Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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A total of 37 variables were analysed, including analytical, anthropometric, neurocognitive and psychopathological parameters.

A descriptive analysis of each variable was performed, obtaining the frequency distribution, arithmetic mean and standard deviation.

The Kolmogorov-Smirnov test was applied, which showed that the sample did not have a normal distribution, so for the analysis of the data it was used Wilcoxon’s non-parametric test, considering those with a p-value <0.05 as significant. All analyses and graphs were performed with the statistical software IBM SPSS Statistics 25.0.

RESULTS: The mean age of the participants was 39.79 ± 13.31 years, who participated in an average of 14.71 ± 3.69 sessions. Statistically significant improvements were observed in the following variables:

- Regarding psychopharmacology, no significant changes were observed in dosages of oral medication or long-acting injectable medication (monthly and quarterly injectable paliperidone, and monthly aripiprazole).
- Conclusions: Our results, as has already been said in the scientific literature, demonstrate that sport and physical exercise produce physical, psychological, metabolic and cognitive benefits. Moreover, Sport and physical activity improves the subjective therapeutic environment in half-stay units.
- Therefore, physical exercise should be an essential component within a multidisciplinary treatment protocol for Several Mental Illness.

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P.0518

Effects of COVID-19 lockdowns on well-being in subgroups of the population

A. Lan, T. Ron, S. Oved, M. Mofaz, N. Kronfeld-Schor, D. Yamin, Y. Stukalin, E. Shmuelli, H. Einat

Tel Aviv-Yaffo Academic College School of Behavioral Sciences, Behavioral Sciences, Tel-Aviv, Israel; Tel-Aviv University, Industrial Engineering, Tel-Aviv, Israel; Tel-Aviv University, School of Zoology, Tel-Aviv, Israel

Introduction: The unprecedented restrictions imposed due to the COVID-19 pandemic, including movement control orders and lockdowns, altered our daily habits, and severely affected our well-being and physiology.

Aims: The studies described in this work were designed to explore the effects of COVID-19 related lockdowns on well-being indicators in different population groups in Israel.

Methods: We studied the effects of lockdown in three cohorts: (1) 169 individuals from the general population; (2) 91 undergraduate students and (3) 39 women within fertility age. We used wearable devices (FitBit® smartwatches and TempDrop® sensor), a smartphone app, sleep logs (for up to 5 weeks) and online (Qualtrics®) questionnaires to evaluate multiple well-being indicators before, during and after lockdown in Israel. We used a mixed ANOVA model to study the interplay between different factors on well-being before and after lockdowns.

RESULTS: Studies demonstrate effects on sleep latency and/or patterns during lockdown. Moreover studies indicate changes in mood, activity levels, social encounters, resting heart rate (RHR) and menstrual cycle length related to lockdown. In cohort (1) lockdown resulted in decreased mood (p<0.001), increased sleep duration (p<0.001) delayed mid-sleep point during workdays (p=0.07) and weekends (p=0.02), reduced social encounters (p<0.001), and reduced RHR (p=0.05). Moreover, the data suggest differential effects of lockdown in subgroups with lower mood (p=0.05) and lower activity (p=0.01) in younger individuals, increased stress (p=0.01), reduced social encounters (p=0.03) and reduced RHR (p=0.06) in females. The strongest reduction in mood was shown in young individuals with early chronotype (p=0.02) while largest change in sleep duration was shown in young people with late chronotype (p=0.04) and older subjects with early chronotype (p=0.04). In cohort (2), There were effects of lockdown (p=0.02) and chronotype (p=0.05) on sleep duration. Increased sleep during lockdown and in early chronotypes. Females slept more during lockdown (p=0.01) and students who work slept less (p=0.02). Midsleep point free days (MSF) was delayed during lockdown (p=0.001) with MSF of late chronotypes later than MSF of early chronotypes (p<0.001). For cohort (3) changes in menstrual cycle length were heterogeneous showing increase, decrease or no change due to lockdown. Interestingly, length of the cycle normalized to pre-lockdown conditions when lockdown was over with women who had increase from pre-lockdown to lockdown had decrease from lockdown to post-lockdown and vice versa. Statistical analysis (mixed ANOVA) of cycle length across time with direction of change as main factor shows no main effects but a highly significant interaction (p<0.001) indicating a different pattern of change across.
time for each of the groups. Additional findings from this cohort show delay of MSF during lockdown (p=0.002) and an interesting correlation between MSF and menstrual cycle length (p=0.04).

