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Patients' satisfaction with hospital health care: Identifying indicators for people with severe mental disorder.

Ratner Y, Zendjidjian XY, **Mendyk N**, **Timinsky** I, Ritsner MS

BACKGROUND: Patients' perception of psychiatric healthcare is a critical indicator in measuring service quality. The aim of the study was to determine patient's level of satisfaction with the quality of health care delivered at the inpatient departments, and to identify the service quality factors that were important to patients.
METHOD: The Satisfaction with Psychiatry Care Questionnaire-22 was administered to 125 consecutive inpatients with schizophrenia or schizoaffective disorder in a stable condition. Sociodemographic and background variables, illness and symptom severity, insight, social anhedonia, self-esteem, perceived social support, and satisfaction with quality of life were collected.
RESULTS: Although the participants generally expressed satisfaction with the inpatient services, they indicated that the weakest aspects of the service were in the domains of 'personal experience', 'information' and 'activity'. Women were significantly more dissatisfied than men with 'staff', 'care', and by general satisfaction. Multiple regression analysis revealed that satisfaction with hospital health care was associated with five indicators: insight, satisfaction with physical health, self-efficacy, family support, and social anhedonia.
CONCLUSION: Personality related factors rather than psychopathological symptoms were associated with a satisfaction with care of admitted patients with severe mental illness. These factors could be targets for interventions aimed to improve treatment and hospital services.

https://www.ncbi.nlm.nih.gov/pubmed/30347377

Neuroimage Clinical 2018 Sep 17;20:753-761

MEG resting-state oscillations and their relationship to clinical symptoms in schizophrenia.

Zeev-Wolf M, Levy J, Jahshan C, **Peled A**, Levkovitz Y, **Grinshpoon A**, Goldstein A

Neuroimaging studies suggest that schizophrenia is characterized by disturbances in oscillatory activity, although at present it remains unclear whether these neural abnormalities are driven by dimensions of symptomatology. Examining different subgroups of patients based on their symptomatology is thus very informative in understanding the role of neural oscillation patterns in schizophrenia. In the present study we examined whether neural oscillations in the delta, theta, alpha, beta and gamma bands correlate with positive and negative symptoms in individuals with schizophrenia (SZ) during rest. Resting-state brain activity of 39 SZ and 25 neurotypical controls was recorded using magnetoencephalography. Patients were categorized based on the severity of their positive and negative symptoms. Spectral analyses of beamformer data revealed that patients high in positive symptoms showed widespread low alpha power, and alpha power was negatively correlated with positive symptoms. In contrast, patients high in negative symptoms showed greater beta power in left hemisphere regions than those low in negative symptoms, and beta power was positively correlated with negative symptoms. We further discuss these findings and suggest that different neural mechanisms may underlie positive and negative symptoms in schizophrenia.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6154766/

Assessment of health needs, satisfaction with care, and quality of life in compulsorily admitted patients with severe mental disorders.

Ritsner MS, Farkash H, Rauchberger B, Amrami-Weizman A, Zendjidjian XY

This cross-sectional study compared the levels of needs, care satisfaction, quality of life, and social support of compulsory admitted patients with severe mental disorders to a comparable group of voluntary admitted patients. One hundred and twenty-five patients with schizophrenia and schizoaffective disorder were admitted to a hospital by district psychiatrist order (DPO), court observation order (COO), or voluntary (VA). Participants were assessed before discharge using questionnaires, and psychiatric rating scales. A linear discriminant analysis revealed eight variables that best differentiated the three groups. COO patients were significantly discriminated from the two other groups (DPO and VA) by severe negative symptoms, better satisfaction with both nursing staff and family support. COO subjects had more non-illness unmet needs, while reported better hedonic capacity for social and interpersonal pleasure - compared to VA patients. DPO patients were significantly indicated by poorer awareness to

illness, but better satisfaction with subjective feelings. VA subjects were significantly discriminated from compulsory admitted patients by higher illness severity scores. Assessment of unmet needs, satisfaction with care, quality of life, hedonic capacity, and social support constitute the factors that differentiate compulsory admitted patients and could be targets for interventions aimed to reduce the negative effects of compulsory admissions.

https://www.ncbi.nlm.nih.gov/pubmed/29980135

A quantitative physical model of the TMS-induced discharge artifacts in EEG.
Freche D, Naim-Feil J, **Peled A**, Levit-Binnun N, Moses E

The combination of Transcranial Magnetic Stimulation (TMS) with Electroencephalography (EEG) exposes the brain's global response to localized and abrupt stimulations. However, large electric artifacts are induced in the EEG by the TMS, obscuring crucial stages of the brain's response. Artifact removal is commonly performed by data processing techniques. However, an experimentally verified physical model for the origin and structure of the TMS-induced discharge artifacts, by which these methods can be justified or evaluated, is still lacking. We re-examine the known contribution of the skin in creating the artifacts, and outline a detailed model for the relaxation of the charge accumulated at the electrode-gel-skin interface due to the TMS pulse. We then experimentally validate implications set forth by the model. We find that the artifacts decay like a power law in time rather than the commonly assumed exponential. In fact, the skin creates a power-law decay of order 1 at each electrode, which is turned into a power law of order 2 by the reference electrode. We suggest an artifact removal method based on the model which can be applied from times after the pulse as short as 2 milliseconds onwards to expose the full EEG from the brain. The method can separate the capacitive discharge artifacts from those resulting from cranial muscle activation, demonstrating that the capacitive effect dominates at short times. Overall, our insight into the physical process allows us to accurately access TMS-evoked EEG responses that directly follow the TMS pulse, possibly opening new opportunities in TMS-EEG research.

https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1006177
(Free Full text)

Vulnerability of Individuals with Mental Disorders to Epistemic Injustice in Both Clinical and Social Domains

Kurs R, Grinhshpoon A

Many individuals who have mental disorders often report negative experiences of a distinctively epistemic sort, such as not being listened to, not being taken seriously, or not being considered credible because of their psychiatric conditions. In an attempt to articulate and interpret these reports we present Fricker's concepts of epistemic injustice (Fricker, 2007, p. 1) and then focus on testimonial injustice and hermeneutic injustice as it applies to individuals with mental disorders. The clinical impact of these concepts on quality of care is discussed. Within the clinical domain, we contrast epistemic injustice with epistemic privilege and authority. We then argue that testimonial and hermeneutic injustices also affect individuals with mental disorders not only when communicating with their caregivers but also in the social context as they attempt to reintegrate into the general society and assume responsibilities as productive citizens. Following the trend of the movement of mental health care to the community, the testimonies of people with mental disorders should not be restricted to issues involving their own personal mental states.
https://www.tandfonline.com/doi/abs/10.1080/10508422.2017.1365302

The Impact of Adherence to Treatment for ADHD on the Quality of Military Service The Israeli Military Experience.

Zur M, Magnezi R, **Portuguese S,** Reuveni I, Kedem R,Fruchter E.

Introduction: Attention deficit hyperactive disorder (ADHD) is prevalent in5.9-7.1% of children and adolescents, and 5% of adults. It results in poor academic, occupational, and social functioning. Pharmacotherapy improves core symptoms; however, average adherence levels are low and decrease at 16-17 years of age, just before the recruitment age to Israel Defense Forces (IDF). This study evaluated the effect of adherence to ADHD pharmacotherapy on occupational performance among soldiers.Materials and Methods: Retrospective data were collected for the study cohort,which included all soldiers serving in the IDF from 2008 through 2012 (n >500,000). Each soldier in the cohort was categorized based on adherence totreatment, as measured by prescriptions filled monthly: (1) no treatment, (2) low adherence (<2/year), (3) medium adherence (2-6/year), and (4) high adherence(>6/year). Occupational performance was evaluated by 3 indicative parameters: (1) number of sick days, (2) number of exemptions from daily activities, and (3) military profession disqualification, including sub-analysis to military profession groups. Results: ADHD pharmacotherapy adherence correlated inversely with occupational performance, as exhibited by more sick days and exemptions from daily activities. All soldiers pharmacologically treated for ADHD had higher professional disqualification rates

compared with soldiers who did not require ADHD treatment. In contrast to the general trend, in the military drivers group, higher rates of ADHD adherence correlated with lower professional disqualification rates. Conclusions: Our hypothesis that greater adherence would correlate positively with better occupational performance was refuted. We speculate that increased adherence levels are indicative of more severe ADHD and thus, accompanied by lower occupational performance. The correlation between increased adherence andimproved driving ability could be attributed to the nature of driving professions, which require a high level of concentration. Due to the importance of driving in both military and civilian settings, interventions designed to enhance adherence to treatment for ADHD among drivers could have a broad effect on driving consequences, and should be considered by policymakers.

Assessment of health needs, satisfaction with care, and quality of life in compulsorily admitted patients with severe mental disorders.

Ritsner MS, Farkash H, Rauchberger B, Amrami-Weizman A, Zendjidjian XY.

This cross-sectional study compared the levels of needs, care satisfaction,quality of life, and social support of compulsory admitted patients with severe mental disorders to a comparable group of voluntary admitted patients. One hundred and twenty-five patients with schizophrenia and schizoaffective disorder were admitted to a hospital by district psychiatrist order (DPO), court observation order (COO), or voluntary (VA). Participants were assessed before discharge using questionnaires, and psychiatric rating scales. A linear discriminant analysis revealed eight variables that best differentiated the three groups. COO patients were significantly discriminated from the two other groups (DPO and VA) by severe negative symptoms, better satisfaction with both nursing staff and family support. COO subjects had more non-illness unmet needs, while reported better hedonic capacity for social and interpersonal pleasure – compared to VA patients. DPO patients were significantly indicated by poorer awareness to illness, but better satisfaction with subjective feelings. VA subjects were significantly discriminated from compulsory admitted patients by higher illness severity scores. Assessment of unmet needs, satisfaction with care, quality of life, hedonic capacity, and social support constitute the factors that differentiate compulsory admitted patients and could be targets for interventions aimed to reduce the negative effects of compulsory admissions.

Add-On Pregnenolone with L-Theanine to Antipsychotic Therapy Relieves Negative and Anxiety Symptoms of Schizophrenia: An 8-Week, Randomized, Double-Blind, Placebo-Controlled Trial.

Kardashev A, Ratner Y, Ritsner MS.

AIMS: Pregnenolone (PREG) and L-theanine (LT) have shown ameliorative effects on various schizophrenia symptoms. This is the first study to evaluate the efficacy and safety of augmentation of antipsychotic treatment among patients with chronic schizophrenia or schizoaffective disorder with PREG-LT. METHODS: Double-blind, placebo-controlled trial of PREG-LT or placebo augmentation was conducted for eight weeks with 40 chronic DSM-IV schizophrenia and schizoaffective disorder patients with suboptimal response to antipsychotics. Oral PREG (50 mg/day) with LT (400 mg/day) or placebo were added to a stable regimen of antipsychotic medication from March 2011 to October 2013. The participants were rated using the Scale for the Assessment of Negative Symptoms (SANS), the Hamilton Scale for Anxiety (HAM-A), and the Positive and Negative Syndrome Scale (PANSS) scales bi-weekly. The decrease of SANS and HAM-A scores were the co-primary outcomes. Secondary outcomes included assessments of general functioning and side effects. RESULTS: Negative symptoms such as blunted affect, alogia, and anhedonia (SANS) were found to be significantly improved with moderate effect sizes among patients who received PREG-LT, in comparison with the placebo group. Add-on PREG-LT also significantly associated with a reduction of anxiety scores such as anxious mood, tension, and cardiovascular symptoms (HAM-A), and elevation of general functioning (GAF). Positive symptoms, antipsychotic agents, concomitant drugs, and illness duration did not associate significantly with effect of PREG-LT augmentation. PREG-LT was well-tolerated.CONCLUSIONS: Pregnenolone with L-theanine augmentation may offer a new therapeutic strategy for treatment of negative and anxiety symptoms in schizophrenia and schizoaffective disorder. Further studies are warranted.
TRIAL REGISTRATION: clinicaltrials.gov Identifier: NCT01831986.

Mental Health Nurse's Exposure to Workplace Violence Leads to Job Stress, Which Leads to Reduced Professional Quality of Life.

Itzhaki M, Bluvstein I, Peles Bortz A, **Kostistky H, Bar Noy D, Filshtinsky V**, Theilla M.

