

Supplement 2 Categorical Analysis

2A: Physical activity domains and pain in workers

| | | Pain Interference | | Muscle Pain After Activity | |
|----------------------|-------|-------------------|-------------------|----------------------------|-------------------|
| PA Domain (MET h/wk) | n | Model 1 | Model 2 | Model 1 | Model 2 |
| Occupation PA | | | | | |
| 0 – 45 | 1,917 | 1.00 | 1.00 | 1.00 | 1.00 |
| 46 – 75 | 2,301 | 0.85 (0.76, 0.96) | 0.92 (0.80, 1.04) | 0.83 (0.70, 0.97) | 0.92 (0.76, 1.11) |
| 76 – 105 | 1,596 | 0.75 (0.66, 0.85) | 0.87 (0.75, 1.01) | 0.88 (0.74, 1.05) | 1.06 (0.87, 1.30) |
| >105 | 1,842 | 0.91 (0.80, 1.03) | 0.99 (0.85, 1.15) | 1.03 (0.88, 1.22) | 1.10 (0.90, 1.34) |
| Household PA | | | | | |
| 0 – 7 | 1,960 | 1.00 | 1.00 | 1.00 | 1.00 |
| 8 – 16 | 1,895 | 1.20 (1.07, 1.36) | 1.26 (1.10, 1.44) | 1.16 (0.97, 1.38) | 1.14 (0.94, 1.38) |
| 17 – 32 | 1,908 | 1.21 (1.07, 1.37) | 1.17 (1.02, 1.35) | 1.20 (1.01, 1.43) | 1.19 (0.98, 1.44) |
| >32 | 1,893 | 1.56 (1.38, 1.76) | 1.40 (1.21, 1.61) | 1.56 (1.32, 1.85) | 1.34 (1.10, 1.62) |
| Transport PA | | | | | |
| 0 – 4 | 1,947 | 1.00 | 1.00 | 1.00 | 1.00 |
| 5 – 10 | 2,118 | 0.88 (0.78, 0.99) | 0.92 (0.80, 1.05) | 0.79 (0.67, 0.92) | 0.86 (0.72, 1.03) |
| 11 – 18 | 1,720 | 0.82 (0.72, 0.92) | 0.83 (0.72, 0.95) | 0.72 (0.61, 0.85) | 0.81 (0.67, 0.98) |
| >18 | 1,871 | 0.83 (0.73, 0.94) | 0.85 (0.74, 0.95) | 0.71 (0.60, 0.84) | 0.81 (0.67, 0.97) |
| Leisure PA | | | | | |
| 0 | 3,807 | 1.00 | 1.00 | 1.00 | 1.00 |
| > 0 – 8 | 1,324 | 0.95 (0.84, 1.06) | 1.02 (0.89, 1.17) | 0.78 (0.67, 0.93) | 0.84 (0.70, 1.01) |
| 9 – 24 | 1,209 | 0.81 (0.71, 0.91) | 0.92 (0.80, 1.07) | 0.53 (0.43, 0.64) | 0.65 (0.52, 0.80) |
| >24 | 1,316 | 0.71 (0.63, 0.80) | 0.87 (0.75, 1.00) | 0.65 (0.54, 0.77) | 0.85 (0.98, 1.09) |

PA = Physical activity; MET = metabolic equivalent of task.

Model 1 was adjusted for age (years) and sex.

Model 2 was additionally adjusted for BMI (continuous), socioeconomic status (1st – 5th Quintile), highest level of education (primary school, some high school or technical school, completed high school or technical school, completed tertiary diploma or degree), cardiovascular (CVD) comorbidities (Y/N), musculoskeletal (MSK) comorbidities (Y/N), smoking status (never, former, current), alcohol consumption (non-drinker, light drinker, heavy drinker), depression (none of the time, a little, some, most of the time, all of the time), the other physical activity domains (quartiles), and television viewing time (continuous). Results of complete case analysis are reported.