Conclusions: COVID-19 lockdowns in Israel had significant effects on the wellbeing of the population with possibly more severe effects in specific subgroups including younger people and females with involvement of additional factors including work status and chronotypes. Hopefully, these lockdown-induced adverse changes can naturally normalize after lockdown ends as shown with the length of the menstrual cycle in cohort (3).

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P.0519
Do early changes in quantitative electroencephalogram predict outcome of electroconvulsive therapy in depression?

A. Nicoline1, M. Salta2, K. Vansteelantd1, J. Laton1, F. Bouchkaert4, G. Nagels3, P. Sienaert1

1 University Psychiatric Center KU Leuven, Adult Psychiatry, Kortenberg, Belgium; 2 O Vigilante, Mutual Aid Association, Amadora, Portugal; 3 Vrije Universiteit Brussel, Neuroprotection & Neuromodulation, Brussels, Belgium; 4 University Psychiatric Center KU Leuven, Geriatric Psychiatry, Leuven, Belgium; 5 Universitair Ziekenhuis Brussel, Neurology, Brussels, Belgium

Background - Predicting which patient will respond to electroconvulsive therapy (ECT) remains challenging. Few predictors, such as psychotic and psychomotor symptoms, have been shown to predict outcome after ECT. The predictive value of quantitative electroencephalogram (qEEG)-data remains elusive.

Aim - We investigated whether changes in quantitative EEG-parameters after 6 ECT sessions, as compared to baseline, are predictive of response in patients with major depressive disorder.

Methods - Fifty-four patients diagnosed with major depressive disorder, with or without psychotic symptoms, underwent an EEG at baseline and after 6 ECT-sessions. EEGs were recorded using a 64-channel ANT digital EEG measure station and analyzed by using a logistic regression of the average qEEG difference score (average qEEG after 6 ECT sessions minus average qEEG score at baseline). Patients were judged as (non-)responder (after completing their ECT treatment) by two independent psychiatrists based on the patient files (with satisfying inter-rater reliability, using Cohen’s Kappa is 0.83 (95% CI: 0.67 - 0.99).

Results - Responding patients’ average qEEG difference scores were significantly different from zero for the following frequency bands: [1-2]Hz, [2-3]Hz, [3-4]Hz, [4-5]Hz, [5-6]Hz, [6-7]Hz. We found that the average qEEG difference scores that are predictive for ECT- response are situated in the left and right central, left and right parietal, and left and right occipital cortex. On the basis of this analysis, we decided to aggregate the average qEEG difference score over the frequency band [1-7]Hz. The mean qEEG difference score (aggregated over these frequencies and all regions) is 0.89 (sd=1.27, min=-2.72, max=4.55, 95% Confidence Interval = 0.55 -1.24) implying that patients’ average qEEG score has increased significantly after 6 ECT sessions.

Conclusion - qEEG analysis showed that a significant increase in responding patients was noted only in the delta and theta frequency bands after a course of 6 ECT sessions, which correlates with earlier findings in the literature [1,2]. Increased theta and delta were situated in the left and right central, left and right parietal, and left and right occipital cortex. This does not correspond with the available literature on prediction of qEEG in ECT, designating the frontal area as the region showing most significant changes in responders [3,4].

This anatomical incongruity between our study and our findings in the literature could be assigned to the fact that our study used 64 electrodes during the EEG recordings, while the reviewed studies used between 17 and 35 electrodes, which offers to our study a higher accuracy when assessing the region of significant changes.

A major limitation in our study is the crude measure of response. Also, the method of analysis of EEG data in our study does not correspond with the studies we found. In most studies, EEG findings were analysed by using either a power spectrum analysis, a low-resolution brain electromagnetic tomography software, the intrahemispheric coherence or by using cordance values.

We can conclude that early qEEG-measures during an ongoing ECT-course might be used in predicting future response to ECT.

No conflict of interest

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P.0520
Transcranial magnetic stimulation (TMS) for the treatment of pharmacotherapy resistant auditory hallucinations (AH) in patients with schizophrenia