



INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY

Co-sponsored by WPA



Hellenic Psychiatric Association

3rd Congress on Evidence Based Mental Health: From research to clinical practice

November 5th - 8th, 2020
Ioannina
Epirus Palace Hotel
www.psychiatry.gr

Will be accredited with CME-CPD credits
by the Panhellenic Medical Association

Final Program & Abstract Book



3rd Congress on Evidence Based Mental Health: From research to clinical practice

November 5th - 8th, 2020
Ioannina - Greece



Dear colleagues,

It's a great pleasure to invite you to the **3rd Congress on Evidence Based Mental Health** which will take place in **Ioannina, Greece**, on November 5th - 8th, 2020.

After the great success of the 2nd Congress which was held in 2018, this third Congress again aims at being valuable for the clinicians who fight daily in the front line for the treatment of real-world patients. In this frame, our goal is to provide a global and comprehensive update of the newest developments in Psychiatry and the allied sciences in a manner, which will be both focused and enriched. The rule is to avoid content-free eloquence and authority and to face hard questions on the base of research findings.

Many worldwide experts have been invited to share with us their knowledge and experience once again with the support and guidance of the World Psychiatric Association and under the Auspices of the Hellenic Psychiatric Association. With the challenges the world is facing today, advanced education and training is the only way to the future. Teaching clinical usefulness and application of new knowledge and informed treatment with a truly multidisciplinary approach is the central axis of the meeting and although the congress will embrace high tech research concerning psychopathology, new treatment methods, genetics, molecular biology but also psychotherapy, it also aims on putting the emphasis on the human factor, both the therapist and the patient. Apart from the humanistic tradition of Psychiatry and life sciences, the continuous and unconditional investment on the high level training of professionals and education of patients and their families, emerged as a significant challenge during the last few decades.

Medical scientists and public health policy makers are increasingly concerned that the scientific discoveries are failing to be translated efficiently into tangible human benefit. Today, in an all the more complex and technologically advanced environment, the human factor emerges again as the most valuable one, the factor that determines the final outcome. This congress specifically focuses on the ultimate aim: that is to empower and eventually free patients and their families from the burden of mental disease and fighting for full remission and functional rehabilitation. It also includes the distinguished aim to spread high-level training to younger generations by including symposia organized by medical students and psychiatric residents from around the world. As hosts and organizers, we shall spare no effort in making your participation scientifically rewarding and meaningful and your stay in Ioannina as enjoyable as possible.

Konstantinos N. Fountoulakis

Professor of Psychiatry, Aristotle University of Thessaloniki, Greece
Chair of the 3rd Congress on Evidence Based Mental Health

Main Topics of the Congress

The main topics of the Congress are the following:

- Animal Models
- Anxiety disorders
- Basic Neuroscience
- Behavioural disorders
- Bioethics
- Biological rhythms
- Biomedical Technology
- Childhood and adolescence disorders
- Clinical Psychiatry
- Clinical Psychopharmacology
- Clinical trials methodology
- Dementia
- Drug development
- Eating disorders
- Evidence-based psychiatry
- Experimental Psychopharmacology
- Forensic Psychiatry
- Health Economics and Quality of Life
- Information technology and neuroscience
- Learning abilities and disabilities
- Major disaster and mental health
- Memory and cognitive disorders
- Methodology in Psychiatric research
- Molecular Psychiatry
- Mood disorders
- Neural Networks
- Neuroimaging
- Neuropsychology
- Neurophysiology
- Neuropsychobiology
- Neuropsychoendocrinology
- Non pharmacological biological therapies
- Nosology and classification
- Pharmacogenetics
- Psychiatric Genetics
- Psychogeriatrics
- Psychoimmunology
- Psychometrics
- Psychopharmacology
- Psychophysiology
- Psychosocial and other non-biological therapies and interventions
- Schizophrenia and other psychotic disorders
- Sexual behaviour and disorders
- Sleep
- Social Psychiatry
- Stress
- Substance abuse and dependence
- Suicide
- Systematic reviews and meta-analysis
- Transcultural Psychiatry
- Treatment guidelines
- Violence



Honorary Chair of the Congress: Afzal Javed (UK)

Executive Chair of the Congress: Konstantinos N. Fountoulakis (Greece)

Faculty

Members:

| | | |
|----------------------------|------------------------------------|-------------------------------|
| Anargyros, K. (Greece) | Iliadou, P. (Greece) | Oikonomou, A. (Greece) |
| Angos, P. (Greece) | Kallitsaris, Th. (Greece) | Pagkalos, G. (Greece) |
| Arvaniti, Aik. (Greece) | Kanteres, P. (Greece) | Panagiotidis, P. (Greece) |
| Athanasiadis, L. (Greece) | Karakasi, V. (Greece) | Papakonstantinou, A. (Greece) |
| Batzikosta, A. (Greece) | Karakatsoulis, G. (Greece) | Papaliaga, M. (Greece) |
| Bonotis, K. (Greece) | Karampas, A. (Greece) | Petrikis, P. (Greece) |
| Bonti, E. (Greece) | Karzis, A. (Greece) | Petropoulou, M. (Greece) |
| Chaldogeridis, A. (Greece) | Kasper, S. (Austria) | Piat, J. M. (France) |
| Degleris, N. (Greece) | Kleisas, S. (Greece) | Radwan, R. B. (Bangladesh) |
| Diakaki, K. (Greece) | Konsta, A. (Greece) | Rantis, K. (Greece) |
| Diakogiannis, I. (Greece) | Kotsis, K. (Greece) | Samakouri, M. (Greece) |
| Dikeos, D. (Greece) | Leontaritis, G. (Greece) | Seitidis, G. (Greece) |
| Douzenis, A. (Greece) | Magklara, K. (Greece) | Skapinakis, P. (Greece) |
| Dragioti, E. (Greece) | Mallik, Ch. I. (Bangladesh) | Sotiropoulou, E. (Greece) |
| Evagorou, O. (Greece) | Manolopoulou, D. I. (Greece) | Tafiadis, D. (Greece) |
| Fakitsa, P. (Greece) | Mantas, Ch. (Greece) | Tagkouli, E. (Greece) |
| Ferentinos, P. (Greece) | Mavridis, D. (Greece) | Theofilidis, A. (Greece) |
| Fotiadis, P. (Greece) | Michopoulos, I. (Greece) | Touliatos, G. (Greece) |
| Gavanozis, S. (Greece) | Mitkani, C. (Greece) | Tsapakis, E. (Greece) |
| Georgiadou, S. (Greece) | Möller, H. J. (Germany) | Tsigkaropoulou, E. (Greece) |
| Georgiou, G. (Greece) | Möller Leimkuhler, A. M. (Germany) | Tsokani, S. (Greece) |
| Giakoumis, D. (Greece) | Mullick M, S. I. (Bangladesh) | Varsami, S. (Greece) |
| Giannopoulou, I. (Greece) | Nikolakopoulos, S. (Greece) | Veroniki, A. A. (Greece) |
| Giotakos, O. (Greece) | Nimatoudis, I. (Greece) | Vorvolakos, Th. (Greece) |
| Gonda, X. (Hungary) | Ntouros, E. (Greece) | Yotzidi, V. (Greece) |
| Helal, U. A. (Bangladesh) | Ntre, V. (Greece) | Zarate, C. A. (USA) |
| Hossain, T. (Bangladesh) | Ntritsos, G. (Greece) | Zarokanelou, V. (Greece) |

Scientific Program

Thursday, November 5th 2020

16.30-18.00 **SYMPOSIUM**

**SYMPOSIUM ON INTRODUCTION TO META-ANALYSIS OF RANDOMIZED
CONTROLLED TRIALS - PART I**

Chairperson: **Areti Angeliki Veroniki** (Greece)

Clinical trials

Stavros Nikolakopoulos (Greece)

Introduction to meta-analysis

Areti Angeliki Veroniki (Greece)

Meta-analysis of dichotomous outcome data

George Seitidis (Greece)

Meta-analysis of continuous outcome data

Maria Petropoulou (Greece)

18.00-19.30 **SYMPOSIUM**

PREDICTION OF MENTAL DISORDERS: CHALLENGES AND PERSPECTIVES

Chairpersons: **Konstantinos Fountoulakis** (Greece), **Gregory Karakatsoulis** (Greece)

Prediction in schizophrenia

Pavlos Angos (Greece)

Predictive factors associated with mood disorders

Stathis Gkavanozis (Greece)

Exploring aspects of precision psychiatry in predicting and managing mental illness

Danai Ioanna Manolopoulou (Greece)



Friday, November 6th 2020

08.00-09.30 **SYMPOSIUM**

**CLINICAL APPLICATIONS OF TRANSCRANIAL MAGNETIC STIMULATION (TMS)
FOR PSYCHIATRIC DISORDERS**

Chairperson: **Konstantinos Bonotis** (Greece)

TMS for treatment of depression

Konstantinos Bonotis (Greece)

TMS for treatment of psychotic symptoms

Maria Papaliaga (Greece)

TMS for treatment of addiction

Petros Kanteres (Greece)

TMS for treatment of OCD

Theofilos Kallitsaris (Greece)

The potential of TMS in the ever-expanding field of cognitive disorders

Konstantinos Anargyros (Greece)

09.30-11.00 **SYMPOSIUM**

CONTEMPORARY CHALLENGES IN CLINICAL PSYCHIATRY

Chairpersons: **Petros Skapinakis** (Greece), **Achilleas Oikonomou** (Greece)

Double depression

Achilleas Oikonomou (Greece)

Therapeutic dilemmas in anxiety disorders

Spyridon Kleisas (Greece)

The importance of the psychiatrist in sexual dysfunctions

Anastasios Papakonstantinou (Greece)

Psychopharmacology of Old Age

Antonios Karzis (Greece)

11.00-11.30 **Coffee break**

Friday, November 6th 2020

11.30-13.00 **SYMPOSIUM**

UNUSUAL TOPICS IN MENTAL HEALTH

Chairpersons: **Xenia Gonda** (Hungary), **Orestis Giotakos** (Greece)

Rethinking the clinical and pathophysiological similarities between dysmyelination diseases and psychosis

Orestis Giotakos (Greece)

Personalised approach to understanding and preventing suicide
in bipolar disorders

Xenia Gonda (Hungary)

Androgen emotional toxicity syndrome

George Touliatos (Greece)

Evidence based psychiatric assessment for forensic reasons

Valeria Karakasi (Greece)

13.00-14.30 **SYMPOSIUM**

**SYMPOSIUM ON INTRODUCTION TO META-ANALYSIS OF RANDOMIZED
CONTROLLED TRIALS - PART II**

Chairpersons: **Areti Angeliki Veroniki** (Greece), **Dimitris Mavridis** (Greece)

Fixed-effect meta-analysis

Sofia Tsokani (Greece)

Random-effects meta-analysis

Areti Angeliki Veroniki (Greece)

Publication bias

Dimitris Mavridis (Greece)

Introduction to genetic epidemiology and genome-wide association studies

Georgios Ntritsos (Greece)

14.30-15.30 **Break**





Friday, November 6th 2020

15.30-17.00 **SYMPOSIUM**

MILITARY PSYCHIATRY IN CLINICAL PRACTICE

Chairpersons: **Konstantinos Fountoulakis** (Greece), **Petros Fotiadis** (Greece)

Military psychiatry in our days

Petros Fotiadis (Greece)

Co-occurring posttraumatic stress disorder and alcohol use disorders in military personnel

Panagiotis Panagiotidis (Greece)

Suicidal Behavior and PTSD in the armed forces

Konstantinos Rantis (Greece)

Sexual health problems in military personnel with PTSD

Georgios Pagkalos (Greece)

Short term and long term psychotherapies in the environment of a military community mental health center

Evangelos Ntouros (Greece)

17.00-17.30 **LECTURE**

Chairperson: **Athanasios Douzenis** (Greece)

Adverse health outcomes in antidepressants users: an umbrella review of 45 meta-analyses of observational studies

Elena Dragioti (Sweden)

17.30-18.00 **Coffee break**

18.00-18.30 **LECTURE**

Chairpersons: **Ioannis Michopoulos** (Greece)

The burden of schizophrenia through the experience of a family caregiver and his encounter with a psychoeducation program

Jean-Michel Piat (France)



Friday, November 6th 2020

18.30-20.00 **SYMPOSIUM**

SPECIFIC ASPECTS OF AFFECTIVE DISORDERS RESEARCH

Chairpersons: **Athanasiou Douzenis** (Greece), **Ioannis Michopoulos** (Greece)

Control conditions in psychotherapy for depression. A network meta-analysis
Ioannis Michopoulos (Greece)

Personality and wellbeing in affective disorders
Vasiliki Yotzidi (Greece)

Harm avoidance predicts resilience in patients with eating disorders
Evdokia Tsigkaropoulou (Greece)

Violence associated with bipolar disorder, treatment implications: a review
Athanasiou Douzenis (Greece)

20.00-20.30 **LECTURE**

Chairpersons: **Athanasiou Douzenis** (Greece), **Ioannis Michopoulos** (Greece)

Staging of schizophrenia with the use of PANSS: an international
multi-center study
Konstantinos Fountoulakis (Greece)



Saturday, November 7th 2020

08.00-09.30 **SYMPOSIUM**

PSYCHIATRIC REFORM IN ITS FIFTH DECADE. THE EVROS EXPERIENCE

Chairpersons: **Maria Samakouri** (Greece), **Theofanis Vorvolakos** (Greece)

Inpatient unit

Soultana Varsami (Greece)

Involuntary admissions

Aikaterini Arvaniti (Greece)

Community mental health team

Olympia Evagorou (Greece)

Latest development, future perspective and challenges

Theofanis Vorvolakos (Greece)

09.30-11.00 **SYMPOSIUM**

ASPECTS OF THE FIRST EPISODE IN PSYCHOSIS

Chairpersons: **Petros Petrikis** (Greece), **Christos Mantas** (Greece)

Sex hormones' levels in first episode patients (FEP) with psychosis

Petros Petrikis (Greece)

Revisiting the schizophrenia-AKT link: data from First-episode-of-psychosis patients

Giorgos Leontaritis (Greece)

Imaging findings in first episode patients with psychosis. Preliminary results of our SPECT study group

Georgios Georgiou (Greece)

Language assessment in first episode patients with psychosis

Polyxeni Fakitsa (Greece)

Treatment resistant first episode schizophrenia patients. The role of clozapine

Andreas Karampas (Greece)

11.00-11.30 **Coffee break**

Saturday, November 7th 2020

11.30-13.00 **SYMPOSIUM**

CHILDREN AND ADOLESCENT WITH OCD; BANGLADESH PERSPECTIVES

Chairperson: **Mohammad S I Mullick** (Bangladesh)

Phenomenology of OCD in children and adolescents in Bangladesh

Chiro Islam Mallik (Bangladesh)

Psychopathology of OCD in children and adolescents: cultural influence

Rifat Binte Radwan (Bangladesh)

Physical co morbidity and OCD in Children and adolescents: how to address

Tanjina Hossain (Bangladesh)

Intervention approach of OCD among children and adolescents in Bangladesh

Helal Uddin Ahmed (Bangladesh)

13.00-14.30 **SYMPOSIUM**

COMORBIDITY, A HIDDEN FOE

Chairpersons: **Dimitrios Dikeos** (Greece), **Evangelia Tsapakis** (Greece)

Comorbidity Between Bipolar Affective Disorder and Anxiety Disorders: A Review

Evangelia Tsapakis (Greece)

Comorbidity of obsessive-compulsive disorder in bipolar spectrum disorders:

Systematic review and meta-analysis of its prevalence

Panagiotis Ferentinos (Greece)

Comorbidity of Attention-Deficit Hyperactivity Disorder in Bipolar

Disorder Patients

Kalliopi Diakaki (Greece)

TBA

Dimitrios Dikeos (Greece)

14.30-15.00 **LECTURE**

Chairperson: **Konstantinos Fountoulakis** (Greece)

The face of social solidarity: “Health for all”

Eleni Sotiropoulou (Greece)

15.00-16.00 **Break**



Saturday, November 7th 2020

16.00-16.45 **LECTURE**

Chairperson: **Dimitrios Dikeos** (Greece)

Gender bias in diagnosing depression in men
Anna-Maria Möller-Leimkühler (Germany)

16.45-17.30 **LECTURE**

Chairperson: **Evangelia Tsapakis** (Greece)

The more we learn the less we know: the missing links in the genetic background of depression
Xenia Gonda (Hungary)

17.30-18.15 **LECTURE**

Chairpersons: **Ioannis Nimatoudis** (Greece), **Ioannis Diakogiannis** (Greece)

Stratified medicine/precision medicine in depression and schizophrenic psychoses. How far are we?
Jans Juergen Möller (Germany)

18.15-19.00 **LECTURE**

Chairpersons: **Ioannis Michopoulos** (Greece), **Panagiotis Ferentinos** (Greece)

Treatment of depression with fast acting antidepressants
Kasper Siegfried (Austria)

19.00-19.45 **LECTURE**

Chairpersons: **Konstantinos Fountoulakis** (Greece), **Jans Juergen Möller** (Germany)

Rapid improvement of suicidal ideation and severe depression within hours: from synapses to symptoms to new treatments
Carlos Zarate (USA)

19.45-20.30 **LECTURE**

Chairpersons: **Konstantinos Fountoulakis** (Greece), **Kasper Siegfried** (Austria)

What Psychiatry has failed to achieve?
Afzal Javed (UK)

21.00 **President's dinner and Awards Ceremony**

Sunday, November 8th 2020

09.30-11.00 **SYMPOSIUM**

SUBSPECIALTIES IN PSYCHIATRY

Chairpersons: **Loukas Athanasiadis** (Greece), **Anastasia Konsta** (Greece)

The role of sexology in psychiatry

Loukas Athanasiadis (Greece)

The role of psychogeriatrics in psychiatry

Anastasia Konsta (Greece)

The role of learning disabilities assessment and intervention in psychiatry

Elina Bonti (Greece)

11.00-12.30 **SYMPOSIUM**

EVIDENCE BASED PRECISION AND PERSONALIZED PSYCHIATRY

Chairperson: **Loukas Athanasiadis** (Greece)

Imaging Biomarkers in mental disorders

Calypso Mitkani (Greece)

Evidence based suicidality personalized assessment

Gregory Karakatsoulis (Greece)

Sexuality and intimacy among people with schizophrenia

Soultana Georgiadou (Greece)

Cognitive deficits as global indices of neuropsychological performance

Antonios Theofilidis (Greece)



Sunday, November 8th 2020

12.30-14.00 **SYMPOSIUM**

EVIDENT BASED PRACTICE IN NEURODEVELOPMENTAL COMMUNICATION DISORDERS

Chairpersons: **Konstantinos Kotsis** (Greece), **Dionysios Tafiadis** (Greece)

Parental illness perception in ASD

Konstantinos Kotsis (Greece)

Parental burden and needs in greek families of children with autism spectrum disorder

Vassiliki Ntre (Greece)

Evident based evaluation of neurodevelopmental communication disorders

Dionysios Tafiadis (Greece)

The use of neuropsychological model of Stackhouse & Wells (1997) in the evaluation of children with intellectual disabilities and high-functioning ASD

Vasiliki Zarokanelou (Greece)

14.00-15.30 **SYMPOSIUM**

E-SCREENING FOR MINOR AND MAJOR NEUROCOGNITIVE DISORDERS.

EVIDENCE OF A PROMISING NEW ERA

Chairperson: **Nikolaos Degleris** (Greece)

Designing and delivering electronic screening tests: in search of best practices

Agisilaos Chalogeridis (Greece)

Implementation and evaluation of two e-screening tests (culturally neutral and culturally biased) for minor and major neurocognitive disorders in greek population

Areti Batzikosta (Greece)

Brain health assessment: validation of a novel, tablet-administered cognitive screening test in a sample of Greek older adults

Paraskevi Iliadou (Greece)

Virtual supermarket test: an MCI screening test based on a serious game

Dimitrios Giakoumis (Greece)

Sunday, November 8th 2020

15.30-17.00 **SYMPOSIUM**

EVIDENCE BASED PRACTICE IN CHILD AND ADOLESCENT MENTAL HEALTH

Chairperson: **Ioanna Giannopoulou** (Greece)

Autism spectrum disorders: evidence based interventions for children
and adolescents

Evdokia Tagkouli (Greece)

Identifying children and adolescents at risk for developing psychotic conditions:
the use of diagnostic criteria in everyday practice

Konstantina Magklara (Greece)

Self-harm in young people

Konstantinos Kotsis (Greece)

Challenges in implementing EBPs in clinical settings

Ioanna Giannopoulou (Greece)

17.00-17.30 **Closing remarks**



General Information

Congress Venue

Epirus Palace hotel, Ioannina, Greece

(7th km National Road Ioannina-Athens, 45221, Ioannina, Tel. +30 26510 93555, 91072, 91074, www.epiruspalace.gr)

Access to the Congress Venue

Ioannina can be reached by arriving at Ioannina airport "King Pyrros", by car or by public bus transportation (<http://www.ktelioannina.gr/>). The hotel is located 14 km approximately from the airport.

Official Language

English is the official language of the Congress.

All printed material and poster presentations will be in English.

CME Accreditation

The congress will be accredited with **CME-CPD credits** by the Panhellenic Medical Association.

Certificate of Attendance

Certificates of attendance will be sent electronically. Please note that a barcode system will be used and in order to obtain CME credits you must complete 60% participation of the scientific program.

E-Posters

All E-posters will be presented electronically and no hardcopies will be hanged. The E-posters will be available to delegates throughout the Congress in the exhibition area.

Poster Awards

The International Society on Neurobiology and Psychopharmacology announces 5 awards for the 5 best posters which will be presented during the 2020 Congress. The winners will receive an honorary diploma.

All submitted posters are considered candidates for the awards, unless otherwise stated by the author(s).

Abstract Book

The abstract book and the full posters will be available online (pdf format).

Exhibition

Within the Congress area there will be an exhibition of medical equipment and pharmaceutical products.

Presentations

Available audiovisual equipment for all presentations will be through power point presentation. For power point presentations, your presence to the "technical reception desk" is required one hour prior to the time of your presentation in order to check the compatibility of your cd or usb stick. Use of personal computers will not be permitted.

Registration Fees

| TYPE OF REGISTRATION | GROUP A countries | GROUP B countries | GROUP C countries | GROUP D countries |
|--|-------------------|-------------------|-------------------|-------------------|
| Specialists | 200€ | 150€ | 100€ | Free* |
| Residents | 150€ | 75€ | 50€ | Free* |
| Other mental health professionals | 50€ | Free* | Free* | Free* |
| Students* | Free* | Free* | Free* | Free* |

VAT 24% is not included in the above registration fees

* It applies only to the undergraduate students and not to the postgraduate students.

Note: For country's classification visit the official web site (www.psychiatry.gr).

For free registrations the congress bag will be provided according to availability.

All the scientific proceedings including book of abstracts will be available for free online in pdf format.

On-Site Registration

Participants who wish to register on-site are advised to arrive early. On-site registration will be processed on a first-come, first-served basis. Priority will be given to pre-registered delegates. Depending on the number of onsite registered delegates, availability of congress bags may be limited.

Congress Badge

Delegates are obliged to show their congress badge at the entrance of Congress Halls for their attendance time to be registered.

Taxis

Taxis are available in front of the airport as well as the hotel entrance.

Insurance

We cannot accept responsibility for any personal loss, accidents or damages to participants and/or accompanying persons. Participants are strongly advised to obtain personal insurance to cover any eventuality that may occur during the Congress.

Climate

The average temperature during March in Ioannina is 8°C -15°C or 46.4°F -59°F.

For further information regarding the Congress visit the Congress's web site: www.psychiatry.gr

Congress Secretariat



Conference & Event Management

Thessaloniki: 50A Stadiou Str. 55534 Pilea, Thessaloniki, Greece,

Tel.: +30 2310 247743, +30 2310 247734, Fax: +30 2310 247746, e-mail: info@globalevents.gr

Athens: 2 Valestra str. & 168 A. Syngrou Av., 17671 Kallithea, Athens, Greece,

Tel.: +30 210 3250260, e-mail: athens@globalevents.gr

www.globalevents.gr



PROCEEDINGS

Thursday, March 19th 2020

16.30-18.00 SYMPOSIUM

**SYMPOSIUM ON INTRODUCTION TO META-ANALYSIS OF RANDOMIZED
CONTROLLED TRIALS - PART I**

Chairperson: Areti Angeliki Veroniki (Greece)

Clinical trials

Stavros Nikolakopoulos

*Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece
Biostatistics & Research Support, Julius Centre for Health Sciences and Primary Care, Utrecht,
The Netherlands
Athens University of Economics and Business*

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. Clinical trials are prospectively designed studies, considered the gold standard for the evaluation of medical interventions. Thus, their role is fundamental in practising Evidence Based Medicine. The fundamental reason for that consideration lies side by side with their statistical properties. More specifically, clinical trials are randomized experiments of which cornerstone methodological features make the estimation of causal effects possible. Clinical trials are the only universally accepted way for the assumptions underlying statistical inference, which is the way of reaching conclusions in the face of uncertainty, to be met, and thus establish causality. Establishment of a causal effect is of paramount importance in order for a medical intervention to be considered as a treatment. Main goals of clinical trials are to avoid bias, minimize variability (and thus error) as well as having a simple design from which straightforward conclusions can be drawn. This presentation will go over a brief history of clinical trials as well as outline the core methodological elements necessary for firm and unbiased conclusions. I will furthermore elaborate on some key statistical concepts which are fundamentals in clinical trial design and analysis and showcase their importance for Evidence Based Medicine.

Introduction to meta-analysis

Areti Angeliki Veroniki

*Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece
Knowledge Translation Program, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Ontario, Canada*

Institute of Reproductive and Developmental Biology, Department of Surgery & Cancer, Faculty of Medicine, Imperial College, London, United Kingdom

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions.



An important aspect of a systematic review is the very careful consideration of whether it is appropriate to combine the study-specific results through a meta-analysis in a single estimate. Meta-analysis yields an overall statistic (together with its confidence interval) that summarizes the effectiveness or safety of an experimental intervention against a comparator intervention or placebo/control. This presentation will cover the basic ideas of meta-analysis. This includes conceptual understanding of meta-analysis, forest plot, effect sizes, heterogeneity, and relevant models. The basic principles and methods usually considered to carry out a meta-analysis for the comparison of two interventions will be illustrated. The use of statistical synthesis methods does not guarantee that the results of a review are valid. Careful consideration of the statistical methods used is required so that misleading results are avoided. Real-life data examples will be used to discuss the properties of meta-analysis. Time will be allowed for discussion of the issues raised.

Meta-analysis of dichotomous outcome data

George Seitidis

Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. This presentation will discuss issues surrounding meta-analysis of binary outcomes. A brief introduction to meta-analysis of binary outcomes will be included, consisting of data extraction (extraction of event frequencies and/or effect estimates), as well as implications of choosing different effect measures. Dichotomous data are the most common type of outcome in clinical trials. Effect measures for dichotomous outcome data will be presented (such as risk, odds, risk ratio, odds ratio, risk difference) along with their relative merits and implications (e.g., swapping interest from 'events' to 'non-events') will be discussed and illustrated through empirical examples. Meta-analyses with real-life dichotomous outcome data will also be used to show the implications of choosing different effect measures and potential strategies for best practice. Time will be allowed for discussion of the issues raised.

Meta-analysis of continuous outcome data

Maria Petropoulou

Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. This presentation will discuss issues surrounding meta-analysis of continuous outcomes. Continuous outcomes are among the most commonly used data type in meta-analysis. In this presentation, we will the relevant effect measures, such as mean difference and standardised mean difference, to conduct a meta-analysis of continuous outcome data. We will discuss frequent mistakes that can happen during the data extraction procedure. These may include misinterpretation of change from baseline and final values, cases where medians are used rather than

means for summarizing patient data, missing standard deviations and calculations of suitable standard errors or confidence intervals, as well as ways of moving from one effect size to another. Transformations about dealing with outcomes measured on different scales will be discussed. Empirical examples using real-life outcome data will also be used to outline the advantages and disadvantages of the methods. Time will be allowed for discussion of the issues raised.

18.00-19.30 SYMPOSIUM

PREDICTION OF MENTAL DISORDERS: CHALLENGES AND PERSPECTIVES

Chairpersons: Konstantinos Fountoulakis (Greece), Gregory Karakatsoulis (Greece)

Prediction in schizophrenia

Pavlos Angos

*Psychiatry Resident, General Hospital of Thessaloniki "G. Papanikolaou",
Department of Psychiatry, Greece*

Schizophrenia is a life-altering diagnosis with serious, wide-ranging implications for the sufferer as well as their family. It may present in any age, it commonly affects most areas of function and is chronic and progressive. Modern management strategies such as community interventions and evidence-based choice and dosage of medication have already provided significant relief especially when started early. However, there is great response heterogeneity which leads to delayed effective treatment and increased side effects. The current inability to predict outcomes also obstructs timely, early interventions.

Schizophrenia is in the forefront of a long-standing effort to demystify the pathophysiology of mental health illness. Recent advancements in our understanding of the interplay between factors such as genetics and environmental/psychosocial influences pave the way to better predictions of illness course and treatment outcomes.

Fields of interest with clinical applications will be discussed and include the prediction of disease in high-risk or prodrome individuals, advance from prognostic factors to prognostic biomarkers and personalized drug selection and dosage.

