

Supplementary Table S1. Description of the sample characteristics

| Variables | Total (n = 305) | Males (n = 152) | Females (n = 153) |
|--------------------------|-----------------|-----------------|-------------------|
| Age, Mean (SD) | 18.94 (0.71) | 18.90 (0.75) | 18.98 (0.67) |
| Only child | | | |
| Yes | 89 (29.2) | 47 (30.9) | 42 (27.5) |
| No | 216 (70.8) | 105 (69.1) | 111 (72.5) |
| Residential area | | | |
| Rural | 196 (64.3) | 96 (63.2) | 100 (65.4) |
| Urban | 109 (35.7) | 56 (36.8) | 96 (63.2) |
| Family type | | | |
| Nuclear family | 203 (66.6) | 108 (71.1) | 95 (62.1) |
| Single-parent family | 23 (7.5) | 11 (7.2) | 12 (7.8) |
| Extended family | 79 (25.9) | 33 (21.7) | 46 (30.1) |
| Family economic | | | |
| Less than 5000 | 80 (26.2) | 31 (20.4) | 49 (32.0) |
| 5000–10,000 | 124 (40.7) | 61 (40.1) | 63 (41.2) |
| More than 10,000 | 101 (33.1) | 60 (39.5) | 34 (26.8) |
| Mother's education level | | | |
| Primary and below | 96 (31.5) | 52 (34.2) | 44 (28.8) |
| Junior middle | 126 (41.3) | 61 (40.1) | 65 (42.5) |
| Senior middle | 83 (27.2) | 39 (25.7) | 44 (28.8) |
| Father's education level | | | |
| Primary and below | 58 (19.0) | 28 (18.4) | 30 (19.6) |
| Junior middle | 122 (40.0) | 61 (40.1) | 61 (39.9) |
| Senior middle | 125 (41.0) | 63 (41.4) | 62 (40.5) |
| Smoke | | | |
| Yes | 8 (5.3) | 8 (2.6) | 0 (0) |
| No | 297 (97.4) | 144 (94.7) | 153 (100) |
| Drink | | | |
| Yes | 97 (31.8) | 73 (48.0) | 24 (15.7) |
| No | 208 (68.2) | 79 (52.0) | 129 (84.3) |
| EA score, Mean (SD) | 5.87 (2.30) | 6.05 (2.93) | 5.70 (1.42) |
| PA score, Mean (SD) | 5.51 (2.24) | 5.79 (3.01) | 5.25 (0.92) |
| SA score, Mean (SD) | 5.34 (1.95) | 5.57 (2.70) | 5.12 (0.50) |
| EN score, Mean (SD) | 5.55 (2.26) | 5.72 (2.77) | 5.38 (1.57) |
| PN score, Mean (SD) | 5.60 (2.13) | 5.71 (2.76) | 5.48 (1.22) |
| VFA, Mean (SD) | 68.89 (35.35) | 63.23 (39.52) | 74.51 (29.73) |
| BMI, Mean (SD) | 22.49 (3.92) | 23.36 (4.59) | 21.63 (2.87) |
| PBF, Mean (SD) | 25.36 (8.24) | 20.77 (7.88) | 29.93 (5.67) |
| FM, Mean (SD) | 16.50 (7.28) | 15.66 (8.74) | 17.33 (5.37) |
| WC, Mean (SD) | 80.17 (10.29) | 82.98 (12.04) | 77.37 (7.21) |
| Hipline, Mean (SD) | 93.36 (7.48) | 94.02 (8.71) | 92.70 (5.96) |
| WHR, Mean (SD) | 0.86 (0.070) | 0.88 (0.08) | 0.83 (0.04) |
| ASLEC, Mean (SD) | 41.61 (17.69) | 45.42 (21.04) | 37.83 (12.53) |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat area; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, Waist hip ratio; WC, waist circumference. ASLEC, Adolescent Self-Rating Life Events Checklist.

