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Abstract Book JPR Proof_V1

110813**Associations between fatigue and endocrine functioning in chronically stressed individuals**N. Ali^a, N. Skoluda^a, J. Strahler^b, U. Nater^a^aUniversity of Vienna, Vienna, Austria^bDepartment of Psychology and Sports Science, Justus Liebig University Giessen, Giessen, Germany

Background

Individuals suffering from chronic fatigue have been found to experience significantly more stress compared to healthy individuals. However, not everyone experiencing chronic levels of stress becomes fatigued, indicating that inherent individual differences exist in stress sensitivity, and risk for fatigue. While both chronically stressed and fatigued patients show hypoactivity of the hypothalamic-pituitary- adrenal (HPA) axis, it is not known whether differential patterns of HPA axis dysfunction exist in chronically stressed individuals with varying levels of fatigue.

Methods

61 chronically stressed (CS; 38.31±14 years) and 55 low-stress (LS; 37.90 ± 14.37 years) women, were exposed to a psychosocial laboratory stressor. Salivary cortisol measures were assessed throughout the study. Fatigue was assessed using the Multidimensional Fatigue Inventory.

Results

The results revealed that CS had overall significantly lower cortisol levels and higher fatigue, compared to LS ($p < 0.05$). Within the CS group, increasing levels of fatigue were not associated with changes in cortisol. In the LS group, however, there was an inverse relationship between fatigue and cortisol, with increasing levels of fatigue associated with lower cortisol ($p < 0.05$).

Conclusion

Our findings indicate that in CS, stress-related hypoactivity of the HPA axis may have resulted in a floor effect for cortisol, such that increasing levels of fatigue, in addition to existing chronic stress, do not have cumulative effects on the already blunted HPA axis. This was in contrast to the LS group in which fatigue had important effects on the HPA axis functioning, such that decreases in cortisol were observed as fatigue levels increased.

doi:[10.1016/j.jpsychores.2022.110813](https://doi.org/10.1016/j.jpsychores.2022.110813)**110814****Subjective cognitive complaints and neuropsychological performance at six months post COVID-19**S. Andersson^{a,b}, K. Hestad^c, D. Johannessen^d, I. Okkenhaug^e, A. Gramstad^f, O. Andreassen^b, A. Lanneskog^b, B. Sørensen^b, E. Bøen^b, M. Boldingh^g, A. Aamodt^g, B. Boye^b^aDep. of Psychology, University of Oslo, Oslo, Norway^bPsychosomatic Medicine and C/L Psychiatry, Oslo University Hospital, Oslo, Norway^cDepartment of Health and Nursing Science, Inland Norway University of Applied Sciences, Elverum, Norway^dInnlandet Hospital Trust, Lillehammer, Norway^eVestre Viken Hospital Trust, Drammen, Norway^fDepartment of Neurology, Haukeland University Hospital, Bergen, Norway^gDepartment of Neurology, Oslo University Hospital, Oslo, Norway

Objective

Reports of cognitive late effects from Covid-19 survivors are increasing, based on both self-reported subjective cognitive deficits (SCD) and formal performance-based objective cognitive assessment. As few studies have included both methods, the present study aims to combine self-report and performance-based cognitive assessment to explore the magnitude of cognitive deficits and to examine the degree of coherence or discrepancy between self-reported and objective cognitive function.

Methods

Sixty patients with confirmed Covid-19 infection and neurological symptoms were recruited from a national multicenter study. At 6 months post-covid infection, they completed a neuropsychological examination covering motor function, processing speed, attention/working memory, word fluency, verbal, and visual memory. To assess SCD, items expressing cognitive function were extracted from an extended version of the Giessner Beschwerde Bogen (GBB) questionnaire.

Results

Compared to normative mean, by one-sample *t*-tests, cognitive domains including verbal memory and word fluency were significantly reduced. There were no significant associations between cognitive functions and illness severity defined as need of hospitalization or mechanical ventilation. GBB items expressing subjective memory and language problems were modestly correlated

with test performance within attention, processing speed, verbal memory, and executive function, with no p -values surviving correction for multiple comparisons.

