

## Anxiety disorders

BGR de Silva, SS Williams

### Anxiety disorders and accelerated cellular aging (1)

Anxiety disorders have been found to increase the risk of the onset of many ageing related somatic conditions, which as a consequence could increase or accelerate cellular ageing. The aim of this study was to examine the association between the status of anxiety and leukocyte telomere length (LTL) as the indicator of cellular aging.

Data was derived from individuals with current ( $n = 1283$ ) and remitted ( $n = 459$ ) anxiety disorders, as well as controls ( $n = 582$ ), who had no psychiatric disorders according to the Netherlands Study of Depression and Anxiety. The authors determined DSM-IV anxiety diagnoses and clinical characteristics via structured psychiatric interviews and self-report questionnaires. The LTL of the participants were assessed using quantitative polymerase chain reaction and converted in base pairs (bp).

The results were such that the patients in the current anxiety group (bp = 5431) had significantly shorter LTL when compared with the control group (bp = 5506,  $p = 0.01$ ) and the remitted anxiety group (bp = 5499,  $p = 0.03$ ), in analyses that were adjusted for socio-demographic factors, health and lifestyle. There did not appear to be a difference between the remitted anxiety group and the control group ( $p = 0.84$ ). However, time since remission was positively related with LTL. In addition, anxiety severity scores were associated with LTL in the entire sample, in line with a dose-response reaction.

The findings of the study indicate that, patients with current, but not remitted, anxiety disorders had shorter leukocyte telomere length, which suggests a process of accelerated cellular aging, which in part may be reversible after remission.

### Treatment of child anxiety disorders via guided parent-delivered cognitive-behavioral therapy (2)

There is an emergence of promising evidence with regard to clinical gains by using self-help cognitive-behavioral therapy (CBT) for child anxiety and also by using parents in the treatment process. However, the efficacy of guided parent-delivered CBT had not been systematically evaluated in UK primary and secondary settings. The authors of this study attempted to evaluate the efficacy

of low-intensity guided parent-delivered CBT treatments for children with anxiety disorders.

Data was obtained from a total of 194 children, who presented with a current anxiety disorder, and whose carer did not meet the criteria from an anxiety disorder. They were randomly allocated to full guided parent-delivered CBT (four face-to-face and four telephone sessions) or brief guided parent-delivered CBT (two face-to-face and two telephone sessions), or a wait-list control group. The presence and the severity of a child's primary anxiety disorder was assessed by the Anxiety Disorders Interview Schedule for DSM-IV- child/parent versions, whilst changes in the child's level of anxiety was assessed through the Clinical Global Impression-Improvement scale, the Spence Children's Anxiety Scale- child/parent version, and the Children Anxiety Impact scale-parent version.

The results showed that full guided parent-delivered CBT produced superior outcomes when compared with the wait-list group at post-treatment, whereas brief delivered CBT did not. At post-treatment, 25 (50%) of those in full guided CBT group had recovered from their primary diagnosis when compared with 16 (25%) of the participants in the wait list group (relative risk (RR) 1.85, 95% CI 1.14-2.99). In the brief guided CBT group, only 18 (39%) recovered from their primary diagnosis post-treatment (RR = 1.56, 95% CI 0.89-2.74). The level of therapist training and experience was found to be unrelated to the outcome of the child's progress.

Limitations of this study include the fact that in the absence of an active treatment control group, the interventions could not be compared to other treatment modalities for child anxiety; and given that the trial was limited to a specific area in the UK healthcare system, findings may not be widely generalisable.

Nevertheless, this is the first randomised controlled trial which explores parent-delivered CBT for a childhood disorder, and findings suggest that full guided parent-delivered CBT is an effective first-line treatment for child anxiety.

### The relationship between mobile phone use, academic performance, anxiety and satisfaction with life in college students (3)

The functional differences between the mobile phones and computers used today are becoming less clear, whilst

one difference remains plainly clear. Mobile phones are almost always on-hand, and allows the user to connect to a vast amount of services and networks at almost any time and any place. Internet and American Life Project conducted by Pew center suggest that college students are the most rapid adopters of mobile phone technology. However, research is emerging which suggest that the high frequency use of the mobile phone maybe influencing these mobile phone users health and behavior. On this premise the authors aimed to investigate the relationship between mobile phone use and satisfaction with life (SWL). It was hypothesized that this relationship would be mediated by academic performance (GPA) and degree of anxiety.

College students from the US were included as participants of this study. Outcomes of interest included total mobile phone use (n = 496) and texting (n = 490), SWL as measured by the Satisfaction with Life Scale, levels of anxiety based on the results of the Beck Anxiety Inventory, and student academic performance as indicated by their GPA.

