**Table 1. Odds ratio (95% CI) of hypertension for 1 standard deviation increase in total physical activity, body mass index, waist circumference, HbA1c, LDL cholesterol and triglycerides, Bauniabadh, Bangladesh, 2016. (Men)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age groups | 18-44 years (n=725)  (Hypertensive= 97, Normotensive= 628 ) | | | | 45-64 years (n=232)  (Hypertensive= 82, Normotensive= 150 ) | | | |
|  | n/N  (hypertension%) | Age adjusted | Model 1 | Model 2 | n/N  (hypertension%) | Age adjusted | Model 1 | Model 2 |
| **Physical activity,**  **METs -minutes per week** | 97/725 (13.4) |  | |  | 82/232 (35.3) |  |  |  |
| With interaction | p for interaction=0.003 | 0.76 (0.61-0.95) | 0.90 (0.71-1.15) | 0.76 (0.62-0.93) |  | 0.49 (0.36-0.68) | 0.52 (0.38-0.73) | 0.53 (0.38-0.74) |
| Without interaction |  | 0.76 (0.61-0.95) | 1.01 (0.78-1.30) | 1.09 (0.84-1.42) | - | 0.52 (0.38-0.72) | 0.55 (0.39-0.77) | 0.56 (0.40-0.79) |
| **Body mass index,** **kg/m2** |  |  | |  |  |  |  |  |
| With interaction | p for interaction=0.061 | 2.51 (1.96-3.21) | 1.96 (1.48-2.58) | - |  | 1.71 (1.21-2.40) | 1.28 (0.86-1.88) | - |
| Without interaction |  | 2.34 (1.82-3.00) | 1.94 (1.43-2.61) | - |  | 1.85 (1.30-2.64) | 1.37 (0.87-2.15) | - |
| **Waist circumference, cm** |  |  | | |  |  |  |  |
| With interaction | p for interaction=0.017 | 2.99 (2.31-3.88) | 2.50 (1.85-3.37) | 3.22 (1.99-5.21) |  | 1.87 (1.38-2.54) | 1.55 (1.10-2.19) | 1.91 (1.20-3.02) |
| Without interaction |  | 2.79 (2.13-3.66) | 2.44 (1.76-3.40) | 2.66 (1.50-4.73) |  | 1.88 (1.38-2.57) | 1.44 (0.97-2.13) | 1.54 (0.76-3.14) |
| **HbA1c, %** |  |  | |  |  |  |  |  |
| With interaction | p for interaction=0.555 | 1.49 (1.22-1.83) | 1.36 (1.09-1.68) | 1.35 (1.08-1.69) |  | 1.47 (1.13-1.90) | 1.25 (0.94-1.65) | 1.21 (0.91-1.61) |
| Without interaction | - | 1.34 (1.08-1.66) | 1.24 (0.99-1.55) | 1.25 (0.98-1.58) |  | 1.46 (1.12-1.90) | 1.17 (0.87-1.58) | 1.15 (0.85-1.55) |
| **Triglycerides, mg/dl** |  |  | |  |  |  |  |  |
| With interaction | p for interaction=0.057 | 1.66 (1.39-1.98) | 1.49 (1.22-1.82) | 1.38 (1.12-1.69) |  | 1.19 (0.92-1.54) | 1.12 (0.83-1.50) | 0.99 (0.72-1.35) |
| Without interaction | - | 1.55 (1.29-1.85) | 1.42 (1.16-1.74) | 1.31 (1.06-1.62) |  | 1.13 (0.90-1.43) | 1.06 (0.81-1.39) | 0.98 (0.74-1.30) |
| **LDL cholesterol,** **mg/dl** |  |  | |  |  |  |  |  |
| With interaction | p for interaction=0.191 | 1.63 (1.32-2.01) | 1.43 (1.15-1.78) | 1.34 (1.07-1.68) |  | 1.30 (0.97-1.74) | 1.11 (0.81-1.53) | 1.03 (0.75-1.43) |
| Without interaction |  | 1.52 (1.23-1.88) | 1.38 (1.11-1.73) | 1.30 (1.04-1.63) | - | 1.32 (0.98-1.77) | 1.16 (0.83-1.63) | 1.11 (0.79-1.57) |

Abbreviations: OR, odds ratio; CI, confident interval; ref, reference; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; LDL, low-density lipoprotein

Per 1SD: odds ratio per 1 standard deviation increase

Model 1: adjusted for age, years of education, marital status, tobacco smoking, smokeless tobacco, physical activity, HbA1c, triglycerides, HDL cholesterol, and LDL cholesterol.

