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**Table S1. Descriptive Statistics of Continuous Variables**

| **Variable** | **N** | **M** | **Mdn** | **SD** | **Min** | **Max** |
| --- | --- | --- | --- | --- | --- | --- |
| Mother's Age | 517 | 40.2 | 40 | 5.42 | 21 | 63 |
| Father's Age | 517 | 43.3 | 43 | 6.19 | 24 | 70 |
| Age of Child with ASD | 517 | 6.89 | 6 | 3.94 | 1 | 28 |
| Age at ASD Diagnosis | 517 | 3.47 | 3 | 2.29 | 0 | 24 |
| Pre-pregnancy Weight (kg) | 517 | 67.2 | 63 | 33.4 | 34 | 761 |
| Mother's Age at Conception | 517 | 32.9 | 33 | 4.95 | 17.0 | 65.0 |
| Weight at End of Pregnancy | 517 | 80.4 | 78 | 29.1 | 49.0 | 651 |
| Height at End of Pregnancy (cm) | 517 | 164 | 165 | 16.1 | 1.52 | 188 |
| Father's Age at Conception | 517 | 36.0 | 36 | 5.61 | 20.0 | 65.0 |
| Gestational Age at Birth (weeks) | 504 | 37.9 | 38 | 2.74 | 9.00 | 42.0 |
| Duration of Labor (hours) | 517 | 4.88 | 2 | 6.14 | 0 | 48 |
| Duration of Labor (minutes) | 517 | 293 | 120 | 368 | 0 | 2880 |
| Birth Weight of Child (grams) | 513 | 3089 | 3150 | 744 | 2.90 | 4850 |

Note: M = Mean, Mdn = Median, SD = Standard Deviation, Min = Minimum, Max = Maximum.

**Table S2. Descriptive Statistics of Sociodemographic Categorical Variables**

| **Variable** | **Counts** | **% of Total** | **Cumulative %** |
| --- | --- | --- | --- |
| **Family Type** |  |  |  |  |  |  |  |
| Two parents living together in the same house |  | 466 |  | 90.1 % |  | 90.1 % |  |
| Two parents living separately |  | 26 |  | 5.0 % |  | 95.2 % |  |
| Adoptive/foster parents |  | 1 |  | 0.2 % |  | 95.4 % |  |
| Single-parent family (only one parent) |  | 24 |  | 4.6% |  | 100.0% |  |
| **Mother's Educational level** |  |  |  |  |  |  |  |
| Secondary education (Middle School - High School)  |  | 131 |  | 25.3 % |  | 25.3 % |  |
| PhD holder |  | 13 |  | 2.5 % |  | 27.9 % |  |
| Master's degree holder |  | 147 |  | 28.4 % |  | 56.3 % |  |
| Primary education (Elementary School) |  | 1 |  | 0.2 % |  | 56.5 % |  |
| Tertiary education (University education) |  | 225 |  | 43.5 % |  | 100.0% |  |
| **Father's Educational level** |  |  |  |  |  |  |  |
| Secondary education (Middle School - High School)  |  | 246 |  | 47.6 % |  | 47.6 % |  |
| PhD holder |  | 12 |  | 2.3 % |  | 49.9 % |  |
| Master's degree holder |  | 69 |  | 13.3 % |  | 63.2 % |  |
| Primary education (Elementary School) |  | 9 |  | 1.7 % |  | 65.0 % |  |
| Tertiary education (University education) |  | 181 |  | 35.0% |  | 100.0% |  |
| **Annual Family Income** |  |  |  |  |  |  |  |
| €10,001-20,000 |  | 196 |  | 38.1% |  | 38.1% |  |
| €20,001-40,000 |  | 217 |  | 42.1% |  | 80.2% |  |
| €40,001-60,000 |  | 35 |  | 6.8% |  | 87.0% |  |
| Below €10,000 |  | 44 |  | 8.5% |  | 95.5% |  |
| Above €60,000 |  | 23 |  | 4.5% |  | 100.0% |  |
| **Current Family Residence** |  |  |  |  |  |  |  |
| Thessaly |  | 63 |  | 12.2 % |  | 12.2 % |  |
| North Aegean |  | 15 |  | 2.9 % |  | 15.1 % |  |
| Attica |  | 189 |  | 36.6 % |  | 51.7 % |  |
| Central Macedonia |  | 69 |  | 13.4 % |  | 65.1 % |  |
| Crete |  | 26 |  | 5.0 % |  | 70.2 % |  |
| Eastern Macedonia and Thrace |  | 27 |  | 5.2 % |  | 75.4 % |  |
| South Aegean |  | 15 |  | 2.9 % |  | 78.3 % |  |
| Western Greece |  | 34 |  | 6.6 % |  | 84.9 % |  |
| Ionian Islands |  | 10 |  | 1.9 % |  | 86.8 % |  |
| Western Macedonia |  | 8 |  | 1.6 % |  | 88.4 % |  |
| Peloponnese |  | 26 |  | 5.0 % |  | 93.4 % |  |
| Central Greece |  | 21 |  | 4.1 % |  | 97.5 % |  |
| Epirus  |  | 13 |  | 2.5% |  | 100.0% |  |

