Supplementary Materials

This file includes the following tables for “The Influence of Early Childhood Education and Care on the Relation between Early Life Social Adversity and Children’s Mental Health in the Environmental influences for Child Health Outcomes Program”:

Supplementary Table 1. Three-way Interaction Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems

Supplementary Table 2. Three-way Interaction Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems

Supplementary Table 3. Two-way Interaction Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems

Supplementary Table 4. Two-way Interaction Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems

Supplementary Table 5. Primary Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems Including All Interactions

Supplementary Table 6. Primary Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems Including All Interactions

**Supplementary Table 1**

*Three-way Interaction Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 0.87 | 0.94 | -0.98 | 2.72 | .358 | 0.74 | 0.81 | -0.85 | 2.32 | .363 |
| Socioeconomic (SES) Risk | 0.34 | 0.80 | -1.23 | 1.90 | .671 | 0.13 | 0.67 | -1.20 | 1.45 | .851 |
| Psychosocial Risk\*SES Risk | 1.31 | 0.74 | -0.14 | 2.77 | .077 | 1.73 | 0.61 | 0.54 | 2.93 | .004 |
| Childcare (hours/week) | -0.03 | 0.03 | -0.09 | 0.04 | .423 | -0.05 | 0.04 | -0.13 | 0.02 | .163 |
| Psychosocial Risk\*Childcare | 0.00 | 0.03 | -0.06 | 0.06 | .971 | 0.01 | 0.04 | -0.07 | 0.08 | .879 |
| SES Risk\*Childcare | 0.02 | 0.03 | -0.04 | 0.07 | .584 | 0.04 | 0.03 | -0.02 | 0.10 | .201 |
| Psychosocial Risk\*SES Risk\*Childcare | 0.01 | 0.03 | -0.04 | 0.06 | .704 | -0.01 | 0.03 | -0.07 | 0.04 | .670 |
| Child Age | 0.30 | 0.65 | -0.97 | 1.57 | .648 | 0.34 | 0.65 | -0.93 | 1.61 | .600 |
| Child Sex (Male) | -0.10 | 0.51 | -1.10 | 0.89 | .838 | -0.11 | 0.51 | -1.11 | 0.88 | .824 |
| CANDLE | -5.67 | 0.86 | -7.35 | -3.99 | <.001 | -5.65 | 0.85 | -7.32 | -3.97 | <.001 |
| EGDS | -1.42 | 0.85 | -3.09 | 0.24 | .094 | -1.43 | 0.82 | -3.05 | 0.19 | .083 |
| (Intercept) | 47.48 | 3.48 | 40.65 | 54.30 | <.001 | 47.45 | 3.44 | 40.69 | 54.20 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).

**Supplementary Table 2**

*Three-way Interaction Model Evaluating Associations of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 1.61 | 0.77 | 0.10 | 3.11 | .036 | 1.27 | 0.65 | 0.00 | 2.54 | .050 |
| Socioeconomic (SES) Risk | 0.47 | 0.65 | -0.80 | 1.75 | .467 | 0.51 | 0.54 | -0.55 | 1.57 | .347 |
| Psychosocial Risk\*SES Risk | 0.58 | 0.60 | -0.60 | 1.77 | .333 | 0.70 | 0.49 | -0.25 | 1.66 | .149 |
| Childcare (hours/week) | 0.01 | 0.03 | -0.04 | 0.06 | .672 | 0.01 | 0.03 | -0.05 | 0.07 | .763 |
| Psychosocial Risk\*Childcare | -0.02 | 0.03 | -0.07 | 0.03 | .501 | 0.00 | 0.03 | -0.06 | 0.05 | .867 |
| SES Risk\*Childcare | 0.00 | 0.02 | -0.04 | 0.04 | .984 | 0.00 | 0.02 | -0.05 | 0.05 | .954 |
| Psychosocial Risk\*SES Risk\*Childcare | 0.01 | 0.02 | -0.03 | 0.05 | .650 | 0.00 | 0.02 | -0.04 | 0.05 | .835 |
| Child Age | -0.48 | 0.53 | -1.52 | 0.55 | .361 | -0.48 | 0.53 | -1.52 | 0.55 | .358 |
| Child Sex (Male) | -1.13 | 0.41 | -1.95 | -0.32 | .006 | -1.12 | 0.41 | -1.93 | -0.30 | .007 |
| CANDLE | 4.40 | 0.70 | 3.03 | 5.77 | <.001 | 4.34 | 0.69 | 2.98 | 5.70 | <.001 |
| EGDS | 9.93 | 0.69 | 8.58 | 11.29 | <.001 | 9.91 | 0.67 | 8.59 | 11.22 | <.001 |
| (Intercept) | 42.02 | 2.84 | 36.45 | 47.59 | <.001 | 42.16 | 2.81 | 36.65 | 47.67 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).

