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Objectives The purpose of this study was investigating the effectiveness of rTMS (repetitive transcranial of magnetic stimulation) on increase social performance in patients with recurrent major depression.

Method It was used a quasi-experimental, pretest–posttest design with control group, a sample consisting of 32 patients who had depression on the basis of DSM-IV diagnostic criteria, SCID and BDI-II scales and were randomly assigned to two groups.

The experimental group underwent 20 sessions of rTMS as the independent factor and both groups (control & experimental) had 12-session psychotherapy and drugs treatment. Upon the intervention, both groups were tested with two tests (BDI-II & SASS). To determine the effect of the independent factor on the dependent factor of rTMS.

Data were analyzed by *t*-test.

Results The comparison between pre- & posttest of all the tests showed the reduction of signs & symptoms of depression, ($\alpha = 0/05$) (Beck scale $P \leq 0/001$ & $F = 30$) and increase social performance in participants ($P \leq 0/001$ & $F = 83$).

Conclusion The rTMS is effect in the reduction of signs & symptoms of depression and increase social functioning in recurrent major depression.

Keywords Social performance; Magnetic stimulation; Major depression

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW0783

The research of electroconvulsive therapy effect on cognitive function in rats with depressive-like disorder formed by ultrasound

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Electroconvulsive therapy (ECT) is effective method of resistant depression treatment. ECT activates neurotransmitter systems, increases neurotrophic factors production, induces neurogenesis. Nevertheless, ECT side effects, expressed as temporary amnesia, limit its application in clinical practice.

The objective of our work was to estimate rat's memory after ECT in the behavioral test: "Object recognition", "Morris water-maze". The aim of the work was to research the effect of ECT on cognitive function in rats with depressive-like disorder and in normal rats.

Methods The research was conducted with Sprague-Dawley rats ($n = 41$, 2 month age). Experimental stages:

– control group ($n = 10$) compared to control + ECT group ([70 mA, 50 Hz, 500 μ sec; 10 days] $n = 10$);

– control group ($n = 9$) compared to group with depressive-like disorder, formed by ultrasound ([20–45 kHz; 21days] US, $n = 6$) and group with depressive-like disorder received ECT ($n = 6$).

Memory was estimated in the "Object recognition" and "Morris water-maze" tests.

Results (1) ECT did not decrease cognitive function in the "Object recognition" test in normal rats ($P = 0.1217$). Also, it did not lead to cognitive impairments in the "Morris water-maze" test: time of platform searching did not differ significantly from the control group ($P = 0.8573$).

(2) ECT produced recovering effect on memory impairments of the US group in the "Object recognition" test ($P = 0.0066$). In the "Morris water-maze" ECT decreased time of platform searching by 7 times compared to the US group ($P = 0.0025$). That demonstrates the absence of ECT negative effect on rat's memory.

Conclusion ECT does not produce negative effect on cognitive function in rats with depressive-like disorder and even recovers memory impairments.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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Glucocorticoid activeness in patients with mitral valve prolapse and autonomic dysfunction

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Background Urgency of psychophysiological examination of mitral valve prolapse (MVP) patients is suggested by a high incidence of anxiety disorders among these patients.

Objectives To study glucocorticoid function activity and emotional stress resistance in MVP patients with autonomic dysfunction (AD).

Methods The trait anxiety level (TA) was assessed with the State-Trait Anxiety Inventory (Spielberger). Emotional stress resistance was undertaken with our modified version of Rosenzweig Picture-Frustration Test (Zinchenko, Pervichko). The cortisol level in blood plasma was measured by radioimmunoassay technique with radioimmune assay kit of cortisol in human blood plasma 'KORT-3N' (Belarus). There were 32 MVP patients (mean age was 28.5 ± 1.6 years) and 15 healthy people (mean age was 27.5 ± 1.3 years) who took part in the study.

Results Among reactions to frustration revealed by MVP patients the following categories are dominating: extrapunitive (E), ego-defensive (ED), and obstacle-dominance (OD). There was revealed a direct correlations: TA and E ($r = 0.49$, $P < 0.001$); TA and ED ($r = 0.46$, $P < 0.01$); TA and indexes of AD ($r = 0.43$, $P < 0.01$).

There was displayed a higher level of cortisol in MVP patients with severe grade of AD, against the level revealed by patients with average grade of AD (433.9 ± 78.0 mmol/L vs. 299.3 ± 42.9 mmol/L; $P < 0.05$). Direct correlations were established between the cortisol level and the level of TA ($r = 0.45$; $P < 0.01$); between the frequency of E-reactions in Modified Rosenzweig Test and cortisol level ($r = 0.42$; $P < 0.01$).

Conclusion Along with low stress resistance, registered AD and high level of TA, MVP patients reveal higher indexes of cortisol in blood plasma.

