|  |
| --- |
| **Supplementary Table 1. Pyrosequencing information** |
| **Gene** | **EpigenDx Assay ID** | **Genomic Target Sequence** | **Bisulfite Converted Target Sequence** | **CpG Target Locations (GRCh38)** | **Cycling Conditions** |
| NR3C1 | ADS5690-FS | agccgtgattgaaaagaggtagg | agtygtgattgaaaagaggtagg | Chr5: 143401272 (CpG7) | 95ºC 15 min; 45 x (95ºC 30s; 53ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |
| ADS5691-FS | agctacacgttcagtg/aag/tcggcaggatgaatagccaagcttagttcgatacacttttgccctcag | agttataygtttagtg/aag/tyggtaggatgaatagttaagtttagttygatatatttttgtttttag | Chr5: 143401140 (CpG6), 143401129 (CpG5), and 143401102 (CpG4) |
| HSD11B1 | ADS5760-FSre  | cctggcgtaaatggtgttaagagtaagatggactcgggta  | tttggygtaaatggtgttaagagtaagatggattygggta  | Chr1: 209704596 (CpG6) and 209704625 (CpG5) | 95ºC 15 min; 45 x (95ºC 30s; 52ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |
| HSD11B2  | ADS1117-FS1re  | ccgggagcggtcgtcct  | tygggagyggtygtttt  | Chr16:67430021 (CpG83), 67430027 (CpG834), and 67430031 (CpG85) | 95ºC 15 min; 45 x (95ºC 30s; 56ºC 30 s; 72ºC 30 s); 72ºC 5 min; 8ºC infinity  |
| FKBP5 | ADS6607-FS  | tgacatagcacagctgatatacaac gaaggagctccgtgttcttattttg  | tgatatagtatagttgatatataaygaaggagtttygtgtttttattttg  | Chr6: 35590945 (CpG539) and 35590934 (CpG540) | 95ºC 15 min; 45 x (95ºC 30s; 53ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |
| ADS3828A-FS1  | ttcacgttctgccaagtggctcctt gggggag  | tttaygttttgttaagtggttttttgggggag  | Chr6: 35590790 (CpG541) | 95ºC 15 min; 45 x (95ºC 30s; 62ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |
| ADS3828-FS2  | cggattgtacccttcaca/gggagt cacgaagaggcctgcactgtgg  a>g, rs151090596  | yggattgtattttttata/gggagttaygaagaggtttgtattgtgg  | Chr6: 35590737 (CpG542), 35590720 (SNP rs151090596 - not analyzed), and 35590712 (CpG543) | 95ºC 15 min; 45 x (95ºC 30s; 56ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |
| ADS3828-FS3  | tgcaagtcctcgagggccactaggctctg   | tgtaagttttygagggttattaggttttg  | Chr6:35590662 (CpG544) |
| ADS8775- FS  | caagtcctcgagggccactaggctctgtgaccagagatacaagaaagaaagcagctaacccgaagcc  | taagttttygagggttattaggttttgtgattagagatataagaaagaaagtagttaattygaagtt  | Chr6:35590610 (Cpg545) | 95ºC 15 min; 45 x (95ºC 30s; 59ºC 30 s; 68ºC 30 s); 68ºC 5 min; 8ºC infinity |

**Supplementary Table 2**. Multivariable-adjusted differences in CpG-specific HSD11B1/2 and NR3C1 percent methylation levels according to experience of psychosocial stress among 1000 Black Women's Health Study participants with methylation data

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **HSD11B1 CpG5** | **HSD11B1 CpG6** | **HSD11B2 CpG83** | **HSD11B2 CpG84** | **HSD11B2 CpG85** | **NR3C1 CpG4** | **NR3C1 CpG5** | **NR3C1 CpG6** | **NR3C1 CpG7** |