**Table S3.** **Descriptive Statistics of** **ASD-Related Categorical Variables**

| **Variable** | **Counts** | **% of Total** | **Cumulative %** |
| --- | --- | --- | --- |
| **Functionality of Child with ASD** |  |  |  |  |  |  |  |
| Low/Moderate |  | 195 |  | 37.7 % |  | 37.7 % |  |
| High  |  | 322 |  | 62.3% |  | 100.0% |  |
| **Gender of Child with ASD** |  |  |  |  |  |  |  |
| Boy |  | 419 |  | 81.0% |  | 81.0% |  |
| Girl |  | 98 |  | 19.0% |  | 100.0% |  |
| **Birth Order of Child with ASD** |  |  |  |  |  |  |  |
| 1st child  |  | 348 |  | 67.3 % |  | 67.3 % |  |
| 2nd child  |  | 137 |  | 26.5 % |  | 93.8 % |  |
| 3rd child  |  | 27 |  | 5.2 % |  | 99.0 % |  |
| 4th child  |  | 2 |  | 0.4 % |  | 99.4 % |  |
| 5th child  |  | 2 |  | 0.4 % |  | 99.8 % |  |
| Other  |  | 1 |  | 0.2% |  | 100.0% |  |
| **Other Children with Neurodevelopmental Difficulties or Autism** |  |  |  |  |  |  |  |
| No  |  | 462 |  | 89.4 % |  | 89.4 % |  |
| Yes  |  | 55 |  | 10.6 % |  | 100.0% |  |
| **Mother's Family History with Autism, Developmental Disorders, Epileptic Seizures, Depression, or Anxiety Disorder**  |  |  |  |  |  |  |  |
| No  |  | 350 |  | 67.7 % |  | 67.7 % |  |
| Yes  |  | 167 |  | 32.3% |  | 100.0% |  |
| **Father's Family History with Autism, Developmental Disorders, Epileptic Seizures, Depression, or Anxiety Disorder**  |  |  |  |  |  |  |  |
| No  |  | 315 |  | 60.9 % |  | 60.9 % |  |
| Yes  |  | 202 |  | 39.1% |  | 100.0% |  |