Professional quality of life (ProQOL) reflects how individuals feel about their work as helpers. Psychiatric ward nurses cope with significant psychological and physical challenges, including exposure to verbal and physical violence. This study was based on two aspects of ProQOL, the positive compassion satisfaction, and the negative compassion fatigue, with the aim of investigating the relation of ProQOL to job stress and violence exposure at a large mental health center. Data were collected from 114 mental health nurses (49/63 M/F) who completed a self-administered questionnaire examining violence exposure, ProQOL, and job stress. The results showed that during the last year, almost all nurses (88.6%) experienced verbal violence, and more than half (56.1%) experienced physical violence. Only 2.6% experienced no violence. ProQOL was not associated with violence exposure but was reduced by work stress and by previous exposure to violence; nurses who perceived their work as more stressful had lower satisfaction from their work. In conclusion, although most mental health nurses are exposed to physical and verbal violence, their ProQOL is more related to job stress than to workplace violence (WPV). Hospital managements should conduct work stress reduction intervention programs and promote strategizes to reduce WPV. Further exploration of (a) factors affecting ProQOL and (b) the effect of violence coping workshops on ProQOL is warranted.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5835109/pdf/fpsyt-09-00059.pdf
(Free Full text)

Altered Brain Network Dynamics in Schizophrenia: A Cognitive Electroencephalography Study.

Naim-Feil J, Rubinson M, Freche D, **Grinshpoon A, Peled A**, MosesE, Levit-Binnun N.

BACKGROUND: Alterations in the dynamic coordination of widespread brain networks are proposed to underlie cognitive symptoms of schizophrenia. However, there is limited understanding of the temporal evolution of these networks and how they relate to cognitive impairment. The current study was designed to explore dynamic patterns of network connectivity underlying cognitive features of schizophrenia. METHODS: In total, 21 inpatients with schizophrenia and 28 healthy control participants completed a cognitive task while electroencephalography data were simultaneously acquired. For

each participant, Pearson cross-correlation was applied to electroencephalography data to construct correlation matrices that represent the static network (averaged over 1200 ms) and dynamic network (1200 ms divided into four windows of 300 ms) in response to cognitive stimuli. Global and regional network measures were extracted for comparison between groups. RESULTS: Dynamic network analysis identified increased global efficiency; decreased clustering (globally and locally); reduced strength (weighted connectivity) around the frontal, parietal, and sensory-motor areas; and increased strength around the occipital lobes (a peripheral hub) in patients with schizophrenia. Regional network measures also correlated with clinical features of schizophrenia. Network differences were prominent 900 ms following the cognitive stimuli before returning to levels comparable to those of healthy control participants. CONCLUSIONS: Patients with schizophrenia exhibited altered dynamic patterns of network connectivity across both global and regional measures. These network differences were time sensitive and may reflect abnormalities in the flexibility of the network that underlies aspects of cognitive function. Further research into network dynamics is critical to better understanding cognitive features of schizophrenia and identification of network biomarkers to improve diagnosis and treatment models.

Ever since I can remember myself: Implications of attachment and perceived maternal feeding practices on adult women's body dissatisfaction.

Baumgarten-Katz I, Lev-Ari L, Zohar AH.

BACKGROUND: Research indicates that women with an eating disorder are more insecurely attached than those without. Over-restrictive maternal feeding practices in childhood are associated with elevated BMI and more disordered eating in adult women. GOALS: The goal of the current study was to examine the extent to which the two insecure attachment styles contribute to women's body dissatisfaction indices and to examine their role in moderating the influence of restrictive maternal child feeding practices. METHODS: 283 women between the ages of 18-42 (mean=25.04; SD=3.53) sampled through social networking completed an online self-report, including the Figure Rating Scale (from which Self-Ideal comparison was calculated), retrospective child feeding questionnaire (RCFQ), the experience in close relationship (ECR) questionnaire, and the EDI's Drive for Thinness and Body Dissatisfaction subscales. RESULTS: Insecure-anxious attachment positively predicted Drive for Thinness, Body Dissatisfaction and Self-Ideal Disparity. However, insecure-avoidant attachment did not predict indices of body dissatisfaction. Recalled over-controlling maternal childhood feeding behaviors

were associated with Drive for Thinness, Body Dissatisfaction and greater Self-Ideal body image disparity. Significant interactions between attachment styles, maternal childhood feeding behaviors, and body dissatisfaction indices emerged. CONCLUSIONS: In the presence of restrictive feeding practices in childhood, insecure attachment styles moderate women's adult body dissatisfaction indices.Avoidant attachment style plays a protective role while anxious attachment style exacerbates body dissatisfaction indices.

https://cdn.doctorsonly.co.il/2018/06/03_Ever-since-I-can-remember.pdf
(Free Full Text)

Adult and adolescent patient evaluations of electroconvulsive therapy in comparison to other therapeutic modalities.

Bloch Y, **Linder M**, Kalman N, Doubi M, Gal G, Nitsan U, Maoz H, Lurie I.

Objectives: There is an increasing awareness of the importance of patients' subjective evaluations of therapy. Regarding electroconvulsive therapy (ECT), the results are conflicting. We hypothesized that making a comparison between patients' satisfaction with ECTand other forms of psychiatric therapies would capture personal experience as opposed to opinion about the treatment modalities. We compared adult responses to adolescent responses. Methods: Four unmatched patient groups were recruited (N = 98) and were divided as follows: (a) patients treated with ECT as adolescents (n = 13), (b) patients treated with ECT as adults (n = 25), (c) patients hospitalized as adolescents but not treated with ECT (n = 30), and (d) patients hospitalized as adults but not treated with ECT (n = 30). All patients were interviewed using similar questions related to their satisfaction regarding the treatment modalities they experienced, including psychotherapy, pharmacotherapy, hospitalization and ECT, and years after being treated. Results: Adults and adolescents viewed ECTas a legitimate and effective formof treatment (70%). Patientswhowere treatedwith ECThad amore positive attitude toward this treatment compared with patients who had not been treated with ECT. In comparison to other treatment modalities, ECTwas considered by both adolescents and adults as the least effective form of therapy. Psychotherapy was considered the most effective, specifically among adolescents. Conclusions: Comparing patients' satisfaction in regard to different therapeuticmodalities can potentially help clarify discrepancies in patient reports on satisfaction with ECT. Patients' satisfaction with ECT, just like their clinical response to ECT, is more dichotomous than with other forms of therapy.

Hierarchy measurement for modeling network dynamics under directed attacks.

Rubinson M, Levit-Binnun N, **Peled A**, Naim-Feil J, Freche D, Moses E.

A fundamental issue in the dynamics of complex systems is the resilience of the network in response to targeted attacks. This paper explores the local dynamics of the network attack process by investigating the order of removal of the nodes that have maximal degree, and shows that this dynamic network response can be predicted from the graph's initial connectivity. We demonstrate numerically that the maximal degree $M(\tau)$

of the network at time step τ decays exponentially with τ via a topology-dependent exponent. Moreover, the order in which sites are removed can be approximated by considering the network's "hierarchy" function h, which measures for each node V_{i} how many of its initial nearest neighbors have lower degree versus those that have a higher one. Finally, we show that the exponents we identified for the attack dynamics are related to the exponential behavior of spreading activation dynamics. The results suggest that the function h, which has both local and global properties, is a novel nodal measurement for network dynamics and structure.

Fertility Treatments and Psychiatric Disorders: Ethical Considerations Regarding a Patient's Desire to Become a Mother.

Stolovy T, **Linder M**, Zipris P, Doron A, Dafna Y, Melamed Y.

Reproductive issues play a significant role in the personal autonomy of women. Motherhood can be seen as an opportunity for positive self-endorsement, as a chance to reintegrate the fragmented parts of the self, order and focus life's tasks, affirm life, overcome stigma, and experience an emotionally rich and rewarding role .
https://www.ima.org.il/FilesUpload/IMAJ/0/224/112290.pdf
(Free Full Text)

Connectivity maps based analysis of EEG for the advanced diagnosis of schizophrenia attributes.

Dvey-Aharon Z, Fogelson N, **Peled A**, Intrator N.

This article presents a novel connectivity analysis method that is suitable for multi-node networks such as EEG, MEG or EcOG electrode recordings. Its diagnostic power and ability to interpret brain states in schizophrenia is demonstrated on a set of 50 subjects that constituted of 25 healthy and 25 diagnosed with schizophrenia and treated with medication. The method can also be used for the automatic detection of schizophrenia; it exhibits higher sensitivity than state-of-the-art methods with no false positives. The detection is based on an analysis from a minute long pattern-recognition computer task. Moreover, this connectivity analysis leads naturally to an optimal choice of electrodes and hence to highly statistically significant results that are based on data from only 3-5

electrodes. The method is general and can be used for the diagnosis of other psychiatric conditions, provided an appropriate computer task is devised.

The Interface between Sartre's Theory of Emotions and Depersonalization/Derealization

Kurs R

Human beings are emotional beings and emotions are one's way of relating to the world. Sartre's Emotions, An Outline of a Theory lies on the borderline between psychology and philosophy. In this paper I will attempt to present the interface of Sartre's philosophical theory of emotions with the signs and symptoms of depersonalization/derealization syndrome as presented in the psychiatric/psychological literature. I will begin by concisely situating Sartre's concept of emotions within the Sartrean doctrine of existentialism, and follow with a brief summary of Bernard Frechtman's translation of Sartre's "The Emotions, An Outline of a Theory". I will focus on the Introduction and Chapter Three, where Sartre presents the findings of his phenomenological study that purport to reveal the "essence" of emotions. Next, I will introduce the diagnostic components of the depersonalization/derealization syndrome which is a subcategory of dissociative disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (2013) as well as criteria of International Classification of Diseases—10th edition (1992) and highlight the similarities with Sartre's characterization of emotional behavior. Finally, I will attempt a brief comparison between Sartre's theory of emotions and depersonalization/derealization syndrome using literary and philosophical critiques of Sartre's "Emotions" and theoretical as well as research papers from the psychiatric literature. The focus will be on the similarities and incongruities between Sartre's characterization of emotions and psychiatric diagnoses of depersonalization/derealization syndrome.

**Impairment in predictive processes during auditory mismatch negativity in ScZ:
Evidence from event-related fields.**

Sauer A, Zeev-Wolf M, Grent-'t-Jong T, Recasens M, Wacongne C, Wibral M, Helbling S,
Peled A, Grinshpoon A, Singer W, Goldstein A, Uhlhaas PJ.

Patients with schizophrenia (ScZ) show pronounced dysfunctions in auditory perception but the underlying mechanisms as well as the localization of the deficit remain unclear. To examine these questions, the current study examined whether alterations in the neuromagnetic mismatch negativity (MMNm) in ScZ-patients could involve an impairment in sensory predictions in local sensory and higher auditory areas. Using a whole-head MEG-approach, we investigated the MMNm as well as P300m and N100m amplitudes during a hierarchical auditory novelty paradigm in 16 medicated ScZ-patients and 16 controls. In addition, responses to omitted sounds were investigated, allowing for a critical test of the predictive coding hypothesis. Source-localization was performed to identify the generators of the MMNm, omission responses as well as the P300m. Clinical symptoms were examined with the positive and negative syndrome scale. Event-related fields (ERFs) to standard sounds were intact in ScZ-patients. However, the ScZ-group showed a reduction in the amplitude of the MMNm during both local (within trials) and global (across trials) conditions as well as an absent P300m at the global level. Importantly, responses to sound omissions were reduced in ScZ-patients which overlapped both in latency and generators with the MMNm sources. Thus, our data suggest that auditory dysfunctions in ScZ involve impaired predictive processes that involve deficits in both automatic and conscious detection of auditory regularities.