|  | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) |
| **Childhood Stressors** |   |  |  |  |  |  |  |  |  |
| **Death of a parent or caretaker** |   |  |  |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes, any | -0.141(-0.607, 0.326) | -0.028(-0.253, 0.197) | 0.136(-0.162, 0.434) | 0.046(-0.306, 0.397) | 0.153(-0.104, 0.411) | -0.719(-1.239, -0.199) | -0.626(-1.237, -0.015) | -0.287(-1.166, 0.592) | -0.008(-0.677, 0.661) |
| P-value | 0.555 | 0.809 | 0.372 | 0.799 | 0.243 | 0.007 | 0.045 | 0.522 | 0.982 |
| FDR P-value | 0.983 | 0.990 | 0.939 | 0.990 | 0.810 | 0.630 | 0.791 | 0.983 | 0.990 |
| **Incarceration of a family member** |   |  |  |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | 0.53(-0.21, 1.271) | -0.011(-0.368, 0.346) | 0.053(-0.419, 0.525) | 0.365(-0.191, 0.92) | 0.285(-0.122, 0.692) | -0.009(-0.836, 0.818) | -0.268(-1.238, 0.701) | -1.071(-2.462, 0.32) | -0.201(-1.263, 0.861) |
| P-value | 0.161 | 0.952 | 0.827 | 0.198 | 0.17 | 0.983 | 0.588 | 0.132 | 0.711 |
| FDR P-value | 0.791 | 0.990 | 0.990 | 0.791 | 0.791 | 0.990 | 0.990 | 0.791 | 0.990 |
| **Financial hardship** |   |  |  |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | -0.129(-0.528, 0.27) | 0.124(-0.07, 0.319) | 0.031(-0.227, 0.288) | 0.085(-0.22, 0.391) | 0.146(-0.077, 0.368) | -0.086(-0.533, 0.362) | 0.209(-0.29, 0.709) | -0.199(-0.946, 0.548) | 0.252(-0.334, 0.839) |
| P-value | 0.527 | 0.211 | 0.815 | 0.585 | 0.199 | 0.707 | 0.412 | 0.601 | 0.4 |
| FDR P-value | 0.983 | 0.791 | 0.990 | 0.990 | 0.791 | 0.990 | 0.939 | 0.990 | 0.939 |
| **Emotional Support** |   |  |  |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | -0.246(-0.655, 0.163) | -0.147(-0.343, 0.049) | 0.124(-0.135, 0.384) | 0.142(-0.165, 0.448) | -0.085(-0.309, 0.139) | 0.082(-0.375, 0.54) | -0.081(-0.613, 0.452) | -0.629(-1.378, 0.12) | -0.08(-0.667, 0.507) |
| P-value | 0.239 | 0.142 | 0.348 | 0.365 | 0.459 | 0.724 | 0.767 | 0.1 | 0.79 |
| FDR P-value | 0.810 | 0.791 | 0.939 | 0.939 | 0.939 | 0.990 | 0.990 | 0.791 | 0.990 |
| **Sexual abuse severity** |   |  |  |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Moderate | -0.295(-0.891, 0.3) | 0.006(-0.267, 0.28) | -0.353(-0.736, 0.029) | 0.039(-0.412, 0.489) | 0.033(-0.287, 0.353) | 0.187(-0.463, 0.837) | 0.102(-0.609, 0.812) | -0.782(-1.955, 0.392) | -0.633(-1.458, 0.192) |
| Severe | 0.218(-0.411, 0.847) | 0.048(-0.241, 0.338) | -0.057(-0.461, 0.347) | -0.034(-0.509, 0.442) | 0.007(-0.331, 0.345) | 0.088(-0.599, 0.775) | -0.022(-0.775, 0.731) | -0.257(-1.502, 0.989) | 0.374(-0.503, 1.251) |
| P-value | 0.381 | 0.947 | 0.190 | 0.967 | 0.980 | 0.849 | 0.952 | 0.427 | 0.138 |
| FDR P-value | 0.939 | 0.990 | 0.791 | 0.990 | 0.990 | 0.990 | 0.990 | 0.939 | 0.791 |