**Table S4.** **Descriptive Statistics of** **Peri- and Postnatal Categorical Variables**

|  | **Counts** | **% of Total** | **Cumulative %** |
| --- | --- | --- | --- |
| **Contact with Chemicals/Pesticides** |  |  |  |  |  |  |  |
| No  |  | 486 |  | 94.0% |  | 94.0% |  |
| Yes  |  | 31 |  | 6.0% |  | 100.0% |  |
| **Exposure to loud noise daily** |  |  |  |  |  |  |  |
| No  |  | 445 |  | 86.1% |  | 86.1% |  |
| Yes  |  | 72 |  | 13.9% |  | 100.0% |  |
| **Living near a Public Power Corporation (PPC) substation** |  |  |  |  |  |  |  |
| No  |  | 480 |  | 92.8% |  | 92.8% |  |
| Yes  |  | 37 |  | 7.2% |  | 100.0% |  |
| **Smoke during pregnancy** |  |  |  |  |  |  |  |
| No  |  | 446 |  | 86.3% |  | 86.3% |  |
| Yes  |  | 71 |  | 19.0% |  | 100.0% |  |
| **Gestational Diabetes** |  |  |  |  |  |  |  |
| No  |  | 420 |  | 81.2% |  | 81.2% |  |
| Yes  |  | 97 |  | 18.8% |  | 100.0% |  |
| **Hyperemesis (severe vomiting)** |  |  |  |  |  |  |  |
| No  |  | 449 |  | 86.8% |  | 86.8% |  |
| Yes  |  | 68 |  | 13.2% |  | 100.0% |  |
| **Viral or Bacterial Infection** |  |  |  |  |  |  |  |
| No  |  | 453 |  | 87.6% |  | 87.6% |  |
| Yes  |  | 64 |  | 12.4% |  | 100.0% |  |
| **Viral or Bacterial Infection during the pregnancy of the child with ASD** |  |  |  |  |  |  |  |
| No |  | 445 |  | 86.1 % |  | 86.1 % |  |
| Don't remember |  | 1 |  | 0.2% |  | 86.3% |  |
| Yes |  | 71 |  | 13.7 % |  | 100.0 % |  |
| **High Blood Pressure** |  |  |  |  |  |  |  |
| No  |  | 476 |  | 92.1% |  | 92.1% |  |
| Yes  |  | 41 |  | 7.9% |  | 100.0% |  |
| **Preeclampsia/Eclampsia** |  |  |  |  |  |  |  |
| No  |  | 497 |  | 96.1% |  | 96.1% |  |
| Yes  |  | 20 |  | 3.9% |  | 100.0% |  |
| **Vaginal Bleeding** |  |  |  |  |  |  |  |
| No  |  | 409 |  | 79.1% |  | 79.1% |  |
| Yes  |  | 108 |  | 20.9% |  | 100.0% |  |
| **Vaginal bleeding during the pregnancy of the child with ASD (trimester)** |  |  |  |  |  |  |  |
| 1st trimester |  | 83 |  | 16.1% |  | 16.1% |  |
| 2nd trimester |  | 19 |  | 3.7% |  | 19.7% |  |
| 3rd trimester |  | 19 |  | 3.7% |  | 23.4% |  |
| No  |  | 396 |  | 76.6% |  | 100.0% |  |
| **Normal Delivery** |  |  |  |  |  |  |  |
| No  |  | 325 |  | 62.9% |  | 62.9% |  |
| Yes  |  | 192 |  | 37.1% |  | 100.0% |  |
| **Vaginal Delivery with Vacuum Extraction** |  |  |  |  |  |  |  |
| No  |  | 486 |  | 94.0% |  | 94.0% |  |
| Yes  |  | 31 |  | 6.0% |  | 100.0% |  |
| **Cesarean Section** |  |  |  |  |  |  |  |
| No  |  | 192 |  | 37.1% |  | 37.1% |  |
| Yes  |  | 325 |  | 62.9% |  | 100.0% |  |
| **Labor Induced with Medication** |  |  |  |  |  |  |  |
| No  |  | 322 |  | 62.3% |  | 62.3% |  |
| Don't know |  | 49 |  | 9.5% |  | 71.8% |  |
| Yes  |  | 146 |  | 28.2% |  | 100.0% |  |
| **Other Medications During Labor** |  |  |  |  |  |  |  |
| No |  | 213 |  | 41.2% |  | 41.2% |  |
| Don't know |  | 276 |  | 53.4% |  | 94.6% |  |
| Yes |  | 28 |  | 5.4% |  | 100.0% |  |
| **Baby Cried Immediately After Birth** |  |  |  |  |  |  |  |
| No |  | 49 |  | 9.5% |  | 9.5% |  |
| Don't remember  |  | 44 |  | 8.5% |  | 18.0% |  |
| Yes |  | 424 |  | 82.0% |  | 100.0% |  |
| **Newborn Developed Infection After Birth** |  |  |  |  |  |  |  |
| No  |  | 479 |  | 92.6% |  | 92.6% |  |
| Yes  |  | 38 |  | 7.4% |  | 100.0% |  |
| **Exclusively Breastfed** |  |  |  |  |  |  |  |
| No  |  | 293 |  | 56.7% |  | 56.7% |  |
| Yes  |  | 224 |  | 43.3% |  | 100.0% |  |
| **Mixed Feeding of Newborn (Breastfeeding and Formula)** |  |  |  |  |  |  |  |
| No  |  | 274 |  | 53.0% |  | 53.0% |  |
| Yes  |  | 243 |  | 47.0% |  | 100.0% |  |
| **Exclusive Formula Feeding** |  |  |  |  |  |  |  |
| No  |  | 400 |  | 77.4 % |  | 77.4 % |  |
| Yes  |  | 117 |  | 22.6% |  | 100.0% |  |

