**Supplementary Table 1. Characteristics of adults by severity of chronic pain in the Olmsted County Health Study in Minnesota**

|  | **Adults with mild pain (*n*=185)** | **Adults with moderate pain**  **(*n*=230)** | **Adults with severe pain**  **(*n*=154)** | ***p*-value** |
| --- | --- | --- | --- | --- |
| **Demographics** |  |  |  |  |
| **Age years, mean (SD)** | 55.5 (± 12.4) | 56.3 (± 12.9) | 57.8 (± 14.5) | 0.50 |
| **Women** | 98 (53.0%) | 146 (63.5%) | 118 (76.6%) | <0.001 |
| **Married** | 151 (81.6%) | 172 (74.8%) | 110 (71.9%) | 0.09 |
| **Currently working** | 133 (71.9%) | 149 (64.8%) | 84 (54.6%) | 0.004 |
| **Education** |  |  |  | 0.034 |
| **High school or less** | 31 (16.8%) | 46 (20.2%) | 41 (26.8%) |  |
| **Some college or vocational** | 68 (37.0%) | 90 (39.5%) | 66 (43.1%) |  |
| **Graduated college or higher** | 85 (46.2%) | 92 (40.3%) | 46 (30.1%) |  |
| **BMI (kg/m2), mean (SD)** | 27.1 (± 5.1) | 29.1 (± 6.5) | 28.3 (± 5.7) | 0.011 |
| **Obese (>30 kg/m2)** | 42 (22.7%) | 82 (35.8%) | 51 (33.3%) | 0.012 |
| **General health, fair or poor** | 14 (7.7%) | 40 (17.7%) | 48 (32.0%) | <0.001 |
| **Characteristics of pain** |  |  |  |  |
| **Duration of pain, years, median (IQR)** | 8.3  (3.0 – 16.7) | 8.7  (4.0 – 20.0) | 10.0  (4.2 – 20.8) | 0.31 |
| **Frequency ≥8 days per month** | 89 (78.8%) | 162 (80.6%) | 104 (84.6%) | 0.50 |
| **Pain lasting ≥8 hours per day** | 30 (29.4%) | 83 (43.9%) | 66 (56.4%) | <0.001 |
| **Medical Outcomes Study Physical Functioning, mean (SD)** | 83.0 (± 18.7) | 73.5 (± 22.1) | 59.4 (± 26.8) | <0.001 |
| **Depressive symptoms** |  |  |  | <0.001 |
| **Mild depressive symptoms** | 13 (7.0%) | 36 (15.7%) | 33 (21.4%) |  |
| **Major depressive symptoms** | 11 (6.0%) | 26 (11.3%) | 23 (14.9%) |  |
| **Beck anxiety, score ≥4** | 14 (7.6%) | 36 (15.7%) | 31 (20.1%) | 0.003 |
| **Healthcare seeking for pain** |  |  |  |  |
| **Difficulties/delays in obtaining care, not received needed care** | 17 (9.2%) | 27 (11.7%) | 36 (23.5%) | <0.001 |
| **No diagnosis of chronic pain by physician** | 29 (21.5%) | 33 (14.4%) | 17 (11.1%) | 0.045 |
| **No discussion of chronic pain with physician** | 22 (18.2%) | 26 (12.1%) | 9 (6.3%) | 0.012 |

*n* (%) or mean (± SD). Missing values are present in some variables.

We categorized worst pain in the last week as a measure of severity of pain as follows: mild pain (1-3), moderate pain (4-6), and severe pain (7-10).

*P*-values from Chi-square or Fisher’s exact test for categorical variables and Kruskal-Wallis test for continuous variables.

Medical Outcomes Study Short Form (SF) Physical Functioning was mean score based on the 10 items. The mean score ranges from 0 to 100, with 100 being the best health state.

**Supplementary Table 2. Adverse impact of chronic pain on work productivity loss in the Olmsted County Health Study in Minnesota**

|  | **Adjusted Risk Ratio (RR)** | **(95% CI)** | ***p*-value** |
| --- | --- | --- | --- |
| **Chronic pain** |  |  |  |
| **No chronic pain** | Reference |  |  |
| **Abdominal chronic pain** | 1.91 | (1.07, 3.41) | 0.029 |
| **Joint chronic pain** | 1.36 | (0.77, 2.40) | 0.30 |
| **Low back chronic pain** | 1.70 | (0.97, 2.97) | 0.06 |
| **Neuropathic chronic pain** | 2.02 | (1.26, 3.24) | 0.004 |
| **Multisite chronic pain** | 3.38 | (2.12, 5.38) | <0.001 |
| **Age category** |  |  |  |
| **≤ 49 yrs** | Reference |  |  |
| **50-59 yrs** | 0.87 | (0.69, 1.10) | 0.25 |
| **≥ 60 yrs** | 0.75 | (0.51, 1.09) | 0.13 |
| **Female, gender** | 1.10 | (0.87, 1.40) | 0.44 |
| **Education, high school or less** | 0.80 | (0.55, 1.16) | 0.24 |
| **Poor or fair health status** | 1.16 | (0.88, 1.54) | 0.28 |
| **Obesity** | 1.35 | (1.09, 1.70) | 0.007 |
| **Mild/major depressive symptoms** | 1.60 | (1.27, 2.00) | <0.001 |