| **Physical abuse severity** |   |  |  |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Mild | 0.016(-0.526, 0.559) | 0.133(-0.13, 0.396) | -0.238(-0.579, 0.103) | -0.111(-0.512, 0.29) | 0.052(-0.246, 0.35) | 0.223(-0.384, 0.83) | 0.146(-0.568, 0.86) | 0.309(-0.674, 1.292) | 0.344(-0.423, 1.111) |
| Moderate | -0.157(-0.836, 0.522) | 0.161(-0.168, 0.491) | -0.164(-0.591, 0.263) | -0.076(-0.578, 0.427) | -0.126(-0.499, 0.246) | 0.496(-0.264, 1.256) | -0.59(-1.482, 0.303) | -0.462(-1.69, 0.767) | 0.376(-0.583, 1.336) |
| Severe | -0.243(-0.722, 0.235) | 0.077(-0.155, 0.309) | 0.072(-0.23, 0.374) | -0.084(-0.439, 0.271) | 0.225(-0.038, 0.488) | 0.002(-0.532, 0.537) | 0.136(-0.493, 0.765) | 0.105(-0.762, 0.971) | 0.098(-0.578, 0.774) |
| P-value | 0.735 | 0.678 | 0.328 | 0.944 | 0.229 | 0.552 | 0.444 | 0.729 | 0.773 |
| FDR P-value | 0.990 | 0.990 | 0.939 | 0.990 | 0.810 | 0.983 | 0.939 | 0.990 | 0.990 |
|  |   |  |  |  |  |  |  |  |  |
| **Adulthood stressors** |   |  |  |  |  |  |  |  |  |
| **CESD score** |   |  |  |  |  |  |  |  |  |
| <16 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| 16-23 | -0.246(-0.83, 0.339) | 0.058(-0.225, 0.341) | 0.289(-0.084, 0.663) | 0.308(-0.133, 0.748) | -0.009(-0.331, 0.313) | -0.172(-0.831, 0.487) | -0.318(-1.089, 0.452) | -0.763(-1.866, 0.34) | -0.208(-1.049, 0.634) |
| ≥ 24 | -0.34(-0.98, 0.301) | -0.057(-0.367, 0.252) | -0.162(-0.573, 0.248) | -0.031(-0.516, 0.453) | 0.133(-0.221, 0.488) | 0.328(-0.39, 1.047) | -0.209(-1.052, 0.635) | 0.232(-0.976, 1.439) | -0.536(-1.457, 0.386) |
| P-value | 0.458 | 0.845 | 0.195 | 0.374 | 0.754 | 0.547 | 0.670 | 0.342 | 0.494 |
| FDR P-value | 0.939 | 0.990 | 0.791 | 0.939 | 0.990 | 0.983 | 0.990 | 0.939 | 0.983 |
| **Interpersonal racism score** |   |  |  |  |  |  |  |  |  |
| Quantile 1  | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Quantile 2 | -0.058(-0.641, 0.525) | 0.066(-0.215, 0.346) | 0.396(0.026, 0.765) | 0.279(-0.157, 0.715) | -0.078(-0.399, 0.242) | 0.401(-0.25, 1.051) | 0.05(-0.713, 0.814) | 0.183(-0.912, 1.278) | -0.254(-1.089, 0.581) |
| Quantile 3 | -0.013(-0.511, 0.484) | 0.103(-0.136, 0.342) | 0.173(-0.143, 0.489) | 0.236(-0.136, 0.609) | 0.007(-0.267, 0.281) | -0.038(-0.592, 0.517) | -0.223(-0.873, 0.427) | 0.044(-0.888, 0.977) | 0.179(-0.535, 0.893) |
| Quartile 4  | -0.137(-0.679, 0.405) | -0.046(-0.306, 0.215) | 0.476(0.132, 0.819) | 0.614(0.208, 1.019) | 0.186(-0.112, 0.485) | -0.357(-0.962, 0.248) | -0.144(-0.852, 0.565) | 0.035(-0.98, 1.05) | 0.052(-0.725, 0.829) |
| P-value | 0.959 | 0.648 | 0.030 | 0.031 | 0.408 | 0.173 | 0.860 | 0.990 | 0.763 |
| FDR P-value | 0.990 | 0.990 | 0.791 | 0.791 | 0.939 | 0.791 | 0.990 | 0.990 | 0.990 |