Supplementary Table S2. STROBE Statement-checklist of items that should be included in reports of observational studies

| | Item No. | Recommendation | Page No. |
|------------------------------|----------|---|--------------|
| Title and abstract | 1 | (a) Indicate the study's design with a commonly used term in the title or the abstract | 1 |
| | | (b) Provide in the abstract an informative and balanced summary of what was done and what was found | None. |
| Introduction | | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | 2 |
| Objectives | 3 | State specific objectives, including any prespecified hypotheses | 2 |
| Methods | | | |
| Study design | 4 | Present key elements of study design early in the paper | 3-4 |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | 3-4 |
| | | (a) <i>Cohort study</i> —Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up (b) <i>Case-control study</i> —Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls | 3-4 |
| Participants | 6 | <i>Cross-sectional study</i> —Give the eligibility criteria, and the sources and methods of selection of participants | None. |
| | | (b) <i>Cohort study</i> —For matched studies, give matching criteria and number of exposed and unexposed | |
| | | <i>Case-control study</i> —For matched studies, give matching criteria and the number of controls per case | |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | 3-4 |
| Data sources/ measurement | 8* | For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group | 3-4 |
| Bias | 9 | Describe any efforts to address potential sources of bias | Not reported |
| Study size | 10 | Explain how the study size was arrived at | 3 |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | 3-4 |
| | | (a) Describe all statistical methods, including those used to control for confounding | 4 |
| | | (b) Describe any methods used to examine subgroups and interactions | 4 |
| | | (c) Explain how missing data were addressed | 4 |
| Statistical methods | 12 | (d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed | 4 |
| | | <i>Case-control study</i> —If applicable, explain how matching of cases and controls was addressed | |
| | | <i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy | |
| | | (e) Describe any sensitivity analyses | Not reported |
| Results | | | |
| Participants | 13* | (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed | 4, Table S1 |
| | | (b) Give reasons for non-participation at each stage | 3, Figure S1 |
| | | (c) Consider use of a flow diagram | Figure S1 |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | 4-5 |
| | | (b) Indicate number of participants with missing data for each variable of interest | Figure S1 |
| | | (c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount) | None, |

Continued

| | Item No. | Recommendation | Page No. |
|--------------------------|----------|--|--------------|
| Outcome data | 15* | <i>Cohort study</i> —Report numbers of outcome events or summary measures over time | |
| | | <i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure | |
| | | <i>Cross-sectional study</i> —Report numbers of outcome events or summary measures | 4-5 |
| Main results | 16 | (a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included | Table 2 |
| | | (b) Report category boundaries when continuous variables were categorized | None. |
| | | (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | Not reported |
| Discussion | | | |
| Key results | 18 | Summarise key results with reference to study objectives | 4-5 |
| Limitations | 19 | Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias | 4-5 |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | 4-5 |
| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | 4-5 |
| Other information | | | |
| Funding | 22 | Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based | 1 |

Note. *Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Supplementary Table S3. Relationship between child maltreatment and obesity indicators by sex (A two-sided *P* value of ≤ 0.01 was considered statistically significant)

