**Supplemental Table S1 Questions about Functional Disability**

|  |  |
| --- | --- |
| Domains | Questions (difficulty in …) |
| Lower-Extremity Mobility (LEM) |  |
|  | Walking one-quarter mile |
|  | Walking up 10 steps |
| General Physical Activity (GPA) |  |
|  | Stooping/crouching/kneeling |
|  | Standing for 2 h |
|  | Sitting for 2 h |
|  | Standing up from an armless chair |
|  | Reaching overhead |
|  | Grasping/holding small objects |
|  | Lifting or carrying 10 lb |
| Leisure and Social Activities (LSA) |  |
|  | Going to movies/shopping/events |
|  | Doing leisure activities at home |
|  | Participating in social activities |
| Activities of Daily Living (ADL) |  |
|  | Eating |
|  | Dressing |
|  | Getting out of bed |
|  | Walking between rooms on the same floor |
| Instrumental Activities of Daily Living (IADL) |  |
|  | Managing money |
|  | Doing household chores |
|  | Preparing meals |

**Supplemental Table S2. Characteristics of Participants by Total Coffee Consumption Category, NHANES (2007-2016) (n=7,704)**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Total Coffee, Cups\*/Day |  |
|  | 0 (n=2,083) | 0-1 (n=2,066) | 1-2 (n=2,100) | 2+ (n= 1,455) | *P* |
| Age $\overbar{X}($SD) |  | 69.2(6.7) | 70.8(8.0) | 70.5(6.8) | 68.5(5.6) | **<0.001** |
| Male (%)  |  | 982(42.6%) | 881(36.8%) | 1,025(45.1%) | 863(57.6%) | **<0.001** |
| Race (%) | Mexican American | 192(3.4%) | 301(6.2%) | 281(4.7%) | 121(2.4%) | **<0.001** |
|  | Other Hispanic | 129(2.4%) | 344(6.6%) | 239(3.8%) | 69(1.3%) |  |
| Non-Hispanic white | 958(74.2%) | 774(6.7%) | 1,158(81.4%) | 1,119(91.8%) |  |
| Non-Hispanic black | 634(13.5%) | 508(12.8%) | 331(6.7%) | 102(2.1%) |  |
|  | Other Race | 170(6.6%) | 139(7.0%) | 91(3.5%) | 44(2.4%) |  |
| Married (%) |  | 1,133(62.1%) | 1,131(60.6%) | 1,273(65.3%) | 943(70.4%) | **<0.001** |
| Education level (%) | below high school | 586(19.1%) | 736(25.4%) | 582(16.4%) | 321(13.4%) | **<0.001** |
| high school | 493(22.8%) | 479(22.3%) | 506(24.7%) | 361(25.9%) |  |
|  | above high school | 1,000(58.2%) | 848(52.4%) | 1,008(58.9%) | 773(60.8%) |  |
| Income | <$20,000 | 542(19.8%) | 598(22.3%) | 471(14.2%) | 327(15.5%) | **<0.001** |
| Level (%) | $20,000 -$45,000 | 722(33.3%) | 746(38.1%) | 760(35.9%) | 486(33.2%) |  |
|  | $45,000 -$75,000 | 347(20.9%) | 312(17.9%) | 350(18.8%) | 291(23.7%) |  |
|  | >$75,000 | 370(26.1%) | 296(21.8%) | 439(31.1%) | 308(27.7%) |  |
| BMI level (%) | underweight | 31(1.4%) | 26(1.2%) | 19(0.8%) | 14(0.8%) | 0.31 |