| **Lifetime institutional racism**  |   |  |  |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes to 1 | -0.146(-0.625, 0.334) | -0.206(-0.436, 0.025) | 0.268(-0.038, 0.573) | 0.267(-0.094, 0.627) | 0.037(-0.228, 0.301) | -0.07(-0.607, 0.467) | -0.053(-0.679, 0.573) | 0.139(-0.762, 1.04) | -0.284(-0.973, 0.405) |
| Yes to 2 | 0.017(-0.501, 0.535) | -0.197(-0.445, 0.052) | 0.338(0.008, 0.668) | 0.421(0.032, 0.809) | 0.221(-0.064, 0.507) | -0.115(-0.694, 0.465) | 0.509(-0.167, 1.185) | -0.204(-1.176, 0.769) | -0.355(-1.1, 0.389) |
| Yes to 3 | 0.234(-0.395, 0.863) | -0.265(-0.567, 0.037) | 0.189(-0.211, 0.589) | 0.272(-0.2, 0.744) | 0.058(-0.288, 0.405) | -0.231(-0.936, 0.475) | -0.648(-1.468, 0.171) | 0.015(-1.165, 1.194) | -0.361(-1.263, 0.541) |
| P-value | 0.679 | 0.208 | 0.191 | 0.191 | 0.454 | 0.932 | 0.052 | 0.919 | 0.762 |
| FDR P-value | 0.990 | 0.791 | 0.791 | 0.791 | 0.939 | 0.990 | 0.791 | 0.990 | 0.990 |
| **Sleep duration** |   |  |  |  |  |  |  |  |  |
| 7 or 8 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| <=6 | -0.047(-0.427, 0.333) | 0.002(-0.181, 0.185) | -0.163(-0.405, 0.079) | -0.142(-0.428, 0.143) | -0.106(-0.315, 0.104) | -0.285(-0.71, 0.14) | 0.093(-0.405, 0.59) | -0.164(-0.878, 0.55) | -0.503(-1.048, 0.042) |
| >=9 | -0.152(-2.505, 2.2) | 1.174(0.044, 2.305) | 0.837(-0.658, 2.331) | 0.743(-1.021, 2.508) | 0.24(-1.054, 1.534) | -0.153(-2.773, 2.468) | 3.028(-0.044, 6.099) | 0.723(-3.687, 5.134) | -1.099(-4.464, 2.265) |
| P-value | 0.965 | 0.125 | 0.204 | 0.414 | 0.557 | 0.421 | 0.152 | 0.848 | 0.172 |
| FDR P-value | 0.990 | 0.791 | 0.791 | 0.939 | 0.983 | 0.939 | 0.791 | 0.990 | 0.791 |

Models are adjusted for age, white blood cell count, smoking, body mass index, education, alcohol, marital status, and physical activity with a random effect for plate.

**Supplementary Table 3**. Multivariable-adjusted differences in CpG-specific FKBP5 percent methylation levels (CC genotype) according to experience of psychosocial stress among 1000 Black Women's Health Study participants with methylation data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **FKBP5 CpG539** | **FKBP5 CpG540** | **FKBP5 CpG541** | **FKBP5 CpG542** | **FKBP5 CpG543** | **FKBP5 CpG544** | **FKBP5 CpG545** |
|  | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) |
| **Childhood Stressors** |   |  |  |  |  |  |  |
| **Death of a parent or caretaker** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes, any | -0.107(-1.262, 1.048) | 0.533(-0.927, 1.994) | -0.645(-1.619, 0.329) | -0.467(-1.123, 0.188) | 0.125(-0.442, 0.691) | -0.762(-2.055, 0.531) | -0.173(-1.242, 0.896) |
| P-value | 0.856 | 0.475 | 0.196 | 0.164 | 0.666 | 0.249 | 0.752 |
| FDR P-value | 0.959 | 0.792 | 0.671 | 0.671 | 0.932 | 0.671 | 0.957 |