Conclusion

Verbal memory and word fluency performance were significantly reduced at six months in Covid-19 survivors. However, performance-based cognitive impairment was only modestly associated with subjective cognitive complaints, suggesting a more multidimensional model including both premorbid and post-covid developed psychiatric, cognitive, and medical conditions to account for Covid-19 related cognitive impairment.

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110815

Evaluation of a Mental Health Awareness Program for medical staff in a Pakistani Prison

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Objective

Mental health problems in prison settings is a global health priority, however, lack of trained staff and adequate health care provision in prisons in Pakistan is a major concern. The aim of this training program was to raise awareness about mental health problems amongst prison medical staff.

Methods

This was a 10-session training program with pre-post assessments, delivered weekly to medical staff, men ($n = 20$) and women ($n = 20$) in, Pakistan (Karachi) prison. Training was provided to medical doctors and medical ward staff that also included prison inmates. Training included a detailed presentation in local language (Urdu) with role play sessions on a simple valid screening tool for each domain: depression, anxiety and phobia, bereavement, bipolar affective disorder, substance abuse disorder, postnatal depression, post-traumatic-stress-disorder, schizophrenia, self-harm and suicide and basic counseling skills. Screening tools included: Patient Health Questionnaire, Generalized Anxiety Disorder, Mood Disorder Questionnaire, Beck scales for Suicidal Ideation, Impact Event scale, Edinburgh Postnatal Depression Scale.

Results

More than 70% participants from each training batch attended all training sessions. Comparison of pre-post mean score showed significant improvement ($p < 0.001$) in knowledge and understanding in all domains (depression 3.9–6.6; anxiety 2.9–4.5, bereavement 2.9–4.5, bipolar disorder 3.6–5.5, substance-abuse-disorder 3.1–4.5, postnatal depression 1.6–4.1, post-traumatic-stress-disorder 2.7–6.0, schizophrenia 2.8–5.1, self-harm and suicide –4.3–2.7, counseling 2.7–5.1).

Conclusion

The training demonstrates significant improvement in knowledge of mental health in prison staff. The impact of these

training programs on care, support and referral of inmates needs evaluation.

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110816

The modifying role of loneliness on the associations of diurnal cortisol patterns with glycaemia and incident type 2 diabetes

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Objective

To examine the association of diurnal cortisol secretion patterns with increases in glycemia and incident type 2 diabetes mellitus (T2DM) and the potential impact of loneliness on these associations.

Methods

A prospective analysis was conducted among 616 participants with a mean age of 74.7 (± 6.2) years of the population-based KORA (Cooperative Health Research in the Region of Augsburg)-Age study. Cortisol Awakening Response (CAR), late-night (LNSC), diurnal cortisol slope (DCS), UCLA Loneliness Scale and covariates were assessed at baseline. Multivariable-adjusted regression models were used to assess the associations of baseline cortisol with changes in HbA1c levels (at 3-year follow up) and incident T2DM (6-year follow up), adjusting for important confounders.

Results

In the total sample, a steeper baseline DCS was significantly associated with reduced odds of developing T2DM (adjusted OR (95% CI) 0.53, 0.30–0.95, $p = 0.03$). Further multivariable-adjusted linear regression models also showed that a flattened DCS and higher LNSC levels at baseline were significantly associated with increases in HbA1c levels (DCS: $\beta = -0.05$, SE = 0.02, $p = 0.01$; LNSC: $\beta = 0.07$, SE = 0.04, $p = 0.004$). Stratified analyses due to significant interaction by loneliness revealed that a flattened DCS was associated with increases in HbA1c levels, particularly among lonely individuals ($\beta = -0.18$, SE = 0.06, $p = 0.006$) but not in less lonely individuals (-0.03 , 0.02, 0.15).

Conclusion

Dysregulated diurnal cortisol secretion is associated with increases in glycemia and incident T2DM in this old-aged population. These findings highlight a detrimental effect of dysregulated cortisol secretion contributing to glycemia, particularly among individuals with loneliness.

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