Predictive factors associated with mood disorders

Stathis Gkavanozis

Psychiatry Registrar in the University General Hospital Thessaloniki AHEPA, Greece

It is said that Hippocrates of Kos, the Father of Medicine, declared that "prevention is better than cure". With this quote in mind, a lot of research has been ongoing, so tools can be provided to predict which people have a higher risk of developing a mood disorder later in their lives. Making such a prediction with relative precision could prove to be a powerful weapon in the arsenal of preventive medicine, as protective measures could be suggested early in a person's life. A range of sociodemographic and health factors such as family history, sex, life events, educa-



tion, financial level, use of alcohol, smoking, chronic pain increase or decrease the possibility of a mood disorder appearing in someone's future. In addition, many researchers focus on studying the prodromal state, the symptoms that constitute a period of disturbance characterized by distinct features, that ultimately lead to the development of a full-blown disorder. Further study is still needed, to formulate the patterns of those symptoms in combination with risk factors that can indicate the people more vulnerable to mood disorders.

Exploring aspects of precision psychiatry in predicting and managing mental illness

Danai Ioanna Manolopoulou

Greece

The foundation of precision psychiatry centers on the assumption that an individual's characteristics play a significant role in both disease vulnerability and in response to specific therapies. Such characteristics include : genetic alterations and epigenetic modifications, clinical symptomatology , observable biomarker changes and environmental factors. The major goals of precision psychiatry are therefore to predict an individual's susceptibility to developing an illness, achieve accurate diagnosis and optimize the most efficient and favorable response to treatment. It is becoming increasingly clear that the pathophysiology underlying disease definitions is rather heterogeneous. Psychiatrists and researchers now have an opportunity to benefit from complex patterns in brain , behavior and genes using new approaches through innovative clinical trials and technologies (e.g. support vector machines, modern neural-network algorithms , cross-validation procedures) . Combining these analysis techniques with a wealth of data from consortia could identify distinct biological subgroups that exhibit predictable response to treatment. Patient –level predictive analytics might help psychiatry to catch up with biology-centered decision making in other medical specialities.

Friday, March 20th 2020

08.00-09.30 SYMPOSIUM

**CLINICAL APPLICATIONS OF TRANSCRANIAL MAGNETIC STIMULATION (TMS)
FOR PSYCHIATRIC DISORDERS**

Chairperson: Konstantinos Bonotis (Greece)

TMS for treatment of depression

Konstantinos Bonotis

*Assistant Professor in Psychiatry, Head of the Department of Psychiatry, Faculty of Medicine,
University of Thessaly, Greece*

Major depression (MD) is highly prevalent, has a high incidence and is associated with a substantial loss of quality of life, increased mortality rates, and enormous social and economic costs. While pharmacological interventions remain the main therapeutic tool in the management of MD, they are often unable to provide sufficient clinical improvements in many patients. Actually, over the last years, an increasing number of centers have started offering rTMS for the treatment of depression, treatment resistant depression (TRD) in particular. Indeed, the largest number of clinical studies has been performed to evaluate the effects of rTMS for the treatment of depression. As a matter of fact, rTMS has been considered by many clinicians even safer and better tolerated than many other pharmacological options or brain stimulation interventions (such as ECT). Nevertheless, questions about the magnitude of its antidepressant effect and about predictors of response in patients with TRD still remain open. However, rTMS stands as a therapeutic tool with strong evidence to support clinical efficacy and safety profile.

TMS for treatment of psychotic symptoms

Maria Papaliaga

Psychiatrist, Department of Psychiatry, University Hospital of Larisa, Greece

Transcranial magnetic stimulation (TMS) is a noninvasive method allowing to directly probe virtually any cortical area, thus providing a unique way to assess the neurophysiological properties of cortical neuronal populations and their long-range connections in conscious humans.

Theories emphasizing cortical dysfunction in schizophrenia have attempted to explain the heterogeneous symptoms experienced by the patients. Fairly consistent findings of an impaired cortical excitation-inhibition balance, cortical plasticity, and motor resonance have been reported. Cortical connectivity impairments have been demonstrated in motor and prefrontal regions. Positive correlation was found between increased TMS-induced cortical activation in gamma frequency and positive symptoms, while negative symptoms were correlated with activation in theta and delta bands. Compared to healthy controls, first episode patients had significantly reduced beta/low gamma oscillations, associated to worse clinical symptoms. Short-interval



cortical inhibition deficits have been associated with psychotic symptom severity. Antipsychotic treatments can modify cortical inhibition and improve clinical symptoms. Clozapine has been associated with prolongation in cortical silent period.

In terms of treatment, the best support is for 1-Hz TMS to the left temporoparietal cortex for the short-term treatment of persistent auditory hallucinations. High-frequency TMS to the left prefrontal cortex impr

TMS for treatment of addiction

Petros Kanteres

Psychiatry Resident, Department of Psychiatry, University Hospital of Larisa, Greece

The presentation is about the implementation of TMS for treatment of addiction. Addiction is a chronic brain disorder characterized by seeking a drug (or engaging in an activity) where use becomes compulsive or difficult to control despite harmful consequences (according to DSM-V). Substance use disorders (SUDs) are one of the leading causes of morbidity and mortality worldwide. In spite of considerable advances in understanding the neural underpinnings of SUDs, therapeutic options remain limited. Recent studies have highlighted the potential of transcranial magnetic stimulation (TMS) as an innovative, safe and cost-effective treatment for some SUDs. Repetitive TMS (rTMS) influences neural activity in the short and long term by mechanisms involving neuroplasticity both locally, under the stimulating coil, and at the network level, throughout the brain. The long-term neurophysiological changes induced by rTMS have the potential to affect behaviors relating to drug craving, intake and relapse. Here, we review TMS mechanisms and evidence that rTMS is opening new avenues in addiction treatments.

TMS for treatment of OCD

Theofilos Kallitsaris

Psychiatry Resident, Department of Psychiatry, University Hospital of Larisa, Greece

Obsessive-Compulsive Disorder (OCD) is characterized by the loss of the patient's ability to control thoughts and to perform stereotypical behaviors. The coercion of ideas and their persistence are characteristic of their repetition, interaction, intransigence, penetration, and perseverance. 80% of OCD develops during childhood, while 60% of the patients develop persistent symptoms despite medication and psychotherapy (Pallanti and Quercioli, 2006). Based on these data, it has been assumed that the inhibitory stimulation of the hypermetabolic activity at the prefrontal and medial regions could be highly effective in OCD. Therefore, r-TMS, either at high or low frequency, could be an effective treatment. The most common use of r-TMS in OCD is in the right prefrontal cortex, at 1Hz, with conventional electromagnetic stimulation and by performing a large number of daily (and also total) sessions. Recently, the FDA approved the use of Deep Transcranial Magnetic Stimulation (dTMS) for OCD treatment.

This work will present proposed treatment protocols, recommendations for daily sessions, ses-

sion duration, possible alternatives and personalization to each patient at the level of excitation anatomy and frequency settings of electromagnetic waves.

The potential of TMS in the ever-expanding field of cognitive disorders

Konstantinos Anargyros
M.D., Hellenic Air Force, Greece

Transcranial magnetic stimulation is most associated with major depressive disorder for which it has been approved as a therapeutic mean. Its non-invasive nature however and the ability of combined usage with electroencephalography monitoring has provided a fruitful field in the study of neurodegenerative diseases. Cortical excitability and neuroplasticity changes can be traced and mapped along the cortical networks of patients with Alzheimer's disease early on the course of the disease alongside with patients with mild cognitive impairment (1). Findings such as these have kickstarted the experimental use of transcranial magnetic stimulation in these groups of patients (2). The purpose of the presentation is to critically present the relevant studies published so far to better understand the potential contribution of the transcranial magnetic stimulator in the better understanding of the neurodegenerative processes taking place in patients with cognitive impairment and shedding light in the possibility of a new diagnostic and/or therapeutic tool.(2)

09.30-11.00 **SYMPOSIUM**
CONTEMPORARY CHALLENGES IN CLINICAL PSYCHIATRY
Chairpersons: **Petros Skapinakis (Greece), Achilleas Oikonomou (Greece)**

Double depression

Achilleas Oikonomou
Psychiatrist-psychotherapist, Greece

Double Depression is considered as one of the most interesting and challenging entities in the field of mood disorders. The particularities in diagnosis, the chronic element of the disorder and the subsequent difficulties in therapy makes the ongoing study of double depression extremely necessary. Over 30 years have already passed since the first efforts to explain the characteristics of chronic depression behaviors observed in many patients. Double depression is not a separate DSM 5 diagnosis, but it is rather described along with dysthymia. The epidemiology of double depression is not clear, as there are no specialized studies concerning this issue. Females tend to suffer from double depression to a greater extent than males.



Therapeutic dilemmas in anxiety disorders

Spyridon Kleisas

Psychiatrist/Psychotherapist, KSDEO "EDRA" Lois boarding home for elders, Greece

Phylogenesis of anxiety dates back to the origins of the animal kingdom and for humanist possesses a central role that extends above and beyond time and culture.

At the same time, for Psychiatry anxiety is amongst the newest of subjects.

It has only been few decades that researchers and clinicians have started to try and create different diagnostic categories, evaluate and study epidemiological data, begun to try understanding the underlying psychobiology and started developing effective pharmacotherapy and psychotherapy interventions.

Nowadays, anxiety disorders are recognized as the most prevalent mental health conditions. Although they are less visible than schizophrenia, depression and bipolar disorder, they can be just as disabling. The diagnoses of anxiety disorders are being continuously revised.

This presentation will try to address current and important therapeutic dilemmas concerning the group of anxiety disorders.

The importance of the psychiatrist in sexual dysfunctions

Anastasios Papakonstantinou

Psychiatrist Sexologist, Greece

Sex is a fundamental quality-of-life issue.

Sexual dysfunctions (SD) are extremely prevalent among the general population and even more so among persons with psychiatric or medical illness. Nevertheless, sexual dysfunctions are under-diagnosed and undertreated because of communication barriers between patients and physicians. Pharmacogenic and morbogenic causes of sexual problems are often difficult to differentiate. Psychiatric diseases may increase the risk of SD, and SD may further exacerbate psychiatric problems, suggesting a bi-directional relationship.

Psychiatrists are well-positioned to take the lead in assessing and treating these problems. As physicians, psychiatrists' basic training is in the biological understanding of health and illness, but as specialists, their postgraduate focus is on the mechanisms and disturbances of human thought, emotion, behavior, and relationships. Further, psychiatrists treat patients as whole people rather than as separate body parts or systems—a perspective that permits the most comprehensive understanding of sexual problems within the broadest personal and interpersonal context. In addition, psychiatrists can take the time necessary to sensitively and non-judgmentally explore issues that patients find difficult to articulate. They can confront issues that are inaccessible to medical instrumentation or psychological tests and that can only be elucidated through skilled psychiatrists.

Psychopharmacology of Old Age

Antonios Karzis

Greece

As longevity has increased, it is expected that by the year 2050 people aged over 60 will account for 30% of the world's population. Owing to their multiple physical and mental health problems, people in this particular age group are being treated with a variety of medications, of which a considerable portion is prescribed by mental health practitioners. The aim of this presentation is to highlight the various issues and difficulties in the use of psychiatric drugs that may arise due to the age-related pharmacokinetic and pharmacodynamic changes and provide a brief overview of current psychopharmacological interventions in old age populations.

11.30-13.00 SYMPOSIUM

UNUSUAL TOPICS IN MENTAL HEALTH

Chairpersons: Xenia Gonda (Hungary), Orestis Giotakos (Greece)

Rethinking the clinical and pathophysiological similarities between dysmyelination diseases and psychosis

Orestis Giotakos

The npo obrela (www.obrela.gr), Greece

Numerous studies have demonstrated an interdependent relationship of oligodendrocytes and the axons they myelinate. Adaptive myelination could normalize neuronal electrical excitability, which in turn can modify myelin plasticity, resulting to neural activity and behavior modulation. A growing body of evidence points towards the involvement of dysmyelination of the prefrontal cortex in the development of the cognitive symptoms of psychosis. Neuroimaging investigations have linked processing speed to brain anatomical connectivity, and have pointed the role of processing speed among the predictors of clinical changes in schizophrenia. The dysmyelination-induced delays in patients with psychosis may cause a discrepancy in sensory feedback mechanisms, which results in prediction error. The myelin abnormalities and the resulting conduction delays vary during the course of the multiple sclerosis and this type of cycles are possibly associated with fluctuations in conduction velocity in psychosis. Rethinking the clinical and pathophysiological similarities between dysmyelination diseases and psychosis, we may consider that the dysconnectivity syndrome of psychosis represents the phenomenological and behavioral result of a multiple-faces dysmyelination disorder, which is based on a lifelong immunogenetic dysregulation process. Establishing the neural basis of processing speed impairment may inform the treatment and etiology of schizophrenia. Moreover, interventions that preserve white matter integrity or ameliorate white matter disruption may enhance information-processing and functional outcome in schizophrenia.

Giotakos O. Is psychosis, at least in part, an immune-related dysmyelination disease? *Dial Clin Neurosc Mental Health* 2019, 2:116–129. DOI: 10.26386/obrela.v2i2.118



Giotakos O. Is psychosis a dysmyelination-related information-processing disorder? *Psychiatriki* 2019, 30:245–255. DOI: 10.22365/jpsych.2019.303.245

Personalised approach to understanding and preventing suicide in bipolar disorders

Xenia Gonda

Department of Psychiatry and Psychotherapy, Semmelweis University

NAP-2-SE New Antidepressant Target Research Group

Laboratory for Suicide Prevention and Research, National Institute for Psychiatry and Addictology

While suicide is a rare event in the community, there is a much higher rate of all types of suicidal behaviours in affective and especially in bipolar disorders.

While several cross-sectional and longitudinal suicidal risk factors in general and less specifically in this illness have been established, the majority of patients characterised by these factors do not commit suicide, and a great proportion of suicidal bipolar patients do not carry these risk factors. This emphasises our lack of understanding of suicide in bipolar disorder on the individual level.

Recent intent-to-action models for suicidal behaviour have been developed that tackle suicide as a process building from several stages, and allow for action keeping in mind the individual and their current state, pinpointing possible targets for risk assessment and intervention during the dynamically evolving suicidal process. Such models have also been adapted to bipolar disorder where management of suicide risk is a key component of successful treatment. The presentation will present a more dynamic concept of emergence of suicidal behaviour in bipolar patients suggesting the possibility to develop a more personalised approach to predict and prevent suicide.

Xenia Gonda is supported by the Janos Bolyai Research Fellowship of the Hungarian Academy of Sciences and the ÚNKP 19-4 New National Excellence Program of the Ministry for Innovation and Technology.

Androgen emotional toxicity syndrome

George Touliatos

Greece

The abuse of AAS (androgenic anabolic steroids) and androgens in particular, by athletes and ordinary people, has an impact on the mental sphere of the users. Emotional imbalances, sleep disorders (insomnia), anxiety, mania, depression (bipolar disorder), irritability, aggression, suicidal behavior, psychosis, confusion, delirium are among the plethora of various psychiatric manifestations.

Even though it occurs under the existence of genetic predisposition, those substances have been shown to affect limbic system and behavior. Androgen receptors (AR) are abundantly expressed in the amygdala, hippocampus, brain stem, hypothalamus, and cerebral cortex implicating a wide range of functions, including regulation of emotion and cognition. Hippocampus and amygdala have been shown under MRI with specific histopathologic malformations. AAS readily passes the blood-brain barrier and bind tightly to the AR.

The withdrawal syndrome of steroid users is horrible, resembling that of heroin, leaving physical and mental disability. Transition from hypomania and mania, to melancholy and depression are quite common. Although those side effects are considered as potentially dangerous, yet there is a tendency for a cover up from the community of users. "Roid rage" is the underground call of this multi symptomatic phenomenon. There are numerous citations in the current literature describing comprehensively the androgen emotional toxicity syndrome. There is no doubt that a small percentage of AAS users will express those symptoms, even under their first experience with these substances. AAS abuse can be present takes from school and it's a growing social disease, considered as a public health issue.

Evidence based psychiatric assessment for forensic reasons

Valeria Karakasi

Resident Psychiatrist, 3rd University Department of Psychiatry, AHEPA University General Hospital, Department of mental health, Aristotle University - Faculty of Medicine, Thessaloniki, Greece

Background and aims: The aim of this oral session is to present a brief overview on the field of forensic psychiatry, and provide a literature review of the evidence base and best practice regarding the assessment of mentally disordered offenders.

Methofology: A systematic review was carried out on evidence based psychiatric assessment of adult perpetrators only by searching the electronic data bases of Medline, Embase, PsycINFO, and Cochrane from 2000 onwards. Sixty-one scientific papers and guidelines were reviewed in order to investigate issues of treatment/intervention, prison psychiatry, risk assessment, service provision, community treatment, liaison/diversion, European perspectives, outcomes, ethics, and role of the psychiatrist.

Results and conclusions: Determining criminal liability, treatability and risk of violence is in many countries the most common form of assessment that forensic expertise requires. This usually involves identifying any mental disorder that the subject may be suffering from and determining whether that disorder was present at the time of enactment of the offense. In addition, assessment of the impact of the subject's mental state at the time of the offense on their capability to appreciate the legal wrongfulness of the act and their ability to act accordingly is necessary. Given the significant consequences that such assessments could have on the individual being evaluated, it is important that the reports provided to the court are executed at a high standard and within an ethical framework. Relevant guidance is provided by several national medico-legal authorities and the World Psychiatric Association. With regard to the assessment of the risk of violence and mental health, substance abuse was noted to increase violence rates



in both patients and healthy individuals, disproportionately higher though in the group of patients, thus suggesting that substance abuse acts as a mediating factor between mental illness and violence. Reliable and valid risk assessments are required for assigning individuals to their risk-based treatment programs. Risk can be assessed using unstructured clinical assessments, actuarial risk assessments (ARAs) and structured professional judgments (SPJs). Unstructured assessments are subjective and have demonstrated poor predictive ability. The review has indicated that the tools are effective in screening individuals at low risk of reoffending, but only have a low to moderate positive predictive value. The view that violence, sexual or criminal risk can be predicted in most cases is even at present not evidence based. The review concluded that the tools perform moderately well for informing treatment, but are of a limited value if used as the sole determinant of conviction or release decisions. The caution requirements in the use of risk assessment tools for individual clinical decisions are even more intensified by the low and varied baseline rates of violent recidivism in the local population of which the assessed individual is a member and is compared with. The highest rates of predictive validity were found in instruments designed for more specific rather than general populations, e.g. depending on the type of offence, perpetrator's gender, perpetrator's race, type of victim. Caution is also required in applying risk assessment tools to specific populations, such as people with intellectual disabilities, as psychometric properties may vary across groups.

13.00-14.30 SYMPOSIUM**SYMPOSIUM ON INTRODUCTION TO META-ANALYSIS OF RANDOMIZED
CONTROLLED TRIALS - PART II**Chairpersons: **Areti Angeliki Veroniki** (Greece), **Dimitris Mavridis** (Greece)**Fixed-effect meta-analysis****Sofia Tsokani***Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece*

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. A meta-analysis is a statistical analysis that combines the results of multiple studies in a single estimate. There are three main approaches for conducting a meta-analysis: the inverse variance method, the Mantel-Haenszel approach and the Peto approach. The use of inappropriate methods may limit the validity and applicability of results. In this presentation, the various meta-analysis models will be described along with their properties. The fixed effect model of meta-analysis will be presented for each of the three aforementioned approaches, as well as the conditions under which the methods should be considered. The advantages and disadvantages of the fixed-effect meta-analysis model will be discussed and outlined using real-life outcome data. Discussion will be supplemented with empirical examples and interpretation of results will be provided. Time will be allowed for discussion of the issues raised.

Random-effects meta-analysis

Areti Angeliki Veroniki (Greece)

*Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece
Knowledge Translation Program, Li Ka Shing Knowledge Institute, St. Michael's Hospital, Toronto, Ontario, Canada*

Institute of Reproductive and Developmental Biology, Department of Surgery & Cancer, Faculty of Medicine, Imperial College, London, United Kingdom

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. The fixed-effect model assumes that the true effect size is common in all studies that address the same clinical question and compare the same interventions. However, in many cases this assumption is implausible, and the use of the random-effects model is a more reasonable approach. This presentation will entail discussion of between-study variability and its potential sources, an overview of methods for identifying heterogeneity, issues related to dealing with study variability once it has been identified, and description of the random effects meta-analysis model. We will discuss whether heterogeneity poses a problem in particular sets of studies and will focus on issues related to deciding on whether or not to combine results, the choice between fixed-effect and random-effects analyses, as well as the use of subgroup analyses. Potential strategies for best practice will also be discussed. Meta-analyses with real-life outcome data will also be used to discuss the advantages and disadvantages of the methods. Time will be allowed for discussion of the issues raised.

Publication bias

Dimitris Mavridis

*Department of Primary Education, School of Education, University of Ioannina, Ioannina, Greece
Paris Descartes University, Sorbonne Paris Cite, Faculte de Medecine, Paris, France*

The Evidence Synthesis Methods (ESM) team will conduct presentations addressing statistical guidelines as formulated in the Cochrane Handbook for Systematic Reviews of Interventions. Studies with statistically significant results are more likely to be published compared to trials with null results. This phenomenon is known as publication bias and it may compromise the results from a meta-analysis. Several methods have been suggested to detect and correct results for publication bias. Some methods are pre-emptive (e.g. trial registration), some are visual (e.g. funnel plot) and others statistical. Statistical methods are split in those trying to establish an association between sample size and treatment effect and in those trying to model the probability of publication of a trial as a function of trial characteristics. The former models are looking for small-study effects, which is a good proxy for publication bias while the latter type of models, also known as selection models, target the problem directly but are based on assumptions that cannot be tested from the data. In this presentation, we will outline the problem in detail and present the various methods that have been suggested for tackling it.



Introduction to genetic epidemiology and genome-wide association studies

Georgios Ntritsos

Department of Informatics & Telecommunications, School of Informatics & Telecommunications, University of Ioannina, Arta, Greece

Department of Hygiene and Epidemiology, University of Ioannina Medical School, Ioannina, Greece

Department of Psychology, School of Social Sciences, University of Ioannina, Ioannina, Greece

Genetic epidemiology is the field of epidemiology that studies the role of genetic factors in the occurrence of disease in human populations and their complex interplay with environmental factors. As it emerged in the mid-1980s, genetic epidemiology utilizes approaches and techniques developed in statistics, genetics, epidemiology, clinical epidemiology, molecular biology and bioinformatics to detect the genetic effects on susceptibility to chronic diseases and quantitative traits. The earliest findings of genetic epidemiology concerned monogenic diseases. With the development of more high-throughput genotyping technologies and more advanced statistical genetics approaches, genetic epidemiology focused on dissecting the genetic architecture of common complex diseases. In contrast to the monogenic diseases, the development of complex diseases is an interplay between genetic and environmental factors. Genome-wide association studies (GWAS) have been designed to assess the association between complex diseases and large numbers genetic variants distributed across the genome and to detect novel disease-associated pathways using an unbiased hypothesis-free approach. These novel findings may result to deeper understanding of how common complex diseases develop and could mark a shift from traditional risk factor assessment toward more precise disease risk prediction. The purpose of this presentation is to demonstrate the key concepts of genetic epidemiology and to present technical aspects of GWAS, such as epidemiologic study designs and statistical methods of analysis.

15.30-17.00 SYMPOSIUM

MILITARY PSYCHIATRY IN CLINICAL PRACTICE

Chairpersons: Konstantinos Fountoulakis (Greece), Petros Fotiadis (Greece)

Military psychiatry in our days

Petros Fotiadis

Psychiatrist, Military Community Mental Health Center, 424 General Military Hospital, Thessaloniki, Greece

Military psychiatry covers special aspects of psychiatry and mental disorders within the military context.

The aim of military psychiatry is to keep as many serving personnel as possible fit for duty and to treat those disabled by psychiatric conditions.

Military psychiatry encompasses counseling individuals and families on a variety of life issues, often from the standpoint of life strategy counseling, as well as counseling for mental health issues, substance abuse prevention and substance abuse treatment; and where called for, medical treatment for biologically based mental illness, among other elements.

A military psychiatrist is a psychiatrist specializing in the treatment of military personnel and military family members suffering from mental disorders that occur within the statistical norm for any population, as well as those disorders consequent to warfare and also stresses associated with military life.

Co-occurring posttraumatic stress disorder and alcohol use disorders in military personnel

Panagiotis Panagiotidis

Psychiatrist, Consultant 424 MHTH, Greece

Co-occurring posttraumatic stress disorder (PTSD) and alcohol use disorders have become increasingly prevalent in military populations. In example, over the past decade, PTSD has emerged as one of the most common forms of psychopathology among the 1.7 million American military personnel deployed to Iraq and Afghanistan in Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND). Among veterans from all eras, symptoms of PTSD have been highly correlated with hazardous drinking, leading to greater decreases in overall health and greater difficulties readjusting to civilian life. In fact, a diagnosis of co-occurring PTSD and alcohol use disorder has proven more detrimental than a diagnosis of PTSD or alcohol use disorder alone. In order to effectively address co-occurring PTSD and alcohol use disorder, both the clinical and research communities have focused on better understanding this comorbidity, as well as increasing treatment outcomes among the veteran population. The purpose of the present presentation is threefold: (1) to present a case study that highlights the manner in which PTSD and alcohol use disorder co-develop after trauma exposure; (2) to present scientific theories on co - occurrence of PTSD and alcohol use disorder; and (3) to present current treatment options for addressing this common comorbidity.

Suicidal Behavior and PTSD in the armed forces

Konstantinos Rantis

Psychiatrist, Hellenic Armed Forces, MCMHC/424 MHTH, Greece

Suicide, either attempted or committed, is a behavior that poses a challenge for mental health specialists worldwide. According to WHO, almost 2 million people commit suicide every year, while attempted suicides make up for 1 out of 5 of the psychiatric emergency incidents. Suicidality is also a matter of concern for military personnel, despite each country's Department of Defence mechanisms of screening, assessing and treating mental health problems.



The purpose of this presentation is to outline epidemiological evidence of such behaviors in various Armed Forces of the world, compare it with that of the general population, and describe common causative factors. As military personnel is distinctive from the general population, we will also attempt to present more specific risk and triggering factors, which may concur, as well as propose possible preventing measures.

Sexual health problems in military personnel with PTSD

Georgios Pagkalos

Consultant Psychiatrist - Sexologist, Military Community Mental Health Center/424 Military Hospital Thessaloniki, Greece

The importance of sexual health assessment in military personnel is evidence-based and undoubtedly. A growing literature underlines frequent sexual dysfunctions or sexuality problems among active service members and veterans. Difficulties in sexual functioning often occur in militants with posttraumatic stress disorder (PTSD), but the underlying mechanisms are still unknown. Studies have shown that sexual dysfunctions are associated with the severity of the PTSD symptoms. Sexual dysfunctions could be clearly predicted in military population with PTSD. Therefore, the therapeutic interventions of PTSD must include attention to sexual health problems in military population exposed in war conditions. Specific treatments intended to enhance interpersonal relationships, psychotropic medication with minor or no adverse effects in sexual functioning and prevention strategies, screening and treatment of co-existing medical diseases could embrace sexuality and lessen the rates of SD in militants with PTSD, improving their sexual health and consequently their overall quality of life.

Short term and long term psychotherapies in the environment of a military community mental health center

Evangelos Ntouros

Military Community Mental Health Center, 424 General Military Hospital, Thessaloniki, Greece

Introduction: Military Community Mental Health Centers are relatively new formed institutions in Greek Army forces dedicated to the service of veterans, families of staff and civilians.

Material and Methods: A review of the psychotherapies in use was conducted using intake data from our Military Community Mental Health Center (MCMHC).

Results: Short term psychotherapies are the majority of the therapies suggested to those in need of psychotherapy alone. Supportive psychotherapy is often used along with pharmacotherapy and long term psychotherapies are employed in a small percentage of our patients.

Discussion: MCMHC receives a significant number of requests and the diagnoses of the patients are mainly related to anxiety and depressive disorders as expected in a Department that oper-

ates to a large extent in terms of Community Mental Health Center. Using a variety of psychotherapeutic forms is essential to address the different needs of the patients.

17.00-17.30 **LECTURE**

Chairperson: Athanasios Douzenis (Greece)

Adverse health outcomes in antidepressants users: an umbrella review of 45 meta-analyses of observational studies

Elena Dragioti

Psychologist PhD, Senior Lecturer, Department of Health, Medicine and Caring Sciences, Linköping University, Sweden

Objective: To grade the evidence across meta-analyses of observational studies assessing the association between antidepressants and adverse health outcomes, using an umbrella review approach.

Methods: We searched PubMed, Scopus, and PsycINFO, up to April 5, 2019. Only meta-analyses of observational studies with a cohort or case-control study design were eligible. Two independent reviewers recorded the data and assessed the methodological quality of the selected meta-analyses. Evidence was ranked as convincing, highly suggestive, suggestive, weak, and not significant according to established criteria.