**Table S5.** **Comparison of Continuous Variables by Functionality of Child with ASD**

|  |
| --- |
|  |  | **Statistic** | **df** | **p** |
| Mother's Age |  | Student's t |  | 2.214 |  | 515 |  | **0.027** |  |
| Father's Age |  | Student's t |  | 1.279 |  | 515 |  | 0.202 |  |
| Age of Child with ASD |  | Student's t |  | 0.127 |  | 515 |  | 0.899 |  |
| Age at ASD Diagnosis |  | Student's t |  | -5.431 |  | 515 |  | < .001 |  |
| Pre-pregnancy Weight (kg) |  | Student's t |  | -0.955 |  | 515 |  | 0.340 |  |
| Mother's Age at Conception |  | Student's t |  | 2.443 |  | 515 |  | 0.015 |  |
| Weight at End of Pregnancy (kg) |  | Student's t |  | -1.114 |  | 515 |  | 0.266 |  |
| Height at End of Pregnancy (cm) |  | Student's t |  | 0.712 |  | 507 |  | 0.477 |  |
| Father's Age at Conception |  | Student's t |  | 1.748 |  | 512 |  | 0.081 |  |
| Gestational Age at Birth (weeks) |  | Student's t |  | -1.855 |  | 502 |  | 0.064 |  |
| Duration of Labor (hours) |  | Student's t |  | -1.227 |  | 515 |  | 0.220 |  |
| Duration of Labor (minutes) |  | Student's t |  | -1.227 |  | 515 |  | 0.220 |  |
| Birth Weight of Child (grams) |  | Student's t |  | 0.177 |  | 511 |  | 0.860 |  |
| Note. H μ Functionality of Child with ASD = Low/Moderate ≠ μ  Functionality of Child with ASD = High |
|  |