| Variables | EA | | PA | | SA | | EN | | PN | |
|-----------|---|-------------------|--|--------------|------------------------------|----------|--|--------------|------------------------------|----------|
| | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> |
| VFA | | | | | | | | | | |
| Males | 40.557 (7.538, 73.576) | 0.002 | 23.830 (-11.462, 59.123) | 0.080 | 19.357 (-20.681, 59.395) | 0.209 | 20.694 (-15.537, 56.925) | 0.138 | 16.676 (-20.189, 53.540) | 0.239 |
| Females | 5.609 (-31.811, 43.029) | 0.696 | -32.859 (-85.825, 20.106) | 0.107 | -14.013 (-99.683, 71.656) | 0.670 | 10.106 (-34.261, 54.430) | 0.552 | -22.778 (-65.702, 20.146) | 0.168 |
| BMI | | | | | | | | | | |
| Males | 5.631 (1.799, 9.462) | < 0.001 | 4.056 (-0.049, 8.161) | 0.011 | 3.796 (-0.871, 8.463) | 0.035 | 3.738 (-0.483, 7.958) | 0.022 | 3.115 (-1.194, 7.424) | 0.061 |
| Females | 1.634 (-1.950, 5.219) | 0.236 | -2.218 (-7.342, 2.905) | 0.260 | -4.791 (-12.971, 3.389) | 0.128 | 1.672 (-2.584, 5.927) | 0.307 | -1.249 (-5.400, 2.903) | 0.433 |
| PBF | | | | | | | | | | |
| Males | 8.557 (1.873, 15.240) | 0.001 | 4.780 (-2.387, 11.948) | 0.084 | 4.014 (-4.113, 12.141) | 0.199 | 4.038 (-3.323, 11.399) | 0.154 | 3.351 (-4.135, 10.837) | 0.244 |
| Females | 1.200 (-5.977, 8.378) | 0.663 | -7.109 (-17.244, 3.025) | 0.069 | -2.132 (-18.571, 14.308) | 0.735 | 2.813 (-5.678, 11.304) | 0.388 | -2.446 (-10.721, 5.829) | 0.441 |
| FM | | | | | | | | | | |
| Males | 9.960 (2.677, 17.244) | < 0.001 | 6.213 (-1.605, 14.030) | 0.040 | 5.454 (-3.421, 14.329) | 0.111 | 5.928 (-2.088, 13.944) | 0.055 | 4.873 (-3.297, 13.043) | 0.121 |
| Females | 1.660 (-5.132, 8.451) | 0.524 | -5.480 (-15.117, 4.157) | 0.140 | -3.371 (-18.926, 12.184) | 0.572 | 2.594 (-5.447, 10.635) | 0.401 | -2.946 (-10.771, 4.880) | 0.327 |
| WC | | | | | | | | | | |
| Males | 12.098 (2.078, 22.119) | 0.002 | 7.491 (-3.197, 18.179) | 0.069 | 6.137 (-5.993, 18.266) | 0.188 | 6.843 (-4.122, 17.808) | 0.105 | 4.932 (-6.245, 16.110) | 0.251 |
| Females | 1.612 (-7.568, 10.792) | 0.647 | -8.823 (-21.794, 4.148) | 0.078 | -10.001 (-30.915, 10.913) | 0.214 | 2.639 (-8.235, 13.513) | 0.527 | -5.185 (-15.728, 5.358) | 0.201 |
| Hipline | | | | | | | | | | |
| Males | 8.942 (1.855, 16.029) | 0.001 | 8.326 (0.882, 15.770) | 0.004 | 7.746 (-0.738, 16.229) | 0.018 | 8.046 (0.403, 15.690) | 0.007 | 6.928 (-0.887, 14.743) | 0.022 |
| Females | 2.187 (-5.187, 9.560) | 0.440 | -0.902 (-11.456, 9.653) | 0.824 | -4.734 (-21.621, 12.153) | 0.465 | -0.177 (-8.937, 8.583) | 0.958 | -4.205 (-12.685, 4.275) | 0.197 |
| WHR | | | | | | | | | | |
| Males | 0.039 (-0.031, 0.109) | 0.144 | -0.004 (-0.078, 0.070) | 0.887 | -0.013 (-0.096, 0.070) | 0.690 | -0.008 (-0.083, -0.067) | 0.780 | -0.019 (-0.095, 0.057) | 0.522 |
| Females | -0.001 (-0.055, 0.053) | 0.961 | -0.084 (-0.056, 0.035) | 0.004 | -0.069 (-0.192, 0.054) | 0.146 | 0.035 (-0.028, 0.099) | 0.150 | -0.014 (-0.077, 0.048) | 0.554 |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat area; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, Waist hip ratio; WC, waist circumference. Models were adjusted for age, drinking, smoking, father education, mother education, family type, family economic and recent adolescent self-rating life events. A two-sided *P* value of ≤ 0.01 was considered statistically significant.

Supplementary Table S4. Relationship between child maltreatment and obesity indicators by sex (A two-sided *P* value of ≤ 0.05 was considered statistically significant)