Results: Forty-five eligible meta-analyses describing 120 associations including data from 1012 individual effect size estimates were included, after scrutinizing 252 potential articles. Seventy-four of the 120 associations (61.7%) had a nominally statistically significant effect ($p \leq 0.05$) using random-effects models. Large heterogeneity ($I^2 > 50\%$) was present (43.3%), while small-study effects (14.2%) and excess significance bias (7.5%) were less common. While convincing meta-analytic evidence emerged from both main and sensitivity analysis for the association between antidepressants and risk of suicide attempt/completion in children/adolescents (9.4%, OR=1.92, 95%CI=1.51-2.44 in adjusted studies, SSRIs only, and in high-quality studies, 3.6% OR=1.88, 95%CI=1.47-2.40), autism spectrum disorders (ASD) with antidepressants before (0.8%, RR=1.48, 95%CI=1.29-1.71 in any antidepressant, adjusted studies, and high-quality studies) and during pregnancy (0.9%, OR=1.84, 95%CI=1.60-2.11 in both high-quality studies and SSRIs only, and 0.1% OR=1.80, 95%CI=1.54-2.10 in European studies), pre-term birth in prospective cohort studies (0.4%, RR=1.87, 95%CI=1.52-2.30), and in studies of mixed antidepressants (0.4%, RR=1.59, 95%CI=1.31-1.93), and low APGAR scores in SSRIs only studies (5.7%, SMD=-0.27, 95%CI -0.37 to -0.16), none of these associations remained at convincing evidence after sensitivity analysis for confounding by indication.

Conclusions: Most putative adverse health outcomes associated with antidepressants are not supported by convincing evidence, and the few of those supported by convincing evidence are affected by confounding by indication. More studies matching for underlying disease are needed to clarify the degree of confounding by indication and other biases. No absolute contraindi-



cation to antidepressants emerges from this umbrella review.

This study has been published in JAMA Psychiatry.

Dragioti E, Solmi M, Favaro A, Fusar-Poli P, Dazzan P, Thompson T, Stubbs B, Firth J, Fornaro M, Tsartsalis D, Carvalho AF, Vieta E, McGuire P, Young AH, Shin JI, Correll CU, Evangelou E. Association of Antidepressant Use With Adverse Health Outcomes: A Systematic Umbrella Review. *JAMA Psychiatry*. 2019 Oct 2. doi:10.1001/jamapsychiatry.2019.2859. [Epub ahead of print] PMID: 31577342

18.00-18.30 LECTURE

Chairpersons: **Ioannis Michopoulos** (Greece)

The burden of schizophrenia through the experience of a family caregiver and his encounter with a psychoeducation program

Jean-Michel Piat

Member of the Executive Committee of the WASP section on Family Intervention Programs & Member of UNAFAM (a French family caregivers NGO), Mulhouse, France

The presentation includes descriptions of impacts and burden on author's daily life across different ages:

As a child facing the incomprehensible behaviour of his mother, and an unsustainably long period of "no medical communication, no delivered diagnosis" due to heavy stigmatisation;

As an adult having to face the tempestuous and unexpected aspect of schizophrenia hitting his younger brother;

As a father having to navigate through the tsunami caused by schizophrenia as it was striking once more against one of his children.

Then it will reveal the fantastic hope raised by a Family psychoeducation programme (PRO-FAMILLE),

through:

The specific achievements it had on his child and brother;

The importance of building a social life and empowerment, establishing links with other families having similar problems, through an active participation in various NGOs;

The personal motivation of the author expressed as a fight against the illness and its stigma.

The author is aiming to deliver a clear message encouraging mental health professionals and all caregivers' efforts to developing an efficient set of actions against schizophrenia and the full hope he encountered while participating in the Family Intervention Program PROFAMILLE.

18.30-20.00 SYMPOSIUM

SPECIFIC ASPECTS OF AFFECTIVE DISORDERS RESEARCH

Chairpersons: Athanasios Douzenis (Greece), Ioannis Michopoulos (Greece)

Control conditions in psychotherapy for depression. A network meta-analysis

Ioannis Michopoulos

Associate Professor of Psychiatry, Head, Eating Disorders Unit, 2nd Department of Psychiatry, Medical School, National and Kapodistrian University of Athens, "Attikon" University Hospital, Athens, Greece

Psychotherapy is one of the two major interventions for depression. Several psychological interventions have been developed and have shown efficacy for the treatment of mild to moderate depression. Control conditions are the primary methodology used to reduce threats to internal validity in Randomized Controlled Trials (RCTs). The purpose of a control condition is to filter out the variance due to factors that are not specific to the experimental intervention, leaving only the variance due specifically to this treatment.

However, trial design for behavioral interventions has some unique characteristics and control groups vary widely, which influence the effects observed in any given trial. The effects shown for the psychotherapeutic intervention depend on the control condition and different control conditions produce different effect sizes.

Establishing which control condition may or may not overestimate the effect of psychological interventions may touch the very foundation of research into psychological interventions, and may change our interpretation of their empirical evidence.

The objective of this study is to examine the influence of the control conditions on effect estimates in psychotherapy trials for depression through Network Meta-Analysis. Our hypothesis is that the choice of control condition can have an impact on the ES estimates in RCTs for psychotherapy in depression.

Personality and wellbeing in affective disorders

Vasiliki Yotzidi

2nd Department of Psychiatry, National & Kapodistrian University of Athens, Greece

The significance of well-being for individuals with affective disorders has been well-recognized in the literature and integrated in their treatment. Based on Cloninger's psychobiological model



of temperament and character, research evidence supports the association of personality profiles with various aspects of well-being. The objectives of this study were to examine the specific personality dimensions that are more strongly correlated with the well-being of patients with affective disorders. Two-hundred participants with unipolar major depression or bipolar disorder completed the Temperament and Character Inventory (TCI), the Mental Health Continuum-Short Form and the Positive and Negative Affect Scale (PANAS) at the 2nd Department of Psychiatry of the National and Kapodistrian University of Athens. The results of the study are discussed in relation to the respective data in the literature and as an evidence basis that informs clinical practice in treating affective disorders.

Harm avoidance predicts resilience in patients with eating disorders

Evdokia Tsigkaropoulou

Psychiatrist, Athens, Greece

Purpose: Resilience can be defined as a dynamic adaptation process, in the face of adversity. Resilience has previously been associated with personality traits. Patients with eating disorders (ED), on the other hand, are characterized by a discrete personality profile. However, the relationship between resilience and personality profile in patients with ED has not been studied yet. The aim of this study was to investigate whether personality dimensions predict resilience, in patients with ED, compared to healthy participants.

Methods: Connor and Davidson resilience scale (CDRISC25), as a measure of resilience, and Temperament and Character Inventory (TCI-140), as a measure of personality dimensions, were completed by 100 participants: 50 healthy University students (controls subgroup) and 50 patients with ED, matched on age and gender.

Results: Patients with ED showed lower resilience levels than healthy participants and scored higher on Harm Avoidance, and lower on Reward Dependence, Self-Directedness and Cooperativeness than controls. Lower Harm Avoidance, higher Persistence and higher Self-Directedness were associated with resilience in both subgroups. Self – Directedness and Persistence predicted resilience in both subgroups, whereas only the interaction between harm avoidance and the group of participants had different effect on resilience levels.

Conclusion: To our knowledge, there are no previous data examining the effect of personality dimensions on resilience, in the field of ED. We found that only the effect of Harm Avoidance in resilience was different among the participants' subgroups. This finding could partially explain difficulties in therapeutic procedures.

Violence associated with bipolar disorder, treatment implications: a review

Athanasiou Douzenis

Greece

20.00-20.30 LECTURE

Chairpersons: Athanasiou Douzenis (Greece), Ioannis Michopoulos (Greece)

Staging of schizophrenia with the use of PANSS: an international multi-center study

Konstantinos Fountoulakis

Professor of Psychiatry, Aristotle University of Thessaloniki, Greece

Introduction: A specific clinically relevant staging model for schizophrenia has not yet been developed. The aim of the current study was to evaluate the factor structure of the PANSS and to develop such a staging method.

Materials and methods: Twenty-nine centers from 25 countries contributed 2358 patients aged 37.21 ± 11.87 years with schizophrenia. Analysis of Covariance, Exploratory Factor Analysis (EFA), Discriminant Function Analysis (DFA) and inspection of resultant plots were performed.

Results: EFA returned five factors explaining 59% of the variance (Positive-Po, Negative-Ne, Excitement/Hostility-EH, Depression/Anxiety-DA and Neurocognition-Ncog). The staging model included four main stages with substages that were predominantly characterized by a single domain of symptoms (stage 1: Po; stage 2a and 2b: EH; stage 3a and 3b: DA; stage 4a and 4b: Ncog). There were no differences between sexes. The DFA developed an algorithm which correctly classified >85% of patients.

Discussion: This study elaborates a five-factor solution and a clinical staging method for patients with schizophrenia. It is the largest study to address these issues among patients who are more likely to remain affiliated with mental health services for prolonged periods of time.



Saturday, March 21st 2020

08.00-09.30 SYMPOSIUM

PSYCHIATRIC REFORM IN ITS FIFTH DECADE. THE EVROS EXPERIENCE

Chairpersons: Maria Samakouri (Greece), Theofanis Vorvolakos (Greece)

Inpatient unit

Soultana Varsami

Psychiatry Trainee, University's General Hospital of Alexandroupolis, Greece

The psychiatric ward in Alexandroupolis' University General Hospital was the first psychiatric ward in a general hospital in Greece. It was founded in 1978. Since then it went through different phases but it withstood the test of time and current attitudes about Psychiatry and Psychiatric illness and gradually managed to be viewed as another hospital ward and not a small psychiatric hospital within a hospital.

We are going to present the latest data regarding the annual patients' admissions, length of stay, diagnosis, involuntary admissions, readmissions, therapeutic practices as well as other data regarding our treatment procedures.

In the final part of this speech we are going to comment about the established attitude towards patient and how this attitude and practices evolved through all these years.

Involuntary admissions

Aikaterini Arvaniti

Psychiatrist, Ass. Professor Democritus University of Thrace , Greece

Involuntary admissions constitute a great part of overall admissions in every psychiatric ward and psychiatric hospital in Greece.

We present here the experience from Alexandroupolis' University General Hospital during last years. The data that we present here show that there are significant differences in the percentage of involuntary admissions if we compared them with the national average.

Alexandroupolis' Psychiatric Department runs according to the principles of Social Psychiatry and offers community service as well. This way of operating in the community, seems to have affected the quota of involuntary hospitalizations. So, we consider them as a proxy regarding the effectiveness of our community services. Focusing on better planning of community-based psychiatric services, like early intervention services and crisis team, could be a potential alternative to involuntary hospitalization.

Community mental health team

Olympia Evagorou

Psychiatry Trainee, University's General Hospital of Alexandroupolis, Greece

Core feature of Psychiatric community services is the Community Mental Health Team. It is almost as old as the psychiatric ward and also the first in Greece along with Fokida community mental health team. It covers the whole Evros Prefecture, a border prefecture in North-eastern Greece. It visits five different sites in Evros region, including the only island of the region Samothraki, in a regular basis.

This team has some unique features regarding its operation, since it is fully integrated with Psychiatric Department and it shares with it doctors, psychiatric nurses, social workers. The head of the Department is also head of the team. All these, although adding workload in the Department, eliminate almost every problem with continuity of care of the patients.

We are going to comment in Community Mental Health Team's long lasting experience and also to present the data of its work during the last years.

Latest development, future perspective and challenges

Theofanis Vorvolakos

Psychiatrist, Ass. Professor Democritus University of Thrace, Greece

Department of Psychiatry in Alexandroupolis, is constantly evolving trying to follow the new developments in psychiatric care. New services have been developed through years. Today, it offers new outpatient as well as rehabilitation units. During the last years, our main aims were child psychiatry and rehabilitation; hence our resources were mostly invested in these efforts.

Child psychiatry community service, a short-stay rehabilitation hostel, a day centre with a sheltered small farm, protected flats as well as the latest addition in our services; a social cooperative (called KOISPE in Greek) in cooperation with an NGO was founded during the last twenty years.

Some comments regarding the effectiveness and possible limitations of our approach is going to be described hoping to spark a conversation regarding the future of psychiatric reform.



09.30-11.00 SYMPOSIUM

ASPECTS OF THE FIRST EPISODE IN PSYCHOSIS

Chairpersons: Petros Petrikis (Greece), Christos Mantas (Greece)

Sex hormones' levels in first episode patients (FEP) with psychosis

Petros Petrikis

Greece

Sex differences in schizophrenia have long been reported. One of the most robust findings in the literature is that men have a 3-5 years earlier age of onset for schizophrenia than women. Men have their peak of onset between the ages 15-25 and then a stable decline, while women have a broader peak between the ages 20-35 followed by a second smaller peak between the ages 45-49. Men have pre- and post-onset poorer psychosocial and neuro-cognitive functioning, poorer response to antipsychotic treatment, higher rates of relapses and hospitalization and more prominent negative and cognitive symptoms than women. The significantly better outcome of schizophrenia in women than in men has led to the suggestion of a possible implication of sex hormones in the pathophysiology of the disorder or at least in its expression. The aim of the present study is to compare serum levels of FSH, LH, free and total testosterone, SHBG and estradiol between a group of 55 drug-naïve, first -episode men and 32 women with psychosis and 55 and 32 healthy controls respectively matched for age, smoking status and BMI.

Revisiting the schizophrenia-AKT link: data from First-episode-of-psychosis patients

Giorgos Leontaritis

Department of Pharmacology, School of Medicine, University of Ioannina, Ioannina, Greece

Schizophrenia is a chronic psychiatric disease characterized by changes in many genes interacting with a host of exogenous factors. An ongoing research goal is focused on biomarkers for categorization and prediction of disease progression and antipsychotic drug responses. In addition to classical biomarkers, studies approaching schizophrenia at the systems biology level have highlighted the role of signalling pathways. A central signalling pathway associated with schizophrenia is the Akt/GSK3/mTORC1 pathway. The main findings and rationales linking this signalling pathway to schizophrenia will be critically discussed. Nevertheless, despite genetic and biological validation in chronic schizophrenia patient panels and preclinical animal models, whether Akt/GSK3/mTORC1 signalling is deregulated at an early clinical stage as in drug-naïve schizophrenia patients at the time of diagnosis is unknown. In the present report, we will also present results from studies investigating Akt/GSK3/mTORC1 pathway activity in peripheral blood mononuclear cells (PBMCs) of patients with first psychotic episode (FEP). Collectively, recent studies indicate dysregulation of Akt, GSK3 and mTORC1 signalling activities in FEP patients, mostly evident at the level of mTORC1. These findings corroborate post-mortem studies showing decreased mTORC1 activity in chronic schizophrenia patients and further suggest that peripheral mTORC1 signalling is dysregulated in drug-naïve FEP patients.

Imaging findings in first episode patients with psychosis. Preliminary results of our SPECT study group

Georgios Georgiou

Specialty Registrar, Psychiatric Clinic - University Hospital of Ioannina, Greece

Structural brain abnormalities in schizophrenia patients have been studied, with the most robust findings being lateral ventricular enlargement, reductions in grey- and white matter volume and white matter anisotropy. MRI studies report changes in brain structure over time, correlated with duration of relapses. However, the findings remain inconsistent and the implicated brain regions differ considerably. Immune responses are suggested to play a significant role in the pathophysiology of schizophrenia and to be the driving factor behind psychotic symptoms and brain changes. Functional brain imaging is the most promising method for the identification of early brain dysfunctions in schizophrenia. Previous studies using single photon positron emission tomography (SPECT) that investigated regional cerebral blood flow ($r\ CBF$) gave inconsistent results. Most of them, were contacted in chronic medicated patients. We evaluate regional blood flow in first episode patients with psychosis using ^{99m}Tc -HMPAO-SPECT RCP. In these patients an extensive neuropsychological examination is also performed. We will discuss preliminary findings of our study.

Language assessment in first episode patients with psychosis

Polyxeni Fakitsa^{1,2}, Eugenia I. Toki¹, Vassiliki Siafaka¹, Petros Petrikis², Thomas Hyphantis²

¹*Laboratory of New Approaches in Communication Disorders, Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Greece*

²*Department of Psychiatry, Faculty of Medicine, School of Health Sciences, University of Ioannina, Greece*

Language offers a privileged view into the mind inferring others' thoughts and interacting. Communication involves information processing in terms of a linguistic system (Phonology, Morphology, Syntax, Semantics and Pragmatics). However, subtle language deficiencies are evident prior to psychosis onset. Individuals with First Episode Psychosis (FEP) are confronted with difficulties in: (i) comprehension of implicit information, (ii) semantic coherence, (iii) syntactic complexity, (iv) making appropriate remarks and comments, (v) understanding prosody, (vi) understanding non-literal speech (i.e. metaphors, proverbs, idioms, irony, humour). Lack of Pragmatics competence seem to be further exacerbated by deficits in executive functions and Theory Of Mind. Such communication deficiencies may, in turn, lead to social dysfunction and withdrawal. Nowadays, not only traditional standardized tests, but also electronic assessment tools meet evaluation needs. Clinical environments use gamification (i.e. game-designed elements in different settings) in order to enhance assessment in a rapid and pleasant way. As for assessing pragmatics skills, 80% of schizophrenia patients are reported to lag respectively to control groups.

The aim of the study is to examine pragmatics perception deficits in patients with FEP using gamification and compare them to a control group matched by age, gender, educational and I.Q. level. The findings of the study will be presented.



Treatment resistant first episode schizophrenia patients. The role of clozapine

Andreas Karampas

Greece

Since the introduction of chlorpromazine in Psychiatry as an antipsychotic agent in 1952, many breakthroughs have been made in this field. Nevertheless, even after the second-generation antipsychotics' launch in the pharmaceutical industry, psychiatrists faced the problem of treatment resistant schizophrenia (TRS). It was not until the 90's that a long-discredited agent would shed some light in this domain. Reference is made to the molecule Clozapine. Clozapine is an atypical neuroleptic agent identified in 1959 by the pharmaceutical company Walder Laboratories and introduced in the market at the early 70's (1), only to be withdrawn a few years later in 1975, due to alarming reports of fatal agranulocytosis in Finland (2). Around 1990, clozapine was approved by the FDA, after a pivotal study by Kane et al that proved its superior efficacy compared to chlorpromazine in TRS (3). Since then it has been acknowledged as the gold standard for treating both positive and negative symptoms of treatment-resilient patients, which seems to be the case for up to one third of patients suffering from schizophrenia (4). In this Presentation we will try to point out the role of Clozapine in treatment-resistant First Episode Patients with psychosis.

11.30-13.00 SYMPOSIUM

CHILDREN AND ADOLESCENT WITH OCD; BANGLADESH PERSPECTIVES

Chairperson: Mohammad S I Mullick (Bangladesh)

Phenomenology of OCD in children and adolescents in Bangladesh

Chiro Islam Mallik

Bangladesh

In Bangladesh, the prevalence of Obsessive Compulsive Disorder (OCD) among children is 2%. In clinical communication and national surveys show that the reported cases are increasing day by day. The symptoms of compulsions are varied, washing/cleaning were the most prevalent, and followed by checking, miscellaneous obsessions, repeating, and ordering rituals.

Psychopathology of OCD in children and adolescents: cultural influence

Rifat Binte Radwan

Resident, Monon Psychiatric Hospital, Dhaka, Bangladesh

It is evident that the pattern of presentation of obsessive-compulsive disorder between children and adolescent might be different and clinical observation is that the pattern of presentation of obsessions and compulsions among children and adolescents may be different in Bangladesh due to different cultural and religious background. OCD is a poorly studied disorder of children

and adolescents in Bangladesh. Miscellaneous and contamination obsessions are prominent as obsessions, whereas checking and miscellaneous obsessions are prominent as compulsions in Bangladesh.

Physical co morbidity and OCD in Children and adolescents: how to address

Tanjina Hossain

Bangladesh

In Bangladesh a recent study from Bangladesh found that 58% children with OCD have any other psychiatric co morbidity. Specific phobia, social phobia, major depressive disorder, and tic disorder are more prevalent. The physical co morbidities, like Type I Diabetes mellitus and hypothyroidism also influenced the prognosis of OCD.

Intervention approach of OCD among children and adolescents in Bangladesh

Helal Uddin Ahmed

Associate Professor, Child Adolescent and Family Psychiatry, National Institute of Mental Health (NIMH), Dhaka, Bangladesh

Bangladesh is developing country, and now struggling to integrate the mental health service in primary health care. Bangladesh already enacted mental health act, mental health policy and now the National Mental Health Strategic Plan is under development process. The child and adolescent health issue and specially the holistic management of OCD and adolescent depression are prioritized in the drafted strategy plan. The medications indicated for OCD are available from the primary health care to tertiary health care system, but the non-pharmacological management is available only tertiary level.

13.00-14.30 SYMPOSIUM

COMORBIDITY, A HIDDEN FOE

Chairpersons: Dimitrios Dikeos (Greece), Evangelia Tsapakis (Greece)

Comorbidity Between Bipolar Affective Disorder and Anxiety Disorders: A Review

Evangelia Tsapakis

Greece

Literature and clinical practice suggest a high rate of lifetime concurrent anxiety disorders in bipolar disorder type I and type II. Patients with an earlier onset of bipolar disorder report higher rates of anxiety disorder comorbidities and age of onset of the disorder seems to be the most important factor for determining comorbidity. Social anxiety is associated with substance use in



bipolar patients and an ADHD diagnosis appears to strongly influence anxiety disorder comorbidity. There is, therefore, a large symptom interface between these disease entities rendering both diagnosis and treatment particularly challenging.

Comorbidity of obsessive-compulsive disorder in bipolar spectrum disorders: Systematic review and meta-analysis of its prevalence

Panagiotis Ferentinos

Assistant Professor of Psychiatry, 2nd Department of Psychiatry, National and Kapodistrian University of Athens, Attikon University Hospital, Athens, Greece

Dr Panagiotis Ferentinos received his Medical Degree from the University of Athens and holds since 2015 an Assistant Professor tenure post at the 2nd Department of Psychiatry, University of Athens, Attikon General Hospital, where he heads the Affective Disorders & Suicide inpatient unit and outpatient clinic. He completed his sabbatical training at the Institute of Psychiatry, King's College London (Social Genetic and Developmental Psychiatry Center and Department of Psychological Medicine, 2012-2014), where he has been to date an affiliated research associate. His research focuses on affective disorders and suicidality. He has worked for European multi-center pharmacogenetic studies of treatment-resistant depression run by the Group for the Study of Resistant Depression and is a member of the Psychiatric Genetics-bipolar disorder and ConLigen Consortia. Dr Ferentinos has a record of 61 international peer-review full publications (h-index=18) and 90 abstracts at international scientific conferences.

Comorbidity of Attention-Deficit Hyperactivity Disorder in Bipolar Disorder Patients

Kalliopi Diakaki

AX Mental Health Clinic, Heraklion, Crete, Greece

Adult Attention-deficit/hyperactivity disorder (ADHD) is a neurobehavioral disorder presenting with a combination of persistent symptoms including inattention, hyperactivity, impulsiveness and distractibility. Two out of three ADHD patients hold the diagnosis in adult life. On the other hand, Bipolar Disorder (BPD) is an affective disorder characterized by switching for no obvious reason from elation and a sense of omnipotence to feelings of self-depreciation and incompetence over the course of a few days, weeks or months. In recent years, adult ADHD has been frequently reported to coexist with BPD. In such case, correct diagnosis improves management as comorbidity seems to be associated with more severe disease prognosis. Here, the current understanding on the comorbidity of adult ADHD in BPD patients is presented, along with the major diagnostic tools used for differentiation between the two nosological entities.

TBA

Dimitrios Dikeos

Greece

14.30-15.00 LECTURE

Chairperson: **Konstantinos Fountoulakis (Greece)**

The face of social solidarity: “Health for all”

Eleni Sotiropoulou

Greece

In a period of profound economic crisis, unemployment and social exclusion, the shift to methods and practices focused on the citizen, substantiated by research and international knowledge and corresponding to the preferences, desires and needs of the patients, is as imperative as ever.

In addition, the harmonious and effective function of multicultural societies, as is today the Greek society due to the large wave of incoming refugees and immigrants, are directly linked to the state's readiness to ensure the equal treatment and protection of the members of all cultural groups, to provide equal opportunities and access to education, health and the labor market and to encourage them to participate actively in the economic, social and cultural life of the land.

The aim of the “Health for All” Action Plan is to increase the complementarity of relevant actions in the context of social solidarity, by ensuring all the necessary synergies with relevant bodies, by respecting the intercultural diversity, the views, preferences and desires of the recipients of the actions for vulnerable population groups, and also by maximizing the effectiveness of the interventions concerned, to the benefit of those in need.

These vulnerable population groups (the Roma, the residents of the highlands of Thrace / Pomaks, the underprivileged, the prisoners, the refugees) face cumulative problems of integration into the social and economic fabric of the country, as well as access to health and social care services. Any interventions aimed at removing these problems and at the equal participation of these groups of people should be focused on informing, assessing their health needs, medical care, rehabilitation and support, as well as on orienting them towards the health system's services and social care.

It is well known that in modern societies, the phenomenon of social exclusion and marginalization threatens very large sections of the population. At the heart of this threat are, *inter alia*, the above-mentioned social groups. The rapid pace of social change as well as the economic crisis makes these population groups particularly vulnerable.



This particular project presents widespread social benefits at a low cost: it lies at the core of prevention policies, addresses the medical-social issue and saves resources for the Health and Social Care System, resources that, in another case, would have to be spent in multiple sums, in order to pay for hospitalization.

Within the framework of the action an integrated program of Primary Health Care is developed, which includes:

- Clinical pediatric examination, vaccinations and dental check-up for children, Gynecological examination: mammography - Pap test, adult clinical examination (pathological - endocrinological - cardiological examination, using a portable ultrasound machine for echocardiography).
- Recording of incidents that require immediate secondary care – their forwarding to Health Units.
- Creation of a computer database, recording info and vaccinations on a computer health card.
- Creation of a computer database for scientific data, based on the open data principle. It is supported by a mobile gynecological unit, with a built-in mammogram, and
- transvaginal ultrasound

The program is under the auspices of

- The UNESCO chair for adolescent medicine and health
- The National & Kapodistrian University of Athens and its dean Mr. A. Dimopoulos, who participates in the Central Scientific Committee of the program

Support is also provided by:

- The Ministry of Health
- The Ministry of Labor, Social Insurance and Social Solidarity
- The Central Health Council (KESY)
- The National Committee on Vaccination
- The Scientific bodies

A power point will be displayed showing the actions of the program.

16.00-16.45 LECTURE

Chairperson: Dimitrios Dikeos (Greece)

Gender bias in diagnosing depression in men

Anna-Maria Möller-Leimkühler
Germany

16.45-17.30 LECTURE

Chairperson: Evangelia Tsapakis (Greece)

The more we learn the less we know: the missing links in the genetic background of depression

Xenia Gonda

Department of Psychiatry and Psychotherapy, Semmelweis University

MTA-SE Neurochemistry and Neuropsychopharmacology Research Group

NAP-2-SE New Antidepressant Target Research Group

Laboratory for Suicide Prevention and Research, National Institute for Psychiatry and Addictology

Depression is a complex disorder predicted to carry the highest illness burden as soon as in 2020. In spite of this, and in spite of the significant number of antidepressant medications available, we still lack an effective enough pharmacological tool leading to acceptable ratio of remission without residual symptoms and with restored quality of life, a low risk of side effects, and sustained treatment efficacy. One reason for this is our limited understanding concerning the etiopathology of depression. Depression has a moderate heritability of about 40% which is also severity dependent, and a similarly significant contribution of environmental factors, occurring relatively frequently but leading to the onset of depression only in 20% of the cases. Research suggests that rather than direct effects gene x environment interactions play the more pronounced role in the background of depression, which influence not only the development of the illness response to treatment and overall effectiveness as well. Given the limited efficacy of currently available medications, the lack of new molecules and more efficacious novel treatment paradigms combined with the increasing burden of depression, more emphasis should be put on prevention and screening, which stresses the need for better understanding of the contributors to the development of depression.

Xenia Gonda is supported by the Janos Bolyai Research Fellowship of the Hungarian Academy of Sciences and the ÚNKP 19-4 New National Excellence Program of the Ministry for Innovation and Technology.

17.30-18.15 LECTURE

Chairpersons: Ioannis Nimatoudis (Greece), Ioannis Diakogiannis (Greece)

Stratified medicine/precision medicine in depression and schizophrenic psychoses. How far are we?

Jans Juergen Möller

Germany



18.15-19.00 LECTURE

Chairpersons: Ioannis Michopoulos (Greece), Panagiotis Ferentinos (Greece)

Treatment of depression with fast acting antidepressants

Kasper Siegfried

Professor Emeritus and former Chair, Department of Psychiatry and Psychotherapy, President International College of Neuropsychopharmacology, Austria

The recent discovery that glutamatergic-based drugs are uniquely capable of rapidly and robustly treating mood disorders has ushered in a new era in the quest to develop novel and effective antidepressants. In this regard, the prototypic glutamatergic modulator ketamine has catalyzed research into new mechanistic approaches and offered hope for the development of novel, fast-acting antidepressants. While ketamine's underlying mechanism of action remains the subject of active investigation, several theories have been proposed. These include Nmethyl-D-aspartate receptor (NMDAR)-dependent mechanisms, such as the inhibition of NMDARs on gamma aminobutyric acid (GABA)-ergic interneurons, the inhibition of spontaneous NMDAR-mediated transmission, the inhibition of extrasynaptic NMDARs, the inhibition of lateral habenula neurons, and GABAB receptor expression/function. Substantial evidence also supports additional NMDAR-independent mechanisms, including the stabilization of glutamate release/excitatory transmission, active metabolites such as hydroxynorketamine, regulation of the dopaminergic system, G-alpha subunit translocation, and activation of cyclic adenosine monophosphate, as well as potential sigma-1 and mu-opioid receptor activation. Among those theories, a leading hypothesis remains that NMDAR antagonism increases BDNF synthesis, a process mediated by decreased phosphorylation of eukaryotic elongation factor-2 and the subsequent activation of the mammalian target of rapamycin pathway by BDNF activation of the TrkB receptor. These putative mechanisms of action are not mutually exclusive and may complement each other to induce potentiation of excitatory synapses in affective-regulating brain circuits, resulting in improved depressive symptoms. The initial serendipitous discovery that a single, subanesthetic-dose ketamine infusion has rapid-acting antidepressant effects in MDD, a finding subsequently confirmed by numerous randomized trials, has been hailed as one of the most important discoveries in psychiatry in the last decades. Subsequently the intranasal application has been approved by the US as well as the European health regulatory authorities. Brexanolone is a formulation of the endogenous neurosteroid allopregnanolone, which modulates neuronal activation of GABAA receptors and has met positive endpoints in Phase III, leading to FDA approval for postpartum depression. A comparable substance is under development for MDD.