| **Incarceration of a family member** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | 0.268(-1.664, 2.201) | -1.4(-3.833, 1.033) | 1.022(-0.612, 2.657) | 0.182(-0.916, 1.28) | -0.524(-1.469, 0.42) | -0.232(-2.394, 1.93) | 0.749(-1.033, 2.532) |
| P-value | 0.786 | 0.26 | 0.221 | 0.746 | 0.277 | 0.833 | 0.411 |
| FDR P-value | 0.959 | 0.671 | 0.671 | 0.957 | 0.671 | 0.959 | 0.738 |
| **Financial hardship** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | -0.559(-1.567, 0.449) | 0.222(-1.074, 1.518) | -0.458(-1.315, 0.4) | -0.346(-0.924, 0.231) | -0.479(-0.963, 0.004) | -0.143(-1.285, 1) | 0.932(-0.005, 1.869) |
| P-value | 0.278 | 0.737 | 0.297 | 0.241 | 0.053 | 0.807 | 0.052 |
| FDR P-value | 0.671 | 0.957 | 0.671 | 0.671 | 0.613 | 0.959 | 0.613 |
| **Emotional Support** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | -0.947(-1.967, 0.072) | -1.824(-3.104, -0.545) | 0.077(-0.796, 0.95) | 0.053(-0.535, 0.641) | -0.329(-0.834, 0.175) | -0.568(-1.727, 0.59) | -0.982(-1.936, -0.028) |
| P-value | 0.07 | 0.006 | 0.863 | 0.86 | 0.202 | 0.337 | 0.045 |
| FDR P-value | 0.613 | 0.420 | 0.959 | 0.959 | 0.671 | 0.694 | 0.613 |
| **Sexual abuse severity** |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Moderate | -1.249(-2.751, 0.252) | -0.901(-2.866, 1.064) | -1.052(-2.356, 0.253) | -1.032(-1.992, -0.073) | -0.156(-0.876, 0.564) | -1.321(-3.001, 0.359) | -0.102(-1.614, 1.411) |
| Severe | -0.406(-2.059, 1.248) | -0.849(-3.021, 1.322) | 0.004(-1.426, 1.434) | 0.126(-0.932, 1.184) | 0.536(-0.259, 1.33) | -0.595(-2.453, 1.263) | -0.145(-1.802, 1.512) |
| P-value | 0.266 | 0.569 | 0.271 | 0.085 | 0.316 | 0.297 | 0.981 |
| FDR P-value | 0.671 | 0.847 | 0.671 | 0.661 | 0.683 | 0.671 | 0.981 |
| **Physical abuse severity** |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Mild | -0.003(-1.29, 1.284) | -0.184(-1.83, 1.461) | 0.727(-0.306, 1.76) | -0.079(-0.648, 0.49) | 0.683(0.027, 1.338) | -0.98(-2.478, 0.517) | 0.148(-1.099, 1.395) |
| Moderate | -0.941(-2.536, 0.654) | 0.431(-1.614, 2.477) | -1.01(-2.291, 0.272) | -0.557(-1.264, 0.15) | -0.311(-1.125, 0.503) | -2.009(-3.872, -0.147) | -0.977(-2.527, 0.573) |
| Severe | 0.022(-1.125, 1.168) | -0.19(-1.666, 1.287) | 0.128(-0.795, 1.05) | -0.127(-0.637, 0.384) | 0.348(-0.238, 0.935) | -0.873(-2.218, 0.473) | -0.676(-1.794, 0.442) |
| P-value | 0.682 | 0.947 | 0.132 | 0.494 | 0.097 | 0.151 | 0.388 |
| FDR P-value | 0.936 | 0.981 | 0.671 | 0.798 | 0.671 | 0.671 | 0.717 |
|  |   |  |  |  |  |  |  |
| **Adulthood stressors** |   |  |  |  |  |  |  |
| **CESD score** |   |  |  |  |  |  |  |
| <16 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| 16-23 | -0.523(-1.995, 0.949) | 0.546(-1.333, 2.424) | -0.255(-1.503, 0.992) | 0.341(-0.496, 1.178) | -0.224(-0.952, 0.503) | -0.072(-1.744, 1.6) | -0.242(-1.629, 1.145) |
