

# Dietary Intake of Milk Thistle Seeds as a Source of Silymarin and Its Influence on the Lipid Parameters in Nonalcoholic Fatty Liver Disease Patients

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**Table S1.** The body mass and body composition of the participants after 3 months of intervention compared for sub-groups following recommendations and not following recommendations.

| Parameter                | Participants Not Following Dietary Recommendations (n = 7) |                    | Participants Following Dietary Recommendations (n = 13) |                     | p**    |
|--------------------------|--|--------------------|---|---------------------|--------|
|                          | Mean ± SD  | Median (min–max)   | Mean ± SD   | Median (min–max)    |        |
| Body mass (kg)           | 90.3 ± 13.7  | 88.6 (72.7–112.0)  | 100.9 ± 17.1  | 98.3 (78.2–138.8)   | 0.4000 |
| BMI (kg/m <sup>2</sup> ) | 34.2 ± 5.1   | 36.0 (25.2–38.8)   | 35.7 ± 7.1  | 35.5 (27.6–54.2)    | 0.6498 |
| Waist circumference (cm) | 105.5 ± 9.1  | 108.5 (92.0–115.0) | 109.9 ± 10.9  | 107.0 (96.0–132.0)  | 0.4000 |
| Hip circumference (cm)   | 113.8 ± 11.5   | 116.0 (92.0–124.0) | 115.8 ± 10.7  | 115.0 (104.0–141.0) | 0.7241 |
| WHR                      | 0.93 ± 0.07  | 0.94 (0.85–1.00)   | 0.95 ± 0.07   | 0.96 (0.88–1.13)*   | 1.0000 |
| Fat mass (kg)            | 34.9 ± 7.5   | 38.3 (20.3–40.5)*  | 39.0 ± 14.4   | 38.3 (19.1–71.9)    | 0.7589 |
| Fat free mass (kg)       | 55.7 ± 11.3  | 51.9 (43.1–73.3)   | 61.9 ± 10.5   | 66.0 (48.0–76.5)    | 0.2511 |
| Body cell mass (kg)      | 26.5 ± 4.6   | 26.7 (19.6–33.4)   | 27.3 ± 2.9  | 27.0 (22.4–32.5)    | 0.6675 |
| Total body water (L)     | 42.5 ± 8.2   | 38.6 (34.5–53.7)   | 45.8 ± 7.1  | 48.3 (35.1–56.0)    | 0.3805 |
| Extracellular water (L)  | 20.3 ± 3.4   | 19.5 (16.4–25.1)   | 21.8 ± 3.5  | 22.1 (15.8–26.5)    | 0.3819 |
| Intracellular water (L)  | 22.3 ± 5.5   | 21.1 (15.1–28.8)   | 24.1 ± 4.1  | 25.2 (19.3–30.6)    | 0.4348 |

  

| Parameter                | Participants Not Following Physical Activity Recommendations (n = 8) |                     | Participants Following Physical Activity Recommendations (n = 12) |                    | p**    |
|--------------------------|--|---------------------|---|--------------------|--------|
|                          | Mean ± SD  | Median (min–max)    | Mean ± SD   | Median (min–max)   |        |
| Body mass (kg)           | 101.5 ± 18.8   | 95.3 (81.2–138.8)   | 94.4 ± 14.9   | 91.2 (72.7–125.3)  | 0.3549 |
| BMI (kg/m <sup>2</sup> ) | 39.7 ± 7.4   | 38.8 (29.7–54.2)    | 32.6 ± 4.10   | 32.6 (25.2–39.1)   | 0.0145 |
| Waist circumference (cm) | 111.0 ± 7.85   | 109.0 (101.0–124.0) | 107.1 ± 11.6  | 103.5 (92.0–132.0) | 0.4401 |
| Hip circumference (cm)   | 122.8 ± 10.7   | 124.0 (104.0–141.0) | 110.7 ± 7.96  | 111.0 (92.0–123.0) | 0.0114 |
| WHR                      | 0.91 ± 0.04  | 0.88 (0.88–0.97)*   | 0.98 ± 0.07   | 0.98 (0.84–1.13)   | 0.0251 |
| Fat mass (kg)            | 46.2 ± 14.4  | 46.3 (25.0–71.9)    | 32.8 ± 8.56   | 3.6 (19.1–48.8)    | 0.4091 |
| Fat free mass (kg)       | 57.2 ± 10.1  | 52.0 (43.1–69.2)    | 61.6 ± 11.4   | 63.9 (48.0–76.5)*  | 0.5262 |
| Body cell mass (kg)      | 25.9 ± 4.4   | 27.0 (19.6–32.5)    | 27.7 ± 2.8  | 27.1 (24.0–33.4)   | 0.3044 |
| Total body water (L)     | 42.8 ± 6.5   | 41.6 (34.5–50.6)    | 45.9 ± 7.9  | 47.9 (35.1–56.0)   | 0.3775 |
| Extracellular water (L)  | 21.3 ± 3.2   | 21.7 (17.6–26.5)    | 21.3 ± 3.73   | 21.6 (15.8–25.8)   | 0.9789 |
| Intracellular water (L)  | 21.5 ± 4.0   | 20.1 (15.1–26.6)    | 24.7 ± 4.45   | 26.3 (19.1–30.6)*  | 0.1902 |

 \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S2.** The body mass and body composition of the female participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                | Baseline     |                     | After 3 Months of Intervention |                     | <i>p</i> * |
|--------------------------|--------------|---------------------|--------------------------------|---------------------|------------|
|                          | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)    |            |
| Body mass (kg)           | 95.6 ± 15.8  | 89.7 (84.1–122.4)   | 85.9 ± 5.5                     | 85.2 (81.2–92.4)    | 0.2873     |
| BMI (kg/m <sup>2</sup> ) | 36.9 ± 3.7   | 35.5 (32.8–40.9)    | 35.9 ± 3.9                     | 37.6 (31.5–38.8)    | 0.7378     |
| Waist circumference (cm) | 110.8 ± 7.8  | 107.0 (104.0–123.0) | 104.7 ± 6.8                    | 107.0 (97.0–110.0)  | 0.3043     |
| Hip circumference (cm)   | 121.6 ± 11.1 | 122.0 (105.0–135.0) | 120.3 ± 4.7                    | 122.0 (115.0–124.0) | 0.8604     |
| WHR                      | 0.91 ± 0.06  | 0.89 (0.87–1.02)    | 0.87 ± 0.02                    | 0.88 (0.84–0.89)    | 0.2786     |
| Fat mass (kg)            | 42.3 ± 7.7   | 39.1 (36.2–54.6)    | 37.3 ± 3.7                     | 38.1 (33.3–40.5)    | 0.3403     |
| Fat free mass (kg)       | 53.3 ± 9.5   | 48.7 (44.5–67.8)    | 47.7 ± 4.3                     | 48.4 (43.1–51.5)    | 0.3827     |
| Body cell mass (kg)      | 25.5 ± 1.9   | 26.0 (22.3–27.3)    | 23.7 ± 3.9                     | 24.0 (19.6–27.4)    | 0.3933     |
| Total body water (L)     | 39.7 ± 6.7   | 39.0 (32.6–49.6)    | 36.9 ± 2.2                     | 37.7 (34.5–38.7)    | 0.5334     |
| Extracellular water (L)  | 18.8 ± 4.7   | 18.7 (14.2–25.8)    | 18.9 ± 1.1                     | 19.4 (17.0–19.6)    | 0.9928     |
| Intracellular water (L)  | 20.8 ± 2.1   | 20.2 (18.4–23.8)    | 18.1 ± 2.6                     | 19.1 (15.1–20.1)    | 0.1520     |