19.00-19.45 LECTURE

Chairpersons: Konstantinos Fountoulakis (Greece), Jans Juergen Möller (Germany)

Rapid improvement of suicidal ideation and severe depression within hours: from synapses to symptoms to new treatments

Carlos Zarate

Chief of the Experimental & Therapeutics Branch and of the Section on Neurobiology and Treatment of Mood and Anxiety Disorders, Clinical Professor of Psychiatry and Behavioral Sciences, George Washington University, USA

The underlying neurobiological basis of depression remains elusive due to the heterogeneity and complexity of the disorder. Although the traditional monoaminergic hypothesis has largely failed in its ability to provide a comprehensive picture of major depressive disorder, emerging preclinical and clinical studies suggest that dysfunctional glutamate and GABAergic neurotransmission may underlie the pathophysiology of mood disorders. Recent studies showing that a single intravenous infusion of the glutamatergic modulator ketamine elicits fast-acting, robust, and relatively sustained antidepressant, antisuicidal, and anti-anhedonic effects in individuals with treatment-resistant depression (TRD) have prompted tremendous interest in understanding the mechanisms responsible for ketamine's clinical efficacy. First, ketamine, a glutamatergic modulator, reconfigures aberrant brain activity at both a cellular (as assessed via MEG gamma power) and neuronal network level (as assessed by cognitive and emotional task-based fMRI and resting-state fMRI). Second, ketamine increased connectivity between the insula and the default mode network in TRD subjects towards the connectivity profile of healthy controls, suggesting that it may normalize the interaction between the default mode network and salience networks in TRD. Third, results from our MEG gamma power study indicated the presence of functional subgroups within the TRD population, in that TRD subjects' position on a continuum of homeostatic inhibition/excitation balance influenced how they responded behaviorally to gamma increases induced by ketamine infusion. These results, coupled with a new understanding of the mechanistic processes underlying ketamine's effects, have led to creative ways of investigating, repurposing, and expanding research into novel glutamate-based therapeutic targets with superior antidepressant effects but devoid of the side effects and abuse potential of ketamine. Ketamine's targets include noncompetitive NMDA receptor antagonism, α-amino-3-hydroxy-5-methyl-4-isoxazole-propionic acid (AMPA) throughput potentiation coupled with downstream signaling changes, and NMDA receptor targets localized on gamma-aminobutyric acid-ergic interneurons. Here, I review ketamine and other potentially novel glutamate-based treatments for treatment-resistant depression studies conducted over the past 15 years. Both the putative mechanisms of action of these agents and clinically relevant studies are described.



19.45-20.30 LECTURE

Chairpersons: Konstantinos Fountoulakis (Greece), Kasper Siegfried (Austria)

What Psychiatry has failed to achieve?

Afzal Javed

MBBS, MCPS, D.PSYCH (LONDON), BOARD CERT.PSYCH (UK),

F.R.C.Psych. (UK), M.PHIL (Edinburgh), FRCP (Ireland)

President Elect World Psychiatric Association (WPA), Chairman Pakistan Psychiatric Research Centre, Consultant Psychiatrist & Visiting Clinical Associate Professor University of Warwick, UK

Mental disorders are highly prevalent and cause considerable suffering and disease burden all over the world. The public health impact of mental disorders is profound as the estimated disability-adjusted life-years attributable to mental disorders have been shown to be very high. Despite the growing evidence about the impact of mental illnesses, mental health services continue showing big gaps. With less number of mental health professionals, scarcity of mental health resources & now often facing additional problems of migration of trained psychiatrists and mental health professionals to the already resource rich countries, the situation gets even worse.

There are also concerns among the professionals that profession is in crisis and that it faces a number of external and internal challenges. Issues regarding diagnosis, treatment, prognosis and outcome of mental health disorders along with de-medicalization of healthcare within mental health services & marginalisation of psychiatrists in service development and organisation are posing questions whether psychiatrists are endangered species.

This presentation will present an overview about global challenges and their impact on current understanding of some conceptual issues in psychiatry including innovation, networking and better understanding & orientations about nature & different dimensions of psychiatric disorders. It is hoped that such efforts would aim at promoting psychiatry as a preferred discipline among the medical profession as well as wider respect and acknowledgement from the general public.

Sunday, March 22nd 2020

09.30-11.00 SYMPOSIUM

SUBSPECIALTIES IN PSYCHIATRY

Chairpersons: Loukas Athanasiadis (Greece), Anastasia Konsta (Greece)

The role of sexology in psychiatry

Loukas Athanasiadis

Associate Professor in Psychiatry-Psychosexuality, Aristotle University of Thessaloniki, Greece

Sexology is the scientific study of Human Sexuality. Sexual Medicine is the medical specialty that deals with Sexual Health. Sexology and Sexual Medicine deal with sexual behavior and sexual disorders in a multidimensional, interdisciplinary approach.

The interpersonal/psychological/psychiatric component of sexuality is very important. Sexual dysfunction may be of non-biological/mixed etiology. Predisposing, precipitating and maintaining factors contribute to sexual morbidity. Interpersonal/marital difficulties may cause or are the product of sexual health difficulties. Psychiatric morbidity and drug side effects may interfere with sexual function. It appears that psychiatric patients and their partners are often interested in sexual issues and are willing to discuss their sexual problems with their doctor, however this may not happen either because they hesitate to do so, or their doctor does not take the initiative to ask. This may happen because the psychiatrist/therapist may lack training, thinks that sexuality is not an issue for discussion and for other reasons. Therefore sexual dysfunction is often underreported and undertreated in psychiatric settings.

Concluding, the role of Sexology/Sexual Medicine in Psychiatry is important and these disciplines need to be an intergraded component of good psychiatric practice.

The role of psychogeriatrics in psychiatry

Anastasia Konsta

Assistant Professor of Psychiatry, First Psychiatric Department, Aristotle University of Thessaloniki "Papageorgiou" General Hospital

Psychogeriatrics is concerned with the identification, assessment, therapeutics interventions and care of older people with mental disorders. With rapid aging of the population, geriatric psychiatry has become a crucial discipline, because rates of dementia, depression and delirium are increasing quickly. The assessment of older adults with mental disorders requires a wide range of skills and is very important. Alzheimer disease, vascular dementia, dementia with Lewy bodies and frontotemporal dementia are the commonest types of dementia. Behavioral and psychological symptoms of dementia affect the quality of life of patients and care givers. Delirium is the most frequent complication following hospital admission in the old age. Geriatric



depression sometimes may be a prodrome of dementia. Health services around the world face challenge of a growing elderly population with psychiatric disorders.

The role of learning disabilities assessment and intervention in psychiatry

Elina Bonti

Assistant Professor (Area of specialization: Specific Learning Difficulties), 1st Psychiatric Clinic, Medical School, Aristotle University of Thessaloniki, "Papageorgiou" General Hospital of Thessaloniki, Greece

Specific Learning Disorder (SLD), as described in the new DSM – 5 (APA, 2013), is one of the neurodevelopmental disorders. The term refers to a heterogeneous group of disorders characterized by persistent difficulties with learning keystone academic skills in reading, writing and/or mathematics. SLD is persistent, albeit with a developmental nature, characterized by different symptoms, both at an inter-individual level as well as between the several age periods (school-age, adolescence, adulthood). Especially during adulthood, as shown in our recent study (Bonti et al., 2019), the impact of SLD can be very complicated, since they continue to influence almost every domain of the individual's life, including personal and social relationships, family, employment and financial independence issues. In addition, a number of studies have linked SLD to other neurodevelopmental, emotional/behavioral and/or psychiatric disorders, either in terms of comorbidity or as secondary consequences of the ongoing and prolonged periods of negative emotions and low self-esteem, caused by school failure, which often lead to failure in several life domains, during the adult years. Finally, of striking interest is the fact that most of the clinical, social and personal characteristics of youth and adults with SLD are common with the 'risk factors' pointed out by several researchers, that often lead to aggressive behaviors, violence and delinquency. Taking into account all the above and given that our Outpatient Department for assessing children, adolescents and adults with possible SLD (or other neurodevelopmental disorders) is located within the 1st Psychiatric Clinic of 'Papageorgiou' General Hospital, our research interests include the investigation of a possible history of SLD in psychiatric patients and in individuals who have shown aggressive, violent and/or delinquent behaviors. Finally, in terms of prevention and early intervention, it seems that the assessment of the learning profiles of individuals, within a psychiatric – clinical framework has a dual purpose: a) Early diagnosis of possible (S)LD or other neurodevelopmental disorders, as risk factors for future mental, psychiatric and/or behavioral disorders and b) A better understanding of the backgrounds of patients who suffer from specific psychiatric disorders (ex. Anxiety, depression, etc.), possibly due to their aggravating history of SLD and school failure.

11.00-12.30 SYMPOSIUM

EVIDENCE BASED PRECISION AND PERSONALIZED PSYCHIATRY

Chairperson: Loukas Athanasiadis (Greece)

Imaging Biomarkers in mental disorders

Calypso Mitkani

Greece

At present, the use of imaging biomarkers in Psychiatry is not necessarily part of the everyday clinical practice. There are not any findings in the literature that are independently replicated, and thus have the desirable reliability and validity and the necessary sensitivity and specificity to assist clinical diagnosis or therapeutic design. Patients are still diagnosed and classified in terms of clinical operationalized criteria of diagnostic systems like DSM and ICD and not on the basis of neurobiology. However, there are many research groups with some promising clinical and functional findings. The last two decades several possible imaging biomarkers made their appearance due to software and statistical analysis development in Positron Emission and Computing Tomography (PET/CT), functional and structural MRI (fMRI and sMRI) and brain volumetrics. In addition, the continuous study of aspects such as the fluctuations in the signal at spontaneous or specific brain networks, the gray to white matter ratio or the volume of specific brain structures (e.g. hippocampal size in Alzheimer's disease) seem to play an important role in diagnosing or differentiating between psychiatric disorders. In the future and as neuroimaging technologies and statistical tools continue to improve, it is expected that there will be breakthrough findings and biomarkers will be identified with adequate characteristics to help clinicians with the screening, the diagnosis, prognosis, early interventions for treatment as well as the development of new treatment options.

Evidence based suicidality personalized assessment

Gregory Karakatsoulis

Psychiatrist-Psychotherapist, Consultant in Adult General Psychiatry, 3rd Psychiatry Dpt. of the Aristotle University of Thessaloniki AHEPA Hospital, Thessaloniki, Greece

The term suicidality covers the concept of suicidal ideation (thoughts about ending one's own life), suicide planning, and suicide attempt. People who have suicidal ideation and commit suicide plans are at increased risk of attempted suicide, and people with a combination of suicidal ideation and suicidal behavior are more likely to commit successful suicide. One potentially suicidal person is one of the most difficult challenges facing mental health professionals. The most common court procedure against psychiatrists concerns the suicide of a patient. Integrated suicide assessment requires the investigation of both static and dynamic risk factors. Static risk factors are variables that the expert cannot change, while dynamic factors can be modified in some way.

There are several methods of assessing the likelihood of suicide. Most of these involve the sepa-



ration of evidence based risk factors into specific categories. Such a method should include the evaluation of both static and dynamic suicidal risk factors. Existing tools for reliable suicide risk assessment and the development of new structured assessment tests will enable specialists to more accurately predict suicidal behavior.

Sexuality and intimacy among people with schizophrenia

Soultana Georgiadou

Greece

Sexuality is an integral part of human behavior. There are multiple factors affecting and defining its expression such as biological, socioeconomic, ethical, religious and psychological. A proper attention has not been given to sexual functioning of people who have severe mental disorders, such as schizophrenia.

Generally people with schizophrenia are interested in having intimate relationships however they face problems and often present impaired sexual activity. Medication may be an important contributing factor. One of the most common adverse effects of antipsychotic medications is sexual dysfunction. This is considered to be one of the primary factors causing noncompliance with antipsychotic medications. There are numerous other mechanisms causing sexual dysfunction.

The most frequent sexual difficulties, observed in schizophrenic male patients are the following: diminished levels of libido, ejaculation and erectile dysfunction, and diminished orgasm quality. In the female population, some of the most frequent disturbances are: orgasmic dysfunction, decreased libido, differences concerning the quality of orgasm or even anorgasmia, dyspareunia, and menstrual irregularities. Additionally, psychological and interpersonal issues may occur because of sexual dysfunction.

A holistic approach is needed in order to achieve a more fulfilling, sexual life people in with schizophrenia. Patients should receive adequate sexual education, relationship counseling and cognitive behavioral therapies in addition to medical treatment, as required. Furthermore, several pharmacological strategies may be considered.

Cognitive deficits as global indices of neuropsychological performance

Antonios Theofilidis

Neuropsychologist, 3rd Department of Psychiatry, Division of Neurosciences, School of Medicine, Aristotle University of Thessaloniki, Greece

Neuropsychological assessment provides both general and specific information about current levels of cognitive performance. An average or composite score across multiple ability areas provides an overall index of how well a person functions cognitively at the current time. These global scores are the indices most commonly used to predict real-world functional milestones

and to make judgments about functioning in conditions where multiple ability domains are affected.

When making a judgment about the presence of a single cognitive deficit such as amnesia or a broader condition such as dementia it is critical to be able to identify exactly what a “differential deficit” would be. This judgment process is complicated by the fact that healthy individuals with no evidence of, or risk factors for, neuropsychiatric conditions show some variability across their abilities. It is also important to consider several different factors when identifying normal variation between ability areas from neuropsychological deficits. For example there are several factors that impact on within-individual variation across cognitive ability areas in people with schizophrenia. These include the reliability of the measures, the normative standards for the measures, and the level of performance of the patients. Tests with less reliability produce more variable scores at both single assessment and retest (Harvey, et. al., 2009).

Cognitive assessment predicts global indices of neuropsychological performance well in people with psychopathology (as schizophrenia) and manifests a pattern of prediction for clinical purposes.

12.30-14.00 SYMPOSIUM

**EVIDENT BASED PRACTICE IN NEURODEVELOPMENTAL COMMUNICATION
DISORDERS**

Chairpersons: **Konstantinos Kotsis (Greece), Dionysios Tafiadis (Greece)**

Parental illness perception in ASD

Konstantinos Kotsis

Assistant Professor of Child and Adolescent Psychiatry, Faculty of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece

The ways in which people perceive their illness experience have been associated with a variety of important behaviors and emotional responses in patients as well as caregivers. The relationship between illness perceptions and emotional and behavioral responses have been studied mainly in physical and mental illness, however, literature regarding neurodevelopmental disorders in general and ASD specifically is limited. Raising a child with ASD is a stressful experience as parents must adjust to a chronic neurodevelopmental disorder and cope with the child's communication and behavior difficulties, with stigma and concerns about the future of their child. Literature suggests that ASD perceptions are associated with parental depressive symptoms. Moreover, parental representation of ASD, may guide them to adjust their functioning, to affect their treatment seeking behaviors as well as decision-making process. Identifying and understanding parents' perception about their child's disorder may be an important step in designing therapeutic interventions aiming to support parents, reduce their distress and enhance family functioning.



Parental burden and needs in greek families of children with autism spectrum disorder

Vassiliki Ntre

MSc, Phd, Pediatric & Psychiatric Nurse- Health Visitor, Department of Child Psychiatry, Athens University Medical School", Aghia Sophia" Children's Hospital, Academic Scholar (Fellow), School of Public Health, Department of Public and Community Health, University of Western Attica, Greece

The impact of having a child with Autism Spectrum Disorder (ASD) includes disturbed family and social relationships, inability of family members to deal with pleasant activities, increased needs for support, and increased psychiatric problems of the caregivers. The purpose of this study was to investigate the burden and the needs of families with a child with ASD. Maternal depressive symptoms were examined in relation to parental coping strategies. Participants were 143 mothers (31-67 years; mean age:42.7) of children aged 6-17 years with ASD, who attended the ASD Outpatient Clinic of the Department of Child Psychiatry, at the "Aghia Sophia" Children's Hospital, Athens, Greece. Participants completed a series of questionnaires about family needs, coping strategies, depressive symptoms and health problems. Of participants, 42.0% had experienced a financial burden, 54.5% had some health problems, whereas depression symptom scores ranged from 0-53 with an average of 18.3 units ($SD=11.0$ units, a score of 16 or higher indicates risk of clinical depression). Of participants, 38.0% needed more help to find a suitable school for their child, 35.0% to talk with teachers or therapists, whereas 30.6% stressed that the cooperation between parents-schools-local communities has to be improved. There was a statistically significant positive correlation between the "passive appraisal" coping strategy and depressive symptoms ($p=0.038$). The more social support the participants had, the less they used "passive appraisal" ($p=0.016$). The need for support of families of children with ASD is pressing, as well as improvement of the quality of public services for this population.

Evident based evaluation of neurodevelopmental communication disorders

Dionyssios Tafiadis

Assistant Professor of Speech Language Pathology, Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

Nowadays evidence-based practice is required from speech language pathologists (SLP) in order to integrate their clinical expertise with results from systematic researches. Especially, for neurodevelopmental communication disorders (NCD) (e.g. language disorder, DHD, Autism Spectrum Disorder or intellectual disorders) the evaluation process is lifelong and challenging and the EBP is a necessity. In accordance to the above this review focuses on current evidence for the assessment and diagnosis of neurodevelopmental communication disorders from the SLP scope. The literature indicates that dynamic models of assessment that obtains data from: (a) standardized scales, (b) observations in different settings, (c) criterion-based assessments, (d) language sampling and its analysis, (e) interviews and participatory observations and (f) the use of self-perceived or parents-based questionnaires are a "gold standard" for a valid diagnostic

outcome. Additionally, the literature support that without evidence the SLP practice becomes rapidly out of date. Furthermore, the SLPs must move away from basing decisions only on observation opinions and past practices towards to diagnostic decision-making. In conclusion the various evaluation processes, which include program-based and dynamic evaluation models, provide important information and the current evidence data indicates that possibly speech language pathologists can make a resource efficient evidence-based assessment for NCDs.

The use of neuropsychological model of Stackhouse & Wells (1997) in the evaluation of children with intellectual disabilities and high-functioning ASD

Vasiliki Zarokanellou

Academic Fellowship PhD Speech Language Therapist, Department of Speech & Language Therapy, School of Rehabilitation Sciences, University of Patras, Patras, Greece

Medical School, National and Kapodistrian University of Athens, Athens, Attica, Greece

The psycholinguistic model of Stackhouse and Wells (1997) represents the different levels involved in speech processing and production and how lexical information flows through the system. This model permits hypotheses about the level of breakdown that generates disordered speech output. The purpose of this study was to compare the lexical representations between different groups of children, who had the same cognitive functioning level (IQ), using the aforementioned framework. In this study monolingual Greek-speaking children having Down syndrome (DS), Familial Mental Impairment (FMI), high-functioning ASD and typically developing children (TD) as control group participated. All participants were assessed with a set of standardized tools. For the comparison between groups p-paired t-test ($p=0.05$) and regression statistical analysis were used. The comparison groups were similar for age, gender and IQ. The group with high-functioning ASD had significant deficits in phonological/phonetic discrimination, phonological and semantic representation, motor program and programming in relation to TD peers. The groups with mental impairment faced significant problems in both lexical input and output, as well as in stored lexical knowledge. The DS group had more prevalent deficits in relation to FMI group. This framework seems to be able to detect affectively the level of breakdown for each group.



14.00-15.30 SYMPOSIUM

E-SCREENING FOR MINOR AND MAJOR NEUROCOGNITIVE DISORDERS.
EVIDENCE OF A PROMISING NEW ERA

Chairperson: Nikolaos Degleris (Greece)

Designing and delivering electronic screening tests: in search of best practices

Agisilaos Chaldoheridis¹, Solias A.A.², Batzikosta A.³, Tsolaki M.⁴

¹Ph.D. candidate School of Informatics Dpt. Aristotle University of Thessaloniki, Greece

²Social Worker Muicipality of Ilion Attica, Greece

³Ph.D. candidate Dpt. of Psychology Aristotle University of Thessaloniki, Greece

⁴Academic Counselor. Professor of Neurology, 1st Neurologic Dpt. AHEPA Hospital Aristotle University of Thessaloniki, Greece

Introduction: Numerous computerized cognitive tests have been developed over the past years with strong evidence regarding their performance. However, there is little research in designing and implementing such tests.

Methodology: Identify and study design and implementation characteristics of most known computer based screening tests (devices, operating systems, fonts, graphics, input methods, data collection and storage, overall administration time, modality). Investigate and extract possible common patterns and best practices.

Findings: Locating valid computer based screening tests was a hard task, since there are not many available. The majority of electronic screening tests are being administered via a tablet device. Larger devices (>9 inches) are optimal for these kind of tests, in order to better fit large fonts and graphics. In one case an eye-tracker device used for the standardization of multimedia included in user interface. Gathering data for research reasons and keeping each user's personal record is important also for epidemiologic surveillance of the population. Finally, the overall time shouldn't exceed ten minutes.

Conclusion: There is no evidence on how to design optimal computerized cognitive tests and in fact, most studies are limited to very few participants that included in the validation studies. Each one of them is unique and should seem like this, but it seems that many of them follow some common design patterns. There should be a larger and systematic review of such applications, in order to investigate in depth any design data from a technological point of view.

Keywords: Computerized cognitive screening, cognitive assessment, design principles

Implementation and evaluation of two e-screening tests (culturally neutral and culturally biased) for minor and major neurocognitive disorders in greek population

Andreas Solias¹, Aghisilaos Chaldoheridis², **Areti Batzikosta**³, Magdalini Tsolaki⁴

¹*Ph.D. Candidate School of Medicine Dpt. of Neurosciences Aristotle University of Thessaloniki, Greece*

²*Ph.D. Candidate School of Informatics Dpt. Aristotle University of Thessaloniki, Greece*

³*Ph.D. candidate Dpt. of Psychology Aristotle University of Thessaloniki, Greece*

⁴*Academic Counselor, Professor of Neurology, 1st Neurologic Dpt. AHEPA Hospital Aristotle University of Thessaloniki, Greece*

Introduction: The exponential increase in dementia cases as well as building alternative and ecologically validated screening tests are two major challenges in healthcare systems globally. At the moment more than half of at-risk population does not receive an early diagnosis.

Target: This pilot project (co-founded by European Social Found O.P. Human Resources Development, Education & Lifelong Learning 2014-2020), assesses the effectiveness of two computerized tests a) a culturally oriented (the e-HAST) and the Greek version of the University of California San Francisco Brain Health Assessment (BHA), both having a different design philosophy.

Method: Comparative study. A total of 143 women and men aged 60+ years old volunteer participants, performed the e-HAST test while 106 of them the BHA (TabCat) test in parallel. All were neuropsychologically assessed and clinically diagnosed.

Results: The reliability analysis (Cronbach's alpha) product value is 0.9. The discriminant analysis of BHA for separating groups between Healthy – MCI displayed a correct classification rate (CCR) 76% (cross-validated).

The same analysis of e-HAST for groups a) Healthy - MCI CCR is 64.3% b) MCI - Demented CCR is 78.7% c) Healthy - Demented CCR is 93.2% (cross-validated). The ROC analysis for the aforementioned groups yielded AUC a) .676 b) .886 and c) .990.

Conclusion: Preliminarily, the e-HAST tests resulted in encouraging scores in identifying dementia vs MCI and normal aging. E-HAST is less accurate than BHA, when it comes to distinguishing between healthy and MCI cases. The next step is implementing these two screening tests in a larger sample size.



Brain health assessment: validation of a novel, tablet-administered cognitive screening test in a sample of Greek older adults

Paraskevi Iliadou¹, Eftychia Lazarou², Magda Tsolaki^{2,3}, Stelios Zygouris^{3,4}

¹School of Psychology, Aristotle University of Thessaloniki, Greece

²Greek Association of Alzheimer's Disease and Related Disorders

³School of Medicine, Aristotle University of Thessaloniki, Greece

⁴Network Aging Research, University of Heidelberg, Germany

Introduction: Brain Health Assessment (BHA) is a novel, tablet-administered screening test for Mild Cognitive Impairment (MCI). It can be administered by non-specialists within 15 minutes and is designed for use in primary care and community settings. It comprises of 4 subtests evaluating cognitive skills that are commonly affected by neurocognitive disorders including memory, executive functions, visuospatial abilities and language. It also features an optional 3-minute informant survey which assesses functional impairment and behavioral changes. Adaptation and validation of its Greek version is conducted under the auspices of a funded project which assesses a cognitive screening model that utilizes the BHA along with a serious game-based self-administered screening test.

Methodology: In this study 50 healthy older adults and 50 older adults with MCI were examined with the BHA and a comprehensive neuropsychological test battery. Leave one out classification was used to determine the sensitivity and specificity of the BHA for detecting MCI.

Results: Preliminary data analysis in a sub-sample of 57 participants (24 healthy older adults/ 33 MCI patients) supports the diagnostic ability of BHA which exhibits a correct classification rate ranging at 80%. Analysis of data from the full study sample is underway.

Conclusion: The results of this study are in line with the results of the initial validation study of the BHA which was conducted using its original English version in a sample of United States older adults. Implementation of BHA in healthcare, after its successful validation in a Greek sample, can reduce screening costs and motivate more people to examine their memory regularly.

Virtual supermarket test: an MCI screening test based on a serious game

Dimitrios Giakoumis, Konstantinos Votis, Stelios Zygouris, Paraskevi Iliadou, Sofia Segkouli, Dimitrios Tzovaras, Magda Tsolaki
Greece

Background: In recent years, there has been an ever increasing interest towards the adoption of ICT solutions in the areas of cognitive empowerment and screening of people with cognitive impairments. In this context, the present study summarizes some of the key outcomes that have derived through the research, development and evolving of the Virtual Supermarket (VSM) application.

Materials and methods: The VSM is a 3D virtual reality game, which is aimed at empowering but also helping to examine the cognitive functions of older people, focusing on people with mild cognitive impairment (MCI). The game is delivered via a tablet device, while the elderly are required to find and buy specific items of a list, while virtually navigating within a virtual supermarket environment. During the game, the application records variables related to the elderly person's behavior in the virtual supermarket and their performance. The VSM has been used in recent years within a series of studies that focused on its ability to be used as a screening test for elderly with MCI.

In our first study [1], the VSM application was administered to 55 subjects, elderly with and without MCI (N=34 and N=21, respectively). In that study, the administration was performed by a specialist, following a strict protocol that involved a single trial (single administration of the game test). Subsequently, the application was administered to 12 seniors [N(MCI)=6], who were playing the game freely for one month at home, reaching 20 administrations per person [2].

Results: In both studies, the variables recorded by the application were found to correlate with performance on well-established neuropsychological tests. In addition, by only using the application variables, automatic separation between healthy elderly and patients with HDD was achieved, with a Correct Classification Rate (CCR) of 87.30% in the first study, while in the second study, a percentage of 92% in CCR was reached.

Conclusions: Our results so far indicate that the VSM is a promising tool to help in the assessment of older people with MCI. At present, we are in the process of conducting a new study, in which the application has become fully self-administered and a large-scale sample (N>100) is being used. Specifically, the application now has a 10-15 minute instructions protocol, followed by three 15-20 minute trials, which are used so as to record data that are analyzed towards user performance and cognitive functions assessment.

15.30-17.00 SYMPOSIUM

EVIDENCE BASED PRACTICE IN CHILD AND ADOLESCENT MENTAL HEALTH

Chairperson: Ioanna Giannopoulou (Greece)

Autism spectrum disorders: evidence based interventions for children and adolescents

Evdokia Tagkouli

Child and Adolescent Psychiatrist, National and Kapodistrian University of Athens, Department of Child and Adolescent Psychiatry - ASD outpatient clinic, Greece

People with Autism Spectrum Disorders suffer from a wide range of behavioral problems and psychiatric disorders at various stages of their lives. Some of these disorders are common, such as ADHD and Depression, and some are less common such as anorexia nervosa. Adolescents with ASDs may be particularly affected due to higher levels of bullying and victimization by their peers. The first step to an effective and individualized treatment plan is an assessment which can identify vulnerabilities to be targeted and strengths to be utilized.



Individuals with ASD can benefit from intervention at all ages. High-quality intervention approaches exist for all core features of ASD: communication, social skills, management of stereotypic behaviors, and other problematic manifestations such as aggression and self-injurious behavior. The core of treatment is mainly educational and behavioral, combined with social skills training. Medication is used only for the treatment of comorbid symptoms which is critical to a good outcome.

