Supplementary table 1. The standardized β and weight of weighted healthy lifestyle score (wHLS)

|  |  |  |  |
| --- | --- | --- | --- |
| Components | Std β | Weight \* | *P*-value |
| Smoking | 0.029 | 0.20  | 0.462 |
| Body Mass Index (BMI) | 0.581 | 3.94  | <0.001 |
| Physical activity | 0.106 | 0.73  | 0.006 |
| Modified alternate Mediterranean diet score | 0.067 | 0.46  | 0.097 |
| Insomnia | 0.077 | 0.52  | 0.050 |
| Anxiety | 0.022 | 0.15  | 0.568 |

Std β, Standardized β.

All analyses were adjusted for age, sex, marital status, education level, household income, history of using statins, and daily energy intake.

\* Weight*i =* [Std β*i/*( ∑Std β*i*)]×6.

Supplementary table 2. Sensitivity analyses of association between HLS and NAFLD in all subjects

| Exposures | N \* | Model 1 † |  | Model 2‡ |
| --- | --- | --- | --- | --- |
| OR | 95% CI | *P*-value |  | OR | 95% CI | *P*-value |
| HLS |
|  0-1 | 238/142 | Ref. |  |  |  | Ref. |  |  |
| 2 | 718/409 | 0.86 | 0.64,1.16 | 0.327 |  | 0.85 | 0.63,1.15 | 0.281 |
| 3 | 984/505 | 0.68 | 0.51,0.91 | 0.010 |  | 0.68 | 0.51,0.91 | 0.010 |
| 4 | 753/355 | 0.58 | 0.43,0.79 | <0.001 |  | 0.58 | 0.43,0.78 | <0.001 |
| 5-6 | 288/104 | 0.37 | 0.26,0.52 | <0.001 |  | 0.35 | 0.25,0.51 | <0.001 |
| weight HLS (wHLS) |
|  1 (<0.87) | 170/113 | Ref. |  |  |  | Ref. |  |  |
| 2 (0.87≤wHLS<2.06) | 757/494 | 0.94 | 0.66,1.34 | 0.729 |  | 0.91 | 0.64,1.30 | 0.603 |
| 3 (2.06≤wHLS<5.27) | 985/469 | 0.38 | 0.27,0.54 | <0.001 |  | 0.37 | 0.26,0.52 | <0.001 |
| 4 (5.27≤wHLS<5.85) | 767/330 | 0.31 | 0.22,0.45 | <0.001 |  | 0.30 | 0.21,0.44 | <0.001 |
| 5 (≥5.85) | 302/109 | 0.24 | 0.16,0.36 | <0.001 |  | 0.23 | 0.15,0.34 | <0.001 |
| HLS-excluded smoking |
|  0-1 | 92/59 | Ref. |  |  |  | Ref. |  |  |
| 2 | 470/281 | 0.81 | 0.51,1.29 | 0.376 |  | 0.84 | 0.52,1.34 | 0.460 |
| 3 | 1086/566 | 0.56 | 0.36,0.88 | 0.012 |  | 0.59 | 0.37,0.92 | 0.020 |
| 4 | 949/462 | 0.49 | 0.31,0.77 | 0.002 |  | 0.5 | 0.32,0.79 | 0.030 |
| 5 | 384/147 | 0.32 | 0.20,0.51 | <0.001 |  | 0.32 | 0.20,0.52 | <0.001 |
| HLS-excluded BMI |
|  0-1 | 73/33 | Ref. |  |  |  | Ref. |  |  |
| 2 | 480/248 | 1.26 | 0.77,2.07 | 0.355 |  | 1.27 | 0.77,2.09 | 0.345 |
| 3 | 1053/563 | 0.99 | 0.80,1.23 | 0.197 |  | 1.01 | 0.81,1.25 | 0.181 |
| 4 | 930/466 | 0.89 | 0.65,1.05 | 0.099 |  | 0.87 | 0.63,1.04 | 0.096 |
| 5 | 445/205 | 0.64 | 0.35,0.88 | 0.049 |  | 0.63 | 0.35,0.89 | 0.048 |
| HLS-excluded physical activity |
|  0-1 | 48/27 | Ref. |  |  |  | Ref. |  |  |
| 2 | 328/201 | 1.21 | 0.65,2.23 | 0.548 |  | 1.23 | 0.67,2.28 | 0.506 |
| 3 | 990/540 | 0.88 | 0.49,1.58 | 0.668 |  | 0.89 | 0.49,1.60 | 0.691 |