| normal | 511(23.3%) | 447(25.7%) | 489(26.2%) | 324(22.1%) |  |
|  | overweight | 674(33.9%) | 763(34.3%) | 765(36.5%) | 530(36.7%) |  |
|  | obesity | 817(41.4%) | 779(38.8%) | 802(36.6%) | 570(40.3%) |  |
| Physical activity (%) | None | 822(34.3%) | 882(39.0%) | 758(32.2%) | 501(29.6%) | **0.005** |
| <600 | 331(16.8%) | 304(14.2%) | 351(16.7%) | 225(16.5%) |  |
|  | ≥600 | 927(48.9%) | 879(46.9%) | 989(51.0%) | 727(54.0%) |  |
| Depression (%) | 146(6.0%) | 177(7.6%) | 143(5.0%) | 114(8.2%) | **0.04** |
| Smoke (%) | Never | 1,241(63.5%) | 1,131(55.0%) | 963(46.7%) | 426(33.1%) | **<0.001** |
|  | Former  | 674(30.1%) | 735(38.1%) | 888(44.5%) | 728(48.6%) |  |
|  | Current  | 166(6.5%) | 198(6.9%) | 247(8.8%) | 299(18.3%) |  |
| Alcohol status (%) | None  | 1,280(50.7%) | 1,092(41.4%) | 927(32.5%) | 562(32.0%) | **<0.001** |
| Light | 471(25.2%) | 482(25.6%) | 504(27.6%) | 330(22.4%) |  |
|  | Moderate | 379(16.7%) | 470(26.3%) | 564(29.7%) | 416(28.4%) |  |
|  | Heavy | 165(7.4%) | 145(6.7%) | 210(10.2%) | 228(17.2%) |  |
| Calories $\overbar{X}($SD) | 1835.7(690.1) | 1693.0(673.3) | 1847.5(608.7) | 2025.5(601.3) | **<0.001** |
| Caffeine $\overbar{X}($SD) | 56.2(73.9) | 89.9(86.6) | 166.4(86.8) | 348.8(193.3) | **<0.001** |
| Tea $\overbar{X}($SD) | 320.4(481.0) | 225.3(441.1) | 197.9(323.5) | 214.1(411.0) | **<0.001** |
| Soft drinks $\overbar{X}($SD) | 289.3(390.8) | 201.5(339.1) | 224.2(298.9) | 237.9(343.5) | **0.001** |
| Hypertension (%) | 1,333(62.0%) | 1,336(63.5%) | 1,285(58.7%) | 823(52.1%) | **<0.001** |
| Diabetes (%) |  | 506(21.4%) | 524(19.4%) | 508(18.8%) | 327(18.2%) | 0.36 |
| Arthritis (%) |  | 1,053(53.8%) | 1,061(54.3%) | 1,061(54.7%) | 765(49.9%) | 0.25 |
| Gout (%) |  | 211(8.7%) | 188(8.9%) | 198(8.4%) | 130(9.4%) | 0.91 |
| Stroke (%) |  | 180(8.7%) | 188(8.2%) | 152(6.3%) | 116(5.5%) | **0.01** |
| Cancer (%) |  | 422(23.9%) | 395(25.5%) | 473(28.2%) | 387(25.3%) | 0.26 |
| LEM (%) |  | 932(41.2%) | 906(39.4%) | 808(37.1%) | 559(32.7%) | **0.002** |
| GPA (%) |  | 1,353(65.0%) | 1,363(65.0%) | 1,299(61.9%) | 897(55.8%) | **0.002** |
| LSA (%) |  | 573(22.7%) | 593(24.4%) | 488(21.1%) | 307(16.3%) | **<0.001** |
| ADL (%) |  | 553(22.3%) | 574(22.9) | 458(20.5%) | 296(16.3%) | **0.007** |
| IADL (%) |  | 749(32.6%) | 757(32.0%) | 638(28.0%) | 416(23.4%) | **<0.001** |

*Notes:* Categorical variables were presented by number of participants and weighted percentage. Continuous variables were presented by weighted mean value and standard deviation (SD).