This presentation is meant to introduce the current challenges of comprehensive treatment models for children and adolescents with ASD with emphasis put on interventions with strong empirical support.

Identifying children and adolescents at risk for developing psychotic conditions: the use of diagnostic criteria in everyday practice

Konstantina Magklara

Child & Adolescent Psychiatrist, 1st Psychiatric Department, National and Kapodistrian University of Athens, Greece

Psychotic conditions are severe mental disorders associated with significant psychosocial impairment. Early onset psychosis (EOP) with an onset before the age of 18 years represents approximately 10-15% of all psychotic conditions, while Very Early Onset Psychosis (VEOP) with an onset prior to 13 years of age represents 1-3% of all psychotic conditions. During the last decades extensive research has investigated aspects of early detection and early intervention in psychosis, leading to the development of criteria for increased risk of transition to psychosis. Most of these studies, however, have focused on the adult population, while relevant evidence for the population of children and adolescents is limited. The use of clinical high risk criteria in everyday practice with children and adolescents is going to be discussed, as well as its implications regarding outcome prediction and therapeutic dilemmas.

Self-harm in young people

Konstantinos Kotsis

Assistant Professor of Child & Adolescent Psychiatry, University of Ioannina, Faculty of Medicine, Department of Psychiatry, Greece

Self-harm and suicide behavior among young people are of major public health concerns, given the high rates of self-harm in the teenage years and suicide being the second most common cause of death in young people worldwide. Identifying the subtypes of those who self-harm or are at risk of suicide, as well as identifying and understanding the factors associated with different levels of self-harm would be extremely important in designing preventative and therapeutic interventions to reduce the risk of adolescent self-harm (its repetition), suicide, and other outcomes.

This presentation will focus on literature review regarding the risk factors, prevention and evidence based therapeutic interventions. Various socio-demographics, stressful life events as well as psychiatric and psychological factors seem to be related with self-harm behaviors. There are many challenges regarding the management and prevention of self-harm in young people. As far as prevention initiatives are concerned, strong evidence exists for some targeting the community or high-risk population, however, only small advances have been made in the field and there is a need for further research studies focusing on preventative interventions for suicide. With regards to management of adolescent self-harm, various therapeutic interventions are available at the moment, such as Dialectic Behavior Therapy (DBT) and Mentalization Based treatment, which appear promising in reducing self-harm in particular when young person's family is included in treatment and an adequate number of sessions is provided. However, the evidence base for effective treatments is still limited, and there is a great need for development of new psychosocial and pharmacological treatments aiming at reducing self-harm.

Challenges in implementing EBPs in clinical settings

Ioanna Giannopoulou

Assistant Professor in Child and Adolescent Psychiatry, 2nd Department of Psychiatry, National and Kapodistrian University of Athens, Greece

The movement towards using EBPs with children and their families in clinical settings presents numerous challenges, which should not be minimized. It has brought up debates among clinicians regarding the relationship between clinical based and evidence (research) based knowledge, and the potential to successfully move from research setting to standard 'real world' community practice. Describing treatments as evidence – based does not imply that other treatments are ineffective; some may be promising, some may have never been subjected to empirical evaluation and some are even harmful.

Differences in institutional culture, experience and education, school of psychiatric thought and clinical settings account for divergent views and differences in attitudes and beliefs of clinicians, ranging from openness and enthusiasm to skepticism and resistance from practitioners towards using EBPs. Some of the challenges in using EBPs in Greece include successful development and dissemination, implementation and utilization of EBPs, access to adequate training and supervision in implementing EBPs, increased complexity and severity of mental health problems and chaotic home environments in community settings, availability of time and resources.

It is argued that enhancing knowledge among clinicians of EBPs and the relevant translational research, which serves as a bridge between the basic biomedical research findings and clinical/real-world application, through integrating clinicians' perspectives, could potentially lead to more effective interventions for both the children and adolescents, which will serve the best interest of young people of the society.



E-POSTERS

P001 Mental health meets mHealth: A review of the current status of mental health smartphone applications and the challenges to their greater uptake

Yuri Aung¹, Amruni Choudhari¹, Ammaarah Hafejee³, Edgar Meyer²

¹Imperial College School of Medicine, Imperial College, London, United Kingdom

²Imperial College Business School, Imperial College, London, United Kingdom

³Leicester Medical School, University of Leicester, Leicester, United Kingdom

Background: Mental health (MH) conditions are a leading disease burden globally [1]. With increased smartphone usage, mobile health applications that address MH can offer a viable solution to increasing access and enabling individuals [2]. Furthermore, artificial intelligence and machine learning (ML) can be integrated into these applications for better patient outcomes [3]. However, the development of accurate algorithms requires a wealth of data, necessitating adequate user engagement. This review aims to develop a comprehensive understanding on the current status of MH applications, their data collection practices, their incorporation of ML and public perceptions regarding their use.

Materials and methods: A literature search for scholarly articles from 2014 to 2019 was conducted across a range of peer-reviewed databases, including MEDLINE and EMBASE.

Results: 11,902 articles were identified, of which 41 were included. Predominantly, articles were text and opinion-based evidence (24/41), followed by reviews (8/41). When categorised by content, most articles provided insight into available MH applications (26/41), followed by their data collection practices (11/41) and ML implementation (8/41). Few discussed public perceptions on MH applications (5/41).

Conclusions: MH applications have various uses, and mainly collect data of a self-reported nature. While their incorporation of ML is promising, it is not presently the mainstay. The foremost challenges barring greater MH application uptake pertain to data privacy, applications' proven efficacy, and their regulation. Solutions elicited in the literature have yet to be translated into action, and there is little research into the public perceptions surrounding their use. Further exploration into public opinion is required in order to improve user engagement.

Acknowledgements: We thank our supervisor, Dr Edgar Meyer, for his guidance, support and invaluable input. We are also grateful for our collaborators from Imperial College London: Arion Alexopoulos, Jake Hudson, Oluwatomisin Otenigbagbe, and Rita Otto, for their immense help.

References:

1. Vos, T., Barber, R. M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I., Charlson, F., Davis, A., Degenhardt, L. & Dicker, D. (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases



- es and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet.* 386 (9995), 743-800.
2. Bakker, D., Kazantzis, N., Rickwood, D. & Rickard, N. (2016) Mental Health Smartphone Apps: Review and Evidence-Based Recommendations for Future Developments. *JMIR Mental Health.* 3 (1), e7. Available from: <https://mental.jmir.org/2016/1/e7/>. Available from: doi: 10.2196/mental.4984. [Accessed May 13, 2019].
 3. Clough, B and Casey L. (2015). The smart therapist: A look to the future of smartphones and mHealth technologies in psychotherapy. *Professional Psychology: Research and Practice.* 46 (3), 147-153. Available from: 10.1037/pro0000011 [Accessed on 10th May 2019]

P02 Bridging the Gap in Mental Health Apps: Public Perceptions Regarding Mental Health Application Use

Yuri Aung¹, Amruni Choudhari¹, Ammaarah Hafejee³, Edgar Meyer²

¹Imperial College School of Medicine, Imperial College, London, United Kingdom

²Imperial College Business School, Imperial College, London, United Kingdom

³Leicester Medical School, University of Leicester, Leicester, United Kingdom

Background: Mental health (MH) accounts for a large proportion of the global disease burden, but is often under-reported due to stigma [1]. With the increasing ubiquity of smartphones, more mobile health applications targeting MH are being released [2]. However, few studies have examined the public perceptions regarding these applications and the sensitive data they collect [3]. This is concerning as most applications lack adequate data privacy practices, and are often scientifically unproven [4]. This study aims to identify public opinion on MH applications, the data they are willing to share, and their understanding of data practices and application efficacy.

Materials and methods: An anonymous questionnaire was distributed from April to May 2019 over various platforms, with a minimum participant age of 18. Results were subsequently analysed using IBM SPSS.

Results: Of the 453 responses, 30.9% had used an MH application, and 72.0% were aware of them. Participants were most comfortable sharing their age and stress levels with applications, and least so their location and browsing histories. Although 72.0% viewed data privacy as important, 75.9% were unlikely to read privacy policies before downloading applications. In contrast, 57.4% found scientific efficacy important, and 69.5% would check for evidence of application efficacy.

Conclusions: Overall, respondents were interested in MH applications, and were comfortable sharing data that was not personally identifiable. However, there was clear discrepancy between the importance assigned to data privacy and assessment of privacy policies. Additionally, while respondents were likely to check for evidence of efficacy, further research into how users assess for efficacy is required.

Acknowledgements: We thank our supervisor, Dr Edgar Meyer, for his guidance, support and invaluable input. We are also grateful for our collaborators from Imperial College London: Arion Alexopoulos, Jake Hudson, Oluwatomisin Otenigbagbe, and Rita Otto, for their immense help.

References:

1. Vos, T., Barber, R. M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I., Charlson, F., Davis, A., Degenhardt, L. & Dicker, D. (2015) Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global



- Burden of Disease Study 2013. *The Lancet*. 386 (9995), 743-800.
- 2. Bakker, D., Kazantzis, N., Rickwood, D. & Rickard, N. (2016) Mental Health Smartphone Apps: Review and Evidence-Based Recommendations for Future Developments. *JMIR Mental Health*. 3 (1), e7. Available from: <https://mental.jmir.org/2016/1/e7/>. Available from: doi: 10.2196/mental.4984. [Accessed May 13, 2019].
 - 3. Di Matteo, D., Fine, A., Fotinos, K., Rose, J. & Katzman, M. (2018) Patient Willingness to Consent to Mobile Phone Data Collection for Mental Health Apps: Structured Questionnaire. *JMIR Mental Health*. 5 (3), Available from: 10.2196/mental.9539. [Accessed May 14, 2019].
 - 4. O'Loughlin, K., Neary, M., Adkins, E et al.(2019). Reviewing the data security and privacy policies of mobile apps for depression. *Internet Interventions*. 15. 110-115. 127 Available from: <https://doi.org/10.1016/j.invent.2018.12.001> [Accessed on: 16th May 2019]

P03 Biological mechanisms in childbirth psychiatry: Puerperal mental disorders and aggression in the postpartum period

Maria - Valeria Karakasi^{1,2}, Maria Markopoulou³, Aikaterini Vlachaki⁴, Athanasios Douzenis⁵, Panagiotis Tsikouras⁶, Ioannis Tentes⁶, Pavlos Pavlidis²

¹3rd University Department of Psychiatry, AHEPA University General Hospital - Department of mental health, Aristotle University - Faculty of Medicine, Thessaloniki, Greece.

²Laboratory of Forensic Sciences, School of Medicine, Democritus University of Thrace, Alexandroupolis, Greece.

³Department of Forensic Psychiatry, Psychiatric Hospital of Thessaloniki, Stavroupolis, Thessaloniki, Greece.

⁴Adult Psychiatry, Psychiatric Department, G. Papanikolaou General Hospital of Thessaloniki, Exohi, Asvestoxori, Thessaloniki, Greece.

⁵2nd Psychiatry Department, Attikon University Hospital, National and Kapodistrian University of Athens, Chaidari, Greece.

⁶Department of Biochemistry, School of Medicine, Democritus University of Thrace, Alexandroupolis, Greece.

⁷Department of Obstetrics and Gynecology, University General Hospital of Evros, School of Medicine, Democritus University of Thrace, Alexandroupolis, Greece.

Background: For many women, gestation and motherhood is a time of increased vulnerability to psychiatric conditions often leading to suicidality, heterodestructive behavior and even infanticide in 4% of cases. Peripartum psychosis is a particularly serious psychiatric disorder, which is generally considered a mood episode with psychotic features and a condition of exceptional psychiatric, obstetrical, biochemical, endocrinological, pediatric, and medico-legal interest.

Materials and methods: Literature about biological mechanisms of perinatal psychiatric disorders and aggression was reviewed and evaluated via all electronic databases from 1970 up to February 2019.

Results: The prevalence of insomnia as a symptom of puerperal psychosis is estimated in a massive portion of the cases ranging from 42 to 100 percent among different studies. Sharma et al. hypothesized that sleep loss may be the final common pathway in the development of postpartum psychotic episodes. Particular sleep waves are also found to be related to certain hormonal changes; thyroid stimulating hormone is suppressed during sleep, growth hormone is expressed during slow wave sleep, and sleep deprivation blunts peaks in the secretion of the latter. Progesterone has been discovered to have significant sedative effects and anxiolytic properties, whereas estrogen has excitatory effects on the nervous system. During gestation, concentrations of estrogen, progesterone and the 5 α -reduced progesterone metabolites increase several-fold and after childbirth they drop steeply to pre-gestation levels within a few days.

Conclusions: Further research on the biology and pathogenesis of peripartum psychiatric disorders are of exceptional significance as they would not only contribute in better



maternal and infant health care quality, improved treatment strategies, and infanticide and suicide prevention, but would also possibly cast more light on the biological underpinnings of psychotic and affective disorders.

Acknowledgements: Deep gratitude is extended to the Psychiatric Department and the Department of Obstetrics-Gynecology of the University General Hospital of Evros, as well as the technicians of the laboratory of the Forensic Department for their valuable help.

References:

1. Karakasi MV, Markopoulou M, Tentes IK, Tsikouras PN, Vasilikos E, Pavlidis P. Prepartum Psychosis and Neonaticide: Rare Case Study and Forensic-Psychiatric Synthesis of Literature. *J Forensic Sci*. 2017 Jul;62(4):1097-1106. doi: 10.1111/1556-4029.13365. Epub 2017 Jun 5.
2. Sharma V. Role of sleep loss in the causation of puerperal psychosis. *Medical Hypotheses*. 2003;61(4):477-481 doi:10.1016/S0306-9877(03)00200-7
3. Steiner M, Yonkers KA. Evidence-based treatment of mood disorders in women. *Ment Fitness* 2003;2:34-67.
4. Sit D, Rothschild AJ, Wisner KL. A Review of Postpartum Psychosis. *Journal of Women's Health* 2006; 15(4): 352-368. doi:10.1089/jwh.2006.15.352.

P04 Does handedness differentiate Trail Making Test in young Greek adults?

Vaitsa Giannouli¹, Konstantinos Giannoulis², Nikolaos Syrmos³

¹Bulgarian Academy of Sciences, Sofia, Bulgaria

²School of Theology, Aristotle University of Thessaloniki, Thessaloniki, Greece

³School of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

Background: The aim of this preliminary study is to explore whether handedness can influence performance on Trail Making Test (Parts A and B) in young adults.

Materials and methods: Eighty healthy young adults (47 female) participated voluntarily in this research. 47 participants were right-handed and 33 left-handed with similar demographics. The mean age was 35.56 years ($SD = 9.18$) and level of education 18.47 years ($SD = 3.82$). Handedness was determined with the aid of Edinburgh Handedness Inventory (EHI) questionnaire. In addition to that, the participants were examined with the Trail Making Tests, Parts A and B.

Results: Results indicated that there were no statistically significant differences between right-handed and left-handed participants regarding their performance on Trail Making Test Parts A and B. In addition to that, no statistically significant differences were found between men and women in this sample.

Conclusions: Although handedness is widely investigated in children, it still remains a little investigated topic for the group of young adults, future research should further investigate the possible influence of other social, cognitive and personality factors.



P05 Handedness and Trail Making Test Parts A and B performance in middle-aged adults

Vaitsa Giannouli¹, Konstantinos Giannoulis²

¹Bulgarian Academy of Sciences, Sofia, Bulgaria

²School of Theology, Aristotle University of Thessaloniki, Thessaloniki, Greece

Background: The aim of this study is to explore whether handedness can influence Trail Making Test Parts A and B performance in middle-aged participants.

Materials and methods: 125 healthy middle-aged adults (70 female) participated voluntarily in this research. Their mean age was $M = 66.1$ years ($SD = 7.8$), level of education 15.47 years ($SD = 3.82$). Handedness was determined with the aid of Edinburgh Handedness Inventory (EHI) questionnaire. 89 participants were right-handed. Depressive symptoms of the participants were assessed with the 15-item Geriatric Depression Scale, GDS-15 revealed no depressive symptomatology (GDS-15mean score = 0.50).

Results: Results indicated that there were no statistically significant differences between right-handed and left-handed middle-aged participants regarding their performance on Trail Making Test Parts A and B. In addition to that, no statistically significant differences were found between men and women in this sample.

Conclusions: Although handedness and neuropsychological test performance in classic tests such as Trail Making is a little investigated topic in middle-aged adults, future research should further investigate the possible influence of other social, cognitive and personality factors.

P06 Does spirituality in the workplace influence life satisfaction in middle-aged employees?

Konstantinos Giannoulis¹, Vaitsa Giannouli²

¹School of Theology, Aristotle University of Thessaloniki, Thessaloniki, Greece

²Bulgarian Academy of Sciences, Sofia, Bulgaria

Background: Research on spirituality in the workplace is a new area of research not only in organizational psychology, but also in health psychology. The aim of this study is to explore whether self-reports in a questionnaire measuring the personal experience of spirituality can influence life satisfaction in middle-aged participants.

Materials and methods: 125 healthy middle-aged adults (70 female) participated voluntarily in this research. Their mean age was $M = 66.1$ years ($SD = 7.8$), level of education 15.47 years ($SD = 3.82$). Depressive symptoms of the participants were assessed with the 15-item Geriatric Depression Scale, and they were administered a life satisfaction self-report instrument, the Satisfaction with Life Scale (SWLS). GDS-15 revealed no depressive symptomatology (GDS-15mean score = 0.50). All participants were Greek Orthodox Christians. The Greek translation of the Daily Spiritual Experience Scale which consists of 16 questions concerning how an individual experiences in daily life the existence of God, was administered. In addition to that, participants responded to a single question asking in a 5-point Likert scale to indicate the spirituality at the workplace.

Results: Results indicated that there was a statistically significant correlation between SWLS and the Daily Spiritual Experience Scale, as well as SWLS and the single workplace spirituality question.

Conclusions: Although spirituality at workplace is a little investigated topic, future research should further investigate the possible influence of other social, cognitive and personality factors.



P07 Does spirituality in the workplace influence life satisfaction in young adult employees?

Konstantinos Giannoulis¹, Vaitsa Giannouli²

¹School of Theology, Aristotle University of Thessaloniki, Thessaloniki, Greece

²Bulgarian Academy of Sciences, Sofia, Bulgaria

Background: Although there is a lack of consensus regarding research on spirituality in the workplace, this is a new area of research not only in organizational psychology, but also in health psychology. The aim of this preliminary study is to explore whether self-reports in a questionnaire measuring the personal experience of spirituality can influence life satisfaction in young adults.

Materials and methods: Eighty healthy young adults (47 female) participated voluntarily in this research. Their mean age was 35.56 years ($SD = 9.18$) and level of education 18.47 years ($SD = 3.82$). The participants a life satisfaction self-report instrument, the Satisfaction with Life Scale (SWLS). All participants were Greek Orthodox Christians. The Greek translation of the Daily Spiritual Experience Scale which consists of 16 questions concerning how an individual experiences in daily life the existence of God, was administered. In addition to that, participants responded to a single question asking in a 5-point Likert scale to indicate the spirituality at the workplace.

Results: Results indicated that there was a statistically significant correlation between SWLS and the Daily Spiritual Experience Scale, as well as SWLS and the single workplace spirituality question. No statistically significant differences were found between men and women in this sample.

Conclusions: Although spirituality at workplace is a little investigated topic for the group of young adult employees, future research should further investigate the possible influence of other social, cognitive and personality factors.

P08 Depression and suicidality in albanian students: examining links with personality traits and self-esteem

Naim Fanaj^{1,2}, Sevim Mustafa¹, Fleura Shkëmbi³, Atdhe Shala⁴, Pranvera Iseni⁵

¹Mental Health Center Prizren, Kosovo

²College of Medical Sciences Rezonanca, Pristina, Kosovo

³European University of Tirana,Tirana, Albania

⁴Faculty of Medicine, University of Prishtina, Prishtina, Kosovo

⁵State University of Tetovo, North Macedonia

Background: Despite researches extent of independent contribution of personality traits and self-esteem to depression and suicidality has been difficult to establish.

Materials and methods: The study was a cross-sectional correlational study. Participants were 564 college students in Prishtina (Kosovo), Tirana (Albania) and Tetovo (North Macedonia); aged 18 to 33 years old ($M=21.04$; $SD=2.14$). The measures used included the Rosenberg Self-Esteem Scale (Rosenberg,1965), Patient Health Questionnaire (PHQ) (Kroenke, Spitzer & Williams,2001) and The Big Five self-assessment (Goldberg,1992) 10 items version.

Results: Results indicated that 30.5 % of participants have depression; suicidal ideation 35.2 % and 19.1 % reported low self-esteem. Correlational analyses indicated significant negative correlations between self-esteem and depression ($r=-.17$, $p<.00$) and suicidal ideation ($r=-.29$, $p<.00$). Partial correlation used suggested that controlling for depression had very little effect on the strength of the relationship. There also significant negative correlations of depression with conscientiousness ($r=-.16$, $p<.00$) and openness ($r=-.13$, $p<.00$). Correlation of depression with neuroticism is positive significant ($r=.25$, $p<.00$). Regarding suicidal ideation there is no significant correlation with personality traits. Direct logistic regression show that depression was significantly predicted by age, self-esteem, Conscientiousness, Neuroticism and Openness. Direct logistic regression show that suicidal ideation was significantly predicted by sex, residence, depression, self-esteem, and Openness.

Conclusions: Self-esteem predicted depression and suicidal ideation. Openness showed predictive power for depression and suicidal ideation, whereas Conscientiousness and Neuroticism only for depression. It is important to investigate these relationships in future research.

Acknowledgements: I wish to acknowledge the help provided by student respondents.

References:

1. J Brezo, J Paris& G Turecki. Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: a systematic review. Acta Psychiatr Scand 2006; 113(3): 180-206.
2. AP Chioqueta, & TC Stiles. Personality traits and the development of depression, hopelessness, and suicide ideation. Pers. Individ. Dif. 2005;38(6):1283-91.



P09 A review of the last five years of research of Alzheimer's Disease and neuropsychological deficits

Eleftheria-Anastasia Tomazou, Vaitsa Giannouli

Mediterranean College, School of Psychology, Thessaloniki and University of Derby

Background: A literature research of reviews in the context of Alzheimer's disease and neuropsychological deficits.

Materials and methods: Search of Google Scholar & PubMed databases for Reviews of the last 5 years, written in English. Search by title using the keywords: Alzheimer's disease Neuropsychology, Alzheimer's disease neuropsychology symptoms, Alzheimer's disease neuropsychology deficits, Alzheimer's disease Neuropsychology review, Alzheimer's disease neuropsychology deficits review. Case studies were excluded.

Results: Through the search of Google Scholar & PubMed databases, six reviews of the last 5 years (from 2015 to 2017) were found. These reviews examine Alzheimer's disease neuropsychological deficits. One review reported cognitive impairment in AD as a common deficit and another prominent executive dysfunction (poor selective and divided attention, failed inhibition of interfering stimuli & poor manipulation skills). Decline in memory seems to be also one common deficit in AD according to another review and mainly decline in autobiographical memory. Expect of these deficits, another review underlines time distortions in AD, reporting that although it is not a well-documented symptom, it needs to take it into consideration. Deficits in lexical retrieval (lexical retrieval difficulties in connected speech, reduced word output in connected speech, retrieval errors and an association between single-word production and word retrieval in context) are also reported by another review. Finally, one of six reviews identified olfactory dysfunction in AD patients.

Conclusions: Although most of the reported deficits of AD are well documented by studies and older reviews, time distortions in AD seem to not be so well-documented and further research is needed.

P10 Frontotemporal dementia and neuropsychological deficits: Review of the last twenty years

Eleni Kallianidou, Vaitsa Giannouli

Mediterranean College, School of Psychology, Thessaloniki and University of Derby

Background: An overview of 20 years of reviews (2000-2019) has been made about "Frontotemporal Dementia and Neuropsychological Deficits". We have examined this topic in order to understand deeper the meaning of Frontotemporal Dementia, the neuropsychological symptoms through these 20 years, and finally to propose our recommendations about future studies.

Materials and methods: We have examined the literature which is available on Google scholar search by using the terms: "Frontotemporal Dementia Reviews", "Frontotemporal Dementia and neuropsychological Deficits" of the last 20 years in English. We searched articles by using the following keywords: neuropsychology, cognition, Frontotemporal dementia, reviews.

Results: Most of the reviews refer to a disease which destroys the neurons and it has neuropsychiatric symptoms. We have found prominent reported neuropsychological deficits in memory, but we also find behavioral and speech problems. The majority of the reviews report that it can be treated with nonpharmacological intervention, but some SSRIs are administered for better results.

Conclusions: Our findings include very important information from the past till present, making the future research more interesting. By reading the reviews we had the opportunity to examine the symptoms of the Frontotemporal Dementia, but at the same time some new questions were born: Are we able to prepare for any change in the course of frontotemporal dementia? How can we make a better and safer diagnosis? Is there any other way of treatment?



P11 Frontal lobe epilepsy and neuropsychological deficits: Review of the last twenty years

Maria Bellou, Vaitsa Giannouli

Mediterranean College, School of Psychology, Thessaloniki and University of Derby

Background: Frontal lobe epilepsy (FLE) is a seizure disorder with a lower prevalence than temporal lobe epilepsy (TLE). It generally affects cognitive and emotional well-being. The nature and severity of deficits in FLE are highly variable, ranging from impaired attention to difficulty with the more complex behaviors involved in planning, selecting goals, anticipating outcomes, and initiating action. The neuropsychological studies on FLE report deficits in motor coordination and planning, reduced attention span, and difficulties in response inhibition in complex cognitive tasks. Plus, studies of cognitive function in patients with frontal lobe epilepsy show executive dysfunctions in response selection/initiation and inhibition, as well as cognitive impairment, hyperactivity, conscientiousness, obsession, and addictive behaviors. Some studies showed that patients with FLE are impaired on humor appreciation, and on their recognition of facial emotion and perception of eye gaze expression. They also exhibited impairments on tests of social cognition.

Materials and methods: Google scholar and Pubmed search of Frontal Lobe Epilepsy and deficits of the last 20 years. Keywords that were used: neuropsychology, frontal lobe epilepsy, deficits, cognition.

Results: Almost all of the reviews referring to deficits of FLE reported severe neuropsychological deficits in cognitive and emotional well-being, complex behaviors involved in planning, selecting goals and anticipating outcomes.

Conclusions: While most neuropsychological studies in focal epilepsies are concerned with TLE, only few investigations aim cognitive functioning in unresected patients with FLE. The neuropsychology of FLE has not been well studied. Future studies could further address the issue of severity of FLE.

P12 Parkinson's disease symptoms and neuropsychological deficits: Review of the last twenty years

Athanasis Kousaitis, Vaitsa Giannouli

Mediterranean College, School of Psychology, Thessaloniki and University of Derby

Background: Parkinson's disease is a progressive nervous system disorder that affects movement. Symptoms start gradually, sometimes starting with a barely noticeable tremor in just one hand. Tremors are common, but the disorder also commonly causes stiffness or slowing of movement.

Materials and methods: We have examined articles which are available on Google Scholar search by using the terms: Parkinson's disease Reviews, also "Parkinson's disease symptoms and neuropsychological deficits", "Parkinson's disease treatment" of the last twenty years (2000-2019) . We searched articles based on the disease by choosing the following keywords: neuropsychology, deficits, Parkinson , symptoms , treatment , prevention.

Results: Most of the reviews we witnessed show us and agree on the fact that in the last twenty years Parkinson's disease is a progressive nervous system disorder which certain nerve cells (neurons) in the brain gradually break down or die. Many of the symptoms are due to a loss of neurons that produce a chemical messenger in the brain called dopamine. All these cause Parkinson's symptoms , those are :Tremor ,Slowed movement (bradykinesia) , Rigid muscles, Impaired posture and balance, Loss of automatic movements , Speech changes and in some cases dizziness. In most of the reviews we find the same symptoms.

Conclusions: It is a fact that there is a need for prognosis, better diagnosis, treatment plan and future search for better medical assessment and drugs use. We have to consider if drugs are the only way of treatment. In addition, it is very important to focus on a future investigation for the pathology of the disease which is currently unknown. Also we should consider more often using medical tests such as MRI.



P13 Multiple Sclerosis and neuropsychological deficits: Review of the last twenty years

Maria Chantzidou, Vaitsa Giannouli

Mediterranean College, School of Psychology, Thessaloniki and University of Derby

Background: Multiple sclerosis (MS) is a chronic autoimmune, inflammatory neurological disease of the central nervous system (CNS). MS attacks the myelinated axons in the CNS, destroying the myelin and the axons to varying degrees. In order to gather all the useful information about multiple sclerosis, we made a review of the last twenty years of research.

Materials and methods: Our search was based on Google Scholar citations regarding the last twenty years (2000- 2019). We used as keywords: 'neuropsychology', 'deficits', 'symptoms', and 'rehabilitation'.

Results: Five important reviews were found and the common among all is that in multiple sclerosis deficits occur in speed of information processing (SIP), memory, attention, executive functions and visuoconstruction. The reviews agree that patients may be grouped into four major categories based on the course of disease: Relapsing-remitting MS, Secondary progressive MS, Primary progressive MS and Progressive-relapsing MS. Concerning the diagnosis, there is no single diagnostic test for MS.