| Variables | EA | | PA | | SA | | EN | | PN | |
|-----------|-----------------------------------|-------------------|-----------------------------------|--------------|---------------------------------|--------------|---------------------------------|--------------|-----------------------------|----------|
| | β (95% CIs) | <i>P</i> | β (95% CIs) | <i>P</i> | β (95% CIs) | <i>P</i> | β (95% CIs) | <i>P</i> | β (95% CIs) | <i>P</i> |
| VFA | | | | | | | | | | |
| Males | 40.557 (15.565, 65.550) | 0.002 | 23.830 (-2.883, 50.544) | 0.080 | 19.357 (-10.948, 49.663) | 0.209 | 20.694 (-6.729, 48.117) | 0.138 | 16.676 (-11.228, 44.579) | 0.239 |
| Females | 5.609 (-22.715, 33.933) | 0.696 | -32.859 (-72.950, 7.231) | 0.107 | -14.013 (-78.857, 50.831) | 0.670 | 10.106 (-23.443, 43.656) | 0.552 | -22.778 (-55.268, 9.712) | 0.168 |
| BMI | | | | | | | | | | |
| Males | 5.631 (2.730, 8.531) | < 0.001 | 4.056 (0.949, 7.164) | 0.011 | 3.796 (0.263, 7.328) | 0.035 | 3.738 (0.543, 6.932) | 0.022 | 3.115 (-0.146, 6.376) | 0.061 |
| Females | 1.634 (-1.079, 3.584) | 0.236 | -2.218 (-6.096, 1.659) | 0.260 | -4.791 (-10.983, 1.401) | 0.128 | 1.672 (-1.594, 4.892) | 0.307 | -1.249 (-4.391, 1.894) | 0.433 |
| PBF | | | | | | | | | | |
| Males | 8.557 (3.498, 13.616) | 0.001 | 4.780 (-0.645, 10.206) | 0.084 | 4.014 (-2.138, 10.166) | 0.199 | 4.038 (-1.534, 9.610) | 0.154 | 3.351 (-2.315, 9.017) | 0.244 |
| Females | 1.200 (-4.233, 6.634) | 0.663 | -7.109 (-14.780, 0.561) | 0.069 | -2.132 (-14.575, 10.311) | 0.735 | 2.813 (-3.614, 9.240) | 0.388 | -2.446 (-8.710, 3.818) | 0.441 |
| FM | | | | | | | | | | |
| Males | 9.960 (4.447, 15.474) | < 0.001 | 6.213 (0.296, 12.130) | 0.040 | 5.454 (-1.264, 12.172) | 0.111 | 5.928 (-0.139, 11.996) | 0.055 | 4.873 (-1.311, 11.057) | 0.121 |
| Females | 1.660 (-3.481, 6.800) | 0.524 | -5.480 (-12.774, 1.814) | 0.140 | -3.371 (-15.145, 8.403) | 0.572 | 2.594 (-3.493, 8.681) | 0.401 | -2.946 (-8.869, 2.977) | 0.327 |
| WC | | | | | | | | | | |
| Males | 12.098 (4.513, 19.683) | 0.002 | 7.491 (-0.599, 15.581) | 0.069 | 6.137 (-3.044, 15.318) | 0.188 | 6.843 (-1.456, 15.142) | 0.105 | 4.932 (-3.528, 13.393) | 0.251 |
| Females | 1.612 (-5.337, 8.560) | 0.647 | -8.823 (-18.641, 0.995) | 0.078 | -10.001 (-25.831, 5.829) | 0.214 | 2.639 (-5.591, 10.870) | 0.527 | -5.185 (-13.165, 2.795) | 0.201 |
| Hipline | | | | | | | | | | |
| Males | 8.942 (3.577, 14.306) | 0.001 | 8.326 (2.691, 13.961) | 0.004 | 7.746 (1.324, 14.167) | 0.018 | 8.046 (2.261, 13.832) | 0.007 | 6.928 (1.013, 12.843) | 0.022 |
| Females | 2.187 (-3.395, 7.768) | 0.440 | -0.902 (-8.891, 7.087) | 0.824 | -4.734 (-17.516, 8.048) | 0.465 | -0.177 (-6.808, 6.454) | 0.958 | -4.205 (-10.624, 2.214) | 0.197 |
| WHR | | | | | | | | | | |
| Males | 0.039 (-0.014, 0.092) | 0.144 | -0.004 (-0.060, 0.052) | 0.887 | -0.013 (-0.075, 0.050) | 0.690 | -0.008 (-0.065, 0.049) | 0.780 | -0.019 (-0.076, 0.039) | 0.522 |
| Females | -0.001 (-0.042, 0.040) | 0.961 | -0.084 (-0.141, -0.027) | 0.004 | -0.069 (-0.162, 0.024) | 0.146 | 0.035 (-0.013, 0.084) | 0.150 | -0.014 (-0.062, 0.033) | 0.554 |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat area; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, Waist hip ratio; WC, waist circumference. Models were adjusted for age, drinking, smoking, father education, mother education, family type, family economic and recent adolescent self-rating life events. A two-sided *P* value of ≤ 0.05 was considered statistically significant.