**The involvement of BDNF-CREB signaling pathways in the pharmacological mechanism
of combined SSRI- antipsychotic treatment in schizophrenia.**

Einoch R, Weinreb O, **Mandiuk N**, Youdim MBH, Bilker W**, Silver H.**

Previous studies into the mechanism of SSRI-antipsychotic synergism in our laboratory identified unique changes in the brain, particularly in the γ-aminobutyric acid (GABA)-A receptor and its modulators. This study examined the role of brain derived neurotrophic factor (BDNF)-cAMP response element binding (CREB) protein signaling pathways, including protein kinase B (AKT), glycogen synthase kinase (GSK)-3β and related molecules in the molecular response to haloperidol, fluvoxamine, combined

haloperidol+fluvoxamine and clozapine treatments in rat frontal cortex, hippocampus and primary cortical neuronal cultures. The effect of fluvoxamine augmentation on BDNF-CREB pathways in peripheral mononuclear cells (PMC´s) of medicated schizophrenia patients was also studied. Chronic haloperidol (1mg/kg) +fluvoxamine (10mg/kg) treatment increased TrkB receptor and BDNF expression levels, and the phosphorylation of AKT/CREB/GSK-3β, compared to the individual drugs in rat brain. In addition, haloperidol+fluvoxamine treatment improved cognitive functions in rats, indicating that the molecular changes may have a role in behavioral improvement. In primary neuronal cell cultures, pretreatment with a selective PI3K inhibitor abolished the haloperidol+fluvoxamine-induced phosphorylation of AKT and GSK-3β, but did not affect the upregulation of CREB phosphorylation. In the clinic, PMC´s of treated patients showed upregulation of mRNA expression and protein levels of BDNF, CREB and AKT after addition of fluvoxamine. Analyses of PMC genes and proteins showed significant inter-correlations and some gene changes correlated with improvement in negative and cognitive symptoms. Our study provides new knowledge of the molecular mechanisms of symptom amelioration in schizophrenia and may advance development of new drugs for this disease and other neuropsychiatric disorders.

Adjunctive Pregnenolone Ameliorates the Cognitive Deficits in Recent-Onset Schizophrenia: An 8-Week, Randomized, Double-Blind, Placebo-Controlled Trial.

Kreinin A, **Bawakny N, Ritsner MS.**

PURPOSE: This study aimed to examine the effect of add-on treatment with the neurosteroid pregnenolone (PREG) on neurocognitive dysfunctions of patients with recent-onset schizophrenia (SZ) and schizoaffective disorder (SA). METHOD: Sixty out- and inpatients that met DSM-IV criteria for SZ/SA were randomized to an 8-week, double-blind, randomized, placebo-controlled, 2-center trial. Participants received either pregnenolone (50 mg/d) or placebo added on to antipsychotic medications. Computerized Cambridge Automated Neuropsychological Test Battery measures were administered at baseline and after 4 and 8 weeks of treatment. ANOVA and paired t- or z-tests were applied to examine between- and within-group differences over time. RESULTS: Compared to placebo, adjunctive PREG significantly reduced the deficits in visual attention measured with the Matching to Sample Visual Search task (p=0.002), with moderate effect sizes (d=0.42). In addition, a significant improvement was observed from baseline to end-of-study with respect to the visual (p=0.008) and

sustained attention (Rapid Visual Information Processing, p=0.038) deficits, and executive functions (Stockings of Cambridge, p=0.049; Spatial Working Memory, p<0.001) among patients receiving PREG but not among those receiving placebo (all p's>0.05). This beneficial effect of PREG was independent of the type of antipsychotic agents, gender, age, education, and illness duration. CONCLUSIONS: Pregnenolone augmentation demonstrated significant amelioration of the visual attention deficit in recent-onset SZ/SA. Long-term, large-scale studies are required to obtain greater statistical significance and more confident clinical generalization.

DOI: 10.3371/CSRP.KRBA.013114
https://www.researchgate.net/publication/260093584_Adjunctive_Pregnenolone_Ameliorates_the_Cognitive_Deficits_in_Recent-Onset_Schizophrenia_An_8-Week_Randomized_Double-Blind_Placebo-Controlled_Trial
(Free download available at ReasearchGate)

Stud Health Technol Inform. 2017;242:389-395.

Development of Technology for Assisting Violent Psychiatric Patients.

Katz R**, Peled A, Grinshpoon A.**

Forceful restraint of psychiatric patients is lawful only in cases of violent uncontrolled behavior. The methods used to limit physical freedom are mainly mechanical means of confinement. The study presents a novel "Personal Protective System" designed to limit patients' violent actions but allow them free non- violent normal functioning.

http://ebooks.iospress.nl/publication/47301

בריאות הנפש והתערבות עם משפחות בחברה הערבית.
קופרברג אורית, מסאררה סנא.
בתוך: **מאי-נראות לשותפות: נתיבי התמודדות והחלמה עם מחלה פסכייאטרית במשפחה,**
כרך ב. בעריכת ענת שלו ונימי הדס לידור.
הוצאת אונו, הקריה האקדמית. 2017.
http://www.abiliko.co.il/index2.php?id=9979&lang=HEB

הפרעות פסיכיאטריות נלוות בבוגרים על ספקטרום האוטיזם בתפקוד גבוה
פורטוגיז, שירלי.
בתוך : **הספקטרום בראי הזמן : אתגרים ויעדים לבוגרים עם אוטזם בתפקוד גבוה,**
בעריכת סוזן לוינגר,

הוצאת ספרים אח בע"מ., קרית ביאליק.
https://simania.co.il/bookdetails.php?item_id=987668

Functioning of Young Adults With ADHD in the Military.

Fruchter E, Marom-Harel H, Fenchel D, Kapra O, Ginat K, **Portuguese S**, Weiser M

OBJECTIVE: To assess the functioning of young adults with ADHD in a militarysetting. METHOD: In all, 14,655 young adults with ADHD (mean age at first examination 17.8 0.7) attending mandatory service in the Israeli military were compared with matched controls on several functioning domains. RESULTS: Young adults with ADHD had more sessions with mental health care professionals, physician appointments, sick days, and disqualifications of professions than controls (p < .001). Young adults with ADHD were also less medically fit for combat service (odds ratio [OR] = 0.75, 95% confidence interval [CI] = [0.72, 0.79]), more medically unfit for military service in general (OR = 1.26, 95% CI = [1.13, 1.40]), and had higher rates of overweight and obesity (p < .001). In addition, they were more likely to be diagnosed with a personality disorder (OR = 1.29, 95% CI = [1.07, 1.53]) or with minor affective and anxiety disorders (OR = 1.33, 95% CI = [1.06, 1.67]) than matched controls. CONCLUSION: These results support a negative effect of ADHD on the functioning of young adults in a military setting.

Differentiating facial incongruity and flatness in schizophrenia, using structured light camera data.

Tron T, **Peled A, Grinsphoon A**, Weinshall D.

Incongruity between emotional experience and its outwardly expression is one of the prominent symptoms in schizophrenia. Though widely reported and used in clinical evaluation, this symptom is inadequately defined in the literature and may be confused with mere affect flattening. In this study we used structured-light depth camera and dedicated software to automatically measure facial activity of schizophrenia patients and healthy individuals during an emotionally evocative task. We defined novel measures for the congruence of emotional experience and emotional expression and for Flat Affect, compared them between patients and controls, and examined their consistency with clinical evaluation. We found incongruity in schizophrenia to be manifested in a less specific range of facial expressions in response to similar emotional stimuli, while the emotional experience remains intact. Our study also suggests that when taking into consideration affect flatness, no contextually inappropriate facial expressions are evident.

Routine Drug Screening for Patients in the Emergency Department of a State Psychiatric Hospital: A Naturalistic Cohort Study.

Margolis A, Rosca P, **Kurs R**, Sznitman SR, **Grinshpoon A**.

OBJECTIVE: This study investigates the proportion of drug users among patients with mental disorders who attended the emergency department of one major psychiatric hospital in Northern Israel, the most frequent psychiatric diagnoses associated with drug use, and the impact of confirmed drug use on hospital admission. We hypothesized that the proportion of individuals with positive urine drug test results presenting at the psychiatric emergency department during the study period would be 20% to 30%. METHODS: An unselected cohort of 2,019 adult patients who visited the emergency department of Sha'ar Menashe Mental Health Center, a university-affiliated government facility, was evaluated and underwent routine urine drug testing between April 2012 and February 2014. Clinical, demographic, and urine drug test data were collected from medical records and statistically analyzed, comparing diagnostic evaluation at admission and after discharge from either the emergency department or the hospital. Univariate and logistic regression analyses were used to identify the possible variables associated with drug use in this sample. RESULTS: Urine drug test results showed that 194 of the 2,019 subjects (9.6%) had used a psychoactive substance before attending the emergency department. Among patients with positive urine drug test results, the majority (77.8%) used cannabis, 25.8% used opiates, 24.7% used ecstasy, and 5.2% used cocaine. Differences in the prevalence of positive urine drug test results between admitted and nonadmitted patients did not reach a statistically significant level. The

frequency of positive urine drug test results across lifetime International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10) diagnoses was 27.2% for substance-related disorders, 4.8% for psychotic disorders, 4.2% for mood disorders, 11.0% for personality disorders, and 11.5% for nonpsychotic disorders. Both univariate and logistic regression analyses revealed that younger age (18-40), male sex, fewer years of education, single marital status, and ICD-10 diagnosis of substance-related, personality, and nonpsychotic disorders were indicators of higher likelihood of positive urine drug test findings. CONCLUSIONS: Results suggest that routine urine toxicology screening is not necessary in the psychiatric emergency department as an adjunct to a thorough psychiatric clinical examination. However, urine drug tests should be performed when the clinical evaluation cannot determine whether the mental disorder is the result of illicit drug use or clearly non-drug-related.

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Management of bipolar disorder in the intercontinental region: an international, multicenter, noninterventional, cross-sectional study in real-life conditions

Samalin L, Vieta E, Okasha TA, Uddin MJ, Ahmadi Abhari SA, Nacef F, Mishyiev V, Aizenberg D, **Ratner Y,** Melas-Melt L, Sedeki I, Llorca PM..

Most of the existing data on real-life management of bipolar disorder are from studies conducted in western countries (mostly United States and Europe). This multinational, observational cohort study aimed to describe the management and clinical outcomes of bipolar patients in real-life conditions across various intercontinental countries (Bangladesh, Egypt, Iran, Israel, Tunisia, and Ukraine). Data on socio-demographic and disease characteristics, current symptomatology, and pharmacological treatment were collected. Comparisons between groups were performed using standard statistical tests. Overall, 1180 patients were included. The median time from initial diagnosis was 80 months. Major depressive disorder was the most common initial diagnosis. Mood stabilizers and antipsychotics were the most common drugs being prescribed at the time of the study. Antidepressants (mainly selective serotonin uptake inhibitors [SSRIs]) were administered to 36.1% of patients. Patients with bipolar I disorder received higher number of antipsychotics and anxiolytics than those with bipolar II disorder (p < 0.001). Presence of depressive symptoms was associated with an increase in antidepressant use (p < 0.001). Bipolar disorder real-life management practice, irrespective of region, shows a delay in diagnosis and an overuse of antidepressants. Clinical decision-making appears to be based on a multidimensional approach related to current symptomatology and type of bipolar disorder.

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https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4867470/pdf/srep25920.pdf

(Free Full Text)

Targeting Retinoid Receptors to Treat Schizophrenia: Rationale and Progress to Date.

Lerner V, McCaffery PJ**, Ritsner MS**.

This review provides the rationale and reports on the progress to date regarding the targeting of retinoid receptors for the treatment of schizophrenia and schizoaffective disorder and the role of retinoic acid in functions of the normal brain, and in psychotic states. After a brief introduction, we describe the normal function of retinoic acid in the brain. We then examine the evidence regarding retinoid dysregulation in schizophrenia. Finally, findings from two add-on clinical trials with a retinoid (bexarotene) are discussed. The authors of this review suggest that targeting retinoid receptors may be a novel approach to treat schizophrenia and schizoaffective disorder. Further studies are warranted.

Contemp Behav Health Care 2016; 2: Excessive internet use in the general and ultra-orthodox Jewish communities: Internet addiction or a medium to fuel other addictions?

Kurs R, Grinshpoon A

In this paper we present the concept of "internet addiction" as opposed to excessive behavior disorders. To illustrate the widespread problem and proposed solutions, we have chosen to focus on the example of the excessive internet use in the Orthodox Jewish Community which is a relatively closed, but international society. The authors present the negative attitudes of the leaders of that community towards internet use in general and then describe problematic internet use both in the general population and specifically in Orthodox Jewish communities. Examples of treatment options for excessive internet use are then provided. In conclusion, the legal implications of future classification of problematic internet use as 'internet addiction' are mentioned, as well as recommendations for guidance and education for responsible utilization of the internet.

https://www.oatext.com/Excessive-internet-use-in-the-general-and-ultra-orthodox-Jewish-communities-Internet-addiction-or-a-medium-to-fuel-other-addictions.php

Anhedonia of Patients with Schizophrenia and Schizoaffective Disorder is Attributed to Personality-Related Factors Rather than to State-Dependent Clinical Symptoms.

Ritsner MS.