| 4 | 1117/539 | 0.69 | 0.38,1.23 | 0.206 |  | 0.69 | 0.39,1.25 | 0.225 |
| 5 | 498/208 | 0.52 | 0.29,0.96 | 0.035 |  | 0.52 | 0.29,0.96 | 0.037 |
| HLS-excluded diet |
|  0-1 | 46/27 | Ref. |  |  |  | Ref. |  |  |
| 2 | 296/179 | 1.06 | 0.56,1.99 | 0.867 |  | 1.06 | 0.56,2.00 | 0.865 |
| 3 | 938/540 | 0.9 | 0.49,1.64 | 0.722 |  | 0.89 | 0.49,1.64 | 0.712 |
| 4 | 1148/567 | 0.64 | 0.35,1.17 | 0.148 |  | 0.65 | 0.36,1.20 | 0.167 |
| 5 | 553/202 | 0.38 | 0.20,0.69 | 0.002 |  | 0.38 | 0.20,0.70 | 0.002 |
| HLS-excluded insomnia |
|  0-1 | 185/116 | Ref. |  |  |  | Ref. |  |  |
| 2 | 712/410 | 0.77 | 0.55,1.08 | 0.130 |  | 0.75 | 0.54,1.05 | 0.096 |
| 3 | 1004/515 | 0.6 | 0.43,0.83 | 0.002 |  | 0.59 | 0.42,0.82 | 0.002 |
| 4 | 781/366 | 0.5 | 0.36,0.70 | <0.001 |  | 0.49 | 0.35,0.69 | <0.001 |
| 5 | 299/108 | 0.32 | 0.22,0.47 | <0.001 |  | 0.3 | 0.21,0.45 | <0.001 |
| HLS-excluded anxiety |
|  0-1 | 148/90 | Ref. |  |  |  | Ref. |  |  |
| 2 | 704/408 | 0.85 | 0.59,1.22 | 0.384 |  | 0.81 | 0.56,1.17 | 0.263 |
| 3 | 1019/523 | 0.65 | 0.45,0.92 | 0.016 |  | 0.63 | 0.44,0.90 | 0.011 |
| 4 | 808/385 | 0.56 | 0.39,0.81 | 0.002 |  | 0.54 | 0.38,0.78 | 0.001 |
| 5 | 302/109 | 0.35 | 0.23,0.52 | <0.001 |  | 0.33 | 0.22,0.49 | <0.001 |
| HLS-replaced BMI § |
| 0-2 | 373/209 | Ref. |  |  |  | Ref. |  |  |
| 3 | 755/431 | 1.04 | 0.81,1.34 | 0.139 |  | 1.05 | 0.81,1.35 | 0.123 |
| 4 | 932/479 | 0.83 | 0.65,1.06 | 0.066 |  | 0.83 | 0.65,1.07 | 0.058 |
| 5 | 682/301 | 0.62 | 0.48,0.81 | 0.039 |  | 0.63 | 0.48,0.82 | 0.022 |
| 6 | 239/95 | 0.52 | 0.37,0.74 | 0.001 |  | 0.51 | 0.36,0.73 | 0.001 |
| HLS-weaker factors || |
| 0 | 27/16 | Ref. |  |  |  | Ref. |  |  |
| 1 | 417/225 | 0.8 | 0.56,1.38 | 0.390 |  | 0.83 | 0.55,1.34 | 0.438 |
| 2 | 1443/740 | 0.72 | 0.49,1.25 | 0.297 |  | 0.74 | 0.47,1.23 | 0.288 |
| 3 | 1033/506 | 0.65 | 0.43,1.12 | 0.182 |  | 0.67 | 0.39,1.11 | 0.195 |
| 4 | 61/28 | 0.52 | 0.20,0.88 | 0.048 |  | 0.58 | 0.22,0.85 | 0.047 |

HLS, Healthy Lifestyle Score; NAFLD, Non-Alcoholic Fatty Liver Disease; OR, Odds Ratio; CI, Confidence Interval; Ref., Reference category; BMI, Body Mass Index.

\*: the number of total subjects and NAFLD cases, expressed as total/cases.

†: Model 1: adjusted for age and sex.

‡: Model 2: further adjusted for martial status, education level, household income, history of using statins, and daily energy intake. For women, menopausal age and oral oestrogen use were further adjusted.

§: HLS- replaced BMI: replaced BMI with waist circumference (WC), the WC healthy group was < 85 cm (men) or 80 cm (women) (29).

||: HLS-weaker factors: consists of non-smoking, healthy diet pattern, good sleep, and no anxiety.