Supplementary Table S5. Association between childhood adverse life events and recent adverse life events interacting with obesity indicators

| Variables | EA*ASLEC | | PA*ASLEC | | SA*ASLEC | | EN*ASLEC | | PN*ASLEC | |
|--|------------------------|-------|--------------------------------|--------------|--------------------------------|--------------|--------------------------------|--------------|--------------------------------|--------------|
| | β (CIs) | P | β (CIs) | P | β (CIs) | P | β (CIs) | P | β (CIs) | P |
| 99% CIs; $P_{interaction} \leq 0.01$ | | | | | | | | | | |
| VFA | -0.372 (-1.320, 0.577) | 0.311 | -0.525 (-1.375, 0.325) | 0.110 | -0.580 (-1.414, 0.253) | 0.072 | -0.797 (-1.720, 0.126) | 0.026 | -0.582 (-1.481, 0.317) | 0.094 |
| BMI | -0.027 (-0.130, 0.076) | 0.493 | -0.050 (-0.142, 0.043) | 0.164 | -0.053 (-0.144, 0.038) | 0.131 | -0.060 (-0.161, 0.041) | 0.124 | -0.035 (-0.133, 0.063) | 0.351 |
| PBF | -0.045 (-0.233, 0.142) | 0.533 | -0.096 (-0.264, 0.072) | 0.138 | -0.125 (-0.289, 0.040) | 0.050 | -0.145 (-0.328, 0.037) | 0.040 | -0.113 (-0.291, 0.064) | 0.099 |
| FM | -0.066 (-0.262, 0.130) | 0.385 | -0.104 (-0.280, 0.071) | 0.125 | -0.119 (-0.291, 0.053) | 0.075 | -0.154 (-0.345, 0.036) | 0.037 | -0.112 (-0.298, 0.073) | 0.118 |
| WC | -0.147 (-0.416, 0.123) | 0.160 | -0.174 (-0.416, 0.067) | 0.062 | -0.176 (-0.413, 0.061) | 0.055 | -0.247 (-0.510, 0.015) | 0.015 | -0.208 (-0.464, 0.047) | 0.035 |
| Hipline | -0.041 (-0.240, 0.158) | 0.594 | 0.003 (-0.176, 0.182) | 0.966 | 0.001 (-0.175, 0.177) | 0.993 | -0.059 (-0.254, 0.136) | 0.433 | 0.008 (-0.181, 0.198) | 0.910 |
| WHR | -0.001 (-0.003, 0.001) | 0.102 | -0.002 (-0.003, 0.000) | 0.003 | -0.002 (-0.003, 0.000) | 0.002 | -0.002 (-0.004, 0.000) | 0.003 | -0.002 (-0.004, -0.001) | 0.001 |
| 95% CIs; $P_{interaction} \leq 0.05$ | | | | | | | | | | |
| VFA | -0.372 (-1.092, 0.348) | 0.311 | -0.525 (-1.170, 0.120) | 0.110 | -0.580 (-1.213, 0.052) | 0.072 | -0.797 (-1.497, -0.096) | 0.026 | -0.582 (-1.265, 0.100) | 0.094 |
| BMI | -0.027 (-0.106, 0.051) | 0.493 | -0.050 (-0.120, 0.020) | 0.164 | -0.053 (-0.122, 0.016) | 0.131 | -0.060 (-0.136, 0.016) | 0.124 | -0.035 (-0.110, 0.039) | 0.351 |
| PBF | -0.045 (-0.188, 0.097) | 0.533 | -0.096 (-0.224, 0.031) | 0.138 | -0.125 (-0.250, 0.000) | 0.050 | -0.145 (-0.284, -0.007) | 0.040 | -0.113 (-0.248, 0.022) | 0.099 |
| FM | -0.066 (-0.215, 0.083) | 0.385 | -0.104 (-0.238, 0.029) | 0.125 | -0.119 (-0.249, 0.012) | 0.075 | -0.154 (-0.299, -0.010) | 0.037 | -0.112 (-0.253, 0.029) | 0.118 |
| WC | -0.147 (-0.351, 0.058) | 0.160 | -0.174 (-0.358, 0.009) | 0.062 | -0.176 (-0.356, 0.004) | 0.055 | -0.247 (-0.446, -0.048) | 0.015 | -0.208 (-0.402, -0.014) | 0.035 |
| Hipline | -0.041 (-0.192, 0.110) | 0.594 | 0.003 (-0.133, 0.139) | 0.966 | 0.001 (-0.133, 0.134) | 0.993 | -0.059 (-0.207, 0.089) | 0.433 | 0.008 (-0.136, 0.152) | 0.910 |
| WHR | -0.001 (-0.002, 0.000) | 0.102 | -0.002 (-0.003, -0.001) | 0.003 | -0.002 (-0.003, -0.001) | 0.002 | -0.002 (-0.003, -0.001) | 0.003 | -0.002 (-0.004, -0.001) | 0.001 |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat are; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, Waist hip ratio; WC, waist circumference; ASLEC, Adolescent Self-Rating Life Events Checklist. Models were adjusted for age, sex, drinking, smoking, father education, mother education, family type, family economic, emotional abuse; physical abuse; sexual abuse; emotional neglect; physical neglect and recent adverse life events.