PURPOSE: The aim of the current study was to explore the concurrent attribution of illness- and personality-related variables to the levels of physical and social anhedonia in patients with schizophrenia (SZ) and schizoaffective disorder (SA). METHOD: Eighty-seven stable patients with SZ/SA were assessed using the revised Physical Anhedonia Scale (PAS) and the Social Anhedonia Scale (SAS) illness- and personality-related variables. Correlation and regression analyses were performed. RESULTS: Three subgroups of patients were stratified by level of hedonic functioning: 52.9% passed the PAS and SAS cut-off ("double anhedonics"), 14.9% the PAS cut-off and 18.4% the SAS cut-off ("hypohedonics"), and 13.8% did not reach the PAS or SAS cut-off ("normal hedonics"). Increased negative and emotional distress symptoms together with low levels of task-oriented and avoidance-coping styles, self-efficacy, and social support were significantly correlated with PAS/SAS scores. Multivariate regression analysis indicated that the contribution of illness-related predictors was 4.1% to the variance of PAS and 5.5% to SAS scores, whereas the contribution of personality-related predictors was 24.1% for PAS and 14.1% for SAS scores. The predictive value of negative symptoms did not reach significant levels. CONCLUSIONS: The hedonic functioning of SZ/SA patients is attributed to a number of personality-related factors rather than to state-dependent clinical symptoms. These findings enable better understanding of the multifactorial nature of anhedonia and might be of therapeutic relevance.

נשים בעלות מוגבלות בחברה הערבית – פצעים פתוחים
בדרן, ר.
בתוך: התמודדות עם פגיעה מינית בקרב אנשים עם מוגבלויות
בהוצאת. משרד הבריאות ואיגוד מרכז הסיוע לנפגעות ונפגעי תקיפה מינית. 2016

https://www.1202.org.il/index.php?option=com...

רפואה ומשפט
השוואה בין רצח על רקע פסיכוטי לבין רצח שאינו על רקע פסיכוטי.
ירון ענתר ע, בנצור ר

Short-term Focused Inpatient Treatment Combined with Sensory Regulation of Sexual Trauma Victims - Summary of 100 First Hospitalizations.

Hirschmann S, Lev-Ari L.

BACKGROUND: Treatment of sexual trauma victims may be fraught with crises. In situations of de-compensation, the frequency of suicide attempts is high, and ambulatory treatment may not always provide the required response. In extreme cases, either in close proximity to the sexual offence or even years later, a more intense intervention is needed. This includes removing sexual trauma victims from their daily lives and hospitalization. Caregivers debate the type of hospitalization needed and the best type of treatment in times of decompensation and dissociation.METHOD: This paper depicts a hospitalization model in Israel that has been created to provide a unique and focused solution for sexual trauma victims. The psychological principle of the hospitalization is based on Mann's shortterm dynamic psychotherapy method. The patients are integrated in an acute psychiatric ward in which a variety of psychopathologies, men and women, are treated. RESULTS: The paper summarizes findings and understandings from the first 100 hospitalizations. The author's main conclusion is that sexual trauma victims need a focused specialized treatment plan to best deal with their complex issues and that hospitalization should be minimized to two weeks. CONCLUSIONS: The author's main recommendation is that funding must be allocated for hospital beds for sexual trauma victims in each region in the country to produce adequate continuity of care for these patients.

https://cdn.doctorsonly.co.il/2017/05/05_Short-term-Focused.pdf
(Free Full Text)

The multiaxial assessment and the DSM-III: a conceptual analysis.

Bronschtein E

With the release of the DSM-III, multiaxial assessment, which was a new concept, was introduced to daily clinical practice. This article will review the history and the

development of the concept of multiaxial assessment and will focus on the its relationship to the DSM-III. In conclusion I will discuss different critiques of the concept.

Ten-Year Quality-of-Life Outcomes of Patients with Schizophrenia and Schizoaffective Disorders: The Relationship with Unmet Needs for Care.

Ritsner MS, Grinshpoon A.

PURPOSE: The present study examined the relationship between unmet needs and current as well as long-term quality of life (QOL) of patients with schizophrenia (SZ) and schizoaffective (SA) disorders. METHODS: Ninety-five stable SZ/SA patients were evaluated using the Quality of Life Enjoyment and Life Satisfaction Questionnaire (Q-LES-Q), the Positive and Negative Syndrome Scale (PANSS), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Coping Inventory for Stressful Situations (CISS). At the 10-year evaluation participants also completed the Camberwell Assessment of Need scale. Correlation and multivariate regression analyses were performed. RESULTS: The number of unmet needs negatively correlated with Q-LES-Q domains; however, the predictive value for general quality of life did not reach significant levels controlling for MSPSS and CISS scores. Patterns of individual needs included assistance with psychological distress, daytime activities, welfare benefits, physical health, food, and intimate relationships, and emerged as significant predictors of current general QOL, even after controlling for PANSS, MSPSS, and CISS scores. Patients who had worsened and had dissatisfied courses of general QOL over time expressed many more unmet needs compared to those who were satisfied and had an improved course of QOL. Individual unmet needs concerning daytime activities, psychological distress, psychotic symptoms, information about treatment, company, and money were associated with worsened and dissatisfied general QOL outcomes. CONCLUSIONS: Unmet needs of SZ/SA patients show a strong relationship with prior long-term and current quality-of-life outcome. The pattern of individual unmet needs rather than the number of unmet needs had a greater predictive value for current subjective quality of life.

The Rubber Hand Illusion paradigm as a sensory learning process in patients with schizophrenia.

Lev-Ari L, **Hirschmann S, Dyskin O**, Goldman O, Hirschmann I

OBJECTIVE: The Rubber Hand Illusion (RHI) has previously been used to depict the hierarchy between visual, tactile and perceptual stimuli. Studies on schizophrenia inpatients (SZs) have found mixed results in the ability to first learn the illusion, and have yet to explain the learning process involved. This study's aim was two-fold: to examine the learning process of the RHI in SZs and healthy controls over time, and to better understand the relationship between psychotic symptoms and the RHI. METHOD: Thirty schizophrenia inpatients and 30 healthy controls underwent five different trials of the RHI over a two-week period. RESULTS: As has been found in previous studies, SZs felt the initial illusion faster than healthy controls did, but their learning process throughout the trials was inconsistent. Furthermore, for SZs, no correlations between psychotic symptoms and the learning of the illusion emerged. CONCLUSION: Healthy individuals show a delayed reaction to first feeling the illusion (due to latent inhibition), but easily learn the illusion over time. For SZs, both strength of the illusion and the ability to learn the illusion over time are inconsistent. The cognitive impairment in SZ impedes the learning process of the RHI, and SZs are unable to utilize the repetition of the process as healthy individuals can.

Exposure of mental health nurses to violence associated with job stress, life satisfaction, staff resilience, and post-traumatic growth.

Itzhaki M, Peles-Bortz A, **Kostistky H, Barnoy D, Filshtinsky V**, Bluvstein I.

Workplace violence towards health workers in hospitals and in mental health units in particular is increasing. The aim of the present study was to explore the effects of exposure to violence, job stress, staff resilience, and post-traumatic growth (PTG) on the life satisfaction of mental health nurses. A descriptive, cross-sectional design was used. The sample consisted of mental health nurses (n = 118) working in a large mental health centre in Israel. Verbal violence by patients was reported by 88.1% of the nurses, and 58.4% experienced physical violence in the past year. Physical and verbal violence towards nurses was correlated with job stress, and life satisfaction was correlated with PTG and staff resilience. Linear regression analyses indicated that life satisfaction was

mainly affected by PTG, staff resilience, and job stress, and less by exposure to verbal and physical violence. The present study is the first to show that, although mental health nurses are frequently exposed to violence, their life satisfaction is affected more by staff resilience, PTG, and job stress than by workplace violence. Therefore, it is recommended that intervention programmes that contribute to PTG and staff resilience, as well as those that reduce job stress among mental health nurses, be explored and implemented.

Improvement in verbal memory following SSRI augmentation of antipsychotic treatment is associated with changes in the expression of mRNA encoding for the GABA-A receptor and BDNF in PMC of schizophrenic patients.

Silver H, Mandiuk N, Einoch R, Susser E, Danovich L, Bilker W, Youdim M, Weinreb O.

Verbal memory impairment in schizophrenia is associated with abnormalities in gamma-aminobutyric acid (GABA)-ergic and brain-derived neurotrophic factor (BDNF) systems. Recent evidence from animal and clinical studies that adding fluvoxamine to antipsychotics alters the expression of transcripts encoding for the GABA-A receptor and BDNF led us to postulate that fluvoxamine augmentation may improve memory in schizophrenia. To test this, we examined the effect of add-on fluvoxamine on verbal memory and other cognitive functions and related it to the expression of mRNA coding for the GABA-A receptor and BDNF in peripheral mononuclear cells (PMC) of schizophrenic patients. Twenty-nine patients completed a 6-week study in which fluvoxamine (100 mg/day) was added to ongoing antipsychotic treatment. Verbal memory, abstraction working memory, object and face recognition, and psychomotor speed and clinical symptoms were assessed at baseline and after 3 and 6 weeks of treatment. Blood samples were taken at baseline and weeks 1, 3, and 6 and PMC was assayed for the GABA-A beta3 receptor and BDNF mRNA by quantitative real-time reverse transcription-PCR. Associative and logical verbal memory improved significantly and showed a significant correlation with changes in PMC BDNF and GABA-A beta3 receptor mRNA, which increased during treatment. Abstraction and object recognition improved, but this did not correlate with PMC measures. Negative and positive symptoms improved significantly; the latter showed significant correlations with changes in PMC measures. Addition of fluvoxamine to antipsychotics improves verbal memory. It is postulated that the mechanism involves enhanced GABA-A receptor/BDNF-dependent synaptic plasticity in the hippocampus.

Baclofen as add-on to standard psychosocial treatment for alcohol dependence: a randomized, double-blind, placebo-controlled trial with 1 year follow-up.

Ponizovsky AM, Rosca P, Aronovich E, Weizman A, **Grinshpoon A.**

BACKGROUND: Limited clinical trials and case-reports yielded conflicting results regarding the efficacy of baclofen (a GABAB agonist) in the treatment of alcohol dependence. The aim of this study was to test the efficacy and tolerability of baclofen in alcohol dependent patients in Israel. METHODS: The study was a double-blind, placebo-controlled, randomized trial comparing 50mg/day of baclofen to placebo over 12 weeks, in addition to a standard psychosocial intervention program, with 26-week and 52-week follow-up observations. The percentages of heavy drinking days and abstinent days were the primary outcome measures, and craving, distress and depression levels; self-efficacy; social support from different sources; and health-related quality of life (HRQL) were secondary outcomes. Tolerability was also examined.RESULTS: Sixty-four patients were randomized; 62% completed the 12-week trial and 37% completed the 52-week follow-up. No between group differences were found in the percentages of heavy drinking and abstinent days. A significant reduction in levels of distress, depression and craving and improved HRQL occurred for both arms, whereas self-efficacy and social support remained unchanged in both groups. No adverse events were observed.CONCLUSIONS: Unlike previous positive trials in Italy, and similarly to a negative trial in the USA, we found no evidence of superiority of baclofen over placebo in the treatment of alcohol dependence. However, the high placebo response undermines the validity of this conclusion. Therefore, more placebo-controlled trials are needed to either verify or discard a possible clinical efficacy of baclofen for alcohol dependence.

Schizophrenia detection and classification by advanced analysis of EEG recordings using a single electrode approach.

Dvey-Aharon Z, Fogelson N, **Peled A,** Intrator N.

Electroencephalographic (EEG) analysis has emerged as a powerful tool for brain state interpretation and diagnosis, but not for the diagnosis of mental disorders; this may be explained by its low spatial resolution or depth sensitivity. This paper concerns the diagnosis of schizophrenia using EEG, which currently suffers from several cardinal problems: it heavily depends on assumptions, conditions and prior knowledge regarding the patient. Additionally, the diagnostic experiments take hours, and the accuracy of the analysis is low or unreliable. This article presents the "TFFO" (Time-Frequency transformation followed by Feature-Optimization), a novel approach for schizophrenia detection showing great success in classification accuracy with no false positives. The methodology is designed for single electrode recording, and it attempts to make the data acquisition process feasible and quick for most patients.

Late-onset psychosis and risedronate treatment for osteoporosis.

Hirschmann S, Gibel A, Tsvelikhovsky I, Lisker A.