| ≥ 24 | 0.776(-0.654, 2.206) | 1.237(-0.586, 3.059) | -1.541(-2.753, -0.329) | -1.008(-1.82, -0.195) | 0.499(-0.207, 1.206) | -0.165(-1.786, 1.457) | 0.187(-1.16, 1.533) |
| P-value | 0.387 | 0.389 | 0.046 | 0.026 | 0.270 | 0.979 | 0.892 |
| FDR P-value | 0.717 | 0.717 | 0.613 | 0.613 | 0.671 | 0.981 | 0.961 |
| **Interpersonal racism score** |   |  |  |  |  |  |  |
| Quantile 1  | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Quantile 2 | 0.455(-1.068, 1.978) | 2.023(0.11, 3.937) | -0.79(-2.068, 0.489) | -0.347(-1.21, 0.516) | 0.249(-0.496, 0.993) | -1.631(-3.329, 0.068) | -0.149(-1.564, 1.265) |
| Quantile 3 | 0.486(-0.74, 1.712) | 1.119(-0.42, 2.658) | -0.406(-1.435, 0.624) | -0.354(-1.049, 0.34) | 0.211(-0.388, 0.81) | -0.33(-1.696, 1.036) | -0.368(-1.506, 0.769) |
| Quartile 4  | -0.003(-1.338, 1.332) | 1.213(-0.465, 2.891) | -1.21(-2.331, -0.089) | -0.457(-1.214, 0.3) | 0.167(-0.485, 0.82) | -0.716(-2.206, 0.774) | -0.165(-1.404, 1.075) |
| P-value | 0.808 | 0.195 | 0.182 | 0.654 | 0.892 | 0.269 | 0.936 |
| FDR P-value | 0.959 | 0.671 | 0.671 | 0.932 | 0.961 | 0.671 | 0.981 |
| **Lifetime institutional racism**  |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes to 1 | -0.224(-1.424, 0.975) | -0.985(-2.492, 0.522) | -0.478(-1.491, 0.535) | 0.299(-0.373, 0.971) | 0.134(-0.451, 0.719) | -0.01(-1.348, 1.329) | 0.137(-0.972, 1.246) |
| Yes to 2 | 0.324(-0.911, 1.559) | 0.231(-1.32, 1.782) | -0.527(-1.57, 0.516) | 0.203(-0.489, 0.895) | -0.095(-0.697, 0.507) | -0.549(-1.927, 0.829) | 0.302(-0.843, 1.446) |
| Yes to 3 | -0.925(-2.572, 0.723) | -0.908(-2.984, 1.168) | -1.381(-2.771, 0.008) | -0.901(-1.826, 0.025) | -0.202(-1.007, 0.604) | -1.049(-2.895, 0.797) | -0.572(-2.1, 0.956) |
| P-value | 0.513 | 0.385 | 0.277 | 0.063 | 0.822 | 0.611 | 0.719 |
| FDR P-value | 0.798 | 0.717 | 0.671 | 0.613 | 0.959 | 0.891 | 0.957 |
| **Sleep duration** |   |  |  |  |  |  |  |
| 7 or 8 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| <=6 | -0.477(-1.433, 0.479) | 0.269(-0.935, 1.473) | 0.252(-0.558, 1.061) | 0.222(-0.318, 0.762) | 0.292(-0.174, 0.758) | 0.192(-0.88, 1.263) | 0.119(-0.771, 1.01) |
| >=9 | -2.177(-7.959, 3.604) | -5.145(-12.408, 2.118) | 2.857(-2.042, 7.755) | 2.972(-0.287, 6.232) | 0.062(-2.753, 2.878) | 3.523(-2.936, 9.981) | 0.321(-5.033, 5.675) |
| P-value | 0.507 | 0.322 | 0.462 | 0.169 | 0.470 | 0.550 | 0.962 |
| FDR P-value | 0.798 | 0.683 | 0.792 | 0.671 | 0.792 | 0.837 | 0.981 |

Models are adjusted for age, white blood cell count, smoking, body mass index, education, alcohol, marital status, and physical activity with a random effect for plate.