\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S3.** The body mass and body composition of the female participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                | Baseline     |                      | After 3 Months of Intervention |                     | <i>p</i> ** |
|--------------------------|--------------|----------------------|--------------------------------|---------------------|-------------|
|                          | Mean ± SD    | Median (min–max)     | Mean ± SD                      | Median (min–max)    |             |
| Body mass (kg)           | 101.9 ± 21.8 | 95.6 (83.0–142.6)    | 101.8 ± 20.9                   | 98.3 (78.2–138.8)   | 0.9899      |
| BMI (kg/m <sup>2</sup> ) | 41.2 ± 7.3   | 39.2 (34.8–55.7)*    | 39.5 ± 7.5                     | 39.5 (29.8–54.2)    | 0.7209      |
| Waist circumference (cm) | 113.7 ± 7.8  | 110.0 (107.0–128.0)  | 111.3 ± 10.1                   | 109.0 (96.0–124.0)  | 0.6469      |
| Hip circumference (cm)   | 127.2 ± 9.2  | 124.0 (119.0–145.0)* | 121.0 ± 11.7                   | 123.0 (105.0–141.0) | 0.3531      |
| WHR                      | 0.89 ± 0.03  | 0.89 (0.86–0.94)     | 0.92 ± 0.05                    | 0.88 (0.87–0.99)*   | 0.4320      |
| Fat mass (kg)            | 49.4 ± 13.2  | 46.5 (38.2–73.0)     | 46.6 ± 13.5                    | 46.3 (29.3–71.9)    | 0.7207      |
| Fat free mass (kg)       | 52.6 ± 9.2   | 49.8 (43.3–69.6)     | 55.2 ± 8.9                     | 51.5 (48.0–69.2)*   | 0.6171      |
| Body cell mass (kg)      | 24.7 ± 6.6   | 23.5 (18.7–36.7)     | 26.1 ± 3.3                     | 26.2 (22.4–33.5)    | 0.6192      |
| Total body water (L)     | 40.2 ± 6.5   | 38.1 (34.6–51.0)     | 41.3 ± 6.2                     | 39.1 (35.1–50.6)    | 0.7468      |
| Extracellular water (L)  | 20.5 ± 3.4   | 21.1 (16.5–23.9)     | 20.4 ± 3.9                     | 19.8 (15.8–26.5)    | 0.9757      |
| Intracellular water (L)  | 19.7 ± 4.2   | 18.9 (15.2–27.1)     | 20.9 ± 2.5                     | 19.6 (19.3–25.2)*   | 0.3531      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S4.** The body mass and body composition of the male participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                | Baseline     |                     | After 3 Months of Intervention |                    | <i>p</i> ** |
|--------------------------|--------------|---------------------|--------------------------------|--------------------|-------------|
|                          | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)   |             |
| Body mass (kg)           | 110.1 ± 12.9 | 105.1 (95.6–129.4)  | 96.1 ± 20.7                    | 103.6 (72.7–112.0) | 0.2735      |
| BMI (kg/m <sup>2</sup> ) | 33.9 ± 4.1   | 36.8 (28.2–37.0)*   | 32.4 ± 6.2                     | 35.7 (25.2–36.3)   | 0.3711      |
| Waist circumference (cm) | 116.2 ± 10.6 | 117.0 (107.0–133.0) | 106.3 ± 12.5                   | 112.0 (92.0–115.0) | 0.2768      |
| Hip circumference (cm)   | 114.6 ± 4.4  | 113.0 (109.0–120.0) | 107.3 ± 13.4                   | 113.0 (92.0–117.0) | 0.2883      |
| WHR                      | 1.01 ± 0.07  | 0.98 (0.95–1.13)    | 0.99 ± 0.01                    | 0.99 (0.98–1.00)   | 0.6266      |
| Fat mass (kg)            | 39.2 ± 12.1  | 41.4 (20.5–53.2)    | 32.5 ± 10.5                    | 38.4 (20.3–38.7)*  | 0.8944      |
| Fat free mass (kg)       | 70.9 ± 6.4   | 74.3 (60.9–76.2)    | 63.6 ± 10.5                    | 65.2 (52.4–73.3)   | 0.2576      |
| Body cell mass (kg)      | 31.0 ± 6.9   | 30.3 (23.6–42.3)    | 29.4 ± 3.7                     | 28.8 (26.0–33.4)   | 0.7317      |
| Total body water (L)     | 52.7 ± 3.2   | 54.5 (48.7–55.7)    | 48.1 ± 8.4                     | 52.2 (38.4–53.7)   | 0.2929      |
| Extracellular water (L)  | 23.1 ± 3.4   | 24.3 (17.2–25.6)*   | 21.6 ± 4.6                     | 23.4 (16.4–25.1)   | 0.5509      |
| Intracellular water (L)  | 29.6 ± 2.0   | 30.1 (26.3–31.5)    | 26.5 ± 3.9                     | 28.6 (22.0–28.8)*  | 0.1360      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S5.** The body mass and body composition of the male participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                | Baseline    |                     | After 3 Months of Intervention |                      | <i>p</i> ** |
|--------------------------|-------------|---------------------|--------------------------------|----------------------|-------------|
|                          | Mean ± SD   | Median (min–max)    | Mean ± SD                      | Median (min–max)     |             |
| Body mass (kg)           | 95.1 ± 12.3 | 99.3 (77.0–104.6)   | 99.9 ± 13.4                    | 96.8 (88.8–125.3)    | 0.9279      |
| BMI (kg/m <sup>2</sup> ) | 32.3 ± 4.0  | 33.3 (26.6–35.9)    | 31.3 ± 3.0                     | 30.7 (27.6–35.8)     | 0.6534      |
| Waist circumference (cm) | 109.0 ± 8.0 | 112.5 (72.0–114.0)* | 108.3 ± 12.5                   | 102.0 (100.0–132.0)* | 0.8312      |
| Hip circumference (cm)   | 109.8 ± 7.3 | 112.5 (99.0–115.0)  | 109.7 ± 5.2                    | 108.0 (104.0–117.0)  | 0.9835      |
| WHR                      | 0.99 ± 0.01 | 0.99 (0.98–1.01)    | 0.99 ± 0.07                    | 0.97 (0.93–1.13)*    | 0.1658      |
| Fat mass (kg)            | 31.0 ± 6.2  | 32.6 (22.3–36.6)    | 30.1 ± 10.1                    | 28.0 (19.1–48.8)     | 0.8792      |
| Fat free mass (kg)       | 64.0 ± 6.5  | 66.2 (54.7–69.0)    | 69.8 ± 5.2                     | 69.8 (62.6–76.5)     | 0.1544      |
| Body cell mass (kg)      | 28.9 ± 5.1  | 28.6 (24.0–34.7)    | 28.7 ± 1.9                     | 29.3 (25.5–31.0)     | 0.8996      |
| Total body water (L)     | 46.9 ± 4.8  | 48.5 (40.0–50.5)    | 51.1 ± 3.8                     | 51.1 (45.8–56.0)     | 0.1579      |
| Extracellular water (L)  | 20.9 ± 1.7  | 21.5 (18.4–22.1)    | 23.4 ± 2.2                     | 23.7 (20.1–25.8)     | 0.0878      |
| Intracellular water (L)  | 26.0 ± 3.4  | 26.8 (21.6–28.9)    | 27.7 ± 1.7                     | 27.3 (25.7–30.6)     | 0.3322      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S6.** The energy and nutritional value of diet of the participants after 3 months of intervention compared for sub-groups following recommendations and not following dietary recommendations.

| Parameter                   | Participants Not Following Dietary Recommendations (n = 7) |                        | Participants Following Dietary Recommendations (n = 13) |                        | p**    |
|-----------------------------|--|------------------------|---|------------------------|--------|
|                             | Mean ± SD  | Median (min–max)       | Mean ± SD   | Median (min–max)       |        |
| Energy (kcal)               | 2004.5 ± 483.1   | 1857.7 (1583.7–2952.6) | 1468.3 ± 221.9  | 1422.7 (1137.4–1882.8) | 0.0029 |
| Protein (% of energy)       | 17.80 ± 2.85   | 17.74 (13.91–21.74)    | 20.92 ± 3.19  | 20.37 (15.90–27.36)    | 0.0446 |
| Carbohydrate (% of energy)  | 44.53 ± 4.89   | 43.14 (36.76–50.49)    | 41.92 ± 8.37  | 40.39 (26.82–54.57)    | 0.4629 |
| Fat (% of energy)           | 35.61 ± 3.83   | 35.82 (30.27–40.80)    | 36.32 ± 8.48  | 39.20 (21.03–48.09)    | 0.8367 |
| Saturated fat (% of energy) | 13.39 ± 2.06   | 13.51 (10.28–16.11)    | 12.11 ± 3.30  | 13.03 (6.45–16.43)     | 0.3646 |
| Sugars (% of energy)        | 10.45 ± 4.51   | 10.65 (4.39–17.82)     | 6.79 ± 3.90   | 5.56 (3.63–18.58)*     | 0.1891 |
| Cholesterol (mg)            | 357.9 ± 143.9  | 332.6 (176.1–628.8)    | 263.9 ± 108.1   | 237.5 (116.1–423.6)    | 0.1153 |
| Fiber (g)                   | 24.71 ± 4.24   | 25.87 (19.81–31.86)    | 21.27 ± 7.76  | 20.36 (9.98–37.45)     | 0.2944 |
| Sodium (mg)                 | 2245.1 ± 830.1   | 2061.9 (1349.6–3929.7) | 1524.2 ± 546.0  | 1457.8 (851.6–2715.1)  | 0.0304 |
| Potassium (mg)              | 3896.6 ± 487.6   | 3991.5 (3199.3–4501.8) | 3331.1 ± 773.7  | 3215.2 (1832.2–4545.8) | 0.0982 |
| Phosphorus (mg)             | 1435.3 ± 235.9   | 1314.5 (1204.9–1898.6) | 1282.0 ± 333.7  | 1229.6 (747.3–1796.6)  | 0.2972 |
| Calcium (mg)                | 688.9 ± 158.2  | 659.5 (509.0–961.4)    | 590.2 ± 196.9   | 646.2 (219.6–948.5)    | 0.2698 |
| Magnesium (mg)              | 344.4 ± 45.2   | 344.1 (291.5–429.3)    | 326.2 ± 106.0   | 318.9 (136.3–498.4)    | 0.6725 |
| Iron (mg)                   | 13.59 ± 3.51   | 13.28 (10.52–20.93)*   | 11.17 ± 2.44  | 11.08 (6.46–14.87)     | 0.1538 |
| Zinc (mg)                   | 11.84 ± 2.71   | 10.56 (9.92–17.59)*    | 10.46 ± 2.53  | 9.68 (5.78–14.73)      | 0.1538 |
| Copper (mg)                 | 1.40 ± 0.11  | 1.37 (1.29–1.58)       | 1.33 ± 0.35   | 1.34 (0.60–1.96)       | 0.6193 |
| Manganese (mg)              | 5.59 ± 0.54  | 5.59 (4.90–6.52)       | 5.02 ± 2.36   | 4.62 (1.36–9.87)       | 0.5398 |
| Iodine (µg)                 | 47.94 ± 13.81  | 44.96 (28.47–68.84)    | 43.99 ± 22.19   | 40.98 (9.64–90.05)     | 0.6759 |
| Vitamin A (µg)              | 1203.1 ± 543.9   | 1044.1 (651.9–2219.2)  | 907.7 ± 301.9   | 786.2 (468.1–1579.8)   | 0.1319 |
| Vitamin D (µg)              | 4.89 ± 4.15  | 3.64 (1.28–13.34)      | 2.90 ± 2.40   | 1.90 (0.63–7.00)*      | 0.1322 |
| Vitamin E (mg)              | 12.86 ± 4.47   | 11.86 (7.81–21.82)     | 10.54 ± 2.94  | 10.56 (6.37–15.74)     | 0.1766 |
| Vitamin C (mg)              | 103.5 ± 23.32  | 113.7 (66.87–123.3)*   | 78.58 ± 37.42   | 70.28 (24.33–144.07)   | 0.1322 |
| Vitamin B1 (mg)             | 1.34 ± 0.61  | 1.14 (0.90–2.66)*      | 1.02 ± 0.22   | 1.03 (0.55–1.31)       | 0.2048 |
| Vitamin B2 (mg)             | 1.89 ± 0.37  | 1.95 (1.24–2.37)       | 1.58 ± 0.34   | 1.61 (1.04–2.02)       | 0.0746 |
| Vitamin B6 (mg)             | 2.19 ± 0.46  | 2.37 (1.58–2.68)       | 1.78 ± 0.43   | 1.98 (0.97–2.33)       | 0.0595 |
| Vitamin B12 (µg)            | 4.25 ± 1.09  | 4.51 (2.32–5.34)       | 3.33 ± 1.15   | 3.19 (1.72–6.52)*      | 0.0572 |
| Folate (µg)                 | 260.5 ± 67.49  | 266.5 (127.7–335.8)    | 257.2 ± 97.5  | 247.9 (135.7–508.6)    | 0.9376 |
| Niacin (mg)                 | 22.05 ± 5.83   | 19.93 (16.44–33.84)    | 18.82 ± 5.44  | 17.22 (10.81–29.36)    | 0.2332 |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S7.** The energy and nutritional value of diet of the participants after 3 months of intervention compared for sub-groups following recommendations and not following physical activity recommendations.

