**Supplementary Material.** The correlations of the item of experienced stress with other measures of psychological stress.

Contrary to the scale of Anticipatory Worry (measuring rather trait-level disposition to feel worry), we used the item of experienced stress to measure state-level experiences of stress. In accord with this difference, the correlation between the item of experienced stress and the scale of Anticipatory Worry was comparatively low (r=0.387). Further, the test-retest correlations were comparatively low (*r*=0.373-0.454 between different measurement points in 2001, 2007, and 2012), suggesting that this item measured rather state-level or situation-dependent experiences of stress. To further investigate the validity of the item of experienced stress, we investigated whether it correlates with stress reactivity and stressful life events. *Stressful life events* included death of romantic partner, divorce/separation, death of a child, and miscarriage (0=not occurred; 1=occurred). We calculated a total score of the number of stressful life events within the on-going year. Frequent stressful life events correlated with higher experienced stress (Pearson *r*=0.528, *p*<.001). *Stress reactivity* was evaluated with the Negative Emotionality scale of the Emotionality, Activity, and Sociability Temperament Survey (EAS) (Buss & Plomin, 1984). The scale is known to measure stress reactivity (Strelau & Angleitner, 1991). High scores of stress reactivity were found to correlated with higher experienced stress (Pearson *r*=0.421, *p*<.001).

References:

Buss, A. H., & Plomin, R. (1984). Temperament: Early Developing Personality Traits. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Strelau, J., & Angleitner, A. (Eds.). (1991). Explorations in Temperament: International Perspectives on Theory and Measurement. Plenum Press, New York.

**Supplementary Table 1.** The results of the exploratory factor analysis with Oblimin rotation of the Vital Exhaustion Questionnaire. The factor loadings >0.5 are bolded. Factor III refers to sleep disturbances.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Factor | | |
|  | I | II | III |
| Item 1: Do you feel tired? | 0.377 | **0.666** | 0.321 |
| **Item 2: Do you have difficulties in falling asleep?** | 0.263 | 0.198 | **0.808** |
| **Item 3: Do you wake up at night repeatedly?** | 0.281 | 0.262 | **0.775** |
| Item 4: Do you feel powerless? | **0.655** | 0.426 | 0.306 |
| Item 5: Do you feel that you have not been able to get many things done in the recent times? | **0.563** | 0.479 | 0.063 |
| Item 6: Do you feel that you cannot get daily problems solved as well as previously? | **0.665** | **0.514** | 0.059 |
| Item 7: Do you feel like being in the dead end? | **0.802** | 0.301 | 0.132 |
| Item 8: Have you experienced feelings of insignificance or unwillingness more often recently than previously? | **0.582** | **0.648** | 0.092 |
| Item 9: Have you experienced feelings of hopelessness recently? | **0.707** | 0.445 | 0.142 |
| Item 10: Do you need more time to solve problems than, for example, for a year ago? | **0.518** | 0.458 | 0.023 |
| Item 11: Do you think that very small things have irritated you more recently than previously? | 0.357 | **0.630** | 0.091 |
| Item 12: Do you feel that you would like to stop trying? | **0.730** | 0.225 | 0.201 |
| Item 13: Do you feel good? | **-0.665** | -0.425 | -0.195 |
| Item 14: Do you feel that your battery is going down? | **0.665** | **0.580** | 0.215 |
| Item 15: Do you feel that it would be better to be dead? | **0.681** | 0.017 | 0.239 |
| Item 16: Do you feel that you are unable to do anything? | **0.738** | 0.188 | 0.198 |
| Item 17: Do you feel melancholic sometimes? | 0.226 | **0.585** | 0.121 |
| Item 18: Do you feel that you would like to just cry? | **0.582** | 0.240 | 0.179 |
| Item 19: Do you ever wake up in the morning with the feeling that you are totally tired or exhausted? | 0.188 | **0.619** | 0.229 |
| Item 20: Do you have increasing difficulties to concentrate on one thing at a time for a long time period? | **0.612** | 0.405 | 0.151 |
| Item 21: Do you enjoy sexual activities as much as previously? | -0.376 | -0.441 | -0.017 |

**(a)**

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**(b)**

****

**(c)**

****

**(d)**

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**Supplementary Figure 1.** Illustrations of the structural equation models: (a) Model 1, (b) Model 2, (c) Model 3, (d) Model 4. Note: For clarity, control variables (age, sex and participants’ and their parents’ socioeconomic factors) and the covariances between variables at each time point were excluded from this figure.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 14. |
| 1. Age | - |  |  |  |  |  |  |  |  |  |  |  |
| 2. Sex | 0.027 | - |  |  |  |  |  |  |  |  |  |  |
| 3. Parents' educational level | -0.262\*\*\* | -0.051\* | - |  |  |  |  |  |  |  |  |  |
| 4. Parents' level of income | -0.022 | -0.012 | 0.495\*\*\* | - |  |  |  |  |  |  |  |  |
| 5. Participants' educational level | -0.160\*\*\* | 0.053\* | 0.288\*\*\* | 0.240\*\*\* | - |  |  |  |  |  |  |  |
| 6. Participants' level of income | 0.039 | -0.289\*\*\* | 0.148\*\*\* | 0.182\*\*\* | 0.304\*\*\* | - |  |  |  |  |  |  |
| 7. Experienced stress | 0.025 | 0.063\* | 0.012 | 0.004 | 0.007 | -0.033 | - |  |  |  |  |  |
| 8. Anticipatory worry | 0.001 | 0.126\*\*\* | -0.079\*\* | -0.108\*\*\* | -0.143\*\*\* | -0.218\*\*\* | 0.387\*\*\* | - |  |  |  |  |
| 9. Social detachment | 0.096\*\*\* | -0.343\*\*\* | -0.046 | -0.096\*\*\* | -0.123\*\*\* | -0.012 | 0.083\*\* | 0.165\*\*\* | - |  |  |  |
| 10. Sleep disturbances | 0.031 | 0.094\*\*\* | -0.015 | -0.017 | -0.049 | -0078\*\* | 0.406\*\*\* | 0.306\*\*\* | 0.083\*\* | - |  |  |
| 11. Alcohol use | -0.103\*\*\* | -0.371\*\*\* | 0.102\*\*\* | -0.037 | -0.037 | 0.143\*\*\* | 0.037 | -0.026 | 0.057\* | 0.050 | - |  |
| 12. Paranoid ideation | -0.040 | -0.037 | -0.050 | -0.097\*\*\* | -0.116\*\*\* | -0.150\*\*\* | 0.305\*\*\* | 0.398\*\*\* | 0.260\*\*\* | 0.256\*\*\* | 0.099\*\*\* | - |
| \* *p*<.05 \*\* *p*<.01 \*\*\* *p*<.001  *Note:* When calculating the correlations between the study variables, we used the scores of the first measurement year of each variable (i.e. parents’ sosioeconomic factors in 1980; psychosocial risk factors and paranoid ideation in 2001). | | | | | | | | | | | | |

**Supplementary Table 2.** The Pearson correlations between the study variables.