**Supplemental Table 3. Weighted Odds Ratios (95% CIs) for Age and** **Multivariate a Adjusted Associations Between Quartile of Caffeine Intake and Functional Disability, NHANES (2007-2016)**

|  |  |  |
| --- | --- | --- |
|  | Caffeine quartile (mg/d) |  |
| <27.5 | 27.5-98.5 | 98.5-198 | ≥198 | *P*-trend |
| **LEM (n = 7,699)** |  |  |  |  |  |
|  Cases/Participants | 861/1,867 | 855/1,938 | 726/1,918 | 763/1,976 |  |
|  Weighted Prevalence (%) | 42.4% | 42.0% | 34.9% | 34.0% |  |
|  Age adjusted | Ref. | 1.0(0.8-1.2) | **0.8(0.6-0.9)** | 0.8(0.6-1.1) | **0.03** |
| Multivariate adjusted | Ref. | 1.0(0.7-1.3) | 0.8(0.6-1.0) | 0.9(0.7-1.2) | 0.30 |
| **GPA (n = 7,699)** |  |  |  |  |  |
|  Cases/Participants | 1,255/1,866 | 1,275/1,936 | 1,176/1,919 | 1,206/1,978 |  |
|  Weighted Prevalence (%) | 67.7% | 65.0% | 61.0% | 56.9% |  |
|  Age adjusted | Ref. | 0.9(0.7-1.1) | **0.8(0.6-1.0)** | **0.7(0.6-0.9)** | **0.003** |
| Multivariate adjusted | Ref. | 0.9(0.7-1.1) | 0.8(0.6-1.0) | **0.8(0.6-1.0)** | **0.04** |
| **LSA (n = 7,704)**  |  |  |  |  |  |
|  Cases/Participants | 546/1,867 | 522/1,940 | 465/1,919 | 428/1,978 |  |
|  Weighted Prevalence (%) | 23.5% | 23.6% | 21.5% | 17.5% |  |
|  Age adjusted | Ref. | 1.0(0.8-1.4) | 0.9(0.7-1.2) | 0.8(0.6-1.0) | **0.04** |
| Multivariate adjusted | Ref. | 0.9(0.7-1.2) | 1.0(0.7-1.4) | 0.8(0.6-1.2) | 0.42 |
| **ADL (n = 7,704)** |  |  |  |  |  |
|  Cases/Participants | 529/1,867 | 527/1,940 | 413/1,919 | 412/1,978 |  |
|  Weighted Prevalence (%) | 24.7% | 23.0% | 18.5% | 17.7% |  |
|  Age adjusted | Ref. | 0.9(0.7-1.2) | **0.7(0.6-0.9)** | **0.7(0.6-0.9)** | **0.001** |
| Multivariate adjusted | Ref. | 0.8(0.6-1.1) | **0.7(0.5-1.0)** | 0.8(0.6-1.1) | 0.08 |
| **IADL (n = 7,704)** |  |  |  |  |  |
|  Cases/Participants | 720/1,867 | 708/1,940 | 575/1,919 | 557/1,978 |  |
|  Weighted Prevalence (%) | 35.9% | 34.0% | 26.2% | 23.6% |  |
|  Age adjusted | Ref. | 0.9(0.7-1.2) | **0.7(0.5-0.8)** | **0.6(0.5-0.8)** | **<0.001** |
| Multivariate adjusted | Ref. | 0.9(0.7-1.1) | **0.7(0.5-0.9)** | **0.6(0.5-0.8)** | **<0.001** |

*Notes:* NHANES= National Health and Nutrition Examination Survey; CI = confidence interval; LEM = lower-extremity mobility; GPA = general physical activity; LSA = leisure and social activities; ADL = activities of daily living; IADL = instrumental activities of daily living

a Adjusted age, gender, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, depression, hypertension, diabetes, arthritis, gout, stroke, and cancer.