| Parameter                   | Participants Not Following Physical Activity Recommendations (n = 8) |                        | Participants Following Physical Activity Recommendations (n = 12) |                        | p**    |
|-----------------------------|--|------------------------|---|------------------------|--------|
|                             | Mean ± SD  | Median (min–max)       | Mean ± SD   | Median (min–max)       |        |
| Energy (kcal)               | 1543.4 ± 311.4   | 1479.4 (1137.4–2167.2) | 1750.4 ± 540.7  | 1767.8 (789.6–2952.6)  | 0.3426 |
| Protein (% of energy)       | 21.02 ± 4.16   | 20.49 (15.06–27.36)    | 19.04 ± 2.61  | 19.56 (13.91–21.96)    | 0.2056 |
| Carbohydrate (% of energy)  | 43.77 ± 7.68   | 44.19 (31.69–53.01)    | 42.21 ± 7.33  | 41.54 (26.82–54.57)    | 0.6514 |
| Fat (% of energy)           | 34.82 ± 8.25   | 34.11 (21.03–48.09)    | 36.90 ± 6.44  | 39.20 (23.76–44.45)    | 0.5344 |
| Saturated fat (% of energy) | 12.02 ± 2.51   | 12.72 (8.18–14.76)     | 12.91 ± 3.25  | 14.17 (6.45–16.43)     | 0.5162 |
| Sugars (% of energy)        | 8.07 ± 4.85  | 6.10 (4.32–17.82)*     | 8.08 ± 4.27   | 7.08 (3.63–18.58)*     | 0.9078 |
| Cholesterol (mg)            | 233.8 ± 95.8   | 210.5 (116.1–349.2)    | 338.8 ± 130.6   | 352.6 (145.9–628.8)    | 0.0673 |
| Fiber (g)                   | 24.03 ± 7.88   | 23.46 (13.86–37.45)    | 21.43 ± 6.16  | 20.92 (9.98–31.86)     | 0.4198 |
| Sodium (mg)                 | 1752.9 ± 646.5   | 1858.8 (851.6–2715.1)  | 1792.3 ± 805.9  | 1703.7 (898.4–3929.7)* | 0.7871 |
| Potassium (mg)              | 3619.9 ± 765.7   | 3259.5 (2618.9–4545.8) | 3468.5 ± 729.3  | 3578.7 (1832.2–4297.1) | 0.6607 |
| Phosphorus (mg)             | 1365.1 ± 279.8   | 1383.8 (916.2–1796.6)  | 1316.1 ± 332.7  | 1274.1 (747.3–1898.6)  | 0.7358 |
| Calcium (mg)                | 674.9 ± 214.9  | 654.8 (354.9–961.4)    | 591.3 ± 165.8   | 625.1 (219.6–817.5)    | 0.3393 |
| Magnesium (mg)              | 362.1 ± 90.6   | 349.0 (242.0–498.4)    | 316.8 ± 185.1   | 320.9 (136.3–431.1)    | 0.2309 |
| Iron (mg)                   | 11.86 ± 2.08   | 10.75 (10.11–14.87)*   | 12.13 ± 3.59  | 12.09 (6.46–20.93)     | 1.0000 |
| Zinc (mg)                   | 10.99 ± 2.16   | 10.23 (8.95–14.73)*    | 10.90 ± 2.97  | 10.57 (5.78–17.59)     | 0.9692 |
| Cooper (mg)                 | 1.39 ± 0.29  | 1.34 (0.99–1.96)       | 1.33 ± 0.29   | 1.40 (0.60–1.67)       | 0.6180 |
| Manganese (mg)              | 5.83 ± 2.26  | 5.63 (2.85–9.87)       | 4.81 ± 1.63   | 5.18 (1.36–7.43)       | 0.2559 |
| Iodine (µg)                 | 46.14 ± 13.15  | 49.62 (20.58–62.39)    | 44.87 ± 23.17   | 41.87 (9.64–90.05)     | 0.8906 |
| Vitamin A (µg)              | 942.2 ± 315.1  | 986.6 (611.0–1579.8)   | 1057.0 ± 477.5  | 917.9 (468.1–2219.2)   | 0.5585 |
| Vitamin D (µg)              | 3.68 ± 2.79  | 2.67 (0.63–7.00)*      | 3.54 ± 3.51   | 2.19 (0.94–13.34)*     | 0.9078 |
| Vitamin E (mg)              | 11.28 ± 2.79   | 10.72 (7.81–15.74)     | 11.39 ± 4.19  | 10.85 (6.37–21.82)     | 0.9487 |
| Vitamin C (mg)              | 91.07 ± 38.52  | 93.69 (31.73–144.06)   | 84.80 ± 33.47   | 78.20 (24.33–134.77)   | 0.7036 |
| Vitamin B1 (mg)             | 1.01 ± 0.25  | 1.02 (0.55–1.29)       | 1.21 ± 0.49   | 1.10 (0.76–2.66)*      | 0.4178 |
| Vitamin B2 (mg)             | 1.65 ± 0.35  | 1.70 (1.66–2.01)       | 1.71 ± 0.39   | 1.65 (1.04–2.37)       | 0.7314 |
| Vitamin B6 (mg)             | 1.86 ± 0.49  | 1.85 (0.98–2.51)       | 1.97 ± 0.48   | 2.00 (1.20–2.68)       | 0.6040 |
| Vitamin B12 (µg)            | 3.80 ± 1.45  | 3.41 (2.32–6.52)       | 3.5 ± 1.02  | 3.36 (1.72–5.22)       | 0.6571 |
| Folate (µg)                 | 258.7 ± 119.08   | 239.3 (127.7–508.6)    | 258.2 ± 62.0  | 261.9 (135.7–347.7)    | 0.9905 |
| Niacin (mg)                 | 22.14 ± 5.16   | 22.68 (15.39–29.36)    | 18.49 ± 5.70  | 17.93 (10.81–33.84)*   | 0.1325 |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S8.** The energy and nutritional value of diet of the female participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                   | Baseline       |                         | After 3 Months of Intervention |                        | <i>p</i> ** |
|-----------------------------|----------------|-------------------------|--------------------------------|------------------------|-------------|
|                             | Mean ± SD      | Median (min–max)        | Mean ± SD                      | Median (min–max)       |             |
| Energy (kcal)               | 1840.1 ± 281.8 | 1725.4 (1620.1–2319.4)  | 1704.9 ± 356.6                 | 1676.7 (1299.1–2167.2) | 0.5441      |
| Protein (% of energy)       | 19.34 ± 2.48   | 18.04 (16.94–22.35)     | 18.62 ± 3.18                   | 18.84 (15.06–21.74)    | 0.7148      |
| Carbohydrate (% of energy)  | 49.32 ± 4.74   | 49.99 (43.02–55.59)     | 47.27 ± 3.99                   | 48.37 (41.85–50.49)    | 0.5138      |
| Fat (% of energy)           | 31.31 ± 5.66   | 32.28 (22.02–36.27)     | 33.38 ± 3.12                   | 32.99 (30.27–37.27)    | 0.5362      |
| Saturated fat (% of energy) | 11.87 ± 2.35   | 12.37 (8.74–14.67)      | 13.12 ± 1.41                   | 13.17 (11.37–14.76)    | 0.3843      |
| Sugars (% of energy)        | 14.49 ± 2.76   | 14.28 (10.81–18.59)     | 11.86 ± 5.07                   | 11.96 (5.69–17.82)     | 0.3509      |
| Cholesterol (mg)            | 301.3 ± 103.2  | 316.9 (198.9–438.3)     | 290.1 ± 100.7                  | 288.8 (176.1–406.7)    | 0.8749      |
| Fiber (g)                   | 22.64 ± 7.45   | 21.99 (13.21–32.36)     | 25.04 ± 5.32                   | 24.23 (19.81–31.86)    | 0.6066      |
| Sodium (mg)                 | 1841.1 ± 898.3 | 1533.6 (1264.8–3421.4)* | 1847.7 ± 434.5                 | 1855.5 (1349.6–2330.4) | 0.5403      |
| Potassium (mg)              | 3401.4 ± 624.4 | 3654.4 (2449.7–3967.7)  | 3749.1 ± 612.6                 | 3647.6 (3199.3–4501.8) | 1.0000      |
| Phosphorus (mg)             | 1401.9 ± 246.8 | 1251.5 (1185.2–1706.9)  | 1319.9 ± 101.9                 | 1310.8 (1204.9–1453.2) | 0.5569      |
| Calcium (mg)                | 715.9 ± 235.1  | 610.3 (495.4–1029.2)    | 694.2 ± 190.7                  | 653.2 (509.1–961.4)    | 0.8854      |
| Magnesium (mg)              | 333.3 ± 64.2   | 310.7 (253.7–417.2)     | 323.4 ± 30.35                  | 324.02 (291.4–353.9)   | 0.7853      |
| Iron (mg)                   | 11.90 ± 2.39   | 11.28 (9.47–15.64)      | 12.17 ± 1.66                   | 12.13 (10.52–13.89)    | 0.8580      |
| Zinc (mg)                   | 11.61 ± 2.09   | 11.10 (10.06–15.29)*    | 10.51 ± 0.45                   | 10.55 (9.92–11.00)     | 0.3913      |
| Cooper (mg)                 | 1.43 ± 0.30    | 1.42 (0.99–1.79)        | 1.36 ± 0.07                    | 1.34 (1.31–1.47)       | 0.6931      |
| Manganese (mg)              | 6.82 ± 2.42    | 6.15 (4.72–10.99)       | 5.37 ± 0.34                    | 5.46 (4.90–5.67)       | 0.2799      |
| Iodine (µg)                 | 29.28 ± 8.19   | 28.48 (21.05–41.40)     | 44.71 ± 14.51                  | 43.99 (28.47–62.39)    | 0.0821      |
| Vitamin A (µg)              | 890.8 ± 305.0  | 1039.7 (471.8–1206.4)   | 1045.8 ± 338.5                 | 1026.5 (651.8–1478.5)  | 0.4932      |
| Vitamin D (µg)              | 3.49 ± 4.13    | 1.94 (0.92–10.81)*      | 3.60 ± 2.41                    | 3.10 (1.28–6.92)       | 0.5403      |
| Vitamin E (mg)              | 9.21 ± 1.95    | 9.43 (6.78–11.56)       | 11.42 ± 2.91                   | 11.49 (7.81–14.87)     | 0.2146      |
| Vitamin C (mg)              | 80.55 ± 15.53  | 89.6 (56.46–93.07)      | 106.1 ± 22.22                  | 113.9 (73.49–123.3)    | 0.0806      |
| Vitamin B1 (mg)             | 1.06 ± 0.09    | 1.01 (0.98–1.20)        | 1.03 ± 0.13                    | 1.04 (0.90–1.15)       | 0.6811      |
| Vitamin B2 (mg)             | 1.76 ± 0.22    | 1.82 (1.51–2.08)        | 1.78 ± 0.36                    | 1.93 (1.24–2.01)*      | 0.7133      |
| Vitamin B6 (mg)             | 1.73 ± 0.59    | 1.66 (1.16–2.68)        | 1.92 ± 0.42                    | 1.80 (1.58–2.51)       | 0.6026      |
| Vitamin B12 (µg)            | 4.00 ± 2.44    | 3.18 (2.50–8.34)*       | 3.76 ± 1.24                    | 3.69 (3.32–5.34)       | 0.7133      |
| Folate (µg)                 | 216.5 ± 45.35  | 223.8 (156.7–280.7)     | 239.1 ± 81.2                   | 261.2 (127.7–306.4)    | 0.6113      |
| Niacin (mg)                 | 18.95 ± 3.83   | 20.89 (13.03–22.61)     | 19.97 ± 3.69                   | 19.18 (16.44–25.06)    | 0.7003      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S9.** The energy and nutritional value of diet of the female participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                   | Baseline        |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|-----------------------------|-----------------|------------------------|--------------------------------|------------------------|-------------|
|                             | Mean ± SD       | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Energy (kcal)               | 1502.2 ± 470.7  | 1490.3 (789.6–2232.6)  | 1338.3 ± 131.2                 | 1336.3 (1137.4–1514.7) | 0.3937      |
| Protein (% of energy)       | 20.76 ± 4.75    | 21.14 (13.81–26.90)    | 21.97 ± 3.75                   | 21.96 (16.39–27.36)    | 0.6200      |
| Carbohydrate (% of energy)  | 39.91 ± 6.01    | 39.02 (32.81–50.23)    | 39.40 ± 9.27                   | 39.13 (26.83–53.01)    | 0.9103      |
| Fat (% of energy)           | 39.29 ± 6.34    | 39.67 (32.07–47.89)    | 37.09 ± 10.27                  | 42.93 (21.03–48.09)    | 0.6593      |
| Saturated fat (% of energy) | 13.82 ± 1.66    | 14.29 (10.66–15.18)    | 11.76 ± 2.65                   | 12.40 (8.39–14.93)     | 0.1288      |
| Sugars (% of energy)        | 6.95 ± 3.74     | 7.14 (1.71–12.52)      | 5.35 ± 1.44                    | 4.96 (3.64–7.62)       | 0.3142      |
| Cholesterol (mg)            | 318.0 ± 95.5    | 315.5 (192.5–424.2)    | 256.6 ± 113.5                  | 226.2 (143.9–423.6)    | 0.3185      |
| Fiber (g)                   | 19.33 ± 7.11    | 21.56 (9.04–27.72)     | 21.27 ± 9.89                   | 18.51 (9.98–37.45)     | 0.6972      |
| Sodium (mg)                 | 1882.9 ± 574.9  | 1829.5 (1305.7–2929.1) | 1485.1 ± 695.3                 | 1299.9 (851.6–2715.1)  | 0.2900      |
| Potassium (mg)              | 3079.9 ± 1135.4 | 3206.7 (1491.9–4322.4) | 3399.6 ± 1043.6                | 3215.2 (1832.2–4545.8) | 0.6073      |
| Phosphorus (mg)             | 1204.6 ± 367.9  | 1200.4 (663.1–1749.7)  | 1211.2 ± 352.9                 | 1135.4 (747.3–1796.6)  | 0.9746      |
| Calcium (mg)                | 670.8 ± 322.5   | 673.3 (240.6–1079.7)   | 576.6 ± 251.8                  | 646.2 (219.6–948.5)    | 0.5663      |
| Magnesium (mg)              | 283.6 ± 106.6   | 286.5 (130.6–425.5)    | 319.6 ± 118.8                  | 309.2 (136.3–498.4)    | 0.5805      |
| Iron (mg)                   | 10.47 ± 2.66    | 10.96 (7.00–14.48)     | 11.24 ± 2.82                   | 11.08 (6.46–14.87)     | 0.6254      |