Supplementary Table S6. Association of different types of child maltreatment with obesity indicators

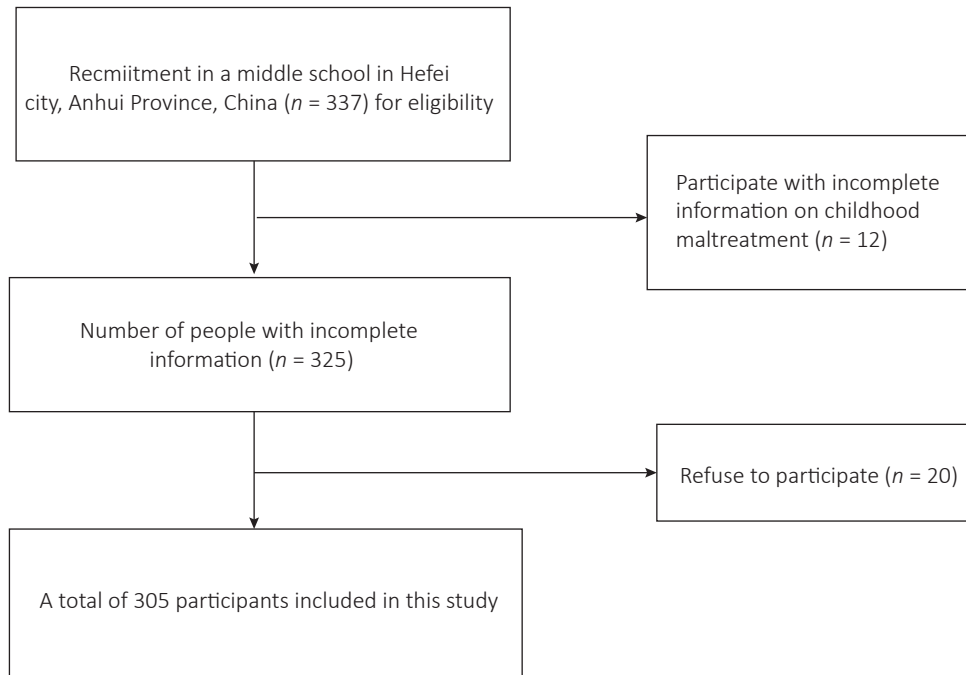
| Variables | VFA | BMI | PBF | FM | WC | Hipline | WHR |
|------------------------------------|-------------------------------------|-----------------------------------|-----------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------|
| | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) | $\beta_{interaction}$ (CIs) |
| β, 99% CIs | | | | | | | |
| None CM, Low ASLEC | - | - | - | - | - | - | - |
| None CM, Medium ASLEC | 0.537 (-14.694, 15.769) | 0.201 (-1.458, 1.860) | -0.508 (-3.524, 2.508) | 0.025 (-3.116, 3.167) | 0.244 (-4.108, 4.596) | 0.200 (-2.991, 3.391) | 0.000 (-0.029, 0.029) |
| None CM, High ASLEC | -1.935 (-22.540, 18.670) | 0.228 (-2.016, 2.472) | -0.268 (-4.348, 3.812) | -0.359 (-4.610, 3.891) | -1.183 (-7.070, 4.704) | -2.200 (-6.517, 2.117) | 0.006 (-0.034, 0.045) |
| CM, Low ASLEC | -5.819 (-41.791, 30.153) | -0.695 (-4.613, 3.223) | -0.435 (-7.558, 6.688) | -0.752 (-8.172, 6.667) | -0.964 (-11.241, 9.314) | -0.285 (-7.822, 7.252) | -0.007 (-0.076, 0.062) |
| CM, Medium ASLEC | -26.793 (-56.290, 2.703) | -3.245 (-6.458, -0.032) | -5.796 (-11.637, 0.044) | -6.024 (-12.108, 0.060) | -7.028 (-15.455, 1.399) | -5.484 (-11.664, 0.697) | -0.023 (-0.080, 0.033) |
| CM, High ASLEC | -32.518 (-68.275, 3.239) | -1.722 (-5.616, 2.173) | -5.173 (-12.253, 1.907) | -6.564 (-13.939, 0.811) | -8.821 (-19.036, 1.395) | -7.701 (-15.193, -0.209) | -0.021 (-0.089, 0.048) |
| β, 95% CIs | | | | | | | |
| None CM, Low ASLEC | - | - | - | - | - | - | - |
| None CM, Medium ASLEC | 0.537 (-11.022, 12.097) | 0.201 (-1.058, 1.460) | -0.508 (-2.797, 1.781) | 0.025 (-2.359, 2.410) | 0.244 (-3.059, 3.547) | 0.200 (-2.222, 2.622) | 0.000 (-0.022, 0.022) |
| None CM, High ASLEC | -1.935 (-17.573, 13.704) | 0.228 (-1.475, 1.931) | -0.268 (-3.365, 2.828) | -0.359 (-3.585, 2.866) | -1.183 (-5.651, 3.285) | -2.200 (-5.476, 1.077) | 0.006 (-0.024, 0.036) |
| CM, Low ASLEC | -5.819 (-33.121, 21.483) | -0.695 (-3.668, 2.279) | -0.435 (-5.841, 4.971) | -0.752 (-6.384, 4.879) | -0.964 (-8.764, 6.837) | -0.285 (-6.005, 5.435) | -0.007 (-0.059, 0.045) |
| CM, Medium ASLEC | -26.793 (-49.180, -4.406) | -3.245 (-5.683, -0.807) | -5.796 (-10.229, -1.363) | -6.024 (-10.641, -1.406) | -7.028 (-13.424, -0.632) | -5.484 (-10.174, -0.793) | -0.023 (-0.066, 0.020) |
| CM, High ASLEC | -32.518 (-59.656, -5.380) | -1.722 (-4.678, 1.234) | -5.173 (-10.547, 0.200) | -6.564 (-12.162, -0.966) | -8.821 (-16.574, -1.067) | -7.701 (-13.387, -2.015) | -0.021 (-0.073, 0.031) |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat area; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, waist hip ratio; WC, waist circumference. Models were adjusted for age, sex, drinking, smoking, father education, mother education, family type, family economic and recent adolescent self-rating life events.

