earlier studies, patients were not impaired in either tasks and even tended to perform better than controls. The results suggest that complex visual processing itself is not impaired in schizophrenia patients.

Predisposing factors of internet addiction

Marietta Khurshudyan, Armenia

Introduction: Last decades are marked with rapid computerization in all areas of human activity and social life. Personal computers thus become the integral part of offices, medical facilities, schools and households. The fast development of innovative technologies and growth of computer users, rapid spread of World Wide Web (Internet) are factors that influence each and every member of our society. As a result, society faces new problems that are stipulated from computer - human relations: “computer-mentality” relations and “computer addiction” as a new and not yet very well studied issue.

Objectives: The objective of the study was to understand socio-psychological factors of etiology of computer addiction. One of the questions of interest was social characteristics of at risk population.

Methods. The online web-based quantitative study was initiated to understand urgency of the issue in Armenia. To answer this question the questionnaire was developed. The addiction was tested according to Jichkina Addiction Scale. For frustration Boyko Personal Frustration Express Test was used. The pilot study included 213 participants 15 to 35 years old.

Results: According to preliminary analysis 53% of participants did not show any computer addiction, 35% of participants have some disposition to computer addiction and only 6% reported actual addiction, which is comparable to other international studies. Weak negative correlation was found for age and computer addiction ($r = -0.1$). The result was expected, because the study population included was in at risk age for computer addiction. Weak positive correlation was estimated for frustration rate and computer addiction ($r = 0.2$). This data should be tested further on with larger sample size. Preliminary data shows that among people with disposition to computer addiction and those with actual addiction together male participants were 66.3% and females were 33.7% of study population, which shows that gender might be one of the strong social factors that characterizes at risk population.

Conclusion: As it can be seen from preliminary pilot study, in Armenia computer addiction found among 6% of at risk age group, which is pretty close to international data. Male participants aged 17-35 are more likely to develop computer addiction than female participants in same age group. Personal frustration can be one of the factors, that influence development of computer addiction, but this hypothesis should be tested on larger sample size.

Electrophysiological correlates of visual backward masking in first-episode psychosis

Maya Roinishvili, Georgia

We have previously shown that visual backward masking (VBM) is a very sensitive endophenotype of schizophrenia. Moreover, we found strongly reduced global field power amplitudes for masked stimuli in schizophrenia patients. In order to track the progress of the disease and its behavioral and electrophysiological correlates, we have tested 11 patients with first-episode psychosis three times during one year in a longitudinal study.

First-episode patients showed clear masking deficits and reduced amplitudes in the EEG compared to controls, but higher amplitudes compared to chronic schizophrenia patients. The amplitudes remained stable across the first year. Hence, masking deficits are present already at the very beginning of the disease. We suggest that visual backward masking is a very sensitive endophenotype of the schizophrenia spectrum.

Risk factors of ASD in Georgia

Medea Zirakashvili, Georgia

Mental Health Center, Tbilisi

Introduction: Autism Spectrum Disorders (ASD) often results in severe lifelong impairments and affects children of all races and nationalities. It is considered to have a genetic basis, although exposure to certain stimuli in the pre-, peri- and neonatal period has been implicated to be causal in some cases.

Methods: Retrospective medical chart review in a tertiary care clinic of Tbilisi (Mental Health Center) were conducted of 2-6 years old 185 children diagnosed as having ASD based on ICD-10 criteria, ADI-R and the ADOS. Control group consisted 184 typically developing children of same age group admitted the Center for developmental assessment. Different potential risk factors for ASD were documented: parental age, birth weight, gestational age, and male gender.

Results: The age and sex distributions of case group and control group were consistent ($\chi^2=0.434$, $P>0.005$). Proportion of cases and logistic regression analysis showed that advanced maternal or paternal ages (OR=3.71, 95% CI: 1.34-10.24), being firstborn (OR=1.89, 95% CI: 1.26-2.85), maternal prenatal medication use (OR=1.52, 95% CI: 1.19-2.27), preterm birth (OR=1.83, 95% CI: 0.56-5.94), birth weight small for gestational age (OR=4.25, 95% CI: 0.90-13.11) and male gender (OR=30.28, 95% CI: 38.45 - 78.48) were the risk factors for ASD in children.