| Zinc (mg)                   | 9.09 ± 3.02     | 8.93 (5.41–13.40)      | 10.18 ± 3.16                   | 9.57 (5.78–14.73)      | 0.5405      |
| Copper (mg)                 | 1.21 ± 0.42     | 1.35 (0.57–1.62)       | 1.33 ± 0.46                    | 1.32 (0.60–1.96)       | 0.6298      |
| Manganese (mg)              | 4.21 ± 1.80     | 4.59 (1.10–6.45)       | 4.55 ± 2.78                    | 3.58 (1.36–9.87)       | 0.8022      |
| Iodine (µg)                 | 35.29 ± 15.93   | 33.93 (11.30–57.21)    | 51.14 ± 28.74                  | 51.67 (9.64–90.05)     | 0.2562      |
| Vitamin A (µg)              | 868.8 ± 401.2   | 746.9 (433.6–1471.5)   | 944.7 ± 359.5                  | 765.5 (611.0–1579.8)   | 0.7258      |
| Vitamin D (µg)              | 5.53 ± 6.79     | 2.28 (1.87–19.05)*     | 2.53 ± 2.15                    | 1.90 (0.63–6.75)       | 0.2839      |
| Vitamin E (mg)              | 9.42 ± 3.54     | 10.47 (2.50–12.36)*    | 10.43 ± 1.87                   | 10.56 (8.43–14.15)     | 0.0714      |
| Vitamin C (mg)              | 90.42 ± 78.8    | 74.84 (13.52–223.9)    | 77.57 ± 45.53                  | 64.78 (24.33–144.07)   | 0.7205      |
| Vitamin B1 (mg)             | 0.99 ± 0.41     | 0.92 (0.43–1.49)       | 0.95 ± 0.24                    | 1.03 (0.55–1.28)       | 0.8147      |
| Vitamin B2 (mg)             | 1.65 ± 0.53     | 1.65 (0.98–2.43)       | 1.53 ± 0.34                    | 1.51 (1.07–1.98)       | 0.6366      |
| Vitamin B6 (mg)             | 1.57 ± 0.49     | 1.62 (1.04–2.08)       | 1.60 ± 0.47                    | 1.67 (0.97–2.10)       | 0.9049      |
| Vitamin B12 (µg)            | 5.25 ± 4.68     | 3.73 (1.75–14.62)*     | 3.39 ± 1.43                    | 3.06 (2.29–6.52)*      | 0.2246      |
| Folate (µg)                 | 230.7 ± 107.9   | 238.0 (67.3–360.7)     | 262.2 ± 127.2                  | 233. (135.7–508.6)     | 0.6427      |
| Niacin (mg)                 | 16.11 ± 2.91    | 16.68 (12.10–19.37)    | 19.82 ± 7.19                   | 17.00 (10.81–29.36)    | 0.2639      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S10.** The energy and nutritional value of diet of the male participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                   | Baseline        |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|-----------------------------|-----------------|------------------------|--------------------------------|------------------------|-------------|
|                             | Mean ± SD       | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Energy (kcal)               | 2815.8 ± 470.5  | 2647.9 (2359.5–3591.5) | 2414.9 ± 484.8                 | 2281.5 (2010.6–2952.6) | 0.2921      |
| Protein (% of energy)       | 16.61 ± 2.02    | 15.81 (14.62–19.09)    | 16.71 ± 2.45                   | 17.74 (13.91–18.49)    | 0.9519      |
| Carbohydrate (% of energy)  | 41.64 ± 4.72    | 39.06 (37.92–49.04)    | 40.86 ± 3.56                   | 42.69 (36.75–43.14)    | 0.8152      |
| Fat (% of energy)           | 40.06 ± 5.40    | 40.08 (31.82–45.79)    | 38.58 ± 2.53                   | 39.09 (35.82–40.80)    | 0.6775      |
| Saturated fat (% of energy) | 14.69 ± 3.79    | 14.32 (10.43–20.14)    | 13.75 ± 3.07                   | 14.87 (10.28–16.11)    | 0.7296      |
| Sugars (% of energy)        | 11.47 ± 5.73    | 13.33 (3.82–18.79)     | 8.58 ± 3.65                    | 10.21 (4.39–11.13)     | 0.4701      |
| Cholesterol (mg)            | 558.7 ± 155.9   | 553.7 (365.7–799.1)    | 448.4 ± 159.5                  | 390.3 (325.9–628.8)    | 0.3734      |
| Fiber (g)                   | 21.43 ± 9.60    | 22.77 (10.48–34.43)    | 24.27 ± 3.32                   | 25.86 (20.45–26.49)    | 0.6472      |
| Sodium (mg)                 | 3515.7 ± 1004.5 | 3230.5 (2578.9–4956.0) | 2774.9 ± 1023.3                | 2414.6 (1980.6–3929.7) | 0.3544      |
| Potassium (mg)              | 3932.3 ± 671.2  | 4062.0 (3013.5–4654.6) | 4093.3 ± 220.9                 | 4124.2 (3858.6–4297.1) | 0.7087      |
| Phosphorus (mg)             | 1666.6 ± 285.6  | 1518.4 (1363.6–2029.3) | 1589.2 ± 298.8                 | 1566.5 (1302.3–1898.6) | 0.7272      |
| Calcium (mg)                | 687.1 ± 404.5   | 528.2 (444.0–1407.2)*  | 681.7 ± 142.6                  | 694.4 (533.1–817.5)    | 0.3711      |
| Magnesium (mg)              | 357.5 ± 56.03   | 343.1 (288.8–441.2)    | 372.4 ± 51.8                   | 359.7 (328.1–429.3)    | 0.7228      |
| Iron (mg)                   | 15.36 ± 2.98    | 15.16 (10.96–18.49)    | 15.49 ± 4.83                   | 13.86 (11.69–20.93)    | 0.9616      |
| Zinc (mg)                   | 14.75 ± 2.97    | 14.48 (10.19–17.71)    | 13.61 ± 3.68                   | 12.92 (10.33–17.59)    | 0.6459      |
| Cooper (mg)                 | 1.45 ± 0.28     | 1.42 (1.11–1.89)       | 1.46 ± 0.15                    | 1.49 (1.29–1.58)       | 0.9774      |
| Manganese (mg)              | 6.63 ± 3.08     | 5.88 (3.81–11.42)      | 5.87 ± 0.70                    | 5.97 (5.13–6.52)       | 0.6988      |
| Iodine (µg)                 | 44.32 ± 15.52   | 38.95 (25.62–66.31)    | 52.24 ± 14.41                  | 44.96 (42.92–68.84)    | 0.5013      |
| Vitamin A (µg)              | 928.5 ± 436.2   | 1050.5 (365.6–1428.1)  | 1412.8 ± 774.9                 | 1345.3 (673.8–2219.2)  | 0.2903      |
| Vitamin D (µg)              | 8.19 ± 4.16     | 8.08 (3.78–13.86)      | 6.61 ± 5.93                    | 4.34 (2.15–13.34)      | 0.6689      |
| Vitamin E (mg)              | 11.89 ± 0.89    | 11.77 (10.91–13.07)    | 14.79 ± 6.12                   | 12.86 (10.68–21.82)    | 0.3147      |
| Vitamin C (mg)              | 59.58 ± 29.07   | 59.68 (25.25–99.23)    | 99.99 ± 29.29                  | 110.65 (66.87–122.48)  | 0.1063      |
| Vitamin B1 (mg)             | 1.67 ± 0.63     | 1.54 (0.89–2.57)       | 1.75 ± 0.81                    | 1.47 (1.12–2.66)       | 0.8834      |
| Vitamin B2 (mg)             | 2.02 ± 0.38     | 1.83 (1.65–2.56)       | 2.03 ± 0.40                    | 2.14 (1.59–2.37)       | 0.9635      |
| Vitamin B6 (mg)             | 2.41 ± 0.42     | 2.46 (1.91–2.95)       | 2.56 ± 0.16                    | 2.63 (2.37–2.68)       | 0.5764      |
| Vitamin B12 (µg)            | 8.01 ± 2.42     | 8.64 (3.92–10.27)      | 4.91 ± 0.37                    | 4.98 (4.53–5.22)       | 0.0762      |
| Folate (µg)                 | 257.4 ± 54.46   | 257.8 (177.5–325.6)    | 289.1 ± 40.44                  | 266.5 (265.1–335.8)*   | 0.3711      |
| Niacin (mg)                 | 28.25 ± 7.57    | 26.47 (21.59–39.94)    | 24.83 ± 7.84                   | 21.07 (19.57–33.84)    | 0.5635      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S11.** The energy and nutritional value of diet of the male participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                   | Baseline       |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|-----------------------------|----------------|------------------------|--------------------------------|------------------------|-------------|
|                             | Mean ± SD      | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Energy (kcal)               | 1916.3 ± 204.1 | 1922.7 (1712.8–2106.7) | 1620.0 ± 215.0                 | 1561.9 (1416.8–1882.0) | 0.0613      |
| Protein (% of energy)       | 16.23 ± 1.96   | 15.79 (14.62–18.71)    | 19.69 ± 2.05                   | 20.00 (15.90–21.68)    | 0.0284      |
| Carbohydrate (% of energy)  | 51.46 ± 2.91   | 50.78 (48.71–55.58)    | 44.86 ± 6.77                   | 43.46 (38.17–54.57)    | 0.1075      |
| Fat (% of energy)           | 32.29 ± 1.97   | 32.42 (29.77–34.57)    | 35.41 ± 6.66                   | 36.50 (23.76–41.57)    | 0.3970      |
| Saturated fat (% of energy) | 11.88 ± 1.61   | 12.19 (9.79–13.36)     | 12.51 ± 4.17                   | 14.17 (6.745–16.43)    | 0.7851      |
| Sugars (% of energy)        | 9.23 ± 4.82    | 9.37 (4.16–14.02)      | 8.47 ± 5.27                    | 6.52 (4.68–18.58)*     | 0.8226      |
| Cholesterol (mg)            | 249.2 ± 148.3  | 231.8 (114.0–419.3)    | 272.4 ± 111.5                  | 284.9 (116.1–393.4)    | 0.7834      |
| Fiber (g)                   | 19.51 ± 4.84   | 19.64 (13.45–25.29)    | 19.51 ± 4.84                   | 19.64 (13.45–25.29)    | 0.6070      |
| Sodium (mg)                 | 1921.8 ± 381.2 | 1924.2 (1562.6–2276.2) | 1569.9 ± 361.5                 | 1608.1 (996.8–1999.9)  | 0.1777      |
| Potassium (mg)              | 3065.5 ± 927.7 | 3068.6 (2253.3–927.7)* | 3251.2 ± 339.5                 | 3268.5 (2732.93583.9)  | 1.0000      |
| Phosphorus (mg)             | 1214.6 ± 187.5 | 1223.6 (976.3–1434.7)  | 1364.7 ± 320.2                 | 410.3 (874.4–1705.5)   | 0.4271      |
| Calcium (mg)                | 543.0 ± 119.1  | 495.2 (463.7–718.0)    | 605.9 ± 127.9                  | 626.9 (386.0–748.8)    | 0.4567      |
| Magnesium (mg)              | 270.6 ± 70.3   | 262.5 (361.2–631.2)    | 333.8 ± 99.6                   | 327.7 (218.5–462.7)    | 0.3069      |
| Iron (mg)                   | 10.66 ± 1.14   | 10.78 (9.22–11.86)     | 11.10 ± 2.19                   | 11.30 (8.38–13.38)     | 0.7424      |
| Zinc (mg)                   | 9.99 ± 1.98    | 9.48 (8.19–12.80)      | 10.78 ± 1.78                   | 10.26 (8.75–13.39)     | 0.5259      |
| Cooper (mg)                 | 1.15 ± 0.27    | 1.11 (0.90–1.47)       | 1.33 ± 0.22                    | 1.41 (0.97–1.55)       | 0.2681      |
| Manganese (mg)              | 4.72 ± 1.36    | 4.18 (3.78–6.74)       | 5.56 ± 1.86                    | 5.38 (3.45–7.99)       | 0.4624      |
| Iodine (µg)                 | 27.79 ± 10.18  | 27.75 (17.68–37.99)    | 35.66 ± 6.04                   | 36.04 (28.28–42.75)    | 0.1592      |
| Vitamin A (µg)              | 811.4 ± 308.9  | 809.7 (543.5–1082.8)*  | 864.5 ± 243.7                  | 896.8 (468.1–1122.6)   | 1.0000      |
| Vitamin D (µg)              | 2.34 ± 0.65    | 2.25 (1.72–3.14)       | 3.33 ± 2.81                    | 1.88 (1.15–7.00)*      | 0.9151      |
| Vitamin E (mg)              | 11.44 ± 2.06   | 10.82 (9.76–14.34)     | 10.66 ± 4.07                   | 10.17 (6.37–15.74)     | 0.7367      |
| Vitamin C (mg)              | 51.72 ± 24.23  | 50.24 (28.03–78.37)    | 79.76 ± 29.51                  | 71.98 (49.4–134.77)    | 0.1548      |
| Vitamin B1 (mg)             | 1.14 ± 0.43    | 0.97 (0.85–1.77)       | 1.10 ± 0.18                    | 1.08 (0.86–1.31)       | 0.8440      |
| Vitamin B2 (mg)             | 1.42 ± 0.51    | 1.42 (0.88–1.98)       | 1.63 ± 0.36                    | 1.65 (1.04–2.02)       | 0.4803      |
| Vitamin B6 (mg)             | 1.62 ± 0.56    | 1.65 (1.04–2.13)       | 1.98 ± 0.29                    | 2.05 (1.61–2.33)       | 0.2061      |
| Vitamin B12 (µg)            | 2.39 ± 1.17    | 2.16 (1.34–3.91)       | 3.26 ± 0.83                    | 3.35 (1.72–3.99)       | 0.2071      |
| Folate (µg)                 | 207.1 ± 74.1   | 212.0 (114.2–290.1)    | 251.4 ± 57.8                   | 249.5 (166.9–347.7)    | 0.3173      |
| Niacin (mg)                 | 17.75 ± 3.44   | 18.64 (13.02–20.69)    | 17.66 ± 2.47                   | 17.93 (14.32–20.29)    | 0.9628      |

\* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S12.** The basic physical activity parameters of the participants after 3 months of intervention compared for sub-groups following recommendations and not following dietary recommendations.

| Parameter                        | Participants Not Following Dietary Recommendations (n = 7) |                        | Participants Following Dietary Recommendations (n = 13) |                        | p**    |
|----------------------------------|--|------------------------|---|------------------------|--------|
|                                  | Mean ± SD  | Median (min–max)       | Mean ± SD   | Median (min–max)       |        |
| Total energy expenditure (kcal)  | 1445.7 ± 300.6   | 1308.5 (1155.7–1847.0) | 1528.5 ± 269.3  | 1524.2 (1090.0–1955.5) | 0.5619 |
| Physical activity duration (min) | 44.2 ± 19.1  | 41.3 (23.7–70.7)       | 44.3 ± 29.4   | 37.7 (10.7–122.7)*     | 0.8149 |
| Lying down duration (min)        | 248.4 ± 52.7   | 241.0 (201.3–345.0)    | 219.9 ± 83.2  | 206.3 (82.3–362.0)     | 0.4583 |
| Active energy expenditure (kcal) | 274.7 ± 151.6  | 227.8 (125.3–474.3)    | 286.8 ± 164.2   | 256.8 (62.3–703.0)     | 0.8822 |
| Number of Steps                  | 6253 ± 1557  | 6133 (4229–8326)       | 5107 ± 2411   | 5085 (2271–10964)      | 0.3089 |
| Sleep duration (min)             | 192.1 ± 43.2   | 179.2 (152.7–255.0)    | 172.6 ± 72.6  | 181.0 (55.0–295.0)     | 0.5579 |
| Average METs                     | 1.31 ± 0.15  | 1.35 (1.03–1.43)       | 1.24 ± 0.26   | 1.22 (0.93–1.87)       | 0.5945 |