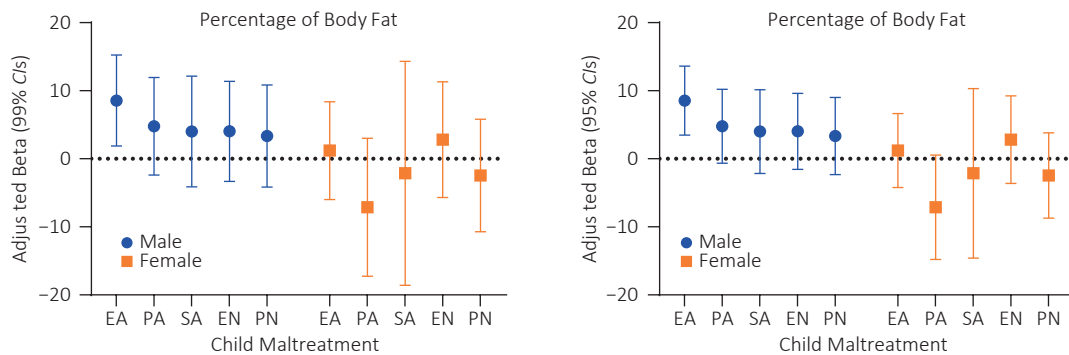
Supplementary Table S7. Association of different types of child maltreatment with obesity indicators by type of obesity

