**Supplementary Material**

**Supplementary Table S1**

*Separate regression analyses of harshness and unpredictability associations with immune measures and asthma outcomes (N=*290*).*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Stimulated cytokines | Glucocorticoid sensitivity | Asthma outcomes |
|  | Innate | T1  | T2  | Innate | T1  | T2  | Asthma control | Quality of Life |
|  Age | -.07[-.11, -.03]\* | -.04[-.08, .00] |  .04[.00, .08] |  .03[-.02, .07] |  .00[-.05, .03] |  .02[-.02, .06] |  .12[-.02, .27] |  .06[.02, .11]\* |
|  White |  .07[-.15, .29] | -.23[-.46, -.01]\* | -.29[-.53, -.06]\* | -.10[-.34, .14] | -.12[-.36, .12] | -.05[-.28, .17] | -.14[-.85, .57] |  .20[-.03, .43] |
|  Female |  .16[-.04, .37] |  .02[-.19, .24] | -.05[-.29, .18] | -.11[-.35, .13] |  .05[-.18, .27] | -.07[-.28, .13] | -1.5[-2.2, -.77]\* | -.43[-.66, -.20]\* |
|  Severity | -.04[-.18, .10] | -.02[-.15, .11] |  .01[-.14, .16] |  .05[-.07, .17] | -.04[-.17, .09] | -.02[-.16, .12] | -.53[-.96, -.10]\* | -.18[-.32, -.05]\* |
|  Use of ICS |  .03[-.01, .07] | -.02[-.05, .02] | -.04[-.08, -.01]\* |  .01[-.03, .04] |  .00[-.04, .03] |  .01[-.02, .04] |  .02[-.10, .13] |  .03[-.01, .07] |
|  Use of BA | -.01[-.06, .04] |  .03[-.03, .08] | -.03[-.09, .02] |  .00[-.05, .06] | -.01[-.06, .03] |  .00[-.05, .05] | -.53[-.71, -.34]\* | -.11[-.18, -.05]\* |
|  Harshness |  .20[.03, .37]\* |  .05[-.13, .23] |  .04[-.13, .22] | -.17[-.34, -.01]\* |  .03[-.14, .21] |  .00[-.15, 15] | -.86[-1.4, -.29]\* | -.28[-.45, -.11]\* |

*Note*. \**p* < .05 Unstandardized regression coefficients [95% confidence intervals] are presented. Cluster-robust standard errors were presented for models with harshness as predictor to account for potential dependencies in neighborhood-level data. ICS refers to inhaled corticosteroid and BA refers to beta agonist. T1 and T2 refers to Type 1 and 2, respectively. Harshness was assessed with a composite that aggregated the *binary* score of neighborhood-level violence exposure and the binary score of self-reported exposure to violence. Pattern of results did not differ from primary analyses that aggregated the continuous score of neighborhood-level violence exposure and the binary score of self-reported exposure to violence.

**Supplementary Table S2**

*Simultaneous regression analysis of harshness and unpredictability associations with immune measures and asthma outcomes (N=*290*).*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Stimulated cytokines | Glucocorticoid sensitivity | Asthma outcomes |
|  | Innate | T1  | T2  | Innate | T1  | T2  | Asthma control | Quality of Life |
| Age | -.07[-.10, -.03]\* | -.04[-.08, .00] |  .04[.00, .07] |  .03[-.02, .07] | -.01[-.05, .04] |  .02[-.03, .06] |  .13,[-.02, .28] |  .06 [.02, .11]\* |
| White |  .06[-.16, .28] | -.23[-.46, .00] | -.29[-.53, -.05]\* | -.10[-.35, .14] | -.12[-.36, .12] | -.04[-.27, .18] | -.17[-.89, .56] |  .20[-.03, .44] |
| Female |  .17[-.04, .37] |  .02[-.19, .24] | -.06[-.29, .18] | -.11[-.35, .13] |  .05[-.18, .27] | -.07[-.28, .13] | -1.5[-2.2, -.76]\* | -.43[-.67, -.20]\* |
| Severity | -.04[-.18, .10] | -.02[-.15, .11] |  .01[-.14, .16] |  .05[-.07, .17] | -.04[-.17, .09] | -.02[-.16, .12] | -.53[-.96, -.10]\* | -.18[-.32, -.05]\* |
| Use of ICS |  .03[.00, .07] | -.02[-.05, .02] | -.04[-.08, -.01]\* |  .01[-.03, .05] |  .00[-.04, .03] |  .01[-.02, .04] |  .02[-.10, .13] |  .03[-.01, .07] |
| Use of BA | -.01[-.06, .05] |  .03[-.03, .08] | -.03[-.09, .02] |  .01[-.05, .06] | -.01[-.06, .04] |  .00[-.05, .05] | -.52[-.71, -.34]\* | -.12[-.18, -.05]\* |
| Harshness |  .21[.04, .38]\* |  .06[-.13, .24] |  .04[-.14, .21] | -.17[-.34, -.003]\* |  .04[-.14, .21] | -.01[-.16, .14] | -.83[-1.4, -.26]\* | -.29[-.46, -.11]\* |
| Unpredictability | -.10[-.24, .05] | -.05[-.18, .09] |  .05[-.10, .19] | -.02[-.17, .13] | -.01[-.15, .13] |  .07[-.06, .21] | -.20[-.71, .30] |  .03[-.12, .18] |

*Note*. \**p* < .05. Unstandardized regression coefficients [95% confidence intervals] are presented. Cluster-robust standard errors were presented to account for potential dependencies in neighborhood-level data. ICS refers to inhaled corticosteroid and BA refers to beta agonist. T1 and T2 refers to type 1 and 2, respectively. Harshness was assessed with a composite that aggregated the *binary* score of neighborhood-level violence exposure and the binary score of self-reported exposure to violence. Pattern of results did not differ from primary analyses that aggregated the continuous score of neighborhood-level violence exposure and the binary score of self-reported exposure to violence.