MET – metabolic equivalent of task; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S13.** The basic physical activity parameters of the participants after 3 months of intervention compared for sub-groups following recommendations and not following physical activity recommendations.

| Parameter                        | Participants Not Following Physical Activity Recommendations (n = 8) |                        | Participants Following Physical Activity Recommendations (n = 12) |                        | p**    |
|----------------------------------|--|------------------------|---|------------------------|--------|
|                                  | Mean ± SD  | Median (min–max)       | Mean ± SD   | Median (min–max)       |        |
| Total energy expenditure (kcal)  | 1314 ± 204.9   | 1273.0 (1090.0–1671.3) | 1591.8 ± 257.4  | 1547.7 (1239.5–1950.5) | 0.0264 |
| Physical activity duration (min) | 22.8 ± 6.13  | 24.0 (10.7–29.7)       | 55.2 ± 24.9   | 52.7 (30.7–122.7)*     | 0.0004 |
| Lying down duration (min)        | 252.4 ± 44.1   | 263.3 (200.0–323.3)    | 218.8 ± 84.0  | 207.0 (82.3–362.0)     | 0.3431 |
| Active energy expenditure (kcal) | 151.1 ± 58.8   | 145.7 (62.3–259.3)     | 348.6 ± 146.2   | 324.3 (181.0–703.0)    | 0.0035 |
| Number of Steps                  | 3972 ± 1097  | 4017 (2271–5541)       | 6197 ± 2267   | 6068 (2356–10964)      | 0.0273 |
| Sleep duration (min)             | 200.3 ± 54.7   | 204.0 (122.3–295.0)    | 170.6 ± 66.8  | 165.5 (55.0–282.7)     | 0.3338 |
| Average METs                     | 1.06 ± 0.11  | 1.03 (0.93–1.23)       | 1.37 ± 0.19   | 1.35 (1.10–18.7)*      | 0.0013 |

MET – metabolic equivalent of task; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S14.** The basic physical activity parameters of the female participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                        | Baseline       |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|----------------------------------|----------------|------------------------|--------------------------------|------------------------|-------------|
|                                  | Mean ± SD      | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Total energy expenditure (kcal)  | 1329.5 ± 208.9 | 1238.0 (1110.7–1601.0) | 1257.6 ± 95.1                  | 1273.0 (1155.7–1344.0) | 0.6022      |
| Physical activity duration (min) | 34.5 ± 20.3    | 28.0 (16.3–69.0)       | 28.3 ± 5.7                     | 26.7 (23.7–34.7)       | 0.6367      |
| Lying down duration (min)        | 207.4 ± 32.1   | 194.3 (184.0–263.7)*   | 230.8 ± 26.7                   | 230.3 (204.3–257.7)    | 0.2330      |
| Active energy expenditure (kcal) | 211.1 ± 120.8  | 160.7 (93.3–404.3)     | 155.8 ± 36.6                   | 145.7 (125.3–196.3)    | 0.4812      |
| Number of Steps                  | 5226 ± 2216    | 4558 (3362–8948)       | 5203 ± 1082                    | 5012 (4229–6368)       | 0.9872      |
| Sleep duration (min)             | 171.2 ± 38.2   | 168.0 (118.7–225.0)    | 193.7 ± 39.1                   | 197.7 (152.7–230.7)    | 0.4552      |
| Average METs                     | 1.15 ± 0.17    | 1.10 (1.00–1.43)       | 1.20 ± 0.15                    | 1.23 (1.03–1.33)       | 0.7083      |