| CM | EA | | PA | | SA | | EN | | PN | |
|----------------------|------------------------------|----------|------------------------------|----------|------------------------------|----------|------------------------------|----------|------------------------------|----------|
| | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> | β (99% CIs) | <i>P</i> |
| VFA | | | | | | | | | | |
| Normal | 3.686 (-18.630, 26.002) | 0.668 | -7.805 (-34.715, 19.105) | 0.452 | -14.910 (-49.771, 19.951) | 0.268 | -0.502 (-25.757, 24.753) | 0.959 | -14.082 (-38.392, 10.228) | 0.134 |
| Obese/ overweight | -12.225 (-68.104, 43.665) | 0.558 | -12.252 (-75.811, 51.307) | 0.605 | -9.806 (-88.179, 68.567) | 0.737 | -10.994 (-86.954, 64.965) | 0.698 | 1.982 (-62.264, 67.228) | 0.935 |
| BMI | | | | | | | | | | |
| Normal | 1.126 (-0.907, 3.159) | 0.152 | 0.162 (-2.303, 2.627) | 0.865 | -2.213 (-5.388, 0.961) | 0.071 | 0.850 (-1.456, 3.156) | 0.339 | -0.590 (-2.823, 1.643) | 0.493 |
| Obese/ overweight | -0.061 (-6.184, 6.062) | 0.979 | -3.724 (-10.503, 3.054) | 0.145 | -2.791 (-11.273, 5.692) | 0.379 | -1.954 (-10.216, 6.309) | 0.527 | -0.787 (-7.899, 6.325) | 0.767 |
| PBF | | | | | | | | | | |
| Normal | 2.135 (-3.313, 7.583) | 0.310 | -1.619 (-8.203, 4.966) | 0.524 | -2.265 (-10.807, 6.276) | 0.491 | 0.994 (-5.181, 7.169) | 0.676 | -2.021 (-7.987, 3.944) | 0.380 |
| Obese/ overweight | 1.322 (-8.190, 10.835) | 0.709 | 0.459 (-10.368, 11.286) | 0.909 | 1.751 (-11.555, 15.058) | 0.724 | 1.988 (-10.907, 14.883) | 0.679 | 3.759 (-7.207, 14.725) | 0.360 |
| FM | | | | | | | | | | |
| Normal | 1.796 (-2.657, 6.248) | 0.296 | -0.802 (-6.188, 4.583) | 0.699 | -2.460 (-9.436, 4.516) | 0.360 | 0.823 (-4.225, 5.870) | 0.672 | -2.129 (-7.000, 2.742) | 0.257 |
| Obese/ overweight | -1.921 (-14.258, 10.416) | 0.676 | -2.451 (-16.462, 11.560) | 0.639 | -2.850 (-20.099, 14.399) | 0.658 | -1.662 (-18.414, 15.090) | 0.790 | 2.144 (-12.203, 16.492) | 0.689 |
| WC | | | | | | | | | | |
| Normal | 1.807 (-4.312, 7.926) | 0.444 | -0.211 (-7.606, 7.184) | 0.941 | -2.250 (-11.837, 7.336) | 0.543 | 0.755 (-6.175, 7.685) | 0.777 | -3.260 (-9.942, 3.422) | 0.206 |
| Obese/ overweight | -2.946 (-17.968, 12.077) | 0.599 | -4.719 (-21.732, 12.294) | 0.458 | -3.612 (-24.638, 17.415) | 0.645 | -3.141 (-23.540, 17.258) | 0.680 | 2.189 (-15.314, 19.692) | 0.737 |
| Hipline | | | | | | | | | | |
| Normal | 1.418 (-3.618, 6.455) | 0.465 | 3.414 (-2.643, 9.471) | 0.145 | 0.564 (-7.332, 8.459) | 0.853 | 1.737 (-3.960, 7.433) | 0.429 | 0.285 (-5.234, 5.803) | 0.894 |
| Obese/ overweight | -2.636 (-14.421, 9.150) | 0.549 | -0.839 (-14.286, 12.608) | 0.867 | -5.571 (-21.959, 10.816) | 0.364 | -2.116 (-18.144, 13.9112) | 0.723 | 1.314 (-12.439, 15.067) | 0.798 |
| WHR | | | | | | | | | | |
| Normal | 0.007 (-0.048, 0.061) | 0.750 | -0.035 (-0.101, 0.030) | 0.162 | -0.033 (-0.118, 0.052) | 0.311 | -0.006 (-0.067, 0.056) | 0.813 | -0.037 (-0.096, 0.022) | 0.102 |
| Obese/ overweight | -0.005 (-0.096, 0.087) | 0.890 | -0.040 (-0.143, 0.063) | 0.300 | 0.015 (-0.113, 0.143) | 0.757 | -0.012 (-0.136, 0.112) | 0.798 | 0.010 (-0.096, 0.117) | 0.793 |

Note. EA, Emotional abuse; PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; VFA, visceral fat area; BMI, body mass index; PBF, percentage of body fat; FM, fat mass; WHR, waist hip ratio; WC, waist circumference. ASLEC, Adolescent Self-Rating Life Events Checklist. Models were adjusted for age, sex, drinking, smoking, father education, mother education, family type, family economic and recent adolescent self-rating life events.



Supplementary Figure S1. The study follow chart.



Supplementary Figure S2. Relationship between child maltreatment and obesity indicators by sex; EA, Emotional abuse. PA, Physical abuse; SA, Sexual abuse; EN, Emotional neglect; PN, Physical neglect; Models were adjusted for age, sex, drinking, smoking, father education, mother education, family type, family economic and recent adolescent self-rating life events.