**Supplemental Table 4. Weighted Odds Ratios (95% CIs) for Multivariate a Adjusted Associations Between Categories of Coffee Intake and Functional Disability stratified by gender, NHANES (2007-2016)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Male (*N* = 3,751) |  |  | Female (*N* = 3,953) |  |  |
| Coffee Intake , Cups/Day |  |  | Coffee Intake , Cups/Day |  |  |
|  | 0 | 0-<1 | 1-<2 | 2+ | *P*-trend | 0 | 0-<1 | 1-<2 | 2+ | *P*-trend |
| **Total Coffee** |  |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | **0.55(0.36-0.83)** | **0.60(0.40-0.92)** | **0.59(0.38-0.93)** | **0.05** | Ref. | 0.91(0.68-1.23) | 0.98(0.71-1.36) | 0.73(0.48-1.12) | 0.22 |
| **GPA** | Ref. | 1.05(0.75-1.47) | 0.85(0.59-1.23) | **0.66(0.45-0.96)** | **0.03** | Ref. | 0.75(0.54-1.04) | 0.82(0.59-1.16) | 0.68(0.46-1.02) | 0.13 |
| **LSA**  | Ref. | 0.98(0.61-1.57) | 0.76(0.48-1.23) | 0.70(0.47-1.03) | **0.04** | Ref. | 0.90(0.61-1.32) | 1.14(0.79-1.65) | **0.53(0.34-0.83)** | **0.03** |
| **ADL**  | Ref. | **0.64(0.44-0.94)** | 0.70(0.47-1.03) | 0.70(0.47-1.05) | 0.14 | Ref. | 1.10(0.74-1.64) | 1.19(0.78-1.82) | 0.66(0.41-1.07) | 0.14 |
| **IADL** | Ref. | 0.76(0.47-1.22) | **0.60(0.40-0.92)** | **0.67(0.45-0.98)** | **0.02** | Ref. | 0.79(0.57-1.08) | 0.82(0.62-1.09) | **0.51(0.35-0.74)** | **<0.001** |
| **Caffeinated Coffee** |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | **0.54(0.36-0.83)** | **0.51(0.34-0.75)** | **0.62(0.40-0.97)** | **0.04** | Ref. | 1.00(0.74-1.34) | 1.07(0.74-1.53) | 0.85(0.53-1.35) | 0.56 |
| **GPA** | Ref. | 1.21(0.84-1.76) | 0.72(0.51-1.01) | **0.66(0.45-0.98)** | **0.006** | Ref. | 0.75(0.55-1.01) | 0.88(0.63-1.22) | 0.70(0.44-1.10) | 0.22 |
| **LSA**  | Ref. | 0.92(0.57-1.46) | 0.72(0.45-1.14) | 0.71(0.49-1.05) | **0.05** | Ref. | 1.11(0.76-1.63) | 1.16(0.80-1.70) | **0.56(0.34-0.93)** | **0.04** |
| **ADL**  | Ref. | 0.70(0.47-1.04) | **0.63(0.42-0.95)** | 0.78(0.52-1.15) | 0.20 | Ref. | 1.03(0.70-1.52) | 1.12(0.74-1.69) | **0.60(0.36-0.99)** | 0.07 |
| **IADL** | Ref. | **0.63(0.40-1.00)** | **0.58(0.39-0.88)** | **0.63(0.43-0.92)** | **0.02** | Ref. | **0.75(0.56-1.00)** | 0.79(0.59-1.06) | **0.47(0.31-0.71)** | **<0.001** |
| **Decaffeinated Coffee** |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | 0.72(0.41-1.24) | 0.90(0.55-1.48) | **0.38(0.16-0.88)** | 0.05 | Ref. | **0.63(0.43-0.90)** | **0.62(0.40-0.98)** | 0.54(0.25-1.16) | 0.12 |
| **GPA** | Ref. | **0.52(0.32-0.84)** | 1.11(0.66-1.87) | 0.62(0.34-1.15) | 0.53 | Ref. | 0.93(0.60-1.44) | **0.58(0.35-0.96)** | 0.78(0.36-1.69) | 0.32 |
| **LSA**  | Ref. | **0.64(0.43-0.96)** | 0.75(0.41-1.37) | 0.37(0.13-1.04) | 0.08 | Ref. | **0.67(0.48-0.95)** | 1.29(0.82-2.05) | 0.42(0.15-1.20) | 0.23 |
| **ADL**  | Ref. | 0.67(0.45-1.02) | 0.85(0.46-1.59) | **0.35(0.15-0.85)** | **0.04** | Ref. | 0.82(0.54-1.24) | 0.98(0.60-1.61) | 0.82(0.32-2.06) | 0.76 |
| **IADL** | Ref. | 0.89(0.57-1.40) | 0.69(0.40-1.20) | 0.53(0.25-1.15) | 0.09 | Ref. | 0.80(0.55-1.15) | 1.02(0.65-1.60) | 0.57(0.24-1.35) | 0.28 |