2B: Physical activity domains and pain in non-workers

| | | Pain Interference | | Muscle Pain After Activity | |
|----------------------|-------|-------------------|-------------------|----------------------------|-------------------|
| PA Domain (MET h/wk) | n | Model 1 | Model 2 | Model 1 | Model 2 |
| Household PA | | | | | |
| 0 – 11 | 3,025 | 1.00 | 1.00 | 1.00 | 1.00 |
| 12 – 26 | 2,899 | 0.88 (0.80, 0.97) | 0.94 (0.84, 1.05) | 0.86 (0.77, 0.97) | 0.94 (0.82, 1.08) |
| 27 – 53 | 2,923 | 0.91 (0.83, 1.00) | 0.94 (0.84, 1.05) | 0.91 (0.81, 1.03) | 0.95 (0.83, 1.09) |
| >53 | 2,919 | 0.91 (0.83, 1.01) | 0.95 (0.85, 1.06) | 1.08 (0.96, 1.21) | 1.14 (1.00, 1.31) |
| Transport PA | | | | | |
| 0 – 3 | 3,017 | 1.00 | 1.00 | 1.00 | 1.00 |
| 4 – 10 | 3,366 | 0.78 (0.72, 0.86) | 0.89 (0.79, 0.97) | 0.77 (0.69, 0.86) | 0.86 (0.76, 0.97) |
| 11 – 19 | 2,455 | 0.61 (0.55, 0.67) | 0.75 (0.67, 0.84) | 0.67 (0.59, 0.76) | 0.79 (0.69, 0.91) |
| >19 | 2,928 | 0.56 (0.51, 0.61) | 0.78 (0.70, 0.87) | 0.60 (0.53, 0.67) | 0.80 (0.70, 0.92) |
| Leisure PA | | | | | |
| 0 | 7,175 | 1.00 | 1.00 | 1.00 | 1.00 |
| > 0 – 8 | 1,733 | 0.97 (0.88, 1.07) | 1.11 (0.99, 1.24) | 0.98 (0.87, 1.10) | 1.12 (0.98, 1.29) |
| 9 – 20 | 1,301 | 0.74 (0.68, 0.83) | 0.88 (0.78, 1.00) | 0.72 (0.63, 0.84) | 0.89 (0.76, 1.04) |
| >20 | 1,557 | 0.58 (0.53, 0.65) | 0.80 (0.71, 0.90) | 0.68 (0.59, 0.77) | 0.91 (0.77, 1.06) |

PA = Physical activity; MET = metabolic equivalent of task.

Model 1 was adjusted for age (years) and sex.

Model 2 was additionally adjusted for BMI (continuous), socioeconomic status (1st – 5th Quintile), highest level of education (primary school, some high school or technical school, completed high school or technical school, completed tertiary diploma or degree), cardiovascular (CVD) comorbidities (Y/N), musculoskeletal (MSK) comorbidities (Y/N), smoking status (never, former, current), alcohol consumption (non-drinker, light drinker, heavy drinker), depression (none of the time, a little, some, most of the time, all of the time), the other physical activity domains (quartiles), and television viewing time (continuous). Results of complete case analysis are reported.

2C: Missing and imputed data

| Variable | Workers (n = 7,281) | | | Non-Workers (n = 10,668) | | |
|------------------------|---------------------|------------|---------|--------------------------|------------|---------|
| | Complete | Incomplete | Imputed | Complete | Incomplete | Imputed |
| Sex | 7,281 | 0 | 0 | 10,668 | 0 | 0 |
| Age | 7,281 | 0 | 0 | 10,668 | 0 | 0 |
| BMI | 7,276 | 3 | 2 | 10,621 | 17 | 7 |
| Education | 7,281 | 0 | 0 | 10,668 | 0 | 0 |
| Socioeconomic status | 6,957 | 324 | 205 | 10,307 | 361 | 192 |
| CVD comorbidities | 7,281 | 0 | 0 | 10,668 | 0 | 0 |
| MSK comorbidities | 6,878 | 403 | 0 | 9,536 | 1,132 | 0 |
| Smoking status | 7,281 | 0 | 0 | 10,668 | 0 | 0 |
| Current alcohol intake | 7,234 | 47 | 18 | 10,530 | 138 | 57 |
| Depression | 7,278 | 3 | 0 | 10,658 | 10 | 0 |
| TV watching | 6,850 | 431 | 0 | 9,480 | 1,188 | 0 |