Conclusions: MS is the second cause of disability in young adults and it is a progressive disease with no cure so far. Although treatments are available to manage the disease course, they are only partially effective. A combination of drugs and physical therapy, exercise, rest and healthful nutrition may relieve symptoms and promote a satisfactory quality of life.

P14 Stigma and burnout of professional and family carers of elderly with dementia

Marianna Mantzorou¹, Evmorfia Koukia²

¹Nursind Department, University of West Attica

²Nursing Department, University of Athens

Background: Dementia is part of the life of millions of people worldwide but poor understanding contributes towards the stigma that surrounds the disease with negative consequences for the care of the patients as well as the wellbeing of professional and family caregivers who undertake their care.

Materials and methods: A cross-sectional study of burnout experienced by nurses and family caregivers as well as the stigma they attach to their patients, was carried out in a convenience sample of 171 geriatric nurses and other professional carers in 16 elderly care units and 153 pairs of patients and family caregivers in 3 Dementia Day Care centers in Attica. The research tools used in the study were 3 questionnaires regarding social and demographic data of nurses, patients and family caregivers, the Maslach Burnout Inventory (MBI), the Neuropsychiatric Inventory (NPI) and the Family Stigma in Alzheimer's Disease Scale (FS-ADS).

Results: The present study showed that professional and family caregivers of demented persons experience moderate levels of burnout and attribute moderate levels of stigma towards the demented persons they care for. The fact that cognitive, emotional and behavioral attributions of the 3 dimensions of stigma, were found to be independent predictive factors of the dimensions of burnout, shows that the stigma that they deposit on their demented person, contributes towards their burnout.

Conclusions: Conclusions drawn from the current study with regard to the contribution of stigma towards the burnout of professional and family caregivers, can contribute to a better educational preparation of nurses caring for demented elderly people as well as carefully planned strategies to increase public awareness concerning dementia in order to achieve a decrease of the stigma placed upon this condition.

References:

1. P Werner, D Goldstein, J Heinik Development and Validity of the Family Stigma in Alzheimer's disease Scale (FS-ADS). *Alzheimer Disease and Associated Disorders*, 2011, 25(1): 42-48.
2. P Werner, M Mittelman, D Goldstein, J Heinik Family Stigma and Caregiver Burden in Alzheimer's Disease. *The Gerontologist*, 2012, 52(1):89-97.
3. Mantzorou, M., Zyga, S., Mastrogiovanni, D., Koukia, E. Psychometric properties of the Family Stigma in Alzheimer's Disease Scale (FS-ADS) in Greek professional caregivers, *Journal of Nursing measurement*, 2019, accepted 25/3/2019



P15 Child hope, sadness, and loneliness and parental sense of competence among pupils with and without learning disabilities

Dimitrios Alexopoulos¹, Katerina Maridaki-Kassotaki¹, Katerina Antonopoulou¹, Stavroula Polychronopoulou², Constantinos Kokkinos³

¹Department of Home Economics and Ecology, Harokopio University, Greece

²University of Athens, Greece

³Democritus University of Thrace, Greece

Background: Previous studies have highlighted the role of parenting in children's emotional and social growth (Chou et al., 2016). However, the link between parental sense of efficacy and children's feelings of hope, sadness and loneliness is understudied in families of typically developing children and children with learning disabilities (LD). The aim of this study was, therefore, to (a) compare primary school aged children with and without LD in perceptions about hope, sadness management and feelings of loneliness at school, (b) compare children's parents in perceptions of parenting sense of competence and (c) examine associations among the above variables in both groups of children.

Materials and methods: Participants: 131 families - 131 fathers, 131 mothers and 131 children out of which 15 were diagnosed with learning disabilities (LD) including Autism, ADHD, Reading Disabilities etc. from all over Greece.

The following self-report questionnaires were filled in by parents and children in the school area at prearranged meetings.

Child questionnaires: Children's Hope Scale (Snyder et al., 1997), Children's Sadness Management Scale (Zeman et al., 2001), Loneliness subscale from the Loneliness and Social Dissatisfaction Scale (Galanaki & Kalantzi-Azizi, 1999)

Parent questionnaires: Parenting Sense of Competence Scale (Johnston & Mash, 1989)

Results: Non-LD children reported significantly higher levels of hope compared to LD peers as reflected by their perceptions about achieving desired goals (agency thinking) and finding ways to do so (pathways thinking). LD children reported significantly higher levels of sadness inhibition than their non-LD peers. No other significant difference were found between the two groups of children. In both groups of children hope was positively correlated with sadness regulation and negatively with feelings of loneliness. Finally, parents' sense of competence (efficacy & satisfaction) was positively correlated with child hope and sadness regulation and negatively with child loneliness.

Conclusions: This study provides evidence to support the association between parental sense of competence and child aspects of psychoemotional growth. LD children are more likely to exhibit psychoemotional difficulties and thus are required support in both school and family contexts.

References:

1. Chou J.L., et al. (2016). Authoritarian Parenting. In Lebow J., Chambers A., Breunlin D. (Eds.), Encyclopedia of Couple & Family Therapy (pp. 1-3). Cham: Springer.
2. Snyder, C. R., et al. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22, 399-421.
3. Zeman, J., et al. (2001). Development and initial validation of the Children's Sadness Management Scale. *Journal of Nonverbal Behavior*, 25, 187-205.
4. Galanaki, E. P., & Kalantzi-Azizi, A. (1999). Loneliness & social dissatisfaction: Its relation with children's self-efficacy for peer interaction. *Child Study Journal*, 29, 1-22. Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, 18, 167-175.



P16 Children with and without ADHD: How empathy and Theory of Mind affect friendships and friendship quality

Sofia Kouvava¹, Katerina Antonopoulou¹, Asimina Ralli², Constantinos Kokkinos³, Katerina Maridaki-Kassotaki¹

¹Department of Home Economics and Ecology, Harokopio University, Greece

²University of Athens, Greece

³Democritus University of Thrace, Greece

Background: Children with ADHD are significantly impaired in empathy (Sanchez-Perez & Gonzalez-Salinas, 2013), struggle with their peer functioning (Mrug et al., 2009), have difficulties in forming and maintaining reciprocal and high quality friendships (Kouvava & Antonopoulou, 2018; Mikami, 2010), and have fewer and less stable friendships (Marston et al., 2012). Ambivalent research findings exist regarding their ability to reason about their own and others' mental states (Theory of Mind-ToM), with some reporting impaired ToM (Sibley et al., 2010), while others postulating no significant differences between ADHD and control children (Perner et al. 2002).

The purpose of this study was to examine the impact of social understanding on friendship formation, stability, and quality in a sample of children with and without ADHD attending primary schools in Greece. In addition, it explores similarities and differences between the two groups of pupils.

Materials and methods: The following tools were used in the study:

The Strange Stories test (Happe, 1994)

The Index of Empathy for Children and Adolescents (Bryant 1982)

Sociometric Nominations

Friendship Quality Questionnaire (Parker & Asher, 1993)

The participants were 64 children with ADHD & 64 typically developing (TD) children attending School Year 3 to 6 ($M_{age} = 10.11$, $SD = 1.1$) with medium socio-economic status.

Results: The present study provides evidence that friendship duration and quality are influenced by empathy in ADHD children and empathy has no impact on the number of their mutual friends. Additionally, ToM does not predict the number of friends and friendship duration & quality in ADHD children. Moreover, the findings suggest that in TD children empathy predicts only friendship quality, and ToM affects all aspects of friendships examined. The results have shown significant differences between ADHD & TD children in friendship quality, friendship duration, empathy and ToM.

Conclusions: The present findings expand previous evidence attesting to the link between social understanding and friendship stability and quality, provide knowledge for the predictive relationship between social understanding deficits in preadolescents with ADHD and their functional impairment in the social domain. The study has important implications for parents, educators and school psychologists who need to enhance social understanding in ADHD children and adolescents, so that they could acquire and maintain reciprocal friendships characterised by positive qualities.

References:

1. Bryant, B. K. (1982). An Index of Empathy for Children and Adolescents. *Child Development*, 53(2), 413-425. doi:10.2307/1128984
2. Happe, F. G. E. (1994). An advanced test of theory of mind: Understanding of story characters' thoughts and feelings by able autistic, mentally handicapped, and normal children and adults. *Journal of Autism and Developmental Disorders*, 24 (2), 129-154.
3. Kouvava, S. & Antonopoulou, K. (2018). Sibling and friendship relationships of children with attention-deficit/hyperactivity disorder and typical development, *Early Child Development and Care*, doi:10.1080/03004430.2018.1503255
2. Marton, I., Wiener, J., Rogers, M., Moore, C., & Tannock, R. (2008). Empathy and Social Perspective Taking in children with Attention-Deficit/Hyperactivity Disorder. *Journal of Abnormal Child Psychology*, doi:10.1007/s10802-008-9262-4
5. Mikami, A. Y. (2010). The importance of friendship for youth with attention-deficit/hyperactivity disorder. *Clinical Child and Family Psychology Review*, 13, 181-198. doi: 10.1007/s10567-010-0067-y
6. Mrug, S., Hoza, B., Gerdes, A. C., Hinshaw, S., Arnold, L. E., Hechtman, L., & Pelham, W. E. (2009). Discriminating between children with ADHD and classmates using peer variables. *Journal of Attention Disorders*, 12(4), 372-380.
3. Parker, J. G. & Asher, S. R. (1993). Friendship and Friendship Quality in Middle Childhood: Links With Peer Group Acceptance and Feelings of Loneliness and Social Dissatisfaction. *Developmental Psychology*, 29(4), 611-621.
8. Perner, J., Kain, W., & Barchfeld, P. (2002). Executive control and higher order theory of mind in children at risk of ADHD. *Infant and Child Development*, 11, 141-158. doi:10.1002/icd.302
9. Sanchez-Perez, N. & Gonzalez-Salinas, C. (2013). School Adjustment of Pupils with ADHD: Cognitive, Emotional and Temperament Risk Factors. *Electronic Journal of Research in Educational Psychology*, 11(2), 527-550.
10. Sibley, M.H., Evans, S.W., & Serpell, Z.N. (2010). Social cognition and interpersonal impairment in young adolescents with ADHD. *Journal of Psychopathology and Behavioral Assessment*, 32, 193-202. doi:10.1007/s10862-009-9152-2



P17 Social Norms, Alcohol Expectancies, Parental Monitoring, Parental Perceptions And Adolescent Patterns of Alcohol Consumption In Athens And Cardiff: A Cross-Cultural Analysis

Phoebe-Demeter Speis

Cardiff Metropolitan University, School of Health Sciences Department of Applied Psychology

Background: Adolescent alcohol consumption remains a concerning public health issue. Risky/hazardous drinking has potentially detrimental effects on adolescents including impaired health, academic failure and adult alcohol-related problems (Hingson et al 2009). Patterns of alcohol consumption and alcohol-related problems differ across cultures (Hibell et al 2012). These differences may be explained by specific cultural patterns of beliefs and expectations (Heath 2000).

Materials and methods: Several key factors have been identified in the literature as predictors of risky adolescent alcohol use and alcohol related negative consequences that are also salient to cultural constructs. Utilizing a conceptual framework that incorporated cultural concepts as well as the theories of outcome expectancies, social norms and the social interactional model of parenting this thesis investigated the differences in descriptive and injunctive norms, alcohol expectancies, parental monitoring and beliefs regarding their influence on alcohol consumption patterns in the two different cultures of Greece and Wales, by utilizing a mixed- methods approach, including an adolescent self-report questionnaire and parental interviews.

Results: Risky/hazardous alcohol-related behaviour, injunctive and personal norms, alcohol expectancies and parental monitoring elements such as parental control and child disclosure differed significantly in respect of city (Cardiff vs. Athens) ($p<0.005$). A stepwise logistic regression analysis indicated that age-group, Cardiff residency, Fast Alcohol score, Parental control, Alcohol expectancies regarding Risk and Aggression/Liquid Courage/Sociability and Child disclosure were all statistically significant independent predictive factors for high Saturday alcohol consumption significantly in respect of city (Cardiff vs. Athens, $p=0.012$).

From the analysis of the qualitative data, three major themes emerged. These included parental acceptance of alcohol use, parental influences on alcohol use and the perceived influence of others.

Conclusions: Several implications for policy formation and intervention strategies arise from the results. Interventions should be tailored according to cultural factors and targeted towards specific components such as perceived parental permissiveness and personal norms of alcohol-related behaviour.

References:

1. Hingson, R. W., Zha, W., & Weitzman, E. R. (2009). Magnitude of and trends in alcohol-related mortality and morbidity among US college students ages 18-24, 1998-2005. *Journal of Studies on Alcohol and Drugs, Supplement*, (16), 12-20.
2. Hibell, B., Guttormsson, U., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A., & Kraus, L. (2012). The 2011 ESPAD report. Substance use among students in, 36, 123-34.
3. Heath, D. B. (2000). Drinking occasions: Comparative perspectives on alcohol and culture. Psychology Press.



P18 PTSD Precursors: The case of the Vrissa earthquake in June 12th 2017

Phoebe-Demeter Speis, Manolis Andreadakis, Christina Lekka

National and Kapodistrian University of Athens, Faculty of Geology and Geoenvironment

Background: Earthquakes are unpredictable natural events which may result in massive destruction and loss of life. Furthermore survivors may suffer psychological symptoms of severe intensity. It is expected that a large number of people exposed to such an event will experience some symptoms. These symptoms will resolve over time in most cases. This study was conducted 5 days after the incident. Consequently, it cannot directly relate to Post Traumatic Stress Disorder, which requires the diagnostic criterion of the duration of one month to present symptoms. However, in some cases the symptoms described in this study will persist for more than one month and may be a source of chronic distress (Brewin et al. 2000).

Materials and methods: A quantitative study was conducted on reactions associated with the subsequent onset of Post Traumatic Stress Disorder, with a convenience sample ($N = 78$). Participants were approached in public and gathering areas in the areas of Vatera, Polichnitos, Akrasi and Plomari. The PTSD Checklist Civilian Version (PCL) Scale (Weathers, Litz, Huska, & Keane, 1993) was used. It is a self-report questionnaire containing 17 questions and statements exploring the three categories of symptoms that occur during the development of post-traumatic stress, trauma rehab, emotional numbness and anxiety and depressive symptoms. The question-statements are answered on a five-point Likert scale (1 = not at all, 2 = a little, 3 = sometimes, 4 = quite a bit and 5 = very much).

Results: 54.1% of the sample presented with moderate to high levels of indicative symptoms across the scale. Indicatively, it is reported that 62.8% of the sample stated that they were acting or feeling like the experience was happening again (as if they were experiencing it again), at moderate or higher levels. 55.1% of the sample said that they felt very upset when something reminded them of their experience at moderate and above levels.

Conclusions: These symptoms, which may be described as precursors to PTSD are indicative of the need for widespread tertiary level interventions. The large impact of the earthquake on participants underscore the importance of awareness of mental disorders that may emerge following major natural catastrophes particularly for individuals with psychosocial vulnerabilities.

References:

1. Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults.
2. Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. October, 1993. The PTSD checklist (PCL): reliability, validity, and diagnostic utility. In Annual Convention of the International Society for Traumatic Stress Studies, San Antonio, TX.

P19 Evident Based Evaluation of Nasalance in Typical Greek Pre-School Children Using the Manson & Grandstaff Method

Louiza Voniati¹, Dionysios Tafiadis², Konstantinos Drosos¹, Alexandra Prentza³,
Vasiliki Zarokanellou 4, Maria Agapiou¹, Stefani Elisseou¹, Anthi Ierodiakonou¹,
Elena Chrisostomou¹, Nafsika Ziavra²

¹Department of Health Sciences, Speech and Language Therapy, European University,
Nicosia, Cyprus

²Department of Speech & Language Therapy, School of Health Sciences, University of
Ioannina, Ioannina, Greece

³Department of Linguistics, School of Philology, Faculty of Philosophy, University of
Ioannina, Greece

⁴Department of Speech & Language Therapy, School of Rehabilitation Sciences, University
of Patras, Patra, Greece

Background: Speech language pathologists always assess the resonant mechanism in order to determine the occurrence of nasality. There are two ways of assessing nasality: (a) clinical assessment and (b) laboratory and imaging techniques. Particularly, for the clinical evaluation of nasalance the literature suggests different approaches on how it can be performed. One of these approaches is the Mason & Grandstaff method [1]. The purpose of the present study is to pilot the Mason & Grandstaff clinical assessment of nasalance in a typical pre-school pediatric population.

Materials and methods: 60 typically developing pre-school children (30 boys and 30 girls) aged from 3;6 till 5;11 were recruited for this study. All children had no former medical or developmental history that would affect the evaluation procedure. The Mason & Grandstaff assessment method was administrated to all participants and the speech samples were evaluated by three different specialists.

Results: The statistical analysis revealed no difference in the nasalance rating of the pre-school children tested by age and sex. The internal consistency of the method was excellent (a Cronbach= .804) while the intra-rater reliability ranged from .779 till .832.

Conclusions: The Mason & Grandstaff Nasalance method appears to be valid and reliable for the assessment of Greek pre-school population. Additional studies must be conducted in populations with nasalance problems of different etiology.

References:

1. R M Mason, H L Grandstaff: Evaluating the velopharyngeal mechanism in hypernasal speakers. Lang Speech Hear Ser 1971, 2: 53-61



P20 A Pilot Study of Manson & Grandstaff Nasalance Assessment Method in Typical Greek School-Aged Children

Louiza Voniati¹, Dionysios Tafiadis², Konstantinos Drosos¹, Alexandra Prentza³, Vasiliki Zarokanellou⁴, Nafsika Ziavra²

¹Department of Health Sciences, Speech and Language Therapy, European University, Nicosia, Cyprus

²Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

³Department of Linguistics, School of Philology, Faculty of Philosophy, University of Ioannina, Greece

⁴Department of Speech & Language Therapy, School of Rehabilitation Sciences, University of Patras, Patra, Greece

Background: Resonance disorders are usually manifested as deviations of the quality of nasalance (e.g. hypernasality, hyponasality). The literature discusses a variety of auditory-perceptual methods for the evaluation of nasalance. These methods rely on the clinical ability and the experiences of a listener to recognize if a speech-voice production is particularly inadequate relative to what is perceived as "typical". One of these methods is the Mason & Grandstaff method [1]. The purpose of this study is to evaluate the reliability of the Mason & Grandstaff method for the assessment of nasalance in Greek monolingual school-aged children.

Materials and methods: The assessment was performed among typically developing school-aged children (30 boys and 30 girls) by means of the Mason & Grandstaff method [1]. Audio samples were collected and were evaluated by three different speech-language therapists individually.

Results: No statistically significant differences were observed between the qualitative ratings of nasalance for boys and girls. The method exhibited very good validity (a Cronbach=.808) and intra-rater reliability (.727 till .823).

Conclusions: The Mason & Grandstaff method shows to be a reliable method of assessing for Greek monolingual school-aged population. This pilot study suggests that the Mason & Grandstaff method should be standardized for the greek language.

References:

1. R M Mason, H L Grandstaff: Evaluating the velopharyngeal mechanism in hypernasal speakers. Lang Speech Hear Ser 1971, 2: 53-61

P21 Evaluation of the Manson & Grandstaff Method for assessing Nasalance in Typical Greek Adolescents: A Pilot Study

Dionyios Tafiadis¹, Louiza Voniati², Konstantinos Drosos², Alexandra Prentza³,
Vasiliki Zarokanellou⁴, Nafsiaka Ziavra¹

¹Department of Speech & Language Therapy, University of Ioannina, Ioannina, Greece

²Department of Health Sciences, Speech and Language Therapy, European University, Nicosia, Cyprus

³Department of Linguistics, School of Philology, Faculty of Philosophy, University of Ioannina, Greece

⁴Department of Speech & Language Therapy, School of Rehabilitation Sciences, University of Patras, Patra, Greece

Background: Resonance is the result of the transfer of the sound produced by the vocal folds up to the oral and nasal cavity. The “normal” resonance is a balance between the energy of oral and nasal sounds. In some cases, during oral production the speech sounds too much or too little nasal and that probably results to a resonance disorder. In clinical practice there are various ways for the auditory-perceptual evaluation of resonance, one of them is the Mason & Grandstaff method which was suggested in 1971 [1]. This study aims to validate this aforementioned method in typical Greek adolescent speakers.

Materials and methods: The Greek version of the Mason & Grandstaff method [1] was administrated to 60 typical adolescents (30 male and 30 female). Speech samples were obtained from all participants and were subsequently evaluated by three experienced speech language therapists.

Results: The Spearman rho coefficient was used in order to compute the intra-rater reliability which ranged from .793 to .846. The a-Cronbach coefficient was calculated at $\alpha=.813$. There were no significant differences between the nasalance ratings for male and female adolescents.

Conclusions: The greek version of the Mason & Grandstaff method addresses the same scope as the English version. It also demonstrates good intra-rater reliability and validity.

References:

1. R M Mason, H L Grandstaff: Evaluating the velopharyngeal mechanism in hypernasal speakers. Lang Speech Hear Ser 1971, 2: 53-61



P22 Validating the Manson & Grandstaff Nasalance Assessment Method in Typical Greek Adults

Dionyssios Tafiadis¹, Louiza Voniati², Konstantinos Drosos², Alexandra Prentza³, Vasiliki Zarokanellou⁴, Athanasia Anastasi², Stavroula Michail², Elena Nikoletti², Nafsika Ziavra¹

¹Department of Speech & Language Therapy, University of Ioannina, Ioannina, Greece

²Department of Health Sciences, Speech and Language Therapy, European University, Nicosia, Cyprus

³Department of Linguistics, School of Philology, Faculty of Philosophy, University of Ioannina, Greece

⁴Department of Speech & Language Therapy, School of Rehabilitation Sciences, University of Patras, Patra, Greece

Background: Resonance is defined as a qualitative characteristic that depends on the sound vibrations of the pharyngeal, oral and nasal cavities. During the regular clinical routine speech language therapist assess a person's resonant ability. To this effect, clinicians use several methods of evaluation for this ability, such as the Mason & Grandstaff Nasality Test [1]. The purpose of the present study was to validate the Mason & Grandstaff method in typical adult population and to determine whether the factors of gender and age influence a person's nasal rate and type of nasality.

Materials and methods: The Mason & Grandstaff protocol [1] was administered individually to 102 healthy adult participants (51 male and 51 female). The participants' age ranged from 18 to 50 years. The obtained speech-language samples were evaluated by three different specialists.

Results: Statistical analyses showed that the factors of age and sex did not affect the qualitative assessment of nasalance. The Mason & Grandstaff method had excellent internal consistency (α -Cronbach= .809). Additionally, the intra-rater reliability ranged from .756 till .811.

Conclusions: In the Greek literature there are no standardized methods regarding the evaluation of nasalance. The Mason & Grandstaff method is considered as a reliable assessment method for Greek-speaking populations. Finally, it is suggested that this method should be standardized in clinical populations having different types of nasality.

References:

1. R M Mason, H L Grandstaff: Evaluating the velopharyngeal mechanism in hypernasal speakers. Lang Speech Hear Ser 1971, 2: 53-61

P23 The relationship of verbal working memory and phonological representations in language learning of Greek high-functioning ASD children

Vasiliki Zarokanellou^{1,2}, Maria Vlassopoulos¹, Aggeliki Kotsopoulos³, Dionysis Tafiadis⁴, Katerina Papanikolaou¹

¹Medical School of Athens, National and Kapodistrian University of Athens, Athens, Greece

²Department of Speech Language Therapy, University of Patras, Patras, Greece

³EPSYPEA Aitoloakarnanias, Mesolongi, Aitoloakarnania, Greece

⁴Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

Background: Phonological and phonetic development is a relative strength in children with high-functioning ASD but is far from intact. To our days, little is known about why children make speech errors, but it has been hypothesized that cognitive-linguistic factors may underlie phonological disorders. This study aimed to explore the relationship between phonological representations and verbal working memory (VWM) and to investigate the nature of speech difficulties in high-functioning ASD children with the use of a psycholinguistic framework [1].

Materials and methods: The phonological, articulatory, language and VWM abilities of 25 monolingual Greek high-functioning ASD children with individually matched peers with typical language development, were compared. The phonological tasks included production and receptive-based tasks. The VWM tasks examined the repetition of non-words and the ability to create new phonological representations.

Results: The results indicated that the children with high-functioning ASD faced a phonological deficit in the stored phonological representations but had intact capacity of learning new verbal material. Qualitative phonological analysis revealed that our high-functioning sample produced typical phonological errors, showing a slower phonological development in relation to aged-matched peers.

Conclusions: The use of the psycholinguistic model made possible to locate the exact different speech levels of breakdown of our high-functioning ASD sample.

References:

1. J Stackhouse, B Wells. Children's speech and literacy difficulties. A psycholinguistic framework. Whurr Publishers Ltd London 1997



P24 Speech impairment in Down syndrome

Vasiliki Zarokanelou^{1,2}, Maria Vlassopoulos¹, Aggeliki Kotsopoulos³,
Dionysios Tafiadis⁴, Katerina Papanikolaou¹

¹Medical School of Athens, National and Kapodistrian University of Athens, Athens, Greece

²Department of Speech Language Therapy, University of Patras, Patras, Greece

³EPSYPEA Aitoloakarnanias, Mesolongi, Aitoloakarnania, Greece

⁴Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

Background: Phonological development in DS seems to be characterized by substantial instability and interindividual variability. Children with DS exhibit a significant delay in the production of first words and phonological / articulation difficulties are particularly severe for these children. The emergence of phonemes in DS does not seem to follow the order of published norms for Typically Developing (TD) children, even though typical errors of articulation are also prominent [1]. The purpose of this study was to analyses the phonological development in Greek-speaking children with DS.

Materials and methods: Nine children with DS and nine TD peers, matched for age and gender participated. All participants were monolingual Greek, aged 7-10 years old. The Raven's CPM test [2], the Phonological and Phonetic Developmental Scale [3] and the Phonological Representation Accuracy Judgment Task via software [4] were given. Regression statistical analysis was used to assimilate the comparison groups for IQ. Speech errors were subjected to a qualitative analysis.

Results: The regression analysis showed that DS children made significantly more speech errors and had more unstable phonological representations in relation to TD peers. The qualitative analysis revealed that 7 out of 9 children had speech apraxia and made non-developmental errors.

Conclusions: Speech apraxia is a common disorder in DS. Alternative and Augmentative communication systems maybe a good solution for this population.

References:

1. D Kent, H K Vorperian: Speech impairment in Down syndrome: A review. Journal of Speech, Language and Hearing Research 2013, 56: 178-210
2. G Sideridis, F Adoniou, A Mouzaki, P Simos. Raven's Educational CPM/CVS. Athens: Motivo 2015
3. I Levanti, L Kirpotin, I Kardamitsi, M Kabouroglou. The Phonological and Phonetic Developmental Scale of Panhellenic Speech-Language Association. Athens: Panhellenic Speech-Language Association 1995
4. A Kotsopoulos, K Giftogianni, I Xatzistilianou, A Gasteratos. The creation of software for the evaluation of phonological representations in children with speech disorders. 12Th Panhellenic Congress of Speech-Language Therapists. Athens: 2012

P25 Pragmatic deficits in children with different neurodevelopmental disorders: Preliminary data from Greek language

Vasiliki Zarokanellou^{1,2}, Sotiria Giannia², Marianna Zafiriadou², Panagiotis Karamanis², Georgiana Krokou², Xristina Moraiti², Dimitra Papanastasiou², Maria Sonikian², Xristina Xalkia², Dionysios Tafiadis³

¹Medical School of Athens, National and Kapodistrian University of Athens, Athens, Greece

²Department of Speech Language Therapy, University of Patras, Patras, Greece

³Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

Background: The use of language includes the speech acts, which are affected by social and cognitive factors [1]. The speech acts include verbal actions that accomplish something such as questions, statements etc. Children with neurodevelopmental disorders (ADHD, ASD, Specific Learning Disorders (SLD) very often have pragmatic deficits. The aim of this study was to examine the pragmatic abilities and the understanding of figurative language in school-aged children with normal intelligence and different neurodevelopmental disorders such as ADHD, high-functioning ASD and SLD.

Materials and methods: For this purpose, 4 different experimental groups participated: a) 18 children with ADHD, 7-9 years old, b) 18 children with SLD, 7-10 years old, c) 10 children with SLD, 11-12 years old, and d) 10 children with high-functioning ASD, 8-10 years old. The four experimental groups were matched for age, gender and non-verbal IQ with typically developing (TD) peers. All participants were monolingual Greek and children with neurodevelopmental disorders had a formal diagnosis from a public setting. The participants were given the pragmatic domain of DELV[2] or a structured protocol that assessed the understanding of figurative language, or both tests.

Results: Statistical analysis revealed that: a) both SLD groups had significant deficits in understanding of figurative language and in DELV test in relation to TD peers, b) ASD group faced significant impairments in understanding of figurative language in relation to TD age-mates and c) ADHD group showed important difficulties in formation of questions in the third part of DELV in comparison with their control group.

Conclusions: Children with neurodevelopmental disorders present significant difficulties in the use of language, regardless of their normal cognitive level.