**Supplementary Table 4**. Multivariable-adjusted differences in CpG-specific FKBP5 percent methylation levels (CT/TT genotype) according to experience of psychosocial stress among 1000 Black Women's Health Study participants with methylation data

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **FKBP5 CpG539** | **FKBP5 CpG540** | **FKBP5 CpG541** | **FKBP5 CpG542** | **FKBP5 CpG543** | **FKBP5 CpG544** | **FKBP5 CpG545** |
|  | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) | Beta (95% CI) |
| **Childhood Stressors** |   |  |  |  |  |  |  |
| **Death of a parent or caretaker** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes, any | -0.496(-1.541, 0.548) | 0.23(-0.566, 1.027) | 0.437(-0.495, 1.369) | 0.382(-0.163, 0.926) | 0.348(-0.32, 1.015) | -0.866(-1.83, 0.098) | 0.24(-0.84, 1.32) |
| P-value | 0.352 | 0.571 | 0.359 | 0.17 | 0.308 | 0.079 | 0.663 |
| FDR P-value | 0.762 | 0.952 | 0.762 | 0.762 | 0.762 | 0.762 | 0.987 |
| **Incarceration of a family member** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | 1.254(-0.366, 2.875) | 0.174(-1.064, 1.411) | -0.289(-1.738, 1.161) | -0.02(-0.868, 0.827) | 0.18(-0.859, 1.22) | -0.046(-1.547, 1.455) | 1.017(-0.662, 2.696) |
| P-value | 0.13 | 0.783 | 0.697 | 0.962 | 0.734 | 0.952 | 0.235 |
| FDR P-value | 0.762 | 0.987 | 0.987 | 0.987 | 0.987 | 0.987 | 0.762 |
| **Financial hardship** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | 0.671(-0.242, 1.583) | 0.335(-0.359, 1.029) | 0.007(-0.791, 0.804) | 0.354(-0.124, 0.832) | 0.051(-0.54, 0.642) | -0.546(-1.365, 0.273) | 1.059(0.159, 1.959) |
| P-value | 0.15 | 0.344 | 0.987 | 0.148 | 0.865 | 0.192 | 0.021 |
| FDR P-value | 0.762 | 0.762 | 0.987 | 0.762 | 0.987 | 0.762 | 0.735 |
| **Emotional Support** |   |  |  |  |  |  |  |
| No | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes | -0.028(-0.925, 0.87) | -0.422(-1.102, 0.259) | 0.418(-0.38, 1.215) | -0.039(-0.509, 0.43) | 0.129(-0.444, 0.702) | 0.404(-0.422, 1.229) | -0.594(-1.518, 0.331) |
| P-value | 0.952 | 0.225 | 0.305 | 0.87 | 0.66 | 0.338 | 0.209 |
| FDR P-value | 0.987 | 0.762 | 0.762 | 0.987 | 0.987 | 0.762 | 0.762 |
| **Sexual abuse severity** |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Moderate | 0.557(-0.729, 1.842) | 0.638(-0.373, 1.649) | 0.163(-0.924, 1.25) | 0.179(-0.363, 0.721) | -0.097(-0.869, 0.675) | -0.965(-2.108, 0.177) | 0.767(-0.74, 2.275) |
| Severe | 0.611(-0.744, 1.966) | 0.752(-0.314, 1.818) | 1.652(0.506, 2.798) | 0.508(-0.063, 1.08) | 0.543(-0.271, 1.356) | -0.646(-1.85, 0.557) | 0.799(-0.791, 2.389) |
| P-value | 0.560 | 0.265 | 0.017 | 0.218 | 0.344 | 0.214 | 0.469 |
| FDR P-value | 0.952 | 0.762 | 0.735 | 0.762 | 0.762 | 0.762 | 0.864 |
| **Physical abuse severity** |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Mild | 0.337(-0.848, 1.521) | 0.241(-0.664, 1.146) | 1.186(0.118, 2.254) | -0.03(-0.672, 0.612) | 0.079(-0.715, 0.873) | -0.235(-1.348, 0.877) | 0.773(-0.421, 1.968) |
| Moderate | 0.526(-0.968, 2.02) | 1.163(0.021, 2.305) | 1.204(-0.143, 2.551) | -0.141(-0.95, 0.669) | 0.541(-0.461, 1.543) | 0.723(-0.68, 2.127) | 1.473(-0.031, 2.977) |
| Severe | 0.262(-0.802, 1.325) | 0.183(-0.63, 0.996) | -0.044(-1.001, 0.913) | 0.155(-0.42, 0.73) | -0.152(-0.863, 0.56) | -0.169(-1.167, 0.828) | 0.978(-0.092, 2.047) |