**Table S6.** **Group Descriptives of Continuous Variables by Functionality of Child with ASD**

|  | **Group** | **N** | **Mean** | **Median** | **SD** | **SE** |
| --- | --- | --- | --- | --- | --- | --- |
| Mother's Age |  | Low/Moderate |  | 195 |  | 40.86 |  | 41.00 |  | 5.38 |  | 0.385 |  |
|   | High |  | 322 |  | 39.78 |  | 40.00 |  | 5.41 |  | 0.302 |  |
| Father's Age |  | Low/Moderate |  | 195 |  | 43.78 |  | 44.00 |  | 5.38 |  | 0.385 |  |
|   | High |  | 322 |  | 43.06 |  | 42.00 |  | 6.62 |  | 0.369 |  |
| Age of Child with ASD |  | Low/Moderate |  | 195 |  | 6.92 |  | 6.00 |  | 4.05 |  | 0.290 |  |
|   | High |  | 322 |  | 6.87 |  | 6.00 |  | 3.87 |  | 0.216 |  |
| Age at ASD Diagnosis |  | Low/Moderate |  | 195 |  | 2.78 |  | 3.00 |  | 1.46 |  | 0.105 |  |
|   | High |  | 322 |  | 3.89 |  | 3.00 |  | 2.59 |  | 0.144 |  |
| Pre-pregnancy Weight (kg) |  | Low/Moderate |  | 195 |  | 65.39 |  | 62.00 |  | 12.54 |  | 0.898 |  |
|   | High |  | 322 |  | 68.29 |  | 63.00 |  | 41.14 |  | 2.293 |  |
| Mother's Age at Conception |  | Low/Moderate |  | 195 |  | 33.63 |  | 33.00 |  | 5.05 |  | 0.362 |  |
|   | High |  | 322 |  | 32.53 |  | 32.00 |  | 4.86 |  | 0.271 |  |
| Weight at End of Pregnancy (kg) |  | Low/Moderate |  | 195 |  | 78.53 |  | 77.00 |  | 13.36 |  | 0.957 |  |
|   | High |  | 322 |  | 81.48 |  | 78.00 |  | 35.37 |  | 1.971 |  |
| Height at End of Pregnancy (cm) |  | Low/Moderate |  | 190 |  | 164.89 |  | 165.00 |  | 13.28 |  | 0.964 |  |
|   | High |  | 319 |  | 163.84 |  | 165.00 |  | 17.54 |  | 0.982 |  |
| Father's Age at Conception |  | Low/Moderate |  | 194 |  | 36.56 |  | 37.00 |  | 5.17 |  | 0.371 |  |
|   | High |  | 320 |  | 35.67 |  | 35.00 |  | 5.85 |  | 0.327 |  |
| Gestational Age at Birth (weeks) |  | Low/Moderate |  | 190 |  | 37.61 |  | 38.00 |  | 3.15 |  | 0.229 |  |
|   | High |  | 314 |  | 38.08 |  | 38.00 |  | 2.44 |  | 0.138 |  |
| Duration of Labor (hours) |  | Low/Moderate |  | 195 |  | 4.46 |  | 2.00 |  | 6.51 |  | 0.466 |  |
|   | High |  | 322 |  | 5.14 |  | 3.00 |  | 5.90 |  | 0.329 |  |
| Duration of Labor (minutes) |  | Low/Moderate |  | 195 |  | 267.38 |  | 120.00 |  | 390.47 |  | 27.962 |  |
|   | High |  | 322 |  | 308.39 |  | 180.00 |  | 354.17 |  | 19.737 |  |
| Birth Weight of Child (grams) |  | Low/Moderate |  | 195 |  | 3096.46 |  | 3180.00 |  | 670.59 |  | 48.022 |  |
|   | High |  | 318 |  | 3084.49 |  | 3150.00 |  | 786.47 |  | 44.103 |  |
|  |

 **Table S7. Collinearity Statistics of Binominal Logistic Regression**

|  |
| --- |
|  | **VIF** | **Tolerance** |
| Mother's Age |  | 1.49 |  | 0.671 |  |
| Age at ASD Diagnosis |  | 1.04 |  | 0.961 |  |
| Mother's Age at Conception |  | 1.45 |  | 0.692 |  |
| Annual family income |  | 1.03 |  | 0.969 |  |
| Birth Order of Child with ASD |  | 1.02 |  | 0.983 |  |
| Mother's Family History with Autism, Developmental Disorders, Epileptic Seizures, Depression, or Anxiety Disorder |  | 1.01 |  | 0.990 |  |
| Hyperemesis (severe vomiting) |  | 1.02 |  | 0.980 |  |
| Viral or Bacterial Infection |  | 1.03 |  | 0.969 |  |
| Vaginal Bleeding |  | 3.01 |  | 0.332 |  |
| Vaginal Bleeding during the pregnancy of the child with ASD (trimester) |  | 1.46 |  | 0.685 |  |
| Baby Cried Immediately After Birth |  | 1.02 |  | 0.976 |  |
|  |



# **Figure S1. The visualization of the Chi-square test results for the Current Family Residence**



# **Figure S2. Cut-Off Plot of the Binominal Logistic Regression Prediction Model**

| Classification Table – … |
| --- |
|  | **Predicted** |  |
| **Observed** | **High** | **Low/Moderate** | **% Correct** |
| High |  | 275 |  | 46 |  | 85.7 |  |
| Low/Moderate |  | 95 |  | 99 |  | 51.0 |  |
| Note. The cut-off value is set to 0.5 |
|  |

| Predictive Measures |
| --- |
| **Accuracy** | **Specificity** | **Sensitivity** | **AUC** |
| 0.726 |  | 0.857 |  | 0.510 |  | 0.790 |  |
| Note. The cut-off value is set to 0.5 |
|  |



# **Figure S3. ROC Curve of the Binominal Logistic Regression Prediction Model**