*Notes:* NHANES= National Health and Nutrition Examination Survey; CI = confidence interval; LEM = lower-extremity mobility; GPA = general physical activity; LSA = leisure and social activities; ADL = activities of daily living; IADL = instrumental activities of daily living

a Adjusted age, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, tea, soft drinks, depression, hypertension, diabetes, arthritis, gout, stroke, and cancer.

**Supplemental Table 5. Weighted Odds Ratios (95% CIs) for Multivariate a Adjusted Associations Between Quartile of Caffeine Intake and Functional Disability stratified by gender, NHANES (2007-2016)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Male (*N* = 3,751) |  |  | Female (*N* = 3,953) |  |  |
| Caffeine quartile, mg/day |  |  | Caffeine quartile, mg/day |  |  |
|  | <34.5 | 34.5-115 | 115-228 | ≥228 | *P*-trend | <25 | 25-87 | 87-177 | ≥177 | *P*-trend |
| **LEM**  | Ref. | 0.72(0.47-1.11) | **0.59(0.37-0.92)** | 0.70(0.45-1.08) | **0.05** | Ref. | 1.07(0.79-1.44) | 1.10(0.76-1.59) | 0.97(0.67-1.40) | 0.91 |
| **GPA** | Ref. | 0.87(0.61-1.24) | 0.79(0.57-1.10) | **0.66(0.45-0.98)** | **0.03** | Ref. | 0.91(0.63-1.31) | 0.79(0.54-1.16) | 0.81(0.56-1.18) | 0.21 |
| **LSA**  | Ref. | 1.18(0.71-1.95) | 0.81(0.47-1.41) | 0.95(0.61-1.50) | 0.48 | Ref. | 0.84(0.57-1.24) | 1.09(0.74-1.61) | 0.69(0.45-1.04) | 0.18 |
| **ADL**  | Ref. | 0.79(0.51-1.23) | **0.48(0.31-0.75)** | 0.80(0.56-1.14) | **0.05** | Ref. | 0.84(0.58-1.21) | 1.01(0.64-1.60) | 0.78(0.51-1.18) | 0.41 |
| **IADL** | Ref. | 0.68(0.43-1.06) | 0.68(0.42-1.09) | **0.62(0.40-0.95)** | **0.04** | Ref. | 1.06(0.75-1.47) | 0.74(0.52-1.04) | **0.56(0.40-0.79)** | **<0.001** |

*Notes:* NHANES= National Health and Nutrition Examination Survey; CI = confidence interval; LEM = lower-extremity mobility; GPA = general physical activity; LSA = leisure and social activities; ADL = activities of daily living; IADL = instrumental activities of daily living

a Adjusted age, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, depression, hypertension, diabetes, arthritis, gout, stroke, and cancer.