As women age and enter menopause, they are sometimes more susceptible than men to certain physical and mental disorders such as osteoporosis and late-onset schizophrenia. Risedronate (Actonel©) is a bisphosphonate used for the treatment of osteopenia. Early initiation of pharmacotherapy for osteopenia is recommended to prevent greater bone loss. The most common side effects of risedronate include fever and flu-like symptoms, hypocalcemia, bone and joint pain, peripheral edema, fatigue, change in bowel movements, osteonecrosis of the jaw, and atrial fibrillation. Though reports in the professional literature of psychotic reactions to risedronate are scant, there have been FDA reports as well as patient discussions of psychiatric side effects from this medication on popular websites. We report the case of M, age 59, who was treated with risedronate for osteoporosis, and was subsequently diagnosed with atypical psychosis after other organic causes were excluded. Though it is conceivable that age-related psychosocial and physical factors triggered late-onset schizophrenia, the temporal relationship between the termination of treatment with risedronate and

the improvement in her mental state suggests that the risedronate might have triggered a psychotic reaction that resolved following cessation of treatment.

Similar verbal memory impairments in schizophrenia and healthy aging.Implications for understanding of neural mechanisms.

Silver H, Bilker WB.

Memory is impaired in schizophrenia patients but it is not clear whether this is specific to the illness and whether different types of memory (verbal and nonverbal) or memories in different cognitive domains (executive, object recognition) are similarly affected. To study relationships between memory impairments and schizophrenia we compared memory functions in 77 schizophrenia patients, 58 elderly healthy individuals and 41 young healthy individuals. Tests included verbal associative and logical memory and memory in executive and object recognition domains. We compared relationships of memory functions to each other and to other cognitive functions including psychomotor speed and verbal and spatial working memory. Compared to the young healthy group, schizophrenia patients and elderly healthy individuals showed similar severe impairment in logical memory and in the ability to learn new associations (NAL), and similar but less severe impairment in spatial working memory and executive and object memory. Verbal working memory was significantly more impaired in schizophrenia patients than in the healthy elderly. Verbal episodic memory impairment in schizophrenia may share common mechanisms with similar impairment in healthy aging. Impairment in verbal working memory in contrast may reflect mechanisms specific to schizophrenia. Study of verbal explicit memory impairment tapped by the NAL index may advance understanding of abnormal hippocampus dependent mechanisms common to schizophrenia and aging.

The attitudes of psychiatric hospital staff toward hospitalization and treatment of patients with borderline personality disorder.

Bodner E, Cohen-Fridel S, Mashiah M, **Segal M, Grinshpoon A**, Fischel T, Iancu I.

BACKGROUND: Negative attitudes towards patients with borderline personality disorder (BPD) may affect their treatment. We aimed to identify attitudes toward patients with BPD. METHODS: Clinicians in four psychiatric hospitals in Israel (n = 710; psychiatrists, psychologists, social workers and nurses) were approached and completed questionnaires on attitudes toward these patients. RESULTS: Nurses and psychiatrists reported encountering a higher number of patients with BPD during the last month, and exhibited more negative attitudes and less empathy toward these patients than the other two professions. The whole sample evaluated the decision to hospitalize such a patient as less justified than the decision to hospitalize a patient with Major Depressive Disorder. Negative attitudes were positively correlated with caring for greater numbers of patients with BPD in the past month and in the past 12 months. Nurses expressed the highest interest in studying short-term methods for treating patients with BPD and a lower percentage of psychiatrists expressed an interest in improving their professional skills in treating these patients. CONCLUSIONS: The findings show that nurses and psychiatrists differ from the other professions in their experience and attitudes toward patients with BPD. We conclude that nurses and psychiatrists may be the target of future studies on their attitudes toward provocative behavioral patterns (e.g., suicide attempts) characterizing these patients. We also recommend implementing workshops for improving staff attitudes toward patients with BPD.

Colour influences perception of facial emotions but this effect is impaired in healthy ageing and schizophrenia.

Silver H, Bilker WB.

INTRODUCTION: Social cognition is commonly assessed by identification of emotions in facial expressions. Presence of colour, a salient feature of stimuli, might influence emotional face perception. METHODS: We administered 2 tests of facial emotion recognition, the Emotion Recognition Test (ER40) using colour pictures and the Penn Emotional Acuity Test using monochromatic pictures, to 37 young healthy, 39 old healthy and 37 schizophrenic men. RESULTS: Among young healthy individuals

recognition of emotions was more accurate and faster in colour than in monochromatic pictures. Compared to the younger group, older healthy individuals revealed impairment in identification of sad expressions in colour but not monochromatic pictures. Schizophrenia patients showed greater impairment in colour than monochromatic pictures of neutral and sad expressions and overall total score compared to both healthy groups. Patients showed significant correlations between cognitive impairment and perception of emotion in colour but not monochromatic pictures. CONCLUSIONS: Colour enhances perception of general emotional clues and this contextual effect is impaired in healthy ageing and schizophrenia. The effects of colour need to be considered in interpreting and comparing studies of emotion perception. Coloured face stimuli may be more sensitive to emotion processing impairments but less selective for emotion-specific information than monochromatic stimuli. This may impact on their utility in early detection of impairments and investigations of underlying mechanisms.

Dental Health and the Type of Antipsychotic Treatment in Inpatients with Schizophrenia.

Grinshpoon A, Zusman SP, Weizman A, Ponizovsky AM.

AIM: This study examined the association between dental conditions in hospitalized patients with ICD-10 schizophrenia and type of antipsychotic treatment. Based on the literature suggesting that atypical antipsychotics are thought to be more tolerable than typical antipsychotics, we hypothesized that hospitalized patients with schizophrenia treated with atypicals would have better dental health than those treated with typicals alone or with a combination of both (combined group). METHODS: A representative sample of 348 patients (69% males), aged 51.4 (SD=14.5, range 31-58) years, was assessed on the standardized criteria of the Decayed, Missing and Filled Teeth (DMFT) index and component scores. Data on medication were extracted from patients' electronic medical records. RESULTS: Patients treated with typicals had significantly higher DMFT index scores than those who received atypicals (23.5 ± 9.9 vs. 19.0 ± 10.5; $p < 0.05$), and higher Missing (20.2 ± 11.6 vs. 13.5 ± 11.2; $p < 0.01$) and lower Filled (1.0 ± 2.4 vs. 2.1 ± 3.9; $p < 0.05$) teeth component scores. No between-group differences in Decayed component scores were found (2.3 ± 3.4 and 3.4 ± 5.0, respectively; $p > 0.05$). The combined treatment group was situated in between the typicals and atypicals groups on all measures. CONCLUSIONS: The results suggest that patients with schizophrenia maintained on atypicals have better dental health than patients treated

with typicals or with a combination of both. From an oral health perspective, monotherapy with atypicals is superior to both typical and atypical/typical treatments. Although the choice between typical and atypical antipsychotic agents is based mainly on clinical psychiatric efficacy, the benefit of atypicals with regard to dental health should be taken into consideration in clinician's decision making.

https://cdn.doctorsonly.co.il/2015/07/08_Dental-Health-and.pdf
(Free Full Text)

Schizophr Res. 2014 Dec;160(1-3):157-62.

Social cognition in schizophrenia and healthy aging: differences and similarities.

Silver H, Bilker WB

Social cognition is impaired in schizophrenia but it is not clear whether this is specific for the illness and whether emotion perception is selectively affected. To study this we examined the perception of emotional and non-emotional clues in facial expressions, a key social cognitive skill, in schizophrenia patients and old healthy individuals using young healthy individuals as reference. Tests of object recognition, visual orientation, psychomotor speed, and working memory were included to allow multivariate analysis taking into account other cognitive functionsRESULTS: Schizophrenia patients showed impairments in recognition of identity and emotional facial clues compared to young and old healthy groups. Severity was similar to that for object recognition and visuospatial processing. Older and younger healthy groups did not differ from each other on these tests. Schizophrenia patients and old healthy individuals were similarly impaired in the ability to automatically learn new faces during the testing procedure (measured by the CSTFAC index) compared to young healthy individuals. CONCLUSIONS: Social cognition is distinctly impaired in schizophrenia compared to healthy aging. Further study is needed to identify the mechanisms of automatic social cognitive learning impairment in schizophrenia patients and healthy aging individuals and determine whether similar neural systems are affected.

https://www.schres-journal.com/article/S0920-9964(14)00636-7/fulltext

Isr J Psychiatry Relat Sci. 2014;51(3):169-74.

Voting rights for psychiatric patients: compromise of the integrity of elections, or empowerment and integration into the community?

Doron A, **Kurs R**, Stolovy T, Secker-Einbinder A, Raba A

BACKGROUND: Participation of the mentally-ill in elections promotes integration   into the community. In many countries, individuals with compromised mental incompetence who have legal guardians are denied the right to vote. In Israel,   mental health consumers are eligible to vote. We evaluated the capacity of   psychiatric inpatients with and without legal guardians to understand the nature and effect of voting.   METHODS: Fifty-six inpatients with/without legal guardians were recruited to the   study. Participants completed the Competency AssessmentTool for Voting (CAT-V),   Brief Psychiatric Rating Scale and the Mini-Mental State Exam.   RESULTS: Cluster analysis determined voting capacity using CAT-V as a continuous   variable. Subjects who scored >1.6 on the CAT-V (59%) had high capacity to vote.   Subjects without guardians revealed significantly higher capacity to vote. Voting   capacity positively correlated with cognitive state and negatively correlated   with severity of illness. Among patients with legal guardians those who scored   >1.6 on the CAT-V maintained the capacity to vote.   CONCLUSIONS: The right to vote is an important basic right for individuals coping   with mental disorders.However, it is important to evaluate the capacity to   understand the voting process among individuals with mental disorders who have   legal guardians. Thus, the integrity of the elections would be preserved by eliminating the risk of undue influence or manipulation of individuals who lack   the capacity to understand the nature and meaning of voting, while preserving the   right to vote for those with the capacity to do so, whether or not they have   guardians.

Intrusive trauma recollections is associated with impairment of interference inhibition and psychomotor speed in PTSD.

Kertzman S, Avital A, Weizman A, **Segal M**

BACKGROUND: Intrusive cognitions that enter consciousness involuntarily are prominent symptoms of posttraumatic stress disorder (PTSD). The present study   aimed to identify neuropsychological mechanisms involved.   METHOD: Fifty PTSD outpatients and 50 healthy controls were tested using Finger   Tapping, Simple and Choice Reaction Times and Stroop Tasks, to measure motor,   psychomotor speed, response selection, and interference inhibition ability   respectively.   RESULTS: PTSD patients performed poorly in all tests, presumably owing to their   generalized slowness of information processing and motor reaction. Psychomotor   speed was a predictor of slowness and high error rate during the Stroop. Impaired   inhibition, as measured by the interference index of the Stroop task, explained   9.7% of the predicated variance in frequency of re-experiencing PTSD symptoms and   23.5% of the predicated variance in augmentation of

the interference response time. CONCLUSION: Impaired interference control may be related to internal (re-experiencing) and external (sensory) stimuli that leads to cognitive deficits in PTSD patients.

https://www.sciencedirect.com/science/article/pii/S0010440X14001163

IQ and obesity in adolescence: a population-based, cross-sectional study

Goldberg S, Werbeloff N, Fruchter E, **Portuguese S**, Davidson M, Weiser M.

WHAT IS ALREADY KNOWN ABOUT THIS SUBJECT: Low IQ is associated with high BMI in childhood. There are inconsistent findings on the association between low SES and high BMI. Youth with low IQ have been reported to have poorer health behaviors, such as poor nutrition and less physical activity. WHAT THIS STUDY ADDS: Low IQ is significantly associated with obesity for both male and female adolescents, though more strongly for female adolescents. Physical activity has a mediating effect on the association between low IQ and obesity among both male and female adolescents, though more strongly for male adolescents. The association between low IQ and obesity is strongest among adolescents from high SES backgrounds. BACKGROUND: Previous studies have shown an association between low intelligence quotient (IQ), high body mass index and low socioeconomic status (SES). OBJECTIVES: This study examined the cross-sectional association between IQ and obesity, exploring the roles of gender, SES and physical activity in this association. METHODS: Subjects were 235,663 male and 169,259 female adolescents assessed by the Israeli military draft board. RESULTS: Low IQ was significantly associated with increased odds of obesity among male (odds ratio [OR] = 1.44, 95% confidence interval [CI] = 1.36-1.52) and female adolescents (OR = 1.61, 95% CI = 1.51-1.73); this association was significantly stronger among female adolescents. Sobel tests indicated that physical activity had a significant mediating effect on this association for male and female adolescents, although more strongly for male adolescents. Dividing the sample according to SES, the association between low IQ and obesity was strongest in the high SES group (male adolescents: OR = 1.26, 95% CI = 1.10-1.43, female adolescents: OR = 1.61, 95% CI = 1.38-1.89), even when controlling for physical activity. CONCLUSIONS: The findings suggest that low IQ is associated with increased odds of obesity, particularly in female adolescents and in adolescents with high SES. Physical activity has a mediating effect on this association, although more strongly for male than for female adolescents. Public health measures on decreasing obesity might focus on these groups.

https://onlinelibrary.wiley.com/doi/abs/10.1111/j.2047-6310.2013.00203.x

Borderline intellectual functioning is associated with poor social functioning, increased rates of psychiatric diagnosis and drug use--a cross sectional population based study.