The mean age of the participants was 20 years, and a majority was female. On average, student reported spending 278 minutes per day using their mobile phones, and sending 76 text messages per day. The authors report that mobile phone use and texting was negatively related to the participant's GPA, and positively related to anxiety. The authors also found that GPA was positively related to SWL, while anxiety was negatively related SWL – indicating that participants with a high use of mobile phones to appear to have poorer satisfaction with life, and to experience higher levels of anxiety.

However limitations of the study include that it was conducted among US college students, and hence findings may not be universally generalizable; and given the study design, it is not possible to determine causality of associations described in the study. Relevant to the modern day lifestyle, these findings add to the debate about student mobile phone use, and possible adverse associations between high frequency of use and academic performance, mental health and subjective well-being or happiness.

#### Impact of childhood life events and childhood trauma on the onset and recurrence of depressive and anxiety disorders (4)

The objective of this study was to investigate the possible effects of childhood life events and childhood trauma on the onset and recurrence of depressive and/or anxiety disorders.

This was a large longitudinal study, carried out over two-years as part of the Netherlands Study of Depression and Anxiety (NESDA). The participants (n = 1167) were aged 18-65 years and did not have current psycho-

pathology at time of baseline assessment (DSM-IV depressive or anxiety disorders). Past history of childhood life events and childhood trauma were assessed at baseline via a semi-structured interview. Participants were followed up over a two-year period, and the Composite International Diagnostic Interview, (based on the DSM-IV criteria), was used to diagnose the first or recurrent onset of depressive and/or anxiety disorders during follow-up.

At baseline assessment, 172 participants (14.7%) reported at least one childhood life event and 412 (35.3%) reported a history of childhood trauma. During the two years of follow up, 226 participants (19.4%) developed a new (n = 58) or recurrent (n = 168) episode of a depressive and/or anxiety disorder. Childhood events did not predict the onset and recurrence of depressive or anxiety disorders. However, emotional neglect and psychological, physical and sexual abuse were found to be associated with an increased risk of first onset and recurrence of either depressive or comorbid disorders ( $p < .001$ ) but not of anxiety disorders. Emotional neglect appeared to be the only significant independent predictor of first onset and recurrence of any depressive disorder or comorbid disorder ( $p = .002$ ), according to multivariate models. As mentioned by the authors, these effects were primarily mediated by the severity of (subclinical) depressive symptoms at baseline and, to a lesser extent, by a prior lifetime diagnosis of a depressive and/or anxiety disorder.

The findings of this study suggest that childhood maltreatment is likely a key environmental risk factor associated with increased vulnerability to develop new and recurrent depressive, and comorbid anxiety and depressive episodes.

#### Risk factors for late-onset generalised anxiety disorder: results from a 12-year prospective cohort (The ESPRIT study) (5)

Generalised anxiety disorder (GAD) is a chronic and highly prevalent disorder that is associated with the increased disability and mortality with the elderly. Treatment is found to be difficult with a low rate of remission, which indicate the need to identify early predictors for prevention of GAD amongst the elderly population. Thus, the objective of the authors of this study was to identify and characterise incident GAD predictors in older persons.

The study sample consisted of a total of 1711 individuals aged 65 years and above and free of GAD at baseline assessment. Participants were randomly recruited using electoral rolls between the years of 1999 and 2001 (the prospective ESPRIT study). The participants were examined at baseline, and again five times over the next 12 years. During this period, GAD and psychiatric

comorbidity were diagnosed via a standardised psychiatric examination (the Mini-International Neuropsychiatry Interview on the basis of DSM-IV criteria, validated by a clinical panel). During the follow-up interviews, 8.4% (95% CI = 7.1 - 9.7) of the participants experienced incident GAD, of which, 80% were first episodes; the incident rate was 10 per 1000 person-years. The principal predictors of late-onset incident GAD over the 12 years were found to be, female gender, recent adverse life events, having chronic physical (respiratory disorders, arrhythmia and heart failure, dyslipidemia, cognitive impairments) and mental (depression, phobia, past GAD) health disorders, as derived by a multivariate Cox model. Poverty, parental loss or separation and low affective support during childhood, as well as a history of mental problems in parents also appeared to be significantly and independently associated with the incident GAD.

Based on their findings, the authors conclude that GAD is a multifactorial, stress-related affective disorder, which is associated with both proximal and distal risk factors – some of which could potentially be modified by appropriate health care interventions.

#### **Declaration of interest**

None declared

**BGR de Silva , SS Williams**, Department of Psychiatry, Faculty of Medicine, University of Kelaniya

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