References:

1. S Loukusa. The use of context in pragmatic language comprehension in normally developing children and children with Asperger syndrome/high-functioning autism. An application of relevance theory. Oulu, Finland: University of Oulu, 2007. 134 pp. Dissertation
2. H Seymour, T Roeper, J De Villiers. The diagnostic evaluation of language variation test-DELV. San Antonio: The Psychological Corporation, a Harcourt Assessment Company 2004



P26 Memory deficits in children with high-functioning ASD: Preliminary results

Vasiliki Zarokanelou^{1,2}, Maria Vlassopoulos¹, Gerasimos Kolaitis¹,
Katerina Papanikolaou¹

¹Medical School of Athens, National and Kapodistrian University of Athens, Athens, Greece

²Department of Speech Language Therapy, University of Patras, Patras, Greece

Background: Recent research in memory revealed mixed results for children with high-functioning ASD, but most studies agreed that all children with ASD present specific memory deficits and abnormalities [1]. The purpose of this study was to evaluate verbal and visual-spatial memory abilities in Greek school-aged high-functioning ASD children.

Materials and methods: In the study, 20 children, aged 7-12 years old, who were monolingual Greek and were going in general elementary schools, participated. All participants had a) a formal diagnosis of ASD, b) non-verbal IQ >70 as measured by the Raven's CPM [2], and c) verbal skills at least at the level of 4-5 word utterances. For the evaluation of verbal and visual-spatial memory skills the Assessment Tool of Memory Deficits in Nursery and Elementary school [3] was administered.

Results: Fifteen out of the twenty children with high-functioning ASD exhibited a significant deficit in one at least domain of memory. Our participants presented more significant difficulties in the recalling of a short story (complicated verbal material) than in list of words(simple verbal material) and in delayed recalling of information.

Conclusions: Children with ASD and normal intelligence face significant memory difficulties and notion should be given in assessment and treatment of execution function impairments in this population.

References:

1. J Boucher, A Mayes. Memory in ASD: have we been barking up the wrong tree? *Autism* 2012, 0: 1-9.
2. G Sideridis, F Adoniou, A Mouzaki, P Simos. Raven's Educational CPM/CVS. Athens: Motivo 2015
3. I Bezevegis, A Ikonomou, K Milonas. The Assessment Tool of Memory Deficits in Nursery and elementary school. Athens: National Ministry of Education.

**P27 Dysregulated breastfeeding behavior in toddlers diagnosed with autism:
a case study**

Marina Arampatzi, Evdokia Tagkouli, Gerasimos Kolaitis

Department of Child Psychiatry, 'Aghia Sophia' Children's Hospital, Faculty of Medicine,
National and Kapodistrian University of Athens, Greece

Background: Feeding difficulties in infants can be an early sign of ASD and can play an important role in the child's physical and emotional development.

Materials and methods: This is a case study of an 18- month old boy referred for severe food aversion. The toddler was well within the normal curve for weight, height and head circumference but showed profound food denial for both purees and solids. He demanded to be breastfed approximately every 30 minutes and resulted in extreme distress when denied by the mother. He was clinically assessed by a Feeding Specialist during his meals and a Child Psychiatrist who performed the Autistic Diagnostic Observation Schedule (ADOS 2- T Module) and completed the Autistic Diagnostic Interview (ADI-R) with the toddler's caregivers. A feeding three-day planner was completed by the mother.

Results: During breastfeeding he retained good eye contact with the mother and after the breastfeeding he remained calm and more responsive to external stimuli and could accept some solid food. Soon though he would repeat a number of stereotypic behaviors and finally he would again ask to be breastfed.

Conclusions: This case study suggests that prolonged and dysregulated breastfeeding can be a strategy for self-soothing and self-regulation in toddlers with ASD. Not meeting the expected feeding milestones or the presence of selective food intake in infants and toddlers should be 'red flags' for a possible diagnosis of Autism and should be referred to a specialist team despite the normal weight gain.

References:

1. G. Nadon, D. Feldman & E. Gisel (2013). Feeding issues associated with the Autistic Spectrum Disorders in M. Fitzgerald (ed). Recent Advances in Autism Spectrum Disorders, Volume I . Intech Open
2. Kozlowski A, Matson J, Belva B & Rieske R (2012). Feeding and sleep difficulties in toddlers with autism spectrum disorders. Research in Autism Spectrum Disorders, Vol. 6, pp. 385-390



P28 Investigating the Compensatory Effect of Bilingualism: Cognitive and Linguistics Skills in Monolingual and Bilingual School-Aged Children with Dyslexia

Foteini Prentza¹, Alexandra Prentza², Dionysios Tafiadis³

¹Centre of Educational and Consultative Support of Ioannina, Ioannina, Greece

²Department of Linguistics, School of Philology, Faculty of Philosophy, University of Ioannina, Greece

³Department of Speech & Language Therapy, School of Health Sciences, University of Ioannina, Ioannina, Greece

Background: Given “the bilingual advantage”, both in terms of cognitive and linguistic development, which has been extensively discussed in the relevant literature [1], recent research has set out to examine the possibility that bilingualism can function in a compensatory way for students with learning difficulties or in even for students in the autism spectrum [2]. The present study aims at examining the possible compensatory effect of bilingualism by comparing monolingual and bilingual school-aged children with dyslexia on cognitive and linguistic tasks.

Materials and methods: Fifty-three (53) children, thirty-nine (39) school-aged (8-12 years) monolingual Greek-speaking children and fourteen (14) age-matched bilingual children who were diagnosed with dyslexia participated in the experiment. Children were tested by means of a battery of mathematic tasks tapping the following cognitive areas usually posing problems to dyslexic children [3]: space orientation, analogy, data analysis and strategy (arithmetic/geometric problem solving), number relations and calculation (conducting addition, subtraction, multiplication, division without pen and paper). The mathematic tasks were of two types: tasks involving the linguistic code and tasks were the problem and data were presented only visually.

Results: The statistical analysis involving chi-square tests revealed that bilingual children outperformed monolingual children in the tasks involving understanding number relations and performing calculations (subtraction, multiplication, division) without pen and paper, a linguistic task in our experiment, since data was presented to the children orally. The bilingual group showed a tendency for higher scores in other areas too, without significant differences, however.

Conclusions: These preliminary results suggest that bilingualism does not disadvantage bilingual children, conversely, it may have a compensatory function which speech therapists and clinicians should take into account. Nevertheless, larger samples are necessary for more robust results towards that direction.

References:

1. E Bialystok: Coordination of executive functions in monolingual and bilingual children. *J. Exp. Child Psychol* 2011, 110: 461-468
2. I M Tsimpli, E Peristeri: E. Bilingualism effects on reading comprehension performance of children with neurodevelopmental disorders: Evidence from Developmental Language Disorder and Autism Spectrum Disorder. 14th International Conference on Greek Linguistics, 2019
3. T R Miles: Some theoretical considerations. In Miles, T.R. & Miles, E. (Eds.) *Dyslexia*. Math. 1992, 1-18.

P29 Virtual Supermarket Test: An MCI screening test based on a serious game

Dimitrios Giakoumis¹, Konstantinos Votis¹, Stelios Zygouris², Paraskevi Iliadou², Sofia Segkouli¹, Dimitrios Tzovaras¹, Magda Tsolaki²

¹Information Technologies Institute, Centre for Research and Technology Hellas (CERTH-ITI)

²Department of Neurology, School of Medicine, Aristotle University of Thessaloniki, Greece

Background: In recent years, there has been an ever increasing interest towards the adoption of ICT solutions in the areas of cognitive empowerment and screening of people with cognitive impairments. In this context, the present study summarizes some of the key outcomes that have derived through the research, development and evolving of the Virtual Supermarket (VSM) application.

Materials and methods: The VSM is a 3D virtual reality game, which is aimed at empowering but also helping to examine the cognitive functions of older people, focusing on people with mild cognitive impairment (MCI). The game is delivered via a tablet device, while the elderly are required to find and buy specific items of a list, while virtually navigating within a virtual supermarket environment. During the game, the application records variables related to the elderly person's behavior in the virtual supermarket and their performance. The VSM has been used in recent years within a series of studies that focused on its ability to be used as a screening test for elderly with MCI.

In our first study [1], the VSM application was administered to 55 subjects, elderly with and without MCI (N=34 and N=21, respectively). In that study, the administration was performed by a specialist, following a strict protocol that involved a single trial (single administration of the game test). Subsequently, the application was administered to 12 seniors [N(MCI)=6], who were playing the game freely for one month at home, reaching 20 administrations per person [2].

Results: In both studies, the variables recorded by the application were found to correlate with performance on well-established neuropsychological tests. In addition, by only using the application variables, automatic separation between healthy elderly and patients with HDD was achieved, with a Correct Classification Rate (CCR) of 87.30% in the first study, while in the second study, a percentage of 92% in CCR was reached.

Conclusions: Our results so far indicate that the VSM is a promising tool to help in the assessment of older people with MCI. At present, we are in the process of conducting a new study, in which the application has become fully self-administered and a large-scale sample (N>100) is being used. Specifically, the application now has a 10-15 minute instructions protocol, followed by three 15-20 minute trials, which are used so as to record data that are analyzed towards user performance and cognitive functions assessment.



References:

- [1] S. Zygouris, D. Giakoumis, K. Votis, S. Doumpoulakis, D. Tzovaras, M. Tsolaki, S. Segkouli, "Can a virtual reality cognitive training application fulfill a dual role? Using the Virtual Super Market cognitive training application as a screening tool for mild cognitive impairment", *Journal of Alzheimer's Disease*, Vol. 40, pp. 1-10, 2014
- [2] S. Zygouris, K. Ntovas, D. Giakoumis, K. Votis, S. Doumpoulakis, S. Segkouli, C. Karagiannidis, D. Tzovaras, M. Tsolaki, "A preliminary study on the feasibility of using a virtual reality cognitive training application for remote detection of mild cognitive impairment", *Journal of Alzheimer's Disease* 56, no. 2 (2017): 619-627

P30 TGFB1 gene is a putative pharmacogenomic biomarker for response effectiveness to lithium treatment in Sardinian patients with bipolar disorder

Konstantinos Mitropoulos¹, Evangelia-Eirini Tsermpini², Alessio Squassina³,
Giovanni Severino², Maria Del Zompo³, George P. Patrinos²

¹University of Athens, School of Medicine, Athens, Greece

²University of Patras, School of Health Sciences, Department of Pharmacy, Patras, Greece

³University of Cagliari, Department of Biomedical Science, Section of Neuroscience and Clinical Pharmacology, Monserrato, Cagliari, Italy

Background: Bipolar Disorder (BD) is a severe psychiatric illness characterized by altered episodes of euphoria and dysthymia affecting 1-5% of the general population. Among the various mood-stabilizing treatments, lithium represents one of the primary treatment modalities in the therapeutic management of BD. However, apart from the relatively high rate of responders, a significant percentage of patients fail to fully respond to lithium treatment, presenting with patterns of partial or non-response. This variability might be influenced by genetic factors, even though findings have been so far inconclusive. Our study aimed to identify genetic biomarkers that can serve as indicators of lithium efficacy for patients with bipolar disorder.

Materials and methods: Phenotypic assessment of lithium response was made using the retrospective criteria of long-term treatment response scale. We have genotyped 52 BD patients evenly distributed at the extreme ends of the treatment response scale (Alda scale) using Affymetrix 6.0 single nucleotide polymorphism (SNP) arrays. Data were subsequently analyzed using different analysis tools, used in our previous work, namely EIGENSTRAT filtering and KINGSHIP analysis. Finally, the results were verified in a Sardinian cohort comprised of 201 Sardinian bipolar patients, from which 53 were full responders and 125 partial or no responders to lithium. using Sanger sequencing.

Results: Initial data analysis of the 52 BD GWAS-analysed patients indicated that rs2107506, located on the TGFB1 gene, shows strong association with lithium response. Moreover, statistical significance was revealed ($p=8 \times 10^{-6}$) after the genotyping of 201 Sardinian patients with bipolar disorder.

Conclusions: Our results indicate that TGFB1 gene could be considered yet another potential candidate of lithium response. Patients with bipolar disorder under lithium treatment can benefit from this genetic biomarker, and their quality of life can be further enhanced.



P31 Sex Ratios Variations in Involuntary Psychiatric Hospital Admissions in Northwestern Greece over the last Decade

Maria Bakola¹, Konstantina Soultana Kitsou¹, Vaios Peritogiannis², Thomas Hyphantis³, Philippos Gourzis⁴, Eleni Jelastopulu⁵

¹School of Medicine, University of Patras, Greece, Postgraduate Program of Public Health, Patras, Greece

²Mobile Mental Health Unit of the prefectures of Ioannina and Thesprotia, Society for the Promotion of Mental Health in Epirus, Ioannina, Greece

³University Hospital of Ioannina, Department of Psychiatry, Ioannina, Greece

⁴School of Medicine, University of Patras, Greece, Psychiatry, Patras, Greece

⁵School of Medicine, University of Patras, Greece, Public Health, Patras, Greece

Background: Gender is associated with differences in the prevalence of mental disorders. The percentage of men admitted to mental health inpatient units seems to be higher. However, the association between involuntary admissions (IA) and gender is not clear. The aim of this study was to determine the trends in prevalence of IA in northwestern Greece.

Materials and methods: A retrospective hospital-based study was conducted at the University Hospital of Ioannina, the only referral university hospital for IA in northwestern Greece. Associations between socio-demographic, diagnostic and clinical characteristics for IA were assessed for the period from 2009 to 2017.

Results: A total of 602 compulsory assessments (CA) were identified, 50% were evaluated (every second year), which resulted in a final sample of 284 (85.5%) patients admitted involuntary to the hospital. The prevalence has increased steadily over the years, from 47 (in 2009) to 83 (in 2017) patients. The majority were men (67.5%), mean age 49 years, unmarried (70.2%), living with parents or siblings (74.8%), not working (64.8%), without tertiary education (70.2%) and with residence in Ioannina (51.5%). Males consistently outnumber females in admissions for all years examined, however, this differential has decreased over the last decade (from 1:2.4 to 1:1.3). Schizophrenia (56%) and mood disorder (19.6%) were the main diagnoses associated with IA.

Conclusions: The frequency of involuntary admissions in the observed catchment area seems to increase. Furthermore, a trend toward the increase of female IA is observed. Studies regarding the association between gender and IA show considerable differences across Europe. Even though variations are likely related to differences in legislation and different criteria for IA, the observed trends in northwestern Greece require further exploration.

References:

1. Skokou M, Gouma P, Gourzis P. Compulsory admissions in southwest Greece 2010-2011: A descriptive report. *Psychiatriki.* 2017 Jul-Sep;28(3):265-273.
2. Sheridan Rains L, Zenina T, Dias MC, Jones R, Jeffreys S, Branthonne-Foster S, Lloyd-Evans B, Johnson S . Variations in patterns of involuntary hospitalisation and in legal frameworks: an international comparative study. *Lancet Psychiatry.* 2019 May;6(5):403-417.
3. Bilanakis N1, Kalampokis G, Christou K, Peritogiannis V. Use of coercive physical measures in a psychiatric ward of a general hospital in Greece. *Int J Soc Psychiatry.* 2010 Jul;56(4):402-11.



P32 Depressive and anxious symptomatology in elderly. Search of vulnerability factors through study of genograms

Andreas Solias¹, Dimitra Zacharaki¹, Nikolaos Degleris², Magdalini Tsolaki³

¹Social Worker Municipality of Ilion Attica Greece

²Hellenic Psychiatric Association, Psychogeriatrics Branch, President

³MD PhD 1st Neurologic Dpt AHEPA Hospital

Background: Anxiety and depression are the most common psychiatric disorders in elderly. They greatly affect the quality of life and are barriers to successful aging. The study of pre-morbid personality is a research question.

Materials and methods: Cross-sectional study in an urban area (Municipality of Ilion, Attiki). 411 genograms were collected. The mean age of the participants (\bar{x} 32,6% ♀67,4%), was 71.97 years old (s.d. 7.06). We investigate for correlation between socio-demographic factors and traumatic life events from a) childhood-teenagerhood b) the last decade with the depressive and anxiety symptomatology in elderly. The Geriatric Depression Scale (GDSsf) was applied to assess the depressive symptomatology and Beck's Anxiety Inventory (BAI) anxiety.

Results: The 86.9% of the participants was born in families with more than 4 children. 74% were born in villages or small towns. Despite the poverty and the enormous adversities, due to poverty, the WWII and the followed civil war, 52.6% reported that their parental family was loving and supportive. According to scales score, 4% and 7.6% presented severe degree of anxious and depressive symptomatology. Whereas Medium degree presented 14.8% and 20.5% respectively. The non-parametric test showed statistical significant difference in the test product in parameters: education, number of siblings (in parental families), orientation of family (caring, surviving). The depressive symptomatology was affected by age. The anxiety by gender and age.

Conclusions: The study of genograms helps us becoming aware of a more clinical approach of epidemiologic data. The preliminary findings leading to the continuation of the study to explore the correlations in depth.

References:

1. Moceri V.M, Kukull W.A., Emanuel I., van Belle G., Larson E.B. Early-life risk factors and the development of Alzheimer's disease Neurology Jan 2000, 54 (2) 415; DOI: 10.1212/WNL.54.2.415
2. Weissman M. Women's increased vulnerability to major depression: cross - national perspectives. WPA bulletin in depression Vol.2- No.4, 1994 1-3

P33 Anxiety disorders after traumatic brain injuries in young male adults due to road traffic accidents. Report of four cases

Nikolaos Syrmos, Vaitsa Giannouli, Georgios Gavridakis, Kostantinos Grigoriou, Vasilios Valdakis, Dimitrios Arvanitakis

Aristoteleian University of Thessaloniki, Thessaloniki, Macedonia, Greece and Venizeleio Hospital Heraklion, Crete, Greece

Background: Aim of this study is to present cases of anxiety disorders after traumatic brain injuries in young male adults.

Materials and methods: Four cases are presented. 4 male adults, range of age 30-40, mean age 36. All of them reported anxiety disorders during the post traumatic period after road traffic accidents. 1 case of panic disorder after frontal and temporal brain concussion, 2 cases of social anxiety disorders after small subdural traumatic brain hematomas with conservative neurosurgical treatment and 1 case of post traumatic stress disorder in a multiple trauma (brain and spine) patient.

Results: All of them they receive appropriate neurological, psychiatric, psychological and rehabilitation support and treatment. 3 of them (75%) they managed to have a good outcome after 3 to 6 months follow up

Conclusions: The development of anxiety disorders after such traumatic events remains a strong predictor of a variety of dysfunctions (social, personal, work etc)

- . The emergence of anxiety in many cases remains unexplored and poorly understood
- . The combination and collaboration of the various medical disciplines is essential in order to help young patients.



P34 Old Age Psychiatric Clinic Ten Years of Service

Theofanis Vorvolakos, Zina Maridaki, Aikaterini Arvaniti, Maria Samakouri

Department of Psychiatry Democritus University of Thrace, Greece

Background: Old Age Psychiatric Clinic was founded in Alexandroupolis Hospital since 2009. It was the first specialized clinic in the Psychiatric Department of Alexandroupolis and also the first Old Age Clinic in Eastern Macedonia and Thrace region. More than 250 patients from all parts of the region have been followed up in regular visits during these years.

Materials and methods: Detailed history of each patient is kept for every patient in Hospital's database. A wide battery of bed side scales that measure cognitive functioning and overall mental health and functioning are performed in each patient in each visit also. This battery includes Mini Mental State Examination (MMSE), Mini Cog, Mini Plus tests, Geriatric Depression Scale (GDS), Semantic and Verbal fluency tests and clock test. In this study we present the retrospective evaluation of demographic data diagnosis and overall course of the main disorders of clinic's outpatients. Paired t-test was used for the comparisons.

Results: Patients main age was 74, 65 years (SD 7, 62) of them 75% were women. The main population that is served comes from Evros prefecture (80%); the two main diagnoses were Depression (44%) and Dementia (41%). Patients were followed up with every four months. Depressive patients seemed to respond better to the treatment and they improved significantly through time, it was measured in nine consecutive visits in a time span of around four years of follow up, that is clear in the decline of GDS score while their overall cognitive function remained stable. Patients suffering from dementia performed worse and although their cognitive function was decreasing in a relative slow pace, their depressive symptoms persisted.

Conclusions: Old age psychiatry clinic is a well established clinic in Alexandroupolis hospital after ten years of continuous service. Despite that during this time it has not be able to cover more of the region as it was aimed to since the vast majority of the outpatients comes from Evros Prefecture. Its performance is quite satisfactory regarding old age depression, which accounts to almost half of clinics outpatients but is moderate regarding patients suffering from dementia. The routinely use of psychometry and its research work is also among the characteristics that help this clinic to approach its goals despite its shortcomings.

P35 Students Evaluation of Outpatient Services in Democritus University of Thrace Psychiatric Department

Theofanis Vorvolakos, Maria Polimenidou, Pavlos Paraskevopoulos,
Aikaterini Arvaniti, Maria Samakouri

Department of Psychiatry Democritus University of Thrace

Background: Outpatient Services is a quite advanced branch of Democritus University of Thrace Psychiatric Department. It consists of various therapeutic structures that are placed in various locations throughout Alexandroupolis municipality.

Materials and methods: Students that attend the topic 'Practical Exercise in Social Psychiatry' are obliged as part of their practice to attend one therapeutic session in one of the following outpatient services: Day Centre, Rehabilitation Hostel, Residential Hostel, Child Psychiatry Centre, Mental health Centre. After that they have to complete an extensive questionnaire in which they evaluate the service they attended in three levels: Infrastructure, Level of care, Team work. The evaluation is both quantitative rating each level in a scale from 1 to 5 and qualitative because except the rating they have to make some comments about service function as well as to report their personal opinion. We used students questionnaire for the last 8 years that this exercise take place. Overall 363 questionnaires were completed. We used students' ratings to compare in the above mentioned levels the various services and also to measure any differences in students' impression through time.

Results: Small differences were observed in the overall impression of the students regarding the different services. A notable exception is the impression of the Rehabilitation Hostel that is rated higher both in infrastructure and level of care and second higher in team work. Regarding the evolution of the students impression of the services through time, a gradual improvement that ended up in a statistically significant difference was observed in the Level of care ($p=0,021$) while the other two levels were stable through time.

Conclusions: The overall impression of students regarding level of care and team work is very good but their impression regarding infrastructure is moderate. Rehabilitation Hostel gives the best impression to naïve observers of the service, like 4th semester students and finally impression of level of care seems to improve through time while impression regarding infrastructure as well as team work remains stable



P36 Correlation of schizophrenia with microglial cell growth and dysfunction

Ch. Kounatiadou, Aikaterini Arvaniti, Theofanis Vorvolakos, Maria Samakouri

Departement of Psychiatry Democritus University of Thrace Alexandroupolis Greece

Background: Microglia are the mononuclear phagocytes of the central nervous system (CNS) also involved in synaptic formation, maintenance of biochemical homeostasis, neuronal circuit maturation during development and experience-dependent remodeling of neuronal circuits in the adult brain. There are a significant number of studies showing an increase in microglial markers and pro-inflammatory gene expression in the post-mortem brains of patients with schizophrenia compared to controls.

Materials and methods: Review the recent research this is related to the correlation between microglia and schizophrenia. Thirty-eight (38) PUBMED papers, identified with keywords microglia and schizophrenia, were reviewed

Results: Literature findings point to excessive pruning as a potential target for delaying or preventing the onset of schizophrenia in high-risk individuals. Microglia play an important role in synaptic pruning and their over-activation, induced by a heightened inflammatory state, might help to explain the evidence of synaptic loss associated with schizophrenia.

Conclusions: Focusing on a better understanding of the normal physiological function of microglial cells during development and injury could provide clues as to whether their activation is a result or cause of schizophrenia.

P37 The possible contribution of the MT1 & MT2 melatonin receptors to schizophrenia

Elishana Menachili¹, Theofanis Vorvolakos³, Evangelos Manolopoulos²,
Aikaterini Arvaniti³, Maria Samakouri³

¹Departement of Molecular Biology and Genetics, Democritus University of Thrace/ Al-exandroupolis Greece

²Laboratory of Pharmacology, Faculty of Medicine Democritus University of Thrace/Al-exandroupolis Greece

³Department of Psychiatry, Faculty of Medicine, Democritus University of Thrace/Alexandroupolis Greece

Background: More and more studies suggest the contribution of melatonin in the prevention and management of geriatric psychiatric disorders, neuroprotective action and its involvement in schizophrenia.

Materials and methods: Genomic DNA was isolated in 57 psychotic impatients, by using Genta Puragene Blood Kit by Qiagen company. In order to define gene polymorphism, Polymerase Chain Reaction-Restriction Fragment Length Polymorphism (PCR-RFLP), method, was used.

Results: In our study, the genotypic (top right table) and phenotypic profile (bottom right table) of patients with schizophrenia showed that they have a lower catalytic activity of CYP1A2 compared to the general population, which may lead to increased melatonin levels.

Conclusions: CYP1A2, one of the hepatic cytochromes whose frequency was studied, has an endogenous substrate, melatonin, whose levels are believed to determine the appearance of the disease and the onset and severity. Literature search indicates that, melatonin receptors MT1 and MT2 inhibit dopamine uptake, but whose levels are increased in schizophrenia, suggesting a reduced activity of the former. Indeed, this inhibitory effect is not dependent on receptor stimulation, so melatonin levels are probably not directly related to intracellular dopamine levels.



P38 Depressive disorders after traumatic wishplash cervical spine injuries in young male adults due to amateur sports sea acitivity.

Nikolaos Syrmos, Vaitsa Giannouli, Georgios Gavridakis, Argyrios Mylonas, Dimitrios Arvanitakis, Georgios Ampatzidis

Aristoteleian University of Thessaloniki, Thessalonik, Macedonia, Greece and Venize-leio Hospital Heraklion, Crete, Greece

Background: Aim-Aim of this study is to present cases of depressive disorders after traumatic wishplash cervical spine injuries in young male adults due to amateur sports sea activity.

Materials and methods: Material and methods-2 cases are presented. 2 male adults, 23 and 26 years old .Both of them reported depressive disorders during the post traumatic period after traumatic wishplash cervical spine injuries due to amateur sports sea activity.

Results: Results-Both of them they receive appropriate neurological, psychiatric, psychological and rehabilitation support and treatment. They managed to have a good outcome after 3 months follow up.

Conclusions: Conclusions-The development of depressive disorders after such traumatic events remains a strong predictor of a variety of dysfunctions (social, personal, work etc). The emergence of depressive disorders in many cases remains unexplored and poorly understood . The effect into the athletic performance and in the overall health remains a very important factor to investigate. The combination and collaboration of the various medical disciplines is essential in order to help young amateur athletes.

P39 Parental stress and quality of life in families with child with autism spectrum disorder (ASD)

Angelos Papadopoulos^{1,2}, Vassiliki Siafaka³, Efthimis Dimakis⁴, Dionysus Tafiadis³, Petros Skapinakis¹, Meropi Tzoufi¹

¹Faculty of Medicine, University of Ioannina, Ioannina, Greece

²General Children Hospital of Patras, Patras, Greece

³Department of Speech & Language Therapy, University of Ioannina, Ioannina, Greece

⁴Department of Mathematics, University of Ioannina, Ioannina, Greece

Background: Autism spectrum disorders are a group of neurodevelopmental disorders and affect 1/68 children in the general population. Evaluation of factors affecting Quality of Life in families with a child with ASD continues to be of interest [1]. Apart from the characteristics of the disorder, a variety of psychosocial factors can affect the QoL of these families. The aim of the study was to assess the parental stress and its impact on the QoL of the family.

Materials and methods: The study involved the mothers of 53 children (42 boys and 11 girls, age range 2,05-8,03 years) with ASD. Specifically, the sample consisted of 53 mothers (median age 39 years and age range 31-49 years) who completed the following questionnaires: 1. The Beach Center Family Quality of Life Scale[2] and 2. The Autism Parental Stress Index[3].

Results: The total mean score on APSI was 21.86 ± 10.13 . Regarding the effects of the child's ASD on the family, the total mean score of the Family QoL Scale was 92.13 ± 14.99 . Significant negative correlation was observed between parental stress and FQoL ($r = -0.557$, $p= .000$), indicating that the higher the stress, the lower the quality of life in families. All the demographic characteristics of the sample and the clinical characteristics of the children were controlled for correlations with and the FQoL. Two statistically significant correlations were demonstrated between the family status and the family income with FQoL ($p=.000$ and $p=.000$ respectively).

Conclusions: The development of support services and the implementation of appropriate interventions for parents to reduce negative thoughts and feelings could have a beneficial effect on the stress levels experienced due to bringing up a child with ASD and on the FQoL.

References:

1. Predescu E, Şipoş R: Family quality of life in autism spectrum disorders (ASD). *Autism: Paradigms, Recent Research and Clinical Applications* 2017, 87.
2. Parpa E, Katsantonis N, Tsilika E, Galanos A, Mystakidou K: Psychometric properties of the family quality of life scale in Greek families with intellectual disabilities. *Journal of Developmental and Physical Disabilities* 2016, 28(3), 393-405.
3. Silva L M T, Schalock M: Autism parenting stress index: Initial psychometric evidence. *Journal of Autism and Developmental Disorders* 2012, 42, 566-574.



P40 Investigate the effect of mindfulness training on critical thinking, working memory capacity and emotion regulation

Parvin Hasanzadeh Sabloe, Farshid Khosropour

Department of Psychology, Zarand Branch, Islamic Azad University, Zarand, Iran

Background: Mindfulness is a type of attention that people can engage in which is purported to have many benefits. Mindfulness means paying attention only to what is happening right now without getting caught up in it or reacting to it emotionally. Critical Thinking(CT) is the ability to analyze and evaluate evidence and arguments without bias from experience and prior knowledge. The application of CT requires a non-automatic response to a problem situation in order to avoid heuristic and biased thinking. Although previous evidence suggests that Working Memory Capacity (WMC) is important for success at Emotion Regulation(ER), that evidence may reveal simply that people with higher WMC follow instructions better than those with lower WMC.