Gigi K, Werbeloff N, Goldberg S, **Portuguese S**, Reichenberg A, Fruchter E, Weiser M.

Borderline intellectual functioning is defined by the DSM IV as an IQ range that is between one to two standard deviations below the mean (71<IQ<84), and a considerable percentage of the population is included in this definition (approximately 13.5%). The few studies performed on this group indicate that borderline intellectual functioning is associated with various mental disorders, problems in everyday functioning, social disability and poor academic or occupational achievement. Using data from the Israeli military, we retrieved the social and clinical characteristics of 76,962 adolescents with borderline intellectual functioning and compared their social functioning, psychiatric diagnoses and drug abuse with those of 96,580 adolescents with average IQ (± 0.25 SD from population mean). The results demonstrated that the borderline intellectual functioning group had higher rates of poor social functioning compared to the control group (OR=1.9, 95% CI=1.85-1.94). Individuals with borderline intellectual functioning were 2.37 times more likely to have a psychiatric diagnosis (95% CI=2.30-2.45) and 1.2 times more likely to use drugs (95% CI=1.07-0.35) than those with average IQ. These results suggest that adolescents with borderline intellectual functioning are more likely to suffer from psychiatric disorders, poor social functioning and drug abuse than those with average intelligence, and that borderline intellectual functioning is a marker of vulnerability to these poor outcomes.

https://linkinghub.elsevier.com/retrieve/pii/S0924-977X(14)00216-8

The beneficial effect of trazodone treatment on escitalopram-associated nocturnal bruxism.

Grinshpoon A, Weizman A, **Amrami-Weizman A.**

The Beneficial Effect of Trazodone Treatment on Escitalopram-Associated Nocturnal Bruxism.Nocturnal bruxism (NB) is a common sleep-related motor disorder characterized by tooth grinding and clenching. ... It is probably an extreme manifestation of a masticatory muscle activity occurring during sleep.

"Clinical brain profiling": a neuroscientific diagnostic approach for mental disorders.

Peled A, Geva AB

Clinical brain profiling is an attempt to map a descriptive nosology in psychiatry to underlying constructs in neurobiology and brain dynamics. This paper briefly reviews the motivation behind clinical brain profiling (CBP) and presents some provisional validation using clinical assessments and meta-analyses of neuroscientific publications. The paper has four sections. In the first, we review the nature and motivation for clinical brain profiling. This involves a description of the key aspects of functional anatomy that can lead to psychopathology. These features constitute the dimensions or categories for a profile of brain disorders based upon pathophysiology. The second section describes a mapping or translation matrix that maps from symptoms and signs, of a descriptive sort, to the CBP dimensions that provide a more mechanistic explanation. We will describe how this mapping engenders archetypal diagnoses, referring readers to tables and figures. The third section addresses the construct validity of clinical brain profiling by establishing correlations between profiles based on clinical ratings of symptoms and signs under classical diagnostic categories with the corresponding profiles generated automatically using archetypal diagnoses. We then provide further validation by performing a cluster analysis on the symptoms and signs and showing how they correspond to the equivalent brain profiles based upon clinical and automatic diagnosis. In the fourth section, we address the construct validity of clinical brain profiling by looking for associations between pathophysiological mechanisms (such as connectivity and plasticity) and nosological diagnoses (such as schizophrenia and depression). Based upon the mechanistic perspective offered in the first section, we test some particular hypotheses about double dissociations using a meta-analysis of PubMed searches. The final section concludes with perspectives for the future and outstanding validation issues for clinical brain profiling.

The functional anatomy of schizophrenia: A dynamic causal modeling study of predictive coding.

Fogelson N, Litvak V, **Peled A**, Fernandez-del-Olmo M, Friston K.

This paper tests the hypothesis that patients with schizophrenia have a deficit in selectively attending to predictable events. We used dynamic causal modeling (DCM) of electrophysiological responses - to predictable and unpredictable visual targets - to quantify the effective connectivity within and between cortical sources in the visual hierarchy in 25 schizophrenia patients and 25 age-matched controls. We found evidence for marked differences between normal subjects and schizophrenia patients in the strength of extrinsic backward connections from higher hierarchical levels to lower levels within the visual system. In addition, we show that not only do schizophrenia subjects have abnormal connectivity but also that they fail to adjust or optimize this connectivity when events can be predicted. Thus, the differential intrinsic recurrent connectivity observed during processing of predictable versus unpredictable targets was markedly attenuated in schizophrenia patients compared with controls, suggesting a failure to modulate the sensitivity of neurons responsible for passing sensory information of prediction errors up the visual cortical hierarchy. The findings support the proposed role of abnormal connectivity in the neuropathology and pathophysiology of schizophrenia.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4166404/pdf/main.pdf
（Full Free Text)

Pregnenolone treatment reduces severity of negative symptoms in recent-onset schizophrenia: an 8-week, double-blind, randomized add-on two-center trial.

Ritsner MS, Bawakny H, Kreinin A.

AIMS: Management of recent-onset schizophrenia (SZ) and schizoaffective disorder (SA) is challenging owing to frequent insufficient response to antipsychotic agents. This study aimed to test the efficacy and safety of the neurosteroid pregnenolone in patients with recent-onset SZ/SA. METHODS: Sixty out- and inpatients who met DSM-IV criteria for SZ/SA, with suboptimal response to antipsychotics were recruited for an 8-week, double-blind, randomized, placebo-controlled, two-center add-on trial, that was conducted between 2008 and 2011. Participants were randomized to receive either pregnenolone (50 mg/day) or placebo added on to antipsychotic medications. The primary outcome measures were the Positive and Negative Symptoms Scale and the Assessment of Negative Symptoms scores. Secondary outcomes included assessments of functioning, and side-effects. RESULTS: Analysis was by linear mixed model. Fifty-two participants (86.7%) completed the trial. Compared to placebo, adjunctive pregnenolone significantly reduced Positive and Negative Symptoms Scale negative symptom scores with moderate effect sizes (d = 0.79). Significant improvement was

observed in weeks 6 and 8 of pregnenolone therapy among patients who were not treated with concomitant mood stabilizers (arms × visit × mood stabilizers; P = 0.010). Likewise, pregnenolone significantly reduced Assessment of Negative Symptoms scores compared to placebo (d = 0.57), especially on blunted affect, avolition and anhedonia domain scores. Other symptoms, functioning, and side-effects were not significantly affected by adjunctive pregnenolone. Antipsychotic agents, benzodiazepines and sex did not associate with pregnenolone augmentation. Pregnenolone was well tolerated. CONCLUSIONS: Thus, add-on pregnenolone reduces the severity of negative symptoms in recent-onset schizophrenia and schizoaffective disorder, especially among patients who are not treated with concomitant mood stabilizers. Further studies are warranted.

https://www.researchgate.net/publication/260251584_Pregnenolone_treatment_reduces_severity_of_negative_symptoms_in_recent-onset_schizophrenia_An_8-week_double-blind_randomized_add-on_two-center_trial
(Free download from ResearchGate)

36. Community Ment Health J. 2014 Apr;50(3):343-7. doi: 10.1007/s10597-013-9677-4. Epub 2013 Dec 12.

The CANSAS self-report for screening of needs in outpatients with schizophrenia and schizoaffective disorders.

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The importance of needs assessment for service development has been widely recognized. In this study we examined the agreement between the Camberwell Assessment of Need Short Appraisal Schedule self-report version (CANSAS-P) and the Camberwell Assessment of Need interview-based scale in 100 outpatients with schizophrenia and schizoaffective disorders. We found equivalent number of met, unmet, and no needs for most of the domains of the two instruments. Both intraclass correlations and Kappa reliability coefficients were high for most need domains. The high agreement between the two instruments suggests that the CANSAS-P can be used as a screening tool to detect unmet needs in both clinical routine practice and research surveys in mental health outpatient settings.

37. Psychiatry Clin Neurosci. 2014 Apr;68(4):308-17. doi: 10.1111/pcn.12135. Epub 2014 Jan 9.

Predicting 10-year quality-of-life outcomes of patients with schizophrenia and schizoaffective disorders.

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AIMS: This study aimed to determine predictors for 10-year good versus poor perceived general quality of life (QOL) outcomes from baseline variables in people with schizophrenia and schizoaffective disorder.
METHODS: We compared patients with poor versus good 10-year QOL outcomes using baseline clinical, personality-related variables, demographic and background characteristics. Logistic regression analysis was used for predicting the 10-year QOL outcomes from baseline data. One-hundred-eight patients completed the Quality-of-Life Enjoyment and Life Satisfaction Questionnaire, the Positive and Negative Syndromes Scale (PANSS), the Talbieh Brief Distress Inventory, and psychosocial questionnaires at baseline and 10 years later.
RESULTS: Logistic regression revealed six predictors of QOL outcomes: paranoid ideations (odds ratio [OR] 3.1), PANSS general psychopathology (OR 1.1), obsessiveness (OR 0.84), hostility (OR 0.4), PANSS positive scale scores (OR 0.4), and general QOL index (OR 0.4). This model classified 80.6% of the sample with good sensitivity (87% correctly identified 'poor outcome'), and specificity (71% correctly identified 'good outcome').
CONCLUSION: This study provides a pattern of baseline predictors for long-term QOL outcomes. Identified predictors are factors that can potentially be ameliorated, and thereby enhance the QOL of people with schizophrenia and schizoaffective disorder.

38. Clin Neurophysiol. 2014 Mar;125(3):476-83. doi: 10.1016/j.clinph.2013.09.001. Epub 2013 Sep 26.

Local contextual processing in major depressive disorder.

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OBJECTIVE: The study investigated local contextual processing in patients with major depressive disorder (MDD). This was defined as the ability to utilize predictive contextual information to facilitate detection of predictable versus random targets.
METHOD: We recorded EEG in 15 MDD patients and 14 age-matched controls. Recording
blocks consisted of targets preceded by randomized sequences of standards and by sequences of standards that included a predictive sequence signaling the occurrence of a subsequent target event.
RESULTS: Both MDD patients and age-matched controls demonstrated a significant reaction time (RT) and P3b latency differences between predicted and random targets. However, patients demonstrated a specific prolongation of these measures during processing of predicted targets, as well as an attenuation of P3b amplitudes for the predictive sequence. In addition, patients target N1 amplitudes were attenuated compared with controls.
CONCLUSION: MDD patients were able to utilize predictive context in order to facilitate processing of deterministic targets, however, this ability was limited compared to controls, as demonstrated by context-dependent P3b deficits.
SIGNIFICANCE: These findings suggest that patients with major depression have altered processing of local contextual processing.

Impaired network stability in schizophrenia revealed by TMS perturbations.

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Comment on
   Clin Neurophysiol. 2010 Mar;121(3):332-9.

Pathways to similar executive impairment: comparison of schizophrenia patients
and healthy aging individuals.

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Executive impairment is prominent in schizophrenia, in conditions such as
Parkinson's disease and dementia and in healthy aging. Identifying processes that
critically constrain executive function can advance investigation of their
biological basis and treatment planning. Recent findings that elderly healthy
individuals showed similar impairment on conditional exclusion task as
schizophrenia patients raised the question whether similar processes are
impaired. To test this we compared 56 schizophrenia patients, 57 elderly and 77
young healthy individuals on three executive tests: conditional exclusion,
abstraction and inhibition and tests of working memory and psychomotor speed.

Schizophrenia patients performed worse than elderly healthy on abstraction, inhibition and verbal working memory. They were similarly impaired on Penn Conditional Exclusion Test (PCET) outcome measures but differed in performance characteristics. Schizophrenia patients needed relatively more trials to learn the first PCET category than the second or the third. This correlated with other cognitive impairments, particularly in working memory. Elderly healthy individuals found it most difficult to learn the last category. The two groups showed different error patterns. We propose that schizophrenia patients have particular difficulty in early (probabilistic) learning ("what to do") while aging individuals have selective impairment in executive integration. These constitute distinct targets for customized treatment in the two conditions.

Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia.

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The study examines the relationship between internalization of stigma, self-esteem, and the ability of people diagnosed with schizophrenia to form intimate attachments with loved ones. The study included sixty patients with schizophrenia, ages 18-60, men and women. After providing informed consent, all participants completed four questionnaires: Demographics Questionnaire, Self-Esteem Scale, Internalized Stigma of Mental Illness Scale and the Intimacy Attitude Scale-Revised. Internalization of social stigma was found to be a statistically significant core factor that affects self-esteem and the ability to create intimacy among patients with schizophrenia. There was statistically significantly less internalization of stigma of mental illness among hospitalized patients than among individuals with schizophrenia who live in the community.

The retinoid X receptor agonist bexarotene relieves positive symptoms of schizophrenia: a 6-week, randomized, double-blind, placebo-controlled multicenter trial.

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OBJECTIVE: The limitations of antipsychotic therapy in schizophrenia and schizoaffective disorder led to the investigation of the putative utility of pharmacologic augmentation strategies. The antitumor agent bexarotene via nuclear retinoid X receptor (RXR) activation might modulate numerous metabolic pathways involved in the pathogenesis of schizophrenia and schizoaffective disorder. This trial aimed to investigate efficacy and safety of add-on bexarotene to ongoing antipsychotic treatment of patients with schizophrenia or schizoaffective disorder.
METHOD: Ninety inpatients and outpatients that met DSM-IV-TR criteria for schizophrenia or schizoaffective disorder participated in a 6-week, double-blind, randomized, placebo-controlled multicenter study. Bexarotene (75 mg/d) was added to ongoing antipsychotic treatment from October 2008 to December 2010. The reduction in the severity of symptoms on the Positive and Negative Syndrome Scale (PANSS) was a primary outcome. Secondary outcomes included general functioning, quality of life, and side effect scales.
RESULTS: Seventy-nine participants (88%) completed the protocol. Controlling for antipsychotic agents, a mixed model showed that patients who received adjunctive bexarotene had significantly lower PANSS positive scale scores compared to patients who received placebo (F = 8.6, P = .003; treatment arms × time, F = 2.7, P = .049), with moderate effect size (d = 0.48; 95% CI,0.04-0.93). Patients with mean or higher baseline PANSS positive scale scores and patients who did not take lipid-reducing agents revealed greater amelioration of positive symptoms (F = 7.4, P = .008). Other symptoms and secondary outcome measures were not affected by adjunctive bexarotene. Bexarotene was well tolerated, though 2 reversible side effects were reported: a significant increase in total cholesterol levels (P < .001) and a decrease in total thyroxine levels (P < .001).
CONCLUSIONS: Bexarotene might potentially be a novel adjuvant therapeutic

strategy for schizophrenia, particularly for the reduction of positive symptoms. The potential benefits and risks of ongoing administration of bexarotene warrant further evaluation.

TRIAL REGISTRATION: ClinicalTrials.gov identifier: NCT00535574.

What is "effective treatment" for a schizophrenic inpatient with persistent treatment-resistant psychosis and severe violent behavior?: a case of ECT.

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Aggressive behavior among treatment-resistant schizophrenic patients is a major clinical challenge whose prevalence is underestimated.In our 420-bed psychiatric hospital, some 15% of patients exhibit active psychosis and high rates of verbal/physical aggression necessitating physical restraints. In addition to their condition, these individuals endanger staff and other patients, consume extensive resources, and induce a sense of clinical helplessness.Physicians managing such complex patients face dilemmas regarding choice of treatment, criteria for treatment decisions, treatment goals, and outcome assessments. We address some of these by following the progress of a persistently psychotic severely aggressive treatment-resistant inpatient treated with repeated electroconvulsive therapy (ECT). The motivation for this report was our desire to examine whether there was objective evidence to support our clinically based treatment decisions.To this end, we compiled a retrospective chronological life chart recording ECT administrations and aggression using case note information. Physical restraint was chosen as the outcome measure, as it was accurately documented. Because it was used only after all other means failed, a recorded incident represents an extreme peak of ongoing aggressive behavior.

43. Med Hypotheses. 2013 Dec;81(6):1046-55. doi: 10.1016/j.mehy.2013.09.032. Epub 2013 Oct 5.

Brain "Globalopathies" cause mental disorders.

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"Consciousness" "mood," "identity" and "personality" are all emergent properties from whole-brain organizations; these are typically disturbed in psychiatric disorders. This work proposes that the underlying etiopathology of mental disorders originates from disturbances to global brain dynamics, or "Globalopathies" that are divided into three major interdependent types (1) "Resting-State Networkpathies," in personality disorders, (2) "Entropiathies" in mood disorders, and (3) "Connectopathies" in psychosis and schizophrenia spectrum disorders. Novel approaches of processing signals from the brain are beginning to reveal brain organization in health and disease. For example a "small world network" has been described for optimal brain functions and breakdown of that organization might underlie relevant psychiatric manifestations. A novel diagnostic reformulation can be generated based on pathologies of whole brain organizations, such new brain related diagnostic nosology is testable and thus can be validated. Once validated Globalopathies can provide for "Global-therapies" i.e., interventions that can reorganize the brain and cure psychiatric disorders. The technology for such interventions is becoming available.

44. J Clin Psychopharmacol. 2013 Oct;33(5):710-1. doi: 10.1097/JCP.0b013e3182983d42.

Add-on fluvoxamine and negative symptoms of schizophrenia: analysis of data from augmentation studies in a single center.

Silver H, Bilker WB.

Functional connectivity abnormalities during contextual processing in schizophrenia and in Parkinson's disease.

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Functional connectivity was evaluated in patients with schizophrenia (SC) and in patients with Parkinson's disease (PD) during the performance of a local contextual processing paradigm, to investigate the proposition that functional disconnection is involved with contextual processing deficits in these populations. To this end, we utilized event-related EEG signals, synchronization likelihood and graph theoretical analysis. Local context was defined as the occurrence of a predictive sequence of stimuli before the presentation of a target event. In the SC patients, we observed a decrease in path length (L) in the beta band, for the predictive sequence and for predicted and random targets, compared with controls. These abnormalities were associated with weaker frontal-temporal-parietal connections. In the PD patients we found longer L (theta band) for predicted targets, and higher cluster coefficients for both the predictive sequence (theta band) and predicted targets (alpha and theta bands), compared with controls. Detection of predicted targets was associated with weaker frontal-parietal connections in PD. No group differences were found for randomized standard stimuli in both SC and PD patients. These findings provide evidence of task-specific functional connectivity abnormalities within frontal networks during local contextual processing.

Symptom severity scale of the DSM5 for schizophrenia, and other psychotic disorders: diagnostic validity and clinical feasibility.

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Innovations in DSM5 include dimensional diagnosis of schizophrenia (SZ) and other psychotic (OP) disorders using the symptom severity scale (SS-DSM5). We evaluated the psychometric properties and diagnostic validity of the SS-DSM5 scale using a cross-sectional design and an unselected convenience unselected sample of 314 inpatients and outpatients with SZ/OP and mood disorders who received standard care in routine clinical practice. The SS-DSM5 scale, the Clinical Global Impression-Severity scale (CGI-S), the Positive and Negative Syndrome Scale (PANSS), and the Bech-Rafaelsen Mania Scale (BRMS) were administered. Factor structure, reliability, internal consistency, convergent and diagnostic ability of the DSM5-SS were evaluated. Factor analysis indicated two latent factors underlying the SS-DSM5 (Psychotic and Deficit sub-scales). Cronbach's alpha was >0.70. Convergent validity of the SS-DSM5 was highly significant. Patients with SZ/PO disorders were correctly diagnosed (77.9%) using the SS-DSM5 scale (72% using PANSS). The agreement of the diagnostic decisions between the SS-DSM5 and PANSS was substantial for SZ/PO disorders (Kappa=0.75). Classifying participants with SZ/PO versus mood disorders using SS-DSM5 provided a sensitivity of 95%, and specificity of 34%. Thus, this study suggests that the SS-DSM5 has acceptable psychometric properties and that its use in clinical practice and research is feasible in clinical settings. The dimensional option for the diagnosis of schizophrenia and related disorders using SS-DSM5 is discussed.

Attachment styles and affect regulation among outpatients with schizophrenia: relationships to symptomatology and emotional distress.

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OBJECTIVES: Using the model of activation and dynamics of the attachment system (Shaver & Mikulincer, 2002) and dynamic stress-vulnerability models of psychosis (Ingmar & Luxton, 2005) as the analytical frameworks, the authors tested the hypothesis that the insecure attachment styles are differentially associated with the severity of psychopathological symptoms and emotional distress among outpatients with International Classification of Diseases, Tenth edition (ICD-10) diagnosis of schizophrenia.
METHODS: Attachment styles were identified using the Relationship Questionnaire (Bartholomew & Horowitz, 1991) among 100 outpatients with an ICD-10 schizophrenia diagnosis. Current symptom severity was measured by the Positive and Negative Syndromes Scale (Kay, Fiszbein, & Opler, 1987) and emotional distress by the General Health Questionnaire (Goldberg & Williams, 1988). Univariate and multivariate analyses were performed to test the hypotheses.
RESULTS: The preoccupied and fearful-avoidant attachment patterns were associated with higher scores of psychotic (delusions, suspiciousness/persecution, and hallucinatory behaviour) and affective (anxiety, tension, guilt feeling, and depression) symptoms, whereas the dismissing-avoidant style was associated with only anxiety. All the insecure attachment styles were associated with elevated emotional distress.
CONCLUSIONS: The findings support the hypothesis of a predisposing role of the preoccupied and fearful-avoidant styles in psychotic symptom formation and call for cognitive interpersonal interventions geared to reduce symptom and emotional distress severity.

Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia.

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The study examines the relationship between internalization of stigma,
self-esteem, and the ability of people diagnosed with schizophrenia to form
intimate attachments with loved ones. The study included sixty patients with
schizophrenia, ages 18-60, men and women. After providing informed consent, all
participants completed four questionnaires: Demographics Questionnaire,
Self-Esteem Scale, Internalized Stigma of Mental Illness Scale and the Intimacy
Attitude Scale-Revised. Internalization of social stigma was found to be a
statistically significant core factor that affects self-esteem and the ability to
create intimacy among patients with schizophrenia. There was statistically
significantly less internalization of stigma of mental illness among hospitalized
patients than among individuals with schizophrenia who live in the community.

The role of GABA-A receptor in the synergism between SSRI and antipsychotic in
schizophrenia; implications for antipsychotic modes of actions.

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Antipsychotics, old and new varieties, are effective against positive symptoms
such as hallucination and delusions, but are often of limited value in treating
core features of schizophrenia particularly negative symptoms. Developments of
new drugs based on current dogmas have produced similar drugs with no
breakthroughs in effectiveness. New knowledge as to which mechanisms are
responsible for symptom productions and treatment is needed. There is evidence
that response may improve when antipsychotics are augmented with selective
serotonin reuptake inhibitor (SSRI). This augmenting effect cannot be explained
by summating pharmacological effects of the individual drugs. In a series of
laboratory and clinical studies, we identified unique biochemical effects of the
SSRI-Antipsychotic combination, different from each individual drug and suggested
that some of these may mediate the clinical effect. In this paper, we review

these studies and propose that modulation of the gamma-aminobutyric acid (GABA)-A receptor and its regulating system is the mechanism by which SSRI antipsychotic synergism exerts its clinical efficacy.

Personality disorders disturbances of the physical brain.

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How can physical systems of the brain, explain a psychological phenomenon such as personality? Personality is an emergent property of the brain as such it requires interacting elements that generate a whole. Per definition a physical system is a compound whole made of interacting interdependent elements. The brain is composed of multiple levels of elements ranging from single neurons interconnected by axons dendrites and synapses, up to brain regions and neural network ensembles connected by multiple modalities, from direct physical pathways to synchronized functional connectivity. Today we know that the brain develops and wires according to the influences of its environment, this is called "experience dependent plasticity" and follows Hebbian-like algorithms. Such process "embeds" into the brain internal representations in the form of physical attractor configurations distributed within the brain neural-networks. Development entails formation of personal individual-specific network configurations found recently as resting-state networks or "default-mode networks." These internal configurations represent the outer world to us and determine the way we perceive it and react to it. In other words these internal configurations determine our personality styles. The internal representations continuously adapt to the changing worlds offering good adaptability and effective functionality in our changing environments. Personality disorders are reconceptualized in terms of altered disturbed mal-developed default-mode-networks, such that the internal representations are biased, limited, fixated and non-adaptive. In this context therapy of personality disorders can be reconceptualized as experience-depended plasticity therapy.