Conclusions: Evidence is insufficient to suppose any one factor in autism etiology, although there is some evidence to suggest that exposure to compromises to pre-, perinatal and neonatal health may increase the risk of ASD.

Learning Objectives: Such research showed, that large, prospective, population-based studies needed for: 1) clarification of the modifiable risk factors and 2) understanding the complex etiology of these neurodevelopmental disorders, which will lead to more effective therapies and preventative strategies.

The Discriminative Ability of the Strengths and Difficulties Questionnaire in Outpatient Practice

Narmin Novruzova, Azerbaijan

This study examined the validity of the Azeri version of the Strengths and Difficulties Questionnaire (SDQ). The SDQ was administered to the parents of two samples of 4–16-year-old children: the case group was drawn from children presenting to the psychiatric outpatient service ($n = 172$) and the comparison group from the pediatric outpatient service ($n = 133$). The total difficulties score and the scores for each subscale were compared between two groups. The proportion of children with the total difficulties score in the abnormal range was higher in the case group than in the comparison group ($p < 0.001$). The mean difficulties score difference between two groups was significant ($p < 0.001$). The Receiver Operating Characteristics analysis showed good discriminative ability for the total difficulties score and difficulties subscales ($p < 0.001$). SDQ distinguished well between groups.

Keywords: Screening, Strengths and Difficulties Questionnaire, Azeri, Psychiatric disorders, Children

Intelligence in Schizophrenia

Natia Oniani, Georgia

We have investigated the patterns of decline in IQ among patients with schizophrenia. The IQ score of 32 with first episode psychoses, who later were diagnosed with schizophrenia and 25 healthy controls were evaluated three times during an average of 5 years, after short (mean 2,3 years) and long (mean 4,6) follow-up periods. The regression analysis was used to evaluate the association of clinical symptoms and IQ scores at the different period of time. The results were examined and related to changes of negative and positive symptoms of the illness. The schizophrenic group had low IQ score at baseline than the normal comparison subjects but showed comparable stability over time. The raw IQ score slightly increased in both groups in follow-up period. The regression analyses revealed that low IQ score especially in the block design (MT) and non-verbal reasoning (LPS3) subtests could be additional predictors for deterioration of negative symptoms. The IQ score of patients with schizophrenia appears to remain stable regardless of psychopathological decline, and even could be improved by learning and rehearsal.

Comparative study of influence of depression, anxiety, stress and coping strategies on congestive heart failure patient's quality of life

Roya Aliyeva, MD, Azerbaijan (1st place winner)

Background: Quality of life is one of the new indicators and variables while describing human health. When it comes to chronic heart failure patients it is widely known that their physical condition has an impact on their quality of life.

Object: Our study aimed to determine psychosocial factors and coping strategies affecting on quality of life in patients with chronic heart failure and to find relations between them.

Method: In a case-control study we enrolled 50 hospitalized patients with chronic heart failure from Therapeutic Clinic of Azerbaijan Medical University to case group and 50 healthy participants to control group. CHF severity was assessed with physician ratings of the New York Heart Association (NYHA) functional class and Echocardiography indicators of Heart Failure. Level of psychological factors were evaluated by Depression Anxiety Stress Scale (DASS-21). A coping strategies list was used to identify the strategies used by participants at stressful periods. The evaluation of quality of life was made using the Quality of Life Short Form-36 (SF-36). And as part an essential part of quality of life - Client Satisfaction questionnaire was used for hospitalized patients.

Conclusion: Study is still ongoing. Findings suggests to use effective methods to reduce the impact of psychological factors on the quality of life of CHF patients.