MET—metabolic equivalent of task; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S15.** The basic physical activity parameters of the female participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                        | Baseline       |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|----------------------------------|----------------|------------------------|--------------------------------|------------------------|-------------|
|                                  | Mean ± SD      | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Total energy expenditure (kcal)  | 1264.2 ± 145.5 | 1255.0 (1066.0–1474.0) | 1463.8 ± 302.1                 | 1507.0 (1090.0–1955.5) | 0.1691      |
| Physical activity duration (min) | 22.0 ± 11.9    | 17.3 (10.7–41.)        | 44.3 ± 38.4                    | 29.7 (10.7–122.7)      | 0.2017      |
| Lying down duration (min)        | 232.2 ± 73.1   | 239.2 (112.7–334.7)    | 238.7 ± 97.8                   | 263.3 (82.3–362.0)     | 0.8969      |
| Active energy expenditure (kcal) | 141.9 ± 71.3   | 125.8 (59.7–258.3)     | 285.5 ± 213.7                  | 254.3 (62.3–703.0)     | 0.1460      |
| Number of Steps                  | 4077 ± 1453    | 3374 (2945–6242)*      | 5586 ± 2875                    | 5541 (2271–10964)      | 0.3531      |
| Sleep duration (min)             | 186.1 ± 70.9   | 193.3 (89.3–295.3)     | 183.2 ± 89.1                   | 204.0 (55.0–295.0)     | 0.9505      |
| Average METs                     | 1.01 ± 0.14    | 0.98 (0.87–1.23)       | 1.20 ± 0.33                    | 1.07 (0.93–1.87)       | 0.2234      |

MET—metabolic equivalent of task; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S16.** The basic physical activity parameters of the male participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                        | Baseline       |                        | After 3 Months of Intervention |                        | <i>p</i> ** |
|----------------------------------|----------------|------------------------|--------------------------------|------------------------|-------------|
|                                  | Mean ± SD      | Median (min–max)       | Mean ± SD                      | Median (min–max)       |             |
| Total energy expenditure (kcal)  | 1760.3 ± 550.9 | 1651.3 (1266.3–2704.0) | 1633.9 ± 332.6                 | 1804.0 (1250.7–1847.0) | 0.7356      |
| Physical activity duration (min) | 73.7 ± 98.0    | 38.7 (18.0–247.7)*     | 60.1 ± 11.2                    | 62.3 (48.0–70.0)       | 0.2330      |
| Lying down duration (min)        | 207.3 ± 43.4   | 222.7 (154.3–248.0)    | 266.0 ± 72.9                   | 251.7 (201.3–345.0)    | 0.1942      |
| Active energy expenditure (kcal) | 510.3 ± 675.4  | 281.3 (113.0–1705.7)*  | 393.6 ± 117.0                  | 447.0 (259.3–474.3)    | 0.5509      |
| Number of Steps                  | 4370 ± 2355    | 3345 (2351–8065)       | 7303 ± 1258                    | 7687 (5897–8326)       | 0.0985      |
| Sleep duration (min)             | 163.9 ± 40.0   | 159.3 (112.0–224.0)    | 190.4 ± 55.9                   | 160.7 (156.7–255.0)    | 0.4598      |
| Average METs                     | 1.41 ± 0.55    | 1.20 (1.00–2.34)*      | 1.41 ± 0.04                    | 1.43 (1.37–1.43)*      | 0.2330      |

MET—metabolic equivalent of task; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S17.** The basic physical activity parameters of the male participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                        | Baseline       |                        | After 3 Months of Intervention |                        | <i>p</i> * |
|----------------------------------|----------------|------------------------|--------------------------------|------------------------|------------|
|                                  | Mean ± SD      | Median (min–max)       | Mean ± SD                      | Median (min–max)       |            |
| Total energy expenditure (kcal)  | 1440.1 ± 129.9 | 1410.3 (1316.7–1623.0) | 1619.0 ± 212.1                 | 1530.0 (1389.0–1931.5) | 0.1852     |
| Physical activity duration (min) | 33.2 ± 18.5    | 34.0 (10.7–54.0)       | 44.3 ± 12.7                    | 39.0 (30.7–58.3)       | 0.3164     |
| Lying down duration (min)        | 216.6 ± 33.2   | 227.5 (168.0–243.3)    | 193.6 ± 56.6                   | 190.7 (110.3–267.3)    | 0.4981     |
| Active energy expenditure (kcal) | 215.8 ± 135.3  | 220.3 (58.0–364.3)     | 288.5 ± 75.1                   | 293.3 (181.0–360.7)    | 0.3373     |
| Number of Steps                  | 4622 ± 1892    | 4792 (2380–6526)       | 4437 ± 1622                    | 463 (2356–6239)        | 0.8788     |
| Sleep duration (min)             | 175.2 ± 29.3   | 175.3 (148.7–201.3)    | 157.8 ± 46.1                   | 170.3 (81.3–194.0)     | 0.5358     |
| Average METs                     | 1.30 ± 0.18    | 1.28 (1.10–1.53)       | 1.30 ± 0.13                    | 1.33 (1.10–1.47)       | 1.0000     |

MET—metabolic equivalent of task; \* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S18.** The biochemical parameters of the participants after 3 months of intervention compared for sub-groups following recommendations and not following recommendations.

| Parameter                 | Participants Not Following Dietary Recommendations (n = 7)         |                     | Participants Following Dietary Recommendations (n = 13)         |                      | p**    |
|---------------------------|--|---------------------|---|----------------------|--------|
|                           | Mean ± SD  | Median (min–max)    | Mean ± SD   | Median (min–max)     |        |
| Triglycerides (mg/dL)     | 100.3 ± 35.9   | 77.3 (66.31–140.6)* | 115.7 ± 38.3  | 133.13 (64.0–166.9)* | 0.3311 |
| Total cholesterol (mg/dL) | 153.1 ± 30.5   | 137.8 (123.7–205.8) | 141.5 ± 44.9  | 133.2 (91.2–234.6)   | 0.5548 |
| HDL-C (mg/dL)             | 28.7 ± 5.7   | 29.32 (22.23–37.8)  | 30.36 ± 8.65  | 27.8 (18.1–50.2)     | 0.6516 |
| LDL-C (mg/dL)             | 104.4 ± 31.5   | 96.7 (70.2–159.4)   | 88.0 ± 39.9   | 79.4 (51.3–179.7)*   | 0.2204 |
| ALT (U/L)                 | 12.56 ± 4.35   | 13.33 (7.33–17.61)  | 13.28 ± 8.24  | 12.13 (1.75–34.48)*  | 1.0000 |
| GGT (U/L)                 | 13.23 ± 7.42   | 11.23 (11.55–7.00)  | 12.51 ± 3.82  | 11.58 (7.75–22.50)*  | 0.8327 |
|                           | Participants Not Following Physical Activity Recommendations (n=8) |                     | Participants Following Physical Activity Recommendations (N=12) |                      |        |
| Triglycerides (mg/dL)     | 98.7 ± 35.3  | 74.3 (66.3–140.7)*  | 116.6 ± 38.2  | 136.6 (64.0–166.9)*  | 0.1902 |
| Total cholesterol (mg/dL) | 116.7 ± 19.3   | 123.8 (91.2–137.8)  | 162.8 ± 39.1  | 164.9 (107.6–234.6)  | 0.0100 |
| HDL-C (mg/dL)             | 27.6 ± 3.1   | 27.5 (22.8–32.7)    | 31.0 ± 9.2  | 31.1 (18.1–50.2)     | 0.3519 |
| LDL-C (mg/dL)             | 69.4 ± 14.3  | 70.2 (51.3–87.7)    | 108.4 ± 38.9  | 103.5 (54.8–179.7)   | 0.0217 |
| ALT (U/L)                 | 12.4 ± 3.1   | 13.2 (8.0–17.6)     | 13.4 ± 8.6  | 11.5 (1.75–34.5)     | 0.7781 |
| GGT (U/L)                 | 11.6 ± 3.3   | 11.3 (7.3–16.9)     | 13.5 ± 6.1  | 11.6 (7.00–27.9)*    | 0.7037 |

HDL-C—high-density lipoprotein cholesterol; LDL-C—low-density lipoprotein cholesterol; ALT—alanine aminotransferase; GGT—gamma-glutamyltransferase; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S19.** The biochemical parameters of the female participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                 | Baseline     |                     | After 3 Months of Intervention |                     | <i>p</i> ** |
|---------------------------|--------------|---------------------|--------------------------------|---------------------|-------------|
|                           | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)    |             |
| Triglycerides (mg/dL)     | 135.4 ± 14.6 | 137.4 (116.9–155.1) | 105.8 ± 40.2                   | 108.1 (66.3–140.7)  | 0.1658      |
| Total cholesterol (mg/dL) | 146.3 ± 23.3 | 143.7 (123.2–180.0) | 130.8 ± 6.3                    | 130.9 (123.7–137.8) | 0.2419      |
| HDL-C (mg/dL)             | 31.0 ± 6.9   | 28.9 (24.0–41.9)    | 26.8 ± 5.08                    | 26.1 (22.2–32.7)    | 0.3401      |
| LDL-C (mg/dL)             | 88.2 ± 23.9  | 87.3 (56.9–115.7)   | 82.9 ± 11.7                    | 82.3 (70.2–96.7)    | 0.6986      |
| ALT (U/L)                 | 12.4 ± 5.4   | 10.9 (7.4–21.4)     | 11.6 ± 4.83                    | 10.7 (7.33–17.6)    | 0.8242      |
| GGT (U/L)                 | 15.9 ± 8.4   | 12.5 (10.8–30.7)*   | 8.99 ± 2.90                    | 7.86 (7.00–13.2)    | 0.1113      |