**Supplemental Table 6. Sensitivity Analysis: Weighted Odds Ratios (95% CIs) for Multivariate Adjusted Associations Between Categories of Coffee Intake and Functional Disability After Excluding the Participants with Cardiovascular Diseases and Cancer, NHANES (2007-2016)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Primary Analyses a (*N* = 7,704) |  |  | Sensitivity Analyses b (*N* = 5,555) |  |  |
| Coffee Intake , Cups/Day |  |  | Coffee Intake , Cups/Day |  |  |
|  | 0 | 0-<1 | 1-<2 | 2+ | *P*-trend | 0 | 0-<1 | 1-<2 | 2+ | *P*-trend |
| **Total Coffee** |  |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | **0.74(0.57-0.96)** | 0.79(0.59-1.05) | **0.67(0.50-0.91)** | **0.03** | Ref. | **0.74(0.56-0.99)** | 0.80(0.58-1.12) | **0.70(0.50-0.97)** | 0.08 |
| **GPA** | Ref. | 0.86(0.67-1.10) | 0.82(0.62-1.08) | **0.65(0.47-0.88)** | **0.02** | Ref. | 0.86(0.63-1.18) | 0.82(0.58-1.14) | **0.65(0.45-0.92)** | **0.02** |
| **LSA**  | Ref. | 0.93(0.68-1.26) | 0.96(0.69-1.34) | **0.61(0.45-0.83)** | **0.006** | Ref. | 0.92(0.62-1.34) | 0.93(0.63-1.37) | 0.68(0.44-1.04) | 0.10 |
| **ADL**  | Ref. | 0.88(0.65-1.19) | 0.95(0.69-1.30) | 0.70(0.50-1.01) | 0.09 | Ref. | 0.85(0.60-1.19) | 0.85(0.56-1.30) | 0.72(0.47-1.08) | 0.15 |
| **IADL** | Ref. | 0.77(0.57-1.03) | **0.72(0.54-0.95)** | **0.59(0.44-0.78)** | **0.001** | Ref. | 0.74(0.55-1.00) | **0.67(0.49-0.93)** | **0.57(0.42-0.79)** | **0.001** |
| **Caffeinated Coffee** |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | 0.79(0.61-1.01) | 0.77(0.59-1.02) | 0.75(0.55-1.02) | 0.08 | Ref. | 0.86(0.65-1.12) | 0.82(0.58-1.14) | 0.76(0.54-1.06) | 0.11 |
| **GPA** | Ref. | 0.92(0.72-1.18) | 0.79(0.61-1.01) | **0.67(0.48-0.92)** | **0.01** | Ref. | 1.01(0.75-1.37) | 0.82(0.59-1.14) | **0.69(0.48-0.99)** | **0.03** |
| **LSA**  | Ref. | 1.07(0.79-1.43) | 0.96(0.71-1.32) | **0.66(0.46-0.93)** | **0.02** | Ref. | 1.07(0.73-1.58) | 0.98(0.66-1.44) | 0.67(0.43-1.04) | 0.07 |
| **ADL**  | Ref. | 0.88(0.66-1.18) | 0.88(0.65-1.19) | 0.72(0.52-1.01) | 0.07 | Ref. | 0.91(0.66-1.26) | 0.84(0.55-1.29) | 0.71(0.48-1.06) | 0.10 |
| **IADL** | Ref. | **0.71(0.55-0.93)** | **0.69(0.52-0.91)** | **0.57(0.43-0.75)** | **<0.001** | Ref. | **0.68(0.49-0.95)** | **0.68(0.50-0.93)** | **0.50(0.37-0.69)** | **<0.001** |
| **Decaffeinated Coffee** |  |  |  |  |  |  |  |  |  |
| **LEM**  | Ref. | **0.65(0.47-0.89)** | 0.73(0.50-1.06) | **0.43(0.23-0.81)** | **0.02** | Ref. | **0.62(0.43-0.88)** | 0.63(0.38-1.05) | 0.47(0.21-1.04) | 0.08 |
| **GPA** | Ref. | 0.75(0.52-1.07) | 0.80(0.50-1.27) | 0.67(0.40-1.14) | 0.18 | Ref. | 0.67(0.44-1.02) | 0.81(0.45-1.45) | 0.61(0.35-1.03) | 0.12 |
| **LSA**  | Ref. | **0.64(0.50-0.82)** | 1.03(0.69-1.54) | **0.39(0.16-0.94)** | 0.09 | Ref. | **0.66(0.50-0.89)** | 0.95(0.57-1.57) | 0.63(0.23-1.74) | 0.52 |
| **ADL**  | Ref. | **0.73(0.53-1.00)** | 0.92(0.60-1.39) | 0.57(0.30-1.09) | 0.16 | Ref. | **0.66(0.44-0.99)** | 0.62(0.38-1.02) | 0.65(0.30-1.43) | 0.28 |
| **IADL** | Ref. | 0.82(0.61-1.10) | 0.86(0.60-1.23) | 0.55(0.28-1.06) | 0.11  | Ref. | **0.69(0.52-0.92)** | 0.68(0.43-1.09) | 0.79(0.36-1.72) | 0.56 |