Management of Obsessive Compulsive Disorder at comorbid Bipolar II Disorder

Sabina Kerimova, Azerbaijan

Some studies have reported the relationship of obsessive-compulsive disorder and bipolar disorder. Studies describing patients with OCD and comorbid bipolar disorders have suggested that depression tends to aggravate obsessive-compulsive symptoms, whereas patients in manic states tend to disregard the importance of intrusive thoughts and focus elsewhere, perhaps explaining the reduction of obsessive-compulsive symptoms during hypomanic episodes.

A 23-year-old male patient with obsessive thoughts referred to psychiatrist with compulsive behaviour for reducing anxiety. The patient was treated with selective serotonin and norepinephrine reuptake inhibitor - venlafaxine- starting with dose of 37.5 mg.

The patient did not improve until the dose of the venlafaxine was increased to 187.5 mg. On this treatment regimen, the patient did not show clinically significant OCD symptoms. But one month later symptoms of hypomania came out. We stopped venlafaxine and started treatment focused on bipolar II disorder with lamotrigine and right after this intervention, severity of symptoms significantly decreased.

From all above we can conclude that in some patients with OCD we should be aware of rapid cycling bipolar II disorder, during which symptoms of OCD are present in depressive episode of BD and use mood stabilisers.

Keywords: Chronic Heart failure; Depression; Anxiety; Stress; Stress Coping Strategies; Quality of Life; Client Satisfaction

Observational Study: Suicidal Behavior in Patients with Borderline Personality Disorder

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Objectives: This research was conducted to investigate the association of suicidal behavior among the patients with Borderline Personality Disorder (BPD).

Methods: 38 participants from outpatient unit older than 18 years were recruited to the research. Zanarini Rating Scale (ZAN-BPD) was used for evaluation of BPD in patients. With aim to determine whether the participants are depressed, do they have suicidal ideation and to reflect patients on their current feelings we used 3 scales: Modified Scale for Suicide Ideation (MSSI), Rosenberg Self-Esteem Scale (SSES) and Hamilton Depression Rating Scale (HDRS).

Results: From 38 questioned patients 9 had at least one suicide attempt, 29 out of 38 were diagnosed with current episode of depression and in 24 out of 38 were having or had suicidal thoughts.

Conclusion: Suicidal behavior was confirmed to have an association with Borderline Personality Disorder and for reducing the unwanted results as suicide we need to evaluate the risk of suicide in each patient with BPD. At least short forms of suicide risk evaluation should be done with this patients in the future.

Prevalence of psychiatric disorders among Armenian's rural nation

Srbuhi Melkonyan, Armenia

Prevalence of psychiatric disorders among Armenian's rural nation by this time is insufficiently studied. That people avoid visiting to the psychiatrists because of either high level of stigmatization or low level of education. In general primary care physicians are not able to diagnose and prescribe proper treatment. This research is about Anxiety disorders as consequences of unhealthy lifestyles among young men especially smoking and abusing alcohol in quantity as well as in frequency.

We initiated the study about prevalence of psychiatric disorders as well as harmful lifestyle among rural nation. We hope that obtain results will be helpful for organizing of effective mental health care in rural.

Experience of Methadone program in Armenia

Tatevik Balasanyan, Armenia

Heroin is a substance that is both illegal and extremely addictive. The impact on public health has been severe. A typical intravenous-heroin abuser may inject 4 or more times each day and this has been associated with many serious communicable diseases, including: HIV/AIDS, hepatitis B and C, and tuberculosis.

Methadone maintenance treatment (MMT) is the use of methadone, administered over a prolonged period of time, as treatment for someone who is addicted to opioids such as heroin, where detoxification has been unsuccessful and/or admittance to a substance abuse treatment facility requires complete abstinence.

At present time in Armenia MMT receive 290 persons in Narcology Center of Yerevan, 175- in prisons, 44- in psychiatric services of regions of Armenia. Concerning prisons, patients should receive MMT for the entire duration of their detention in the closed setting. This ensures the maximum benefits of the treatment are obtained.

