**Supplementary Materials**

**Associations Between Specific Maternal Risk Factors and Infant ANS Response and Recovery**

The analyses regarding the influence of specific maternal risk factors on infant ANS response and recovery were conducted in two steps. First, correlations were computed between infant ANS activity (HR, RSA and PEP response and recovery variables) and specific maternal risk factors (Psychiatric diagnosis, Smoking, Financial problems, No secondary education, Unemployment, Limited social support, Single status, and Age <20 years) were computed, see Table S.2. Because the prevalence of the variables Alcohol and Drugs was low (*N* = 3 and 1, respectively), these variables were not included in the analyses. Second, to determine which specific maternal risk factors were associated with infant ANS variables, six backward stepwise regression analyses with *p* > .05 as the criterion for removal were conducted. The results of the final regression models are presented in Table S.3. Note that the same results (i.e. the same unique predictors) were obtained with multiple regression analyses with all maternal risk variables entered as predictors to the model simultaneously. However, because all multiple regression models were nonsignificant except for the PEP response, we decided that backward regression analyses were more appropriate as risk factors that were not associated with the dependent variables would be removed from the model.

The backward stepwise regression analyses indicated that the HR response was predicted by maternal smoking during pregnancy. Specifically, smoking during pregnancy was associated with smaller increases in HR from the Play to the Still Face episode. Both HR and PEP recovery were predicted by maternal psychiatric diagnosis, such that maternal psychiatric diagnosis was associated with larger increases in HR and decreases in PEP from the Still Face to the Reunion episode. Furthermore, maternal age <20 years predicted lnRSA recovery, such that younger maternal age was associated with larger decreases in lnRSA from the Still Face to the Reunion episode. None of the maternal risk factors were uniquely associated with PEP and lnRSA response.

**Table S.1.** *Cumulative prevalence of risk factors*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *N* Risk Factors |  |  |  |  |  | *N* (%) |
| **0** |  |  |  |  |  | **71 (58.7)** |
| **1** |  |  |  |  |  | **25 (20.6)** |
|  | Psychiatric diagnosis |  |  |  |  | 8 |
|  | Smoking |  |  |  |  | 8 |
|  | Alcohol |  |  |  |  | 1 |
|  | Psychosocial risk*a* |  |  |  |  | 8 |
| **2** |  |  |  |  |  | **15 (12.4)** |
|  | Psychiatric diagnosis | Smoking |  |  |  | 4 |
|  | Psychiatric diagnosis | Psychosocial risk |  |  |  | 7 |
|  | Smoking | Psychosocial risk |  |  |  | 2 |
|  | Smoking | Alcohol |  |  |  | 1 |
|  | Psychosocial risk | Psychosocial risk |  |  |  | 1 |
| **3** |  |  |  |  |  | **10 (12.1)** |
|  | Psychiatric diagnosis | Smoking | Drugs |  |  | 1 |
|  | Psychiatric diagnosis | Smoking | Psychosocial risk |  |  | 2 |
|  | Psychiatric diagnosis | Alcohol | Psychosocial risk |  |  | 1 |
|  | Psychiatric diagnosis | Psychosocial risk | Psychosocial risk |  |  | 2 |
|  | Smoking | Psychosocial risk | Psychosocial risk |  |  | 2 |
| **4** |  |  |  |  |  | **1 (0.8)** |
|  | Psychosocial risk | Psychosocial risk | Psychosocial risk | Psychosocial risk |  | 1 |
| **5** |  |  |  |  |  | **1 (0.8)** |
|  | Psychiatric diagnosis | Smoking | Psychosocial risk | Psychosocial risk | Psychosocial risk | 1 |

*a*Psychosocial risk factors are single status, unemployment, no secondary education, self-reported financial problems, limited social support, and age < 20 years.

**Table S.2.** *Correlations among HR, PEP, and lnRSA response and recovery and maternal risk factors*

|  |  |  |  |
| --- | --- | --- | --- |
|  | ANS Response |  | ANS Recovery |
|  | HR | PEP | lnRSA |  | HR | PEP | lnRSA |
| Psychiatric diagnosis | .183† | -.101 | -.054 |  | -.253\*\* | .233\* | .161 |
| Smoking | .264\*\* | .053 | -.142 |  | -.150 | .002 | .132 |
| Single status | .004 | .104 | -.046 |  | -.039 | .022 | .028 |
| Unemployment | .041 | .100 | -.021 |  | -.041 | .166 | .033 |
| No secondary education | -.064 | .063 | .088 |  | -.097 | -.062 | .029 |
| Financial problems | .036 | .013 | .035 |  | -.110 | .208† | .006 |
| Limited social support | .013 | -.122 | -.078 |  | -.136 | .145 | .125 |
| Age < 20 years | .005 | .044 | -.064 |  | -.114 | -.122 | .204\* |

†*p* < .10. \**p* < .05. \*\**p* < .01.

**Table S.3.** *Backward regression analyses predicting infant ANS response and recovery from maternal risk factors*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Predictor | *B* | *SE* | *β* | *t* | *p* |
| HR response |  |  |  |  |  |
|  | Smoking | 9.78 | 3.37 | .264 | 2.90 | .005 |
| HR recovery |  |  |  |  |  |
|  | Psychiatric diagnosis | -9.55 | 3.49 | -.253 | -2.73 | .007 |
| lnRSA response |  |  |  |  |  |
|  | Smoking | -.20 | .14 | -.142 | -1.45 | .149 |
| lnRSA recovery |  |  |  |  |  |
|  | Age < 20 years | .48 | .23 | .204 | 2.11 | .037 |
| PEP response |  |  |  |  |  |
|  | Limited social support | -3.20 | 2.82 | -.122 | -1.14 | .259 |
| PEP recovery |  |  |  |  |  |
|  | Psychiatric diagnosis | 3.18 | 1.54 | .233 | 2.06 | .043 |