**Supplementary Table 3**

*Two-way Interaction Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 0.67 | 0.77 | -0.84 | 2.18 | .385 | 0.88 | 0.70 | -0.49 | 2.26 | .209 |
| Socioeconomic (SES) Risk | 0.14 | 0.63 | -1.09 | 1.37 | .822 | 0.27 | 0.57 | -0.85 | 1.38 | .639 |
| Psychosocial Risk\*SES Risk | 1.53 | 0.47 | 0.62 | 2.45 | .001 | 1.59 | 0.45 | 0.70 | 2.48 | <.001 |
| Childcare (hours/week) | -0.03 | 0.03 | -0.09 | 0.02 | .232 | -0.04 | 0.03 | -0.10 | 0.02 | .158 |
| Psychosocial Risk\*Childcare | 0.01 | 0.02 | -0.04 | 0.05 | .756 | -0.01 | 0.02 | -0.05 | 0.04 | .778 |
| SES Risk\*Childcare | 0.02 | 0.02 | -0.01 | 0.05 | .137 | 0.03 | 0.02 | -0.01 | 0.06 | .113 |
| Child Age | 0.31 | 0.65 | -0.96 | 1.58 | .632 | 0.33 | 0.65 | -0.93 | 1.60 | .606 |
| Child Sex (Male) | -0.09 | 0.51 | -1.09 | 0.90 | .854 | -0.12 | 0.51 | -1.11 | 0.88 | .820 |
| CANDLE | -5.67 | 0.86 | -7.35 | -3.99 | <.001 | -5.65 | 0.85 | -7.32 | -3.98 | <.001 |
| EGDS | -1.44 | 0.85 | -3.11 | 0.22 | .090 | -1.44 | 0.82 | -3.05 | 0.17 | .080 |
| (Intercept) | 47.55 | 3.48 | 40.73 | 54.37 | <.001 | 47.35 | 3.44 | 40.60 | 54.10 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).

**Supplementary Table 4**

*Two-way Interaction Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems*

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 1.37 | 0.63 | 0.15 | 2.60 | .028 | 1.15 | 0.57 | 0.05 | 2.26 | .041 |
| Socioeconomic (SES) Risk | 0.30 | 0.51 | -0.71 | 1.30 | .562 | 0.40 | 0.47 | -0.52 | 1.32 | .392 |
| Psychosocial Risk\*SES Risk | 0.79 | 0.38 | 0.04 | 1.55 | .039 | 0.83 | 0.37 | 0.10 | 1.56 | .027 |
| Childcare (hours/week) | 0.00 | 0.02 | -0.04 | 0.05 | .852 | 0.00 | 0.02 | -0.04 | 0.05 | .862 |
| Psychosocial Risk\*Childcare | -0.01 | 0.02 | -0.04 | 0.02 | .632 | 0.00 | 0.02 | -0.04 | 0.04 | .961 |
| SES Risk\*Childcare | 0.01 | 0.01 | -0.02 | 0.03 | .557 | 0.00 | 0.01 | -0.02 | 0.03 | .835 |
| Child Age | -0.47 | 0.53 | -1.51 | 0.56 | .372 | -0.48 | 0.53 | -1.51 | 0.55 | .363 |
| Child Sex (Male) | -1.12 | 0.41 | -1.94 | -0.31 | .007 | -1.12 | 0.41 | -1.93 | -0.30 | .007 |
| CANDLE | 9.92 | 0.69 | 8.56 | 11.28 | <.001 | 4.37 | 0.69 | 3.01 | 5.74 | <.001 |
| EGDS | 4.40 | 0.70 | 3.03 | 5.77 | <.001 | 9.93 | 0.67 | 8.61 | 11.24 | <.001 |
| (Intercept) | 42.13 | 2.83 | 36.57 | 47.69 | <.001 | 42.20 | 2.81 | 36.70 | 47.71 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).