2D: Physical activity domains and pain in workers and non-workers (following multiple imputation)

| Workers | | | Non-Workers | | |
|----------------------|-------------------|----------------------------|----------------------|-------------------|----------------------------|
| PA Domain (MET h/wk) | Pain interference | Muscle pain after activity | PA Domain (MET h/wk) | Pain interference | Muscle pain after activity |
| Occupation PA | | | | | |
| 0 – 45 | 1.00 | 1.00 | | | |
| 46 – 75 | 0.92 (0.80, 1.05) | 0.91 (0.76, 1.09) | | | |
| 76 – 105 | 0.88 (0.76, 1.02) | 1.02 (0.84, 1.25) | | | |
| >105 | 0.98 (0.85, 1.14) | 1.08 (0.89, 1.31) | | | |
| Household PA | | | Household PA | | |
| 0 – 7 | 1.00 | 1.00 | 0 – 11 | 1.00 | 1.00 |
| 8 – 16 | 1.26 (1.10, 1.44) | 1.18 (0.96, 1.42) | 12 – 26 | 0.94 (0.84, 1.04) | 0.94 (0.82, 1.07) |
| 17 – 32 | 1.18 (1.02, 1.35) | 1.20 (0.98, 1.45) | 27 – 53 | 0.95 (0.85, 1.06) | 0.97 (0.84, 1.11) |
| >32 | 1.40 (1.22, 1.62) | 1.38 (1.14, 1.66) | >53 | 0.96 (0.86, 1.07) | 1.15 (1.00, 1.31) |
| Transport PA | | | Transport PA | | |
| 0 – 4 | 1.00 | 1.00 | 0 – 3 | 1.00 | 1.00 |
| 5 – 10 | 0.93 (0.82, 1.06) | 0.88 (0.73, 1.04) | 4 – 10 | 0.88 (0.79, 0.98) | 0.84 (0.74, 0.95) |
| 11 – 18 | 0.86 (0.75, 0.98) | 0.83 (0.69, 1.00) | 11 – 19 | 0.74 (0.66, 0.82) | 0.79 (0.68, 0.90) |
| >18 | 0.86 (0.75, 0.98) | 0.82 (0.68, 0.99) | >19 | 0.78 (0.70, 0.87) | 0.79 (0.69, 0.91) |
| Leisure PA | | | Leisure PA | | |
| 0 | 1.00 | 1.00 | 0 | 1.00 | 1.00 |
| > 0 – 8 | 1.00 (0.88, 1.15) | 0.84 (0.70, 1.01) | > 0 – 8 | 1.10 (0.99, 1.24) | 1.11 (0.98, 1.28) |
| 9 – 24 | 0.94 (0.81, 1.08) | 0.65 (0.53, 0.80) | 9 – 20 | 0.89 (0.79, 1.01) | 0.86 (0.73, 1.01) |
| >24 | 0.86 (0.75, 0.99) | 0.84 (0.69, 1.02) | >20 | 0.79 (0.70, 0.89) | 0.89 (0.76, 1.05) |

PA = Physical activity; MET = metabolic equivalent of task.

Results presented are from Model 2, which adjusted for age (years), sex, BMI (continuous), socioeconomic status (1st – 5th Quintile), highest level of education (primary school, some high school or technical school, completed high school or technical school, completed tertiary diploma or degree), cardiovascular (CVD) comorbidities (Y/N), musculoskeletal (MSK) comorbidities (Y/N), smoking status (never, former, current), alcohol consumption (non-drinker, light drinker, heavy drinker), depression (none of the time, a little, some, most of the time, all of the time), the other physical activity domains (quartiles), and television viewing time (continuous). Results following multiple imputation are reported.