Model 2: adjusted for Model 2 variables and BMI

**Table 2. Odds ratio (95% CI) of hypertension associations with sociodemographic, behavioral, anthropometric, and biochemical factors, Bauniabadh, Bangladesh, 2016. (Women)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age groups | 18-44 years (n=715)  (Hypertensive= 103, Normotensive= 612) | | | | 45-64 years (n=235)  (Hypertensive= 88, Normotensive= 147 ) | | | |
|  | n/N  (hypertension%) | Age adjusted | Model 1 | Model 2 | n/N  (hypertension %) | Age adjusted | Model 1 | Model 2 |
| **Physical activity,**  **METs -minutes per week** | 103/715 (14.4) |  |  | | 88/235 (37.5) |  | |  |
| With interaction | | p for interaction=0.921 | 2.27 (0.39-13.26) | 0.93 (0.14-6.13) | 0.93 (0.14-6.26) |  | 1.04 (0.13-7.97) | 0.93 (0.10-7.94) | 0.81 (0.09-7.15) |
| Without interaction |  | 0.99 (0.15-6.40) | 0.78 (0.10-5.77) | 0.82 (0.11-6.16) |  | 1.08 (0.13-8.48) | 1.14 (0.12-10.51) | 1.07 (0.11-10.08) |
| **Body mass index, kg/m2** |  |  |  | |  |  | |  |
| With interaction | p for interaction=0.147 | 1.85 (1.50-2.28) | 1.63 (1.30-2.05) | - |  | 1.28 (0.97-1.68) | 1.25 (0.93-1.68) | - |
| Without interaction |  | 1.69 (1.36-2.10) | 1.51 (1.19-1.91) | - |  | 1.35 (1.01-1.79) | 1.25 (0.92-1.71) | - |
| **Waist circumference, cm** |  |  |  | |  |  | |  |
| With interaction | p for interaction=0.012 | 2.11 (1.69-2.64) | 1.88 (1.48-2.39) | 1.72 (1.23-2.40) |  | 1.26 (0.96-1.65) | 1.17 (0.87-1.56) | 1.07 (0.74-1.54) |
| Without interaction |  | 1.89 (1.50-2.38) | 1.72 (1.34-2.21) | 1.70 (1.14-2.53) |  | 1.27 (0.96-1.68) | 1.13 (0.83-1.53) | 0.88 (0.55-1.43) |
| **HbA1c %** |  |  |  | |  |  | |  |
| With interaction | p for interaction=0.273 | 1.59 (1.30-1.94) | 1.39 (1.12-1.72) | 1.38 (1.12-1.70) |  | 1.24 (1.03-1.51) | 1.17 (0.96-1.44) | 1.17 (0.96-1.44) |
| Without interaction |  | 1.46 (1.19-1.78) | 1.32 (1.05-1.65) | 1.33 (1.06-1.66) |  | 1.24 (1.02-1.50) | 1.19 (0.97-1.47) | 1.18 (0.96-1.46) |
| **Triglycerides,** **mg/dl** |  |  |  | |  |  | |  |
| With interaction | p for interaction=0.327 | 1.76 (1.38-2.25) | 1.42 (1.09-1.86) | 1.36 (1.04-1.77) |  | 1.28 (1.00-1.63) | 1.13 (0.86-1.49) | 1.14 (0.86-1.49) |
| Without interaction |  | 1.55 (1.21-1.98) | 1.42 (1.07-1.90) | 1.36 (1.02-1.82) |  | 1.32 (1.04-1.68) | 1.10 (0.81-1.48) | 1.10 (0.81-1.49) |
| **LDL cholesterol, mg/dl** |  |  |  | |  |  | |  |
| With interaction | p for interaction=0.507 | 1.23 (1.02-1.48) | 1.13 (0.93-1.37) | 1.07 (0.88-1.31) |  | 1.00 (0.76-1.30) | 1.02 (0.77-1.34) | 0.95 (0.72-1.27) |
| Without interaction |  | 1.11 (0.92-1.35) | 1.05 (0.85-1.29) | 1.01 (0.82-1.24) |  | 0.99 (0.75-1.29) | 1.02 (0.77-1.34) | 0.98 (0.74-1.30) |

Abbreviations: OR, odds ratio; CI, confident interval; ref, reference; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; LDL, low-density lipoprotein

Per 1SD: odds ratio per 1 standard deviation increase

Model 1: adjusted for age, years of education, marital status, tobacco smoking, smokeless tobacco, physical activity, HbA1c, triglycerides, HDL cholesterol, and LDL cholesterol.

Model 2: adjusted for Model 2 variables and BMI.

|  |  |
| --- | --- |
| Variable | P-value for interaction |
| **Men** |  |
| Total physical activity | 0.003 |
| Body mass index | 0.061 |
| Waist circumference | 0.017 |
| HbA1c | 0.555 |
| Triglycerides | 0.057 |
| LDL-C | 0.191 |
| **Women** |  |
| Total physical activity | 0.921 |
| Body mass index | 0.147 |
| Waist circumference | 0.012 |
| HbA1c | 0.273 |
| Triglycerides | 0.327 |
| LDL-C | 0.507 |

The results of likelihood ratio test for sex-stratified interaction between risk factors and age groups