| P-value | 0.886 | 0.260 | 0.048 | 0.891 | 0.620 | 0.623 | 0.147 |
| FDR P-value | 0.987 | 0.762 | 0.762 | 0.987 | 0.982 | 0.982 | 0.762 |
|  |   |  |  |  |  |  |  |
| **Adulthood stressors** |   |  |  |  |  |  |  |
| **CESD score** |   |  |  |  |  |  |  |
| <16 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| 16-23 | 0.933(-0.37, 2.235) | 0.431(-0.559, 1.421) | -0.159(-1.311, 0.993) | 0.33(-0.346, 1.007) | 0.482(-0.348, 1.312) | -0.301(-1.499, 0.897) | 0.505(-0.825, 1.835) |
| ≥ 24 | -0.727(-2.273, 0.819) | -0.918(-2.095, 0.258) | -1.079(-2.453, 0.296) | -0.145(-0.953, 0.662) | -0.203(-1.193, 0.787) | -0.972(-2.402, 0.459) | -1.486(-3.074, 0.102) |
| P-value | 0.204 | 0.179 | 0.306 | 0.565 | 0.451 | 0.391 | 0.116 |
| FDR P-value | 0.762 | 0.762 | 0.762 | 0.952 | 0.853 | 0.805 | 0.762 |
| **Interpersonal racism score** |   |  |  |  |  |  |  |
| Quantile 1  | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Quantile 2 | -0.236(-1.521, 1.049) | -0.614(-1.59, 0.361) | 0.306(-0.835, 1.447) | -0.184(-0.854, 0.485) | -0.263(-1.084, 0.558) | -0.711(-1.892, 0.47) | 0.61(-0.7, 1.92) |
| Quantile 3 | -0.23(-1.342, 0.882) | -0.195(-1.039, 0.649) | 0.522(-0.469, 1.512) | 0.005(-0.576, 0.586) | -0.181(-0.893, 0.532) | -0.603(-1.627, 0.421) | -0.086(-1.224, 1.052) |
| Quartile 4  | 0.043(-1.168, 1.253) | 0.19(-0.729, 1.109) | 0.088(-0.991, 1.166) | 0.075(-0.558, 0.708) | -0.014(-0.79, 0.761) | 0.141(-0.975, 1.256) | 1.352(0.112, 2.593) |
| P-value | 0.950 | 0.435 | 0.731 | 0.899 | 0.898 | 0.345 | 0.070 |
| FDR P-value | 0.987 | 0.853 | 0.987 | 0.987 | 0.987 | 0.762 | 0.762 |
| **Lifetime institutional racism**  |   |  |  |  |  |  |  |
| None | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| Yes to 1 | -0.562(-1.624, 0.499) | -0.131(-0.941, 0.678) | 0.287(-0.658, 1.233) | -0.261(-0.816, 0.294) | -0.07(-0.751, 0.61) | 0.883(-0.096, 1.862) | 0.03(-1.061, 1.12) |
| Yes to 2 | 0.177(-0.998, 1.352) | 0.057(-0.84, 0.953) | -0.004(-1.05, 1.042) | 0.065(-0.549, 0.679) | -0.032(-0.785, 0.722) | 0.308(-0.777, 1.392) | -0.052(-1.262, 1.159) |
| Yes to 3 | -0.703(-2.083, 0.676) | -0.188(-1.24, 0.864) | -0.422(-1.651, 0.807) | 0.023(-0.698, 0.744) | -0.236(-1.12, 0.649) | 0.039(-1.234, 1.312) | -0.231(-1.649, 1.187) |
| P-value | 0.449 | 0.959 | 0.710 | 0.685 | 0.961 | 0.298 | 0.986 |
| FDR P-value | 0.853 | 0.987 | 0.987 | 0.987 | 0.987 | 0.762 | 0.987 |
| **Sleep duration** |   |  |  |  |  |  |  |
| 7 or 8 | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) | Referent (0.00) |
| <=6 | -0.408(-1.248, 0.431) | -0.452(-1.09, 0.186) | -0.384(-1.124, 0.356) | 0.369(-0.069, 0.808) | 0.026(-0.512, 0.564) | 0.117(-0.659, 0.894) | 0.297(-0.567, 1.161) |
| >=9 | 0.154(-5.053, 5.361) | -2.284(-6.241, 1.673) | -0.857(-5.45, 3.736) | 0.447(-2.272, 3.165) | -0.597(-3.935, 2.741) | 1.246(-3.57, 6.063) | 0.96(-4.388, 6.308) |
| P-value | 0.631 | 0.219 | 0.570 | 0.249 | 0.934 | 0.848 | 0.758 |
| FDR P-value | 0.982 | 0.762 | 0.952 | 0.762 | 0.987 | 0.987 | 0.987 |

Models are adjusted for age, white blood cell count, smoking, body mass index, education, alcohol, marital status, and physical activity with a random effect for plate.