*Notes:* NHANES= National Health and Nutrition Examination Survey; CI = confidence interval; LEM = lower-extremity mobility; GPA = general physical activity; LSA = leisure and social activities; ADL = activities of daily living; IADL = instrumental activities of daily living

a Adjusted age, gender, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, tea, soft drinks, depression, hypertension, diabetes, arthritis, gout, stroke, and cancer.

b Adjusted age, gender, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, tea, soft drinks, depression, hypertension, diabetes, arthritis, and gout.

**Supplemental Table 7. Sensitivity Analysis: Weighted Odds Ratios (95% CIs) for Multivariate Adjusted Associations Between Quartiles of Caffeine Intake and Functional Disability After Excluding the Participants with Cardiovascular Diseases and Cancer, NHANES (2007-2016)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Primary Analyses a (*N* = 7,704) |  |  | Sensitivity Analyses b (*N* = 5,555) |  |  |
| Caffeine quartile, mg/day |  |  | Caffeine quartile, mg/day |  |  |
|  | <27.5 | 27.5-98.5 | 98.5-198 | ≥198 | *P*-trend | <30 | 30-99.5 | 99.5-197.5 | ≥197.5 | *P*-trend |
| **LEM**  | Ref. | 1.0(0.7-1.3) | 0.8(0.6-1.0) | 0.9(0.7-1.2) | 0.30 | Ref. | 1.02(0.78-1.34) | 0.92(0.65-1.31) | 0.94(0.68-1.31) | 0.61 |
| **GPA** | Ref. | 0.9(0.7-1.1) | 0.8(0.6-1.0) | **0.8(0.6-1.0)** | **0.04** | Ref. | 0.85(0.62-1.16) | 0.87(0.64-1.16) | 0.79(0.59-1.08) | 0.18 |
| **LSA**  | Ref. | 0.9(0.7-1.2) | 1.0(0.7-1.4) | 0.8(0.6-1.2) | 0.42 | Ref. | 0.80(0.57-1.11) | 1.17(0.83-1.65) | 0.75(0.48-1.17) | 0.50 |
| **ADL**  | Ref. | 0.8(0.6-1.1) | **0.7(0.5-1.0)** | 0.8(0.6-1.1) | 0.08 | Ref. | 0.81(0.59-1.09) | 0.86(0.61-1.21) | 0.76(0.52-1.10) | 0.20 |
| **IADL** | Ref. | 0.9(0.7-1.1) | **0.7(0.5-0.9)** | **0.6(0.5-0.8)** | **<0.001** | Ref. | **0.72(0.54-0.97)** | **0.71(0.53-0.94)** | **0.56(0.41-0.77)** | **<0.001** |

*Notes:* NHANES= National Health and Nutrition Examination Survey; CI = confidence interval; LEM = lower-extremity mobility; GPA = general physical activity; LSA = leisure and social activities; ADL = activities of daily living; IADL = instrumental activities of daily living

a Adjusted age, gender, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, depression, hypertension, diabetes, arthritis, gout, stroke, and cancer.

b Adjusted age, gender, race and ethnicity, marital status, educational level, annual household income, BMI, physical activity, cigarette smoking, alcohol drinking, energy intake, depression, hypertension, diabetes, arthritis, and gout.