Factor structure in the Camberwell Assessment of Need-Patient Version: the
correlations with dimensions of illness, personality and quality of life of
schizophrenia patients.

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AIM: To investigate the factor structure underlying the Camberwell Assessment of
Need-Patient Version (CANSAS-P) items in schizophrenia and schizoaffective
disorder.
METHOD: Factor, correlation and regression analyses were performed for dimensions
of CANSAS-P, illness, personality and quality of life (QOL) related variables in
95 stabilized patients with chronic schizophrenia and schizoaffective disorder.
RESULTS: Exploratory factor analysis revealed a four-factor model that explains
50.4% of the total variance of the 20 CANSAS-P items. The factors 'Social
disability', 'Information processing disability', 'Emotional processing
disability', and 'Coping disability' showed acceptable internal consistency
(Cronbach's α coefficient 0.67-0.77). The CANSAS-P subscale scores positively
correlated with severity of symptoms, distress (r ranged from 0.34 to 0.45),
while negatively associated with general functioning (r = -0.34), friend (r =
-0.46) and family support (r = -0.41), satisfaction with medicine (r = -0.35),
general activities (r = -0.40), and general QOL (r = -0.35) (all P < 0.001).
Severity of illness, symptoms, emotional distress and emotion-oriented coping
were positive predictors; friend support, QOL general activities, life
satisfaction and satisfaction with medicine were negative predictors of the
CANSAS-P subscale scores. The effect size (f(2)) for these predictors ranged from
medium to quite large (f(2) = 0.28-1.13), and they explain from 23% to 46% of the
variability in CANSAS-P subscales.
CONCLUSIONS: A four-factor structure mode, including social and cognitive
functioning, emotion responsivity and coping with daily challenges, appears to
fit CANSAS-P items. These subscales may contribute to research and improve
treatment of psychiatric patients.

Ten-year quality of life outcomes among patients with schizophrenia and schizoaffective disorder II. Predictive value of psychosocial factors.

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PURPOSE: To identify psychosocial predictors of change in health-related quality of life among patients with schizophrenia (SZ) and schizoaffective (SA) disorders over a 10-year period.
METHODS: In a naturalistic longitudinal design, 108 patients with SZ/SA disorders completed a comprehensive rating scale battery including self-reported quality of life, emotional distress symptoms, coping styles, sense of self-efficacy, and social support, as well as observer-rated psychopathology, medication side effects, and general functioning at 2 time points, baseline and 10 years later.
RESULTS: Regression models revealed that reduction in self-reported symptoms of depression, sensitivity or anxiety along with increase in self-efficacy, social support, and emotion-oriented coping scores predicted improvement in domain-specific perceived quality of life. Adjustment of the psychosocial models for the effects of disorder-related factors (psychopathology, functioning, and medication side effects) confirmed the above findings and amplified their statistical power.
CONCLUSIONS: In the long-term course of severe mental disorders (SZ/SA), changes in the psychosocial factors are stronger predictors of subjective quality of life outcome than disorder-related changes. The findings enable better understanding of the combined effects of psychopathology and psychosocial factors on quality of life outcome over a 10-year period.

52. Qual Life Res. 2012 Jun;21(5):837-47. doi: 10.1007/s11136-011-9988-2. Epub 2011 Sep 13.

Ten-year quality of life outcomes among patients with schizophrenia and schizoaffective disorders: I. Predictive value of disorder-related factors.

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PURPOSE: To provide data on long-term health-related quality of life (HRQL) outcomes among patients with schizophrenia (SZ) and schizoaffective (SA) disorders and determine the predictive value of disorder-related factors.
METHODS: A total of 108 patients with SZ/SA were assessed during stabilization phase and over 10 years with the Quality of Life Enjoyment and Life Satisfaction Questionnaire (Q-LES-Q), Clinical Global Impression Scale, Positive and Negative Syndromes Scale (PANSS), Distress Scale for Adverse Symptoms (DSAS), Talbieh Brief Distress Inventory (TBDI), Brief Symptom Inventory-Somatization Scale (BSI-S), and Global Assessment of Functioning Scale (GAF). Variability and relationships between Q-LES-Q and disorder-related dimensions over time were analyzed.
RESULTS: There were no differences in Q-LES-Q dimensions between patients with SZ and SA disorders. Poor outcomes were found among 76% of the patients with SZ/SA disorders who remained dissatisfied (64%) or worsened (12%) with their HRQL over time. However, 24% of patients reported improved quality of life (16%), or remained satisfied (8%). Changes in TBDI, DSAS, BSI-S, PANSS, and GAF measures accounted for 20-50% of the total variance in satisfaction changes in Q-LES-Q domains across time.
CONCLUSIONS: Long-term quality of life outcomes are characterized by four different types that fit changes over time in emotional distress, side effects, somatization, symptom dimensions, and general functioning scores. Revealed predictors are factors that can be ameliorated and thereby enhance satisfaction with quality of life over time.

53. Psychiatry Res. 2012 May 15;197(1-2):135-9. doi: 10.1016/j.psychres.2012.01.025. Epub 2012 Mar 17.

Impairment in associative memory in healthy aging is distinct from that in other types of episodic memory.

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There is evidence that age related changes in episodic memory are heterogeneous and result from diverse pathologies. To test this, we examined performance of healthy high-functioning younger (N=41, ages 18-60 y) and older (N=58, ages 61-83 y) individuals in tests of associative memory, logical memory and memory in executive and object-recognition domains. We compared their relationships to each other and to other cognitive functions, including, psychomotor speed and verbal and spatial working memory. Older individuals showed significantly greater reduction in an index of the ability to learn new associations (NAL) than for memory in executive and object-recognition domains. Age-related reduction in NAL and in logical memory was of similar severity, but the two measures showed only moderate correlation when age and other cognitive functions were controlled for. NAL shows an age-related pattern of change distinct from memory in executive and object-recognition domains and from logical (item) memory. We propose that in healthy well-functioning individuals, NAL taps processes which support binding of newly learned association in context of accumulating information, a key function of the hippocampus. NAL may thus serve as a selective marker of complex, hippocampus-based, cognitive functions in studies of normal cognitive aging and of its possible relationship to early dementia.

Neuroanalysis: a method for brain-related neuroscientific diagnosis of mental disorders.

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BACKGROUND: As an Ancient Chinese proverb says "The beginning of wisdom is to call things by their right names" thus we must start calling mental disorders by the names of their underlying brain disturbances. Without knowledge of the causes of mental disorders, their cures will remain elusive.
METHODS: Neuroanalysis is a literature-based re-conceptualization of mental disorders as disturbances of brain organization. Psychosis and schizophrenia can be re-conceptualized as disturbances to connectivity and hierarchical dynamics in the brain; mood disorders can be re-conceptualized as disturbances to optimization dynamics and free energy in the brain, and finally personality disorders can be re-conceptualized as disordered default-mode networks in the brain.
RESULTS AND CONCLUSIONS: Knowledge and awareness of the disease algorithms of mental disorders will become critical because powerful technologies for controlling brain activity are developing and becoming available. The time will soon come when psychiatrists will be asked to define the exact 'algorithms' of disturbances in their psychiatric patients. Neuroanalysis can be a starting point for the response to that challenge.

Association between tobacco smoking and bipolar affective disorder: clinical, epidemiological, cross-sectional, retrospective study in outpatients.

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PURPOSE: Although high rates of smoking have been reported among psychiatric patients, only a few studies examined the prevalence of smoking in bipolar disorder, and findings are inconsistent. We investigated smoking among bipolar patients.
METHODS: We examined the prevalence of smoking in of 102 patients that met Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition criteria

for bipolar I disorder in Israel and evaluated the relationship between smoking and demographic and clinical data.

RESULTS: Fifty-five of the bipolar patients (53.9%) smoked, with a rate that is 2.36 times higher than among the general population in Israel (22.8%). Significant relationships were revealed between smoking and lifetime history of alcohol dependence/abuse (P = .02), between smoking and history of drug use (P ≤ .01), and between smoking and age of illness onset (P = .04).

LIMITATIONS: The cross-sectional nature of the study and the relatively small sample size preclude generalization of the findings. Nicotine levels were not measured; thus, the information regarding smoking was subjective.

CONCLUSIONS: Bipolar patients smoke more than the general population. Bipolar patients that are moderate or heavy smokers are more likely than nonsmokers to consume alcohol and abuse psychoactive substances. Contrary to findings of previous studies, no association was found between clinical variables of bipolar patients and smoking.

Chronic treatment with serotonin reuptake inhibitor antidepressant (SSRI) combined with an antipsychotic regulates GABA-A receptor in rat prefrontal cortex.

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INTRODUCTION: The combination of selective serotonin reuptake inhibitor (SSRI) antidepressants and antipsychotics is currently used for the treatment of negative symptoms of schizophrenia. However, the biochemical mechanism mediating the clinical effectiveness of this treatment remains obscure. Previously, we have reported that acute haloperidol (HALO)-fluvoxamine (FLU) in vivo and in vitro treatment regulated GABA-Aβ2/3 receptor subunits, and protein kinase C (PKC) and mitogen-activated protein kinase/extracellular signal-regulated kinase (ERK) signaling pathways.

FINDINGS: In the present study, we demonstrated that chronic HALO-FLU treatment,

but not each drug alone, significantly decreased GABA-Aβ2/3 receptor expression (25 ± 6.2% vs. control) and caused receptor translocation from the membrane to the cytosol in rat prefrontal cortex. Phosphorylation of PKC and ERK2 was affected differently by HALO-FLU combination than by the individual drug treatments. HALO and FLU each given alone increased PKC phosphorylation levels (29 ± 15% and 40 ± 11.8%, vs. control, respectively) and did not affect ERK2 phosphorylation, while HALO-FLU combined treatment did not alter PKC phosphorylation levels and significantly decreased ERK2 phosphorylation levels (58 ± 4.4% vs. control). GABA-A receptor downregulation in the brain was accompanied by a decrease in GABA-A function, as shown in muscimol-induced loss of righting reflex (22 ± 9.8 min).
CONCLUSIONS: We provide a brief heuristic overview of our preclinical and clinical studies with the SSRI-antipsychotic combination and argue that the finding that it causes similar dynamic changes in laboratory and clinical domains, specifically in GABA-A β2/3 receptor and PKC, strongly supports the hypothesis that the GABA-A receptors and their regulatory systems are involved in the molecular mechanisms underlying the clinical effectiveness of SSRI augmentation.

Evaluation of the capacity of inpatients with chronic schizophrenia to provide informed consent for participation in clinical trials; use of the Hebrew version of the MacArthur Competence Assessment Tool for Clinical Research (MacCAT-CR).

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BACKGROUND: Patient protection requires the provision of informed consent for participation in medical research. The MacArthur Competence Assessment Tool for Clinical Research (MacCAT-CR) is frequently used for screening the capacity of research subjects to consent to participate in research.
OBJECTIVES: To evaluate the utility of the Hebrew translation of the MacCAT-CR for assessing the capacity of patients with chronic schizophrenia to provide informed consent to participate in clinical trials.
METHODS: We evaluated the translated MacCAT-CR by comparingthe capacity of patients with chronic schizophrenia to provide informed consent to participate in clinical trials. The following standardized neurocognitive assessment tools were used: Addenbrooke's Cognitive Examination (ACE) and Frontal Assessment Battery

(FAB), as well as the attending doctor's assessment.

RESULTS: Twenty-one patients participated. Mean MacCAT-CR score was 12 +/- 10.57 (range 0-32), mean FAB score 9.9 +/- 4.77 (range 1-18), mean ACE 59.14 +/- 16.6 (range 27-86) and mean doctor's assessment 5.24 +/- 1.18 (range 3-7).

CONCLUSIONS: The Hebrew version of the MacCAT-CR helped identify patients with the capacity to provide informed consent for participation in research. Patients with FAB scores > or = 12 tended to score higher on the Hebrew version of the MacCAT-CR, thus confirming the utility of the Hebrew version of the MacCAT-CR. During the screening process for clinical trials it may be practical to administer the concise FAB questionnaire, and then administer the MacCAT-CR only to those who scored > or = 12 on the FAB.