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EW0785

Life events, quality of life, autonomic nervous system, and cardiovascular risk factors

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Background Psychological distress is considered as a component of the cardiovascular risk. The present study aims to determine which psychophysiological, electrocardiographic and anthropometric factors are correlated with life events, depression and quality of life in healthy adults.

Method A total of 114 adults were examined using the Social Readjustment Rating Scale, the EuroQol Group 5-Dimension Self-Report Questionnaire, Beck Depression Inventory – Second Edition, Zung Self-Rating Depression Scale. Physiological measures included heart rate variability, skin conductance level and skin temperature. Anthropometric characteristics included weight, height, hip size, waistline, blood pressure, heart rate at rest and after mental activity, muscle mass, fat stock, percentage of the body fat, segmental distribution of muscle and fat mass, fat-free mass and the water content in the body. Finally, data from electrocardiographic examination included aortic pulse wave velocity, central aortic pressure and augmentation index.

Results Life events in last two years correlate with worse quality of life and a higher level of depression. Life events in last two years also correlate with the increase of the risk factors for cardiovascular problems in terms of several anthropometric and physiological measures. Finally, life events in last two years was also related with the overweight.

Conclusions Results suggest some possible mechanisms by which stress may exert adverse effects on cardiovascular morbidity and mortality in healthy persons. Primary preventive strategies with the stress management training may prove beneficial.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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e-Poster Walk: Quality management; rehabilitation and psychoeducation and research methodology

EW0786

Art therapy for patients in acute psychotic episodes

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Purpose Evaluate the efficacy of art therapy during acute psychotic episodes.

Methods Thirty-six inpatients with ICD-diagnoses of schizophrenia (F20.0–F20.9) age between 20–60 were randomised to either 12 twice-weekly sessions of psychodynamic group art therapy plus treatment as usual or to standard treatment alone. Art therapy was administered in 12 sessions of 90 minutes for 6 weeks. At 12 weeks, 55% of patients randomised to art therapy, and 66% of patients receiving treatment as usual were examined. Scales used: 17 – Item Hamilton Rating Scale for Depression (HRSD) for depression and Scale for the assessment of negative symptoms (SANS).

Interventions The approach was non-directive – patients could choose to create whatever they wanted and use any available material. Interventions by the art therapist aimed at supporting the art

process and helping to understand the image. The last 30 minutes of a session were reserved for a shared viewing and reflecting on the images.

Results With post-treatment and follow-up scores of SANS and HRSD patients who had received AT had a significantly greater mean reduction of positive and negative and also depressive symptoms at 12-week follow-up than patients treated as usual. Social functioning was significantly higher in the AT group. There were no significant interactions between intervention group and gender.

Conclusion Evidence on the efficacy and effectiveness of AT in patients with schizophrenia is far from being conclusive and benefits might be limited to a subgroup of patients. Results of this study suggest AT can be implemented in routine hospital settings for patients experiencing acute psychotic states.

Disclosure of interest The author has not supplied his/her declaration of competing interest.

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EW0787

Perseverative Thinking Questionnaire: Confirmatory factor analysis with two different samples

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Introduction Perseverative Negative Thinking (PNT) is a transdiagnostic cognitive process [1] characterized by repetitiveness, intrusiveness and difficulties to disengage (Ehring, 2011). The Perseverative Thinking Questionnaire (PTQ-15; [2]) is a self-reported instrument, developed to evaluate these characteristics. The Portuguese version assess two meaningful dimensions – Repetitive thoughts (RT); and Cognitive interference and unproductiveness (CIU) [3].

Aim To confirm the bi-dimensional structure of the PTQ-15 using Confirmatory Factor Analysis, in two distinct samples.

Method A sample composed of 256 students (Mean age = 20.58 ± 1.870; 78.1% girls) and a sample composed of 480 adults from the community (parents of the students; mean age = 50.84 ± 5.310; 53.1% women) filled the PTQ-15. We used software AMOS.

Results The second-order model of PTQ-15 with two dimensions presented good fit, in both students (CMIN = 2.449; RMSEA = 0.075; CFI = 0.958, TLI = 0.949, PGFI = 0.776; $P < 0.001$) and their parents (CMIN = 3.46; RMSEA = 0.072, CFI = 0.955, TLI = 0.942, PGFI = 0.632; $P < 0.001$). Internal consistency of the total scale, measured through Cronbach's alpha was $\alpha = 0.95/0.94$; both factors presented good/excellent reliability: repetitive thoughts ($\alpha = 0.93/0.92$); cognitive interference and unproductiveness ($\alpha = 0.88/0.92$).

Conclusion Taken together, both CFAs provided additional evidence that PTQ-15 is an adequate measure for perseverative thinking.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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