**Supplementary Table 5**

*Primary Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Internalizing Problems Including All Interactions*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 0.79 | 0.62 | -0.43 | 2.00 | .203 | 0.70 | | 0.62 | -0.52 | 1.92 | .260 |
| Socioeconomic (SES) Risk | 0.74 | 0.51 | -0.26 | 1.75 | .147 | 0.68 | | 0.52 | -0.34 | 1.70 | .193 |
| Psychosocial Risk\*SES Risk | 1.51 | 0.47 | 0.60 | 2.43 | .001 | 1.61 | | 0.47 | 0.68 | 2.53 | .001 |
| Childcare (hours/week) | -0.01 | 0.02 | -0.04 | 0.03 | .656 | -0.03 | | 0.02 | -0.07 | 0.01 | .192 |
| Child Age | 0.09 | 0.66 | -1.20 | 1.38 | .893 | 0.20 | | 0.66 | -1.10 | 1.49 | .767 |
| Child Sex (Male) | -0.06 | 0.61 | -1.26 | 1.14 | .920 | 0.30 | | 0.58 | -0.85 | 1.44 | .609 |
| CANDLE Cohort | -4.98 | 0.95 | -6.84 | -3.11 | <.001 | -6.37 | | 0.92 | -8.17 | -4.57 | <.001 |
| EGDS Cohort | -0.36 | 0.97 | -2.27 | 1.55 | .710 | -1.82 | | 0.91 | -3.60 | -0.03 | .047 |
| Child Age\*Childcare | 0.02 | 0.01 | 0.00 | 0.04 | .126 | 0.01 | | 0.01 | -0.01 | 0.03 | .433 |
| Child Sex (Male)\*Childcare | -0.01 | 0.03 | -0.07 | 0.05 | .750 | -0.05 | | 0.03 | -0.12 | 0.02 | .150 |
| CANDLE Cohort\*Childcare | -0.05 | 0.03 | -0.11 | 0.01 | .087 | 0.07 | | 0.04 | -0.01 | 0.14 | .087 |
| EGDS Cohort\*Childcare | -0.09 | 0.05 | -0.18 | 0.00 | .059 | 0.03 | | 0.06 | -0.08 | 0.14 | .551 |
| (Intercept) | 47.14 | 3.42 | 40.44 | 53.85 | <.001 | 47.54 | | 3.42 | 40.83 | 54.24 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).

**Supplementary Table 6**

*Primary Models Evaluating the Association of Early Psychosocial Risks and Socioeconomic Risks and Childcare Attendance with Early Childhood Externalizing Problems Including All Interactions*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | Results when Hours/Week in  Any Non-Parental Childcare is Included | | | | | | Results when Hours/Week in  Center-Based Care is Included | | | | |
|  | *b* | *se* | *95% CI* | | *p* | *b* | | *se* | *95% CI* | | *p* |
| Psychosocial Risk | 1.18 | 0.51 | 0.18 | 2.17 | .021 | 1.13 | | 0.50 | 0.15 | 2.12 | .024 |
| Socioeconomic (SES) Risk | 0.51 | 0.42 | -0.30 | 1.33 | .218 | 0.47 | | 0.42 | -0.36 | 1.30 | .267 |
| Psychosocial Risk\*SES Risk | 0.76 | 0.38 | 0.01 | 1.51 | .046 | 0.80 | | 0.38 | 0.05 | 1.55 | .037 |
| Childcare (hours/week) | 0.00 | 0.01 | -0.03 | 0.02 | .756 | 0.01 | | 0.02 | -0.03 | 0.04 | .730 |
| Child Age | -0.53 | 0.54 | -1.59 | 0.52 | .320 | -0.66 | | 0.54 | -1.71 | 0.40 | .223 |
| Child Sex (Male) | -1.18 | 0.50 | -2.16 | -0.19 | .019 | -0.66 | | 0.48 | -1.59 | 0.28 | .167 |
| CANDLE Cohort | 4.47 | 0.78 | 2.94 | 5.99 | <.001 | 3.97 | | 0.75 | 2.50 | 5.43 | <.001 |
| EGDS Cohort | 10.35 | 0.80 | 8.78 | 11.91 | <.001 | 9.84 | | 0.74 | 8.38 | 11.30 | <.001 |
| Child Age\*Childcare | 0.01 | 0.01 | -0.01 | 0.02 | .465 | 0.02 | | 0.01 | 0.00 | 0.04 | .138 |
| Child Sex (Male)\*Childcare | 0.00 | 0.02 | -0.04 | 0.05 | .961 | -0.05 | | 0.03 | -0.11 | 0.00 | .051 |
| CANDLE Cohort\*Childcare | -0.01 | 0.02 | -0.05 | 0.04 | .820 | 0.03 | | 0.03 | -0.03 | 0.09 | .293 |
| EGDS Cohort\*Childcare | -0.05 | 0.04 | -0.12 | 0.03 | .223 | -0.01 | | 0.05 | -0.10 | 0.08 | .888 |
| (Intercept) | 42.31 | 2.79 | 36.83 | 47.78 | <.001 | 42.52 | | 2.78 | 37.06 | 47.98 | <.001 |

*Note.* CANDLE=Conditions Affecting Neurocognitive Development and Learning in Early childhood; EGDS=Early Growth and Development Study. Referent site = FLP (Family Life Project).