Materials and methods: The purpose of this study was to investigate the effect of mindfulness training on critical thinking, working memory capacity, emotion regulation among Zarand Medical Science University students. The research method was quasi-experimental and pre-test, post-test with control group. The statistical population consisted of all(290 participants) postgraduate students of Zarand Medical Science University. The sampling method was simple. Forty subjects were selected and randomly divided into control and experimental groups (20 participants in each group). The experimental group participated in eight sessions of mindfulness therapy. The control group received no training. Subjects responded to the Ricketts Critical Thinking (2003) Daniman & Carpenter's Working Memory Capacity (1980) Shot and et al Emotional Intelligence Questionnaires.

Results: Data were analyzed using co variance method. Results showed that mindfulness program increased students' critical thinking awareness, working memory capacity, emotional adjustment.

Conclusions: In summary, mindfulness appears to facilitate, critical thinking, working memory capacity and emotion regulation. However, this effects are complex. These findings suggest many possibilities for future research. In order to support the claim that mindfulness can improve emotion regulation, careful intervention research will be needed.

References:

1. M Allen, M Dietz, K S Blair, M Van Beek, G Rees, P Vestergaard-Poulsen, et al. Cognitive-affective neural plasticity following active-controlled mindfulness intervention. *Journal of Neuroscience* 2012;32, 15601-1561
2. C LAnicha, S Ode, S K Moeller, M D Robinson:Toward a cognitive view of trait mindfulness: distinct cognitive skills predict its observing and non reactivity facets. *Journal of Personality* 2011; 80, 255-285
3. M Baas, B Nevicka, F S Ten Velden: Specific mindfulness skills differentially predict creative performance. *Pers. Soc. Psychol. Bull* 2014; 40 1092-1106
4. E Bohlmeijer, P M Ten Klooster, M Fledderus, M Veehof, R Baer: *Psychom*

P41 Investigate the relationship between Exhibitive Traits, Irrational Beliefs and Self- Control with extramarital relationships

Fatemeh Sadat Mirkamali

Department of Psychology, Zarand Branch, Islamic Azad University, Zarand, Iran

Background: The meaning extramarital involvement holds for couples is socially defined and covers a broad spectrum, ranging from nothing more than a transgression to a severe threat to the marital bond. While the role of individual characteristics has been examined for extramarital sexual involvement, the literature has yet to document personal factors associated with the termination of an affair. Irrational beliefs are believed, in cognitive behavioral therapies, to be a prime cause of psychopathologies including anxiety, depression, problem eating, and alcohol misuse.

Materials and methods: This study was conducted to investigate the relationship between Exhibitive Traits, Irrational Beliefs and Self-Control with extramarital relationships. The research method was correlational. The statistical population consisted of all married female employees(200 women) of Department of Commerce in city of Kerman. Based on Morgan table 127 women were selected. The sampling method was used in this research. Participants responded to the Whitley extramarital relationships(2006) Ferguson and Negi exhibitive traits (2014) Jones's irrational beliefs (2000) Tanjani et al self control (2004) questionnaires. Data were analyzed using Pearson correlation coefficient and multiple regression.

Results: The results showed that there was a direct relationship between exhibitive traits, irrational beliefs and extramarital relationships. There was an inverse relationship between self-control and extramarital relationships. Self-control, irrational beliefs, demonstrative traits had the most role in explaining extramarital relationships, respectively.

Conclusions: A further descriptive analysis suggests that this relationship may hold only for women in sexual affairs. The implications of these findings, methodological advances, and limitations of this study will be discussed. exhibitive traits, irrational beliefs, and self-control as a motivation factor can effect the extramarital relationships. Therefore, they should be taken into consideration.

References:

1. S Hadi, H skandari, F sohrabi, A Moetamedi, N Farokhi: Structural models predict marital commitment based on attachment styles and mediator variables self-control and early maladaptive schemas (in people with emotional extramarital relations). Journal of Counseling and Therapeutic Culture 2016, 7(28):33-60
2. K C Gordon, D H Baucom, D K Snyder: An integrative intervention for promoting recovery from extramarital affairs. Journal of marital and family therapy 2004,30(2): 213-231
3. F D Fincham, R W May: Infidelity in romantic relationships. Current Opinion in Psychology 2017,13: 70-84
4. D Balliet, N P Li, J Joireman: Relating trait self-control and forgiveness within prosocials and proselves: Compensatory versus synergistic models. Journal of personality and social psychology 2011, 101(5):1090-1105



P42 The mediating role of depression in the relationship between alexithymia and the severity of irritable bowel symptoms

Hamid Reza Hamdam, Farshid Khosropour

Department of Psychology, Zarand Branch, Islamic Azad University, Zarand, Iran

Background: Alexithymia is a personality construct characterized by the subclinical inability to identify and describe emotions experienced by one's self or others. People with alexithymia may have problems maintaining relationships and taking part in social situations. Irritable bowel syndrome is a common, long-term condition of the digestive system. Symptoms can include stomach cramps, bloating, diarrhea and/or constipation. Depression is a mental disorder characterized by low mood that is present across most situations. It is often accompanied by low self-esteem, loss of interest in normally enjoyable activities, low energy, and pain without a clear cause.

Materials and methods: The purpose of this study was to investigate the mediating role of depression, in the relationship between alexithymia and the severity of irritable bowel symptoms. The statistical population of this study included 200 patients referred to Kerman Healing Center. The sample size was 125 according to Morgan's table. The Alexithymia Toronto (1994) Irritable Bowel Syndrome Symptom Severity Index (2004) and Beck Depression (2000) Questionnaires were used. Data were analyzed using descriptive statistics, correlation coefficient and regression analysis.

Results: The results showed that alexithymia exacerbated irritable bowel symptoms through depression.

Conclusions: This study emphasizes on the role of depression especially in the irritable bowel symptoms. So, it seems that assessment and considering depression as an effective factor in the treatment of these patients is essential.

References:

1. M Kano, S Fukudo: The alexithymic brain: the neural pathways linking alexithymia to physical disorders. *BioPsychoSocial medicine*. 2013, 7: 1-10
2. B M Herbert, C Herbert, O Pollatos: On the relationship between interoceptive awareness and alexithymia: is interoceptive awareness related to emotional awareness?. *J Pers* 2011, 79: 1149-1175
3. A S Fauci, E Braunwald, D L Kasper, S L Hauser, D L Longo, J L Jameson, et al: Irritable Bowel Syndrome. in: *Harrison's Principle's of Internal Medicine*. 17th ed. New York; McGraw-Hill Companies 2008, 1899- 903
4. Y Tanaka, M Kanazawa, S Fukudo, D A Drossman: Bio psychosocial model of irritable bowel syndrome. *J Neur Gastroenterology Mot* 2011, 17: 131-139

P43 The Relationship between attitude toward love and spiritual attitude in predicting of emotional divorce and attitude to extramarital relationship

Fatemeh Sadat Mirkamali

Department of Psychology, Zarand Branch, Islamic Azad University, Zarand, Iran

Background: Psychologists believe that the health of the family can be achieved by establishing a strong love between woman and man. Therefore, extramarital phenomenon is among the problems of concern in all communities. Extramarital relationship rate is increasing in various countries. Divorce starts with the experience of emotional and extramarital relationship between couples and ends by making effort to solve the conflict through separation and entering into a new position with a new set of roles and lifestyle.

Materials and methods: The purpose of this study was to investigate the role of attitude toward love and spiritual attitude in predicting of emotional divorce and attitude to extramarital relationship. The research method was correlational. The statistical population of the study was couples seeking counseling in psychological centers (75 women and 75 men). Participants completed the Piedmont Spiritual Excellence (1999) Waterley Attitude to Extramarital (2008) Hendrik Attitude to Love (1997) and Gutman Emotional Divorce (2000) Scales. Data were analyzed using correlational and multivariate regression analysis.

Results: The results showed that there was a significant relationship between attitude toward love and spiritual attitude to extramarital relationship. There was a significant relationship between attitude toward love and spiritual attitude and emotional divorce. According to the multivariate relationship, attitudes to love and spiritual attitude had the greatest role in predicting emotional divorce and extramarital relationship, respectively.

Conclusions: Society are expected to provide measures to effectively identify the economic, social, family and individual causes of divorce and to make correct decision plan to reduce these factors. The findings of this study provide information about divorce applicant women and men, we cannot judge the others. Another research limitation that maybe influencing in results of study is cultural factors. Therefore, further study in difference society could provide comprehensive information in this area.

References:

1. A Abedi, G Movallali, M Rostami, P R Soltani, A Dadkhah: The effect of a life skills training program component Enrich marital satisfaction of Iranian Deaf Women. Journal of Applied Psychological Research 2015,6(3): 115-131
2. A Afshani, J Medahi, M Karimi, M Yazdan, M R Sharafabadi : The role of virtual social networks in extramarital relationships (with emphasis on mobile virtual networks). Social Studies Quarterly 2017,4 (50): 135-158
3. S Borhanizad,R Abdi: The role of the character's dark triangle dimensions in predicting the intimacy and attitudes of couples applying for divorce. Quarterly journal of thought and behavior 2017,11 (45): 17-26
4. J E Crowley: Gray Divorce: Explaining Midlife Marital Splits. Journal of Women and Aging 2017,10(1): 1-24



P44 Biomarkers of stress and stress system response to moral cognition tasks in school aged children with neurodevelopmental disorders

Sofia Anesiadou¹, Gerasimos Makris¹, Maria Michou¹, Ioannis Papassotiriou¹, Paraskevi Bali¹, Filia Apostolakou¹, Panagiota Korkoliakou¹, Charalampos Papageorgiou², Panagiota Pervanidou¹

¹First Department of Pediatrics, Unit of Developmental and Behavioral Pediatrics, School of Medicine, National and Kapodistrian University of Athens, "Aghia Sophia" Children's Hospital

²First Department of Psychiatry, School of Medicine, National and Kapodistrian University of Athens, "Eginition" University Hospital, Athens, Greece

Background: Studies in individuals with neurodevelopmental disorders show dysfunction of the Hypothalamic -Pituitary- Adrenal axis (HPA). There is evidence that children with Autism Spectrum Disorder (ASD), Attention Deficit/Hyperactivity Disorder (ADHD) and in children with Specific Learning Disorders (SLD), have a moderate or a significant deviation of the regular stress system function. The aim of the research was to assess diurnal rhythms and stress responses of both HPA axis and the sympathetic nervous system (SNS), in children with High Functioning Autism/Asperger Syndrome, ADHD and SLD compared to typically developing controls (TD)

Materials and methods: The sample consisted of 157 school aged children, who provided cortisol and alpha-amylase (sAA) saliva samples, as biomarkers of HPA axis and SNS activity, respectively, at three specific time points during a day. Also they provided both saliva samples before and 5 min after an academic performance task. Mann-Whitney U test was used to evaluate changes in cortisol and sAA levels between each clinical and the TD group. Multiple linear regression models were used to estimate if a neurodevelopmental disorder and various characteristics of the participants were predictors for cortisol and sAA levels

Results: ADHD children had lower evening and diurnal sAA levels, whereas ASD children showed lower diurnal sAA secretion adjusted for sex, age, and general IQ. Moreover, an increase in sAA levels was found in ASD and ADHD children, after the academic performance testing

Conclusions: Alterations regarding autonomic function in children with ASD and ADHD were observed, while HPA axis functioning did not differ between the clinical groups and the TD group

References:

1. Chrousos, G. P. (2009). Stress and disorders of the stress system. Nature Publishing Group, 5(7), 374-381. <https://doi.org/10.1038/nrendo.2009.106>
2. Corbett, B. A., Mendoza, S., Abdullah, M., Wegelin, J. A., & Levine, S. (2006). Cortisol circadian rhythms and response to stress in children with autism. Psychoneuroendocrinology, 31, 59-68. <https://doi.org/10.1016/j.psyneuen.2005.05.011>

3. Corbett, B. A., Muscatello, R. A., & Baldinger, C. (2018). Comparing stress and arousal systems in response to different social contexts in children with ASD. *Biological Psychology*, 140, 119-130. <https://doi.org/10.1016/j.biopsycho.2018.12.010>
4. Hastings, P. D., Fortier, I., Utendale, W. T., Simard, L. R., & Robaey, P. (2009). Adrenocortical functioning in boys with attention-deficit/hyperactivity disorder: Examining subtypes of ADHD and associated comorbid conditions. *J Abnorm Child Psychol*, 37, 565-578. <https://doi.org/10.1007/s10802-008-9292-y>



P45 Depression mediates the relationship between HbA1c and BMI with well-being in Type 2 Diabetes Mellitus patients

Anastasia Antoniou¹, Alexis Sotiropoulos², Efstatios Skliros²,
Anastasios Koutsovasilis², Rossetos Gournellis¹, Ourania Stasinopoulou¹,
Athanasios Raptis³, Athanasios Douzenis¹, Panagiotis Ferentinos¹

¹National and Kapodistrian University of Athens, 2nd Division of Psychiatry/ Attikon University Hospital, Attica, Greece

²3rd Department of Internal Medicine and Diabetes Center / General Hospital of Nikaia-Piraeus "O Agios Panteleimon", Attica, Greece

³National and Kapodistrian University of Athens, 2nd Department of Internal Medicine/ Attikon University Hospital, Attica, Greece

Background: Type 2 Diabetes Mellitus (T2DM) is a common disorder with various medical and psychological complications. This study aimed to investigate predictors of well-being in T2DM patients with no known psychiatric history and the mediating role of anxiety and depression.

Materials and methods: We recruited 175 T2DM outpatients (54.3% males, mean age 59.9 years). Well-being was recorded with the 14-item Mental Health Continuum-Short Form (MHC-SF), measuring emotional (EWB), social (SWB) and psychological (PWB) well-being. Hospital Anxiety and Depression Scale (HADS) was used for screening anxiety (HADS-A) and depression (HADS-D). Glycemic control (HbA1c), BMI, HADS-A and HADS-D were investigated as predictors of MHC-SF total score (WBT) or its three dimensions in linear regressions adjusting for patients' demographics, T2DM duration, comorbid hypertension/ dyslipidemia and medication type. Mediation effects were explored in path analyses.

Results: 21.1% of participants had comorbid depression (HADS-D \geq 11) and 5.1% comorbid anxiety disorder (HADS-A \geq 11). WBT, EWB and PWB were significantly predicted by HbA1c ($p=0.001$) and BMI ($p<0.05$) in the models without HADS. Once included in the model, HADS-A and HADS-D significantly predicted WBT and all well-being dimensions, but the effects of HbA1c and BMI were no longer significant. In path analyses, the effects of both HbA1c and BMI on WBT, EWB and PWB were completely mediated by HADS-D but not HADS-A.

Conclusions: This is the first study using MHC-SF to measure well-being in T2DM patients. We recorded high levels of undiagnosed depression, which fully explained the effects of HbA1c and BMI on well-being. The interplay of glycemic control and positive mental health warrants further investigation.

P46 Driving behaviour in depression: findings from a driving simulator study

Vagioula Tsoutsis^{1,2}, Dimitris Dikeos¹, Maria Mpasta³, Maria Papadakaki²,

¹First Department of Psychiatry, Medical School, National & Kapodistrian University of Athens, Eginition Hospital, Athens, Greece

²Laboratory of Health and Road Safety, Department of Social Work, School of Health and Social Welfare, Hellenic Mediterranean University, Heraklion, Crete, Greece

³Department of Psychiatry, University Hospital of Heraklion, Voutes, Heraklion, Crete, Greece

Background: Depression is characterized by mental, emotional and executive dysfunction, and it may have an impact on driving behaviour.

Materials and methods: Forty patients with depression and 40 healthy controls will be finally recruited. An interim report is presented from the first 13 patients and 18 healthy controls. Participants completed questionnaires and scales on demographics, driving experience and habits, mental and physical health, and were tested in a driving simulator. Data included Lateral Position (LP); speed and maintaining distance from the preceding vehicle; change of steering position; and reaction time.

Results: History of road collisions was positively correlated to depression, body mass index (BMI) and next-day consequences of sleep disturbance. Aggressive driving as assessed by the Driver Stress Inventory was positively correlated to fatigue and sleep disturbances and negatively to depression and next-day consequences of sleep disturbance. A reduced ability to maintain constant vehicle velocity was positively correlated to BMI and insomnia. An LP towards the middle of the road was associated with anxiety. An LP towards the shoulder (indicating a more defensive way of driving) was associated with depression and next-day consequences of sleep disturbance, while a positive correlation was found between distance from the preceding vehicle (also an indicator of defensive driving) and use of drugs with potential hypnotic effects.

Conclusions: Our interim findings show that depression, sleep and anxiety measures correlated with various aspects of driving behaviour. Patients may be using compensatory mechanisms to counteract some of the effects of depression and its treatment on their driving performance.



P47 Auditory Processing in Alzheimer's Disease using EEG

Christina Georgalli

School of Psychology, University of Glasgow, Scotland, United Kingdom

Background: Alzheimer's disease (AD) is a progressive neurodegenerative disorder which is associated with cognitive impairment and memory loss. By 2050, nearly 14 million (13.8 million) Americans over age 65 could be living with the disease [1]. Electroencephalography (EEG) with reduced levels of maladaptation reveal the presence of hidden neurodegenerative disorders and resistance to memory or psychiatric complaints such as AD. The importance of EEG in diagnosing differences in common causes of dementia depends on specific clinical issues.

Materials and methods: Motivated from relevant studies, we propose the importance and utility of the identification and discrimination of suitable biomarkers. In our study we compare the effects from measurements of amplitude for three different latencies: 0 and 50 ms, 50 and 100ms and 100 and 200ms. We consider three different events, i.e. new event, old event and difference between new and old event, using EEG data gathered from a specific memory task. The study collected data from 136 participants based on two groups of 73 belonged to the control group while 63 belonged to the patient group. A t-test was used after a preliminary exploratory data analysis.

Results: The results indicate that there is no significant difference between the control and patient group at 0 to 50 amplitude latency. However, study concluded a statistically significant difference between control and patient group at 50 to 100 and 100 to 200 ms amplitude latency.

Conclusions: These results make an empirical contribution to auditory deficits in AD and can be utilized to offer diagnostic criteria of the disease in the future.

Acknowledgements: I would like to thank the following people for helping with this research project and its presentation:

Dr Kerry Kilborn (University of Glasgow) who supervised the research and supported my ideas and Dr Kostas Triantafyllopoulos (University of Sheffield) for his willingness to help me to advance my knowledge.

References:

1. L E Hebert, J Weuve, PA Scherr , DA Evans: Alzheimer's disease in the United States (2010-2050) estimated using the 2010 Census. *Neurology*, 2013 May 7;80(19):1778-1783

P48 Clozapine-induced pleural fluid eosinophilia

Ilias Papanikolaou³, Petros Argitis¹, Christina Tsitou², Klaountia-Olimpia Lakoniti², Eleni Kotsi², Ioannis Tsamis⁴, Zannis Chaviaras¹

¹Psychiatric Department / General Hospital of Corfu, Corfu, Greece

²Internal Medicine Department / General Hospital of Corfu, Corfu, Greece

³Pulmonology Department / General Hospital of Corfu, Corfu, Greece

⁴Psychiatric Department / General Hospital of Giannitsa, Gannitsa, Greece

Background: Clozapine is approximately 50% more efficient than other antipsychotics in treatment resistant schizophrenia. Nevertheless it is associated with rare and possibly fatal side effects. We present a rare case of clozapine-induced peripheral and pleural fluid eosinophilia.

Materials and methods: In the context of investigating the cause of the patient's dyspnea, a variety of examinations were carried out. Between these examinations the x-ray and the chest computed tomography (CT) demonstrated the presence of pleural fluid. In addition the CT scan confirmed that there was no possibility for pulmonary embolism. The samples that were taken from the pleural fluid and the blood excluded the presence of a microbial agent that could cause this pleural disease. Furthermore in both blood and pleural fluid the percentage of eosinophilic cells was superior than the regular reference range. The patient's ejection fraction was preserved and also the probability of self-immune or rheumaologic mechanism was negative according to unremarkable amounts of ANA antibodies and other serum studies. As a response to the serositis that the CT scan was shown, the patient received cortisone therapy and presented improvement both in his blood examinations and pleural fluid.

Results: In conclusion we could suppose that clozapine was the main cause of this eosinophilia pleural fluid reaction in our case.

Conclusions: It is considered to be a rare case in everyday practice and even scarcer to find references in international literature of drug-induced pleural fluid eosinophilia. Clinicians should consider clozapine as a possible cause of these reactions.



P49 Antipsychotic induced constipation in patients with mental disorders treated with the 5 HT4 agonist prucalopride - a randomized prospective control trial

Panagiotis Bouras², Petros Argitis¹, Marigo Theodorou³, Anastasios Porfiris³, Dimitrios Garnelis¹, Theodoros Koukouras¹, Olena Rudenko², Sapfo Karavvias¹, Zannis Chaviaras¹

¹Psychiatric Department / General Hospital of Corfu , Corfu , Greece

²General and Family Medicine Department / General Hospital of Corfu , Corfu , Greece

³Surgical Department / General Hospital of Corfu , Corfu , Greece

Background: Successful stabilization of patients with mental disorders requires most of the times more than one antipsychotic medications, while constipation remains a debilitating side effect with recurrent episode of paralytic ileus of various severity at severe cases Prucalopride, a clorium secretagogue agent, selective 5 HT4 bowel receptor agonist of cells outlining the myenteric plexus, smooth muscle and enterochromaffin, results at osmotic defecation. This substance has been studied at irritable bowel disease patients (chronic constipation type) while cattered reports retrieved from the literature to treat clozapine induced constipation. Following this, we shall design and implement a RCT to test prucalopride efficacy at constipation resolution in this patient group, not further amenable to conservative treatment.

Materials and methods: The study will enroll patients with mental disorders needed at least 1 antipsychotic medication for stabilization and refractory constipation, defined as less than 4 bowel movements pro week. Further inclusion criteria are adult patients, no coexisted severe acute medical illness, negative history of malignancy, severe respiratory or cardiac disease and negative endoscopic evaluation of the large bowel for concomitant diseases. Patients will then be randomized into two groups, one receiving prucalopride and the other adhere at the conservative measures. Response will be defined as weekly bowel movement restoration and resolution of gastrointestinal track symptoms. Patients information will be coded in order to preserve personal data.

Results: Data from both groups will be gathered and statistically analyzed to discover significant end point differences between these two therapeutic modalities and will be discussed at a later stage

P50 Safe administration of IV ketamine in patients with refractory depression

Epameinontas Farmakis², Petros Argitis¹, Klaoudia-Olympia Lakoniti², Maria Poulopoulos³, Sapfo Karavia¹, Dimitrios Garnelis¹, Ioannis Tsamis⁴, Zannis Chaviaras¹

¹Psychiatric Department / General Hospital of Corfu, Corfu, Greece

²Intensive Care Unit / General Hospital of Corfu, Corfu, Greece

³Anesthesiology Department / General Hospital of Kymi, Kymi, Greece

⁴Psychiatric Department / General Hospital of Grevena, Grevena, Greece

Background: Ketamine is an NMDA receptor antagonist and first tested in humans in 1964. It mainly used for induction and maintaining anesthesia. Generally Ketamine is considered to have a very good safety profile. However we present you the IV Ketamine, safety administration protocol that we are using at General Hospital of Corfu used at patients with Major Refractory Depression.

Materials and methods: We exclude patients > 70 years old, MMSE < 25, unregulated blood pressure, cardiac insufficiency, acute myocardial ischemia, increased intraocular or intracranial pressure, thyrotoxicosis, psychosis or seizures. We perform full laboratory tests, ECG, BBS and BP. Patient's last meal is 6Hrs before infusion. During infusion we constantly measure PO2 and cardiac rhythm and every 15 min PB. We administrate IV Ketamine 0.5mg/Kg, in 100ml N/S within 45 minutes.

Results: Mean BP raise was 6%, cardiac rhythm was statistically unchanged, 100% reported dizziness or cephalgia 50% reported alteration of taste and 10% reported depersonalization or derealization. All side effects disappeared within an hour after the infusion ended and none cause the end of the infusion.

Conclusions: Ketamine's seems to be safe and without major side effects. Although future controlled studies will be required to stabilize an international Protocol of safe use.



psychiatry
online

The screenshot shows the homepage of the Greek Journal of Psychiatry (Ελληνικό Περιοδικό Ψυχίατρης). The header features the journal's name in Greek and English, along with a logo depicting two figures. A large banner at the top right displays the text "ΕΛΛΗΝΙΚΟ ΠΕΡΙΟΔΙΚΟ ΨΥΧΙΑΤΡΙΚΟΣ" and "ΕΛΛΗΝΙΚΗ ΕΠΙΧΕΙΡΗΣΗ ΣΤΗΝ ΕΠΙΔΗΜΙΟΛΟΓΙΑ". Below the banner, there are several sections: "Επεισόδια από την ιατρική" (Episodes from medicine), "Επεισόδια από την πολιτική" (Episodes from politics), "Επεισόδια από την οικονομία" (Episodes from economy), "Επεισόδια από την γεωγραφία" (Episodes from geography), and "Επεισόδια από την ιστορία" (Episodes from history). A central box highlights the "2nd Congress on Evidence Based Mental Health: From research to clinical practice" taking place on July 28-31, 2018, in Kavala, Greece. Another box for "Εβδομάδα Ημέρες Ψυχιατρικής 2018" (Week of Psychiatric Days 2018) is also visible. On the right side, there are links to the International Society of Traumatic Stress Studies (ISITS), the International Society of Traumatic Stress Intervention (ISITI), the International Society of Trauma and Critical Stress Research (ISTC), the International Society of Trauma and Dissociation (ISTD), the International Society of Traumatology, Stress and Dissociation (ISTSS), and the International Society of Trauma and Traognostics (ISTT). A sidebar on the left includes a portrait of Dr. Ioannis Psarros and contact information: Tel: +30 210 822180, Fax: +30 210 8221801, Email: iss@hua.gr, and Volume 20(2) 2018.

www.psychiatry.gr



Contributors



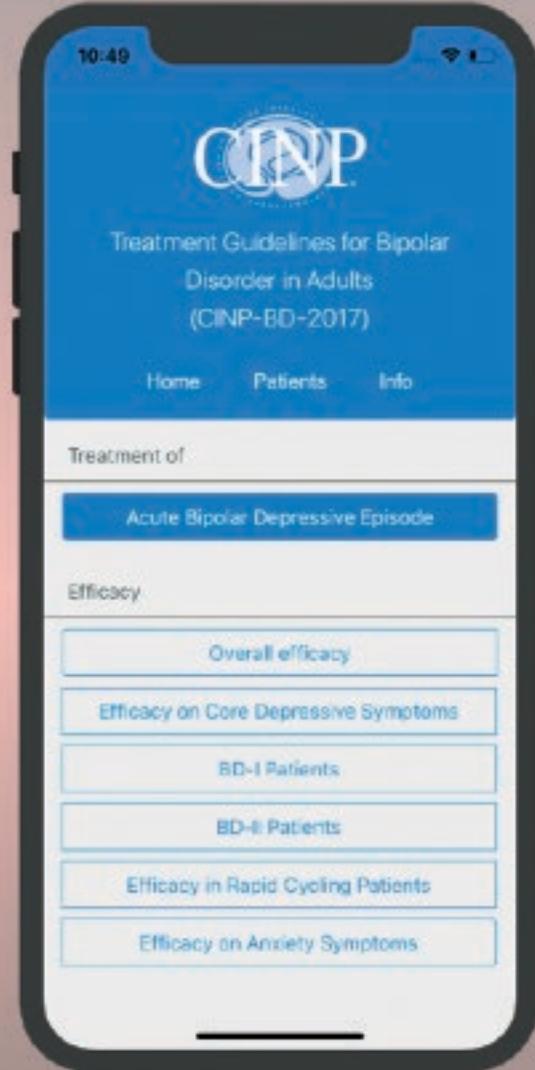


INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY



Hellenic Psychiatric Association
Co-sponsored by WPA





iOS/Android Applications

- Specifics of iOS implementation in Xcode
- Based on web services for shared iOS/Android core logic
- Compatible with iPhone SE, 5s, 6, 6s, 7, X - including Plus models, and the most Android smartphones



INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY



Hellenic Psychiatric Association
Co-sponsored by WPA



Speakers' & Chairpersons' Index

A





3rd Congress on Evidence Based Mental Health:
From research to clinical practice





INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY



Hellenic Psychiatric Association
Co-sponsored by WPA



Authors' Index

A





3rd Congress on Evidence Based Mental Health:
From research to clinical practice





INTERNATIONAL SOCIETY of NEUROBIOLOGY
& PSYCHOPHARMACOLOGY



Hellenic Psychiatric Association
Co-sponsored by WPA





Acknowledgements

The Organizing Committee wishes to thank the below-mentioned Companies:

BAUSCH Health



FarmaSyn sa
PHARMACEUTICALS







**3rd Congress on
Evidence Based Mental Health:
From research to clinical practice**

March 19th - 22nd, 2020
Ioannina - Greece