MMT significantly reduces drug injecting; because it reduces drug injecting, MMT reduces HIV transmission; MMT significantly reduces the death rate associated with opioid dependence; MMT reduces criminal activity by opioid users.

Crowding, grouping, and gain control in schizophrenia

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Visual paradigms are versatile tools to investigate the pathophysiology of schizophrenia. Contextual modulation refers to a class of paradigms where a target is flanked by neighbouring elements, which either deteriorate or facilitate target perception. It is often proposed that contextual modulations weakened in schizophrenia compared to controls, with facilitating contexts being less facilitating and deteriorating contexts being less deteriorating. However, results are mixed. In addition, facilitating and deteriorating effects are usually determined in different paradigms, making comparisons difficult. Here, we used a crowding paradigm in which both facilitation and deterioration effects can be determined all together. We found a main effect of group, i.e., patients performed worse in all conditions compared to controls. However, when we discounted for this main effect, facilitation and deterioration were well comparable to controls. Our results indicate that contextual modulation can be intact in schizophrenia patients.

The effectiveness of psychosocial interventions in patients with a the first episode of schizophrenia

Vahan Simonyan, Armenia

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In recent years, much attention is paid in the literature to the problem of the first psychotic episode.

Objective: To determine the effectiveness of psychosocial intervention in patients with first psychotic episode.

Materials and methods: The study included 38 patients with a diagnosis of schizophrenia, schizotypal and delusional disorders in accordance to ICD-10. Luria's questionnaire on cognitive functions (on the first and the 60th day), as well as social functioning questionnaire developed at the Institute of Psychiatry, Moscow (on the 1st and 60th day) were used during the research.

The results of the study: The index of the average positive changes in cognitive functions score after 2 months of treatment. (Scale Luria). Praxis 0.77. Thinking 0.44. Acoustic non-verbal gnosis 0.52. Visual memory 0.9. Optical-spatial gnosis 0.86. Audio-verbal memory 0.50. On all scales ($p < 0,005$). The average positive changes for the social functioning score after 2 months of treatment (questionnaire of social functioning). Education 0.18. Job 0.21. Hobby 0.89. Physical activity 0.85. Intensity of communication 0.88. Reestablishment of social networks 0.74 b. Sociability 0.34 points. On all scales ($p < 0,005$).

Conclusions: Improving of the cognitive and social functioning of patients shows a positive impact of psychosocial interventions in patients with the first psychotic episode. For more complete conclusions we consider it necessary to continue the study, which will include more patients and a comparative study with similar methods of treatment in psychiatry.

Spread level of some psychological specification and addiction on internet between students and its connection with various risk factors in Azerbaijan

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Background: Depression, anxiety disorders and suicidal thoughts is wide spread psychological problems in society. In this regard research and determination of prevalence of depression, anxiety disorders and suicidal thoughts of university students comprise main goal of our research.

Materials and Methods: Research has been conducted between 1018 students from 3 universities. Zang's selfestimation depression graphic, socio-demographic date form and special questionnaire form for determination of suicidal thoughts and addition on internet have been applied for students.

Result: Slight level of spread of depression among students is 14.36% (142 people), average level depression is 2.73% (27 people), aggravated level of depression is 0.2% (2 people). Spread level of slight level of anxiety disorders is 20.65% (203 people), average level is 1.73% (17 people) aggravated level is 0% (0 person). Slight level of depression in 4 people (21.05 %), average level depression is 5.3% (1 people) , slight and average level of anxiety disorders (42,10%) in 8 people and aggravated level of anxiety disorders is 5.3% (1 people) have been found among people having addiction on internet (in total 19).

Discussion: It has been clear from result of research that slight level of depressive disorders and slight level of anxiety disorders have been spread more widely among Azerbaijani student compared with other aggravated levels. Spread level of depressive disorders and anxiety.

Disorders among students biased addiction to internet is higher than non-addicted students on internet.