HDL-C—high-density lipoprotein cholesterol; LDL-C—low-density lipoprotein cholesterol; ALT—alanine aminotransferase; GGT—gamma-glutamyltransferase; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S20.** The biochemical parameters of the female participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                 | Baseline     |                     | After 3 Months of Intervention |                    | <i>p</i> * |
|---------------------------|--------------|---------------------|--------------------------------|--------------------|------------|
|                           | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)   |            |
| Triglycerides (mg/dL)     | 135.8 ± 9.5  | 136.3 (124.6–147.5) | 104.7 ± 40.1                   | 99.3 (64.0–148.7)  | 0.0939     |
| Total cholesterol (mg/dL) | 142.1 ± 32.2 | 145.7 (105.7–175.2) | 129.9 ± 39.1                   | 121.8 (91.2–187.8) | 0.5678     |
| HDL-C (mg/dL)             | 34.0 ± 9.9   | 35.9 (20.7–44.9)    | 27.6 ± 6.71                    | 27.4 (18.1–39.1)   | 0.2231     |
| LDL-C (mg/dL)             | 80.9 ± 33.5  | 78.1 (40.2–118.6)   | 81.3 ± 29.5                    | 79.8 (51.3–130.8)  | 0.9829     |
| ALT (U/L)                 | 11.7 ± 4.6   | 11.1 (5.9–19.1)     | 12.2 ± 3.9                     | 12.3 (7.4–18.7)    | 0.8308     |
| GGT (U/L)                 | 17.0 ± 4.6   | 17.9 (9.2–22.1)     | 10.8 ± 1.9                     | 10.9 (7.7–13.5)    | 0.0112     |

HDL-C—high-density lipoprotein cholesterol; LDL-C—low-density lipoprotein cholesterol; ALT—alanine aminotransferase; GGT—gamma-glutamyltransferase; \* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S21.** The biochemical parameters of the male participants not following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                 | Baseline     |                     | After 3 Months of Intervention |                     | <i>p</i> ** |
|---------------------------|--------------|---------------------|--------------------------------|---------------------|-------------|
|                           | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)    |             |
| Triglycerides (mg/dL)     | 141.0 ± 46.1 | 143.4 (124.9–156.7) | 92.9 ± 36.0                    | 77.4 (67.3–134.1)   | 0.0282      |
| Total cholesterol (mg/dL) | 168.9 ± 46.1 | 143.5 (126.7–233.6) | 182.8 ± 20.2                   | 174.9 (167.8–205.8) | 0.6453      |
| HDL-C (mg/dL)             | 30.3 ± 5.5   | 30.9 (21.8–36.3)    | 31.2 ± 6.5                     | 30.9 (24.9–37.8)    | 0.8437      |
| LDL-C (mg/dL)             | 110.4 ± 46.6 | 90.6 (61.6–171.3)   | 133.1 ± 24.8                   | 129.5 (110.2–159.4) | 0.4734      |
| ALT (U/L)                 | 10.5 ± 8.4   | 12.3 (2.1–21.6)     | 13.9 ± 4.1                     | 15.5 (9.2–16.9)     | 0.5510      |
| GGT (U/L)                 | 63.6 ± 59.0  | 50.2 (21.9–164.9)*  | 18.9 ± 8.3                     | 17.2 (11.6–27.9)    | 0.1360      |

HDL-C –high-density lipoprotein cholesterol; LDL-C–low-density lipoprotein cholesterol; ALT–alanine aminotransferase; GGT–gamma-glutamyltransferase; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S22.** The biochemical parameters of the male participants following dietary recommendations at baseline and after 3 months of intervention.

| Parameter                 | Baseline     |                     | After 3 Months of Intervention |                     | <i>p</i> ** |
|---------------------------|--------------|---------------------|--------------------------------|---------------------|-------------|
|                           | Mean ± SD    | Median (min–max)    | Mean ± SD                      | Median (min–max)    |             |
| Triglycerides (mg/dL)     | 152.5 ± 22.7 | 144.2 (136.2–185.5) | 126.8 ± 36.4                   | 141.1 (74.3–166.9)  | 0.2478      |
| Total cholesterol (mg/dL) | 161.5 ± 63.2 | 142.8 (108.1–252.3) | 153.2 ± 50.9                   | 133.2 (105.7–234.6) | 0.8229      |
| HDL-C (mg/dL)             | 33.7 ± 22.3  | 24.2 (19.6–66.7)*   | 33.1 ± 10.1                    | 31.9 (20.7–50.2)    | 0.5940      |
| LDL-C (mg/dL)             | 97.3 ± 37.9  | 91.6 (57.6–148.5)   | 94.7 ± 50.3                    | 73.2 (54.8–179.7)   | 0.9325      |
| ALT (U/L)                 | 8.3 ± 6.7    | 8.0 (2.5–14.7)      | 14.5 ± 12.1                    | 12.1 (1.7–34.5)     | 0.3909      |
| GGT (U/L)                 | 25.7 ± 5.2   | 25.7 (20.3–31.3)    | 14.2 ± 4.7                     | 11.9 (10.2–22.5)    | 0.0065      |

HDL-C–high-density lipoprotein cholesterol; LDL-C–low-density lipoprotein cholesterol; ALT–alanine aminotransferase; GGT–gamma-glutamyltransferase; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).

**Table S23.** The biochemical parameters after 3 months of intervention compared for sub-groups based on gender, age and body mass status.

| Parameter                 | Females (n = 11)          |                     | Males (n = 9)           |                     | p**    |
|---------------------------|---------------------------|---------------------|-------------------------|---------------------|--------|
|                           | Mean ± SD                 | Median (min–max)    | Mean ± SD               | Median (min–max)    |        |
| Triglycerides (mg/dL)     | 105.1 ± 37.9              | 101.6 (64.0–148.7)* | 115.5 ± 37.9            | 134.1 (67.3–166.9)  | 0.4379 |
| Total cholesterol (mg/dL) | 130.2 ± 29.4              | 130.9 (91.2–187.8)  | 163.1 ± 44.1            | 167.8 (105.7–234.6) | 0.0707 |
| HDL-C (mg/dL)             | 27.3 ± 5.8                | 27.4 (18.1–39.1)    | 32.4 ± 8.6              | 31.3 (20.7–50.2)    | 0.1416 |
| LDL-C (mg/dL)             | 81.9 ± 23.0               | 80.0 (51.3–130.8)   | 107.5 ± 45.8            | 110.2 (54.8–179.7)  | 0.1367 |
| ALT (U/L)                 | 11.9 ± 4.1                | 13.3 (7.3–17.6)     | 14.3 ± 9.4              | 13.2 (1.7–34.5)     | 0.4893 |
| GGT (U/L)                 | 10.1 ± 2.4                | 10.4 (7.0–13.5)     | 15.8 ± 6.0              | 12.1 (10.2–27.9)*   | 0.0128 |
|                           | Aged 18–59 years (n = 15) |                     | Aged > 60 years (n = 5) |                     |        |
|                           | Mean ± SD                 | Median (min–max)    | Mean ± SD               | Median (min–max)    |        |
| Triglycerides (mg/dL)     | 119.4 ± 35.3              | 136.6 (66.3–166.9)* | 83.8 ± 32.1             | 71.4 (64.0–140.7)*  | 0.0710 |
| Total cholesterol (mg/dL) | 152.7 ± 41.8              | 136.9 (91.2–234.6)  | 126.4 ± 27.9            | 127.6 (94.8–167.8)  | 0.2124 |
| HDL-C (mg/dL)             | 31.6 ± 7.7                | 31.1 (20.7–50.2)    | 24.5 ± 4.5              | 24.9 (18.1–29.3)    | 0.0719 |
| LDL-C (mg/dL)             | 79.2 ± 39.9               | 85.3 (51.3–179.7)   | 85.1 ± 29.5             | 76.7 (52.3–129.5)   | 0.5436 |
| ALT (U/L)                 | 14.8 ± 7.3                | 13.4 (1.5–34.5)*    | 8.2 ± 0.9               | 8.0 (7.3–9.2)       | 0.0078 |
| GGT (U/L)                 | 14.2 ± 5.3                | 11.9 (8.4–27.9)*    | 8.8 ± 2.1               | 7.7 (7.00–11.5)     | 0.0109 |
|                           | Overweight (n = 5)        |                     | Obese (n = 15)          |                     |        |
|                           | Mean ± SD                 | Median (min–max)    | Mean ± SD               | Median (min–max)    |        |
| Triglycerides (mg/dL)     | 110.9 ± 27.9              | 130.6 (105.7–174.9) | 109.8 ± 38.3            | 108.3 (66.3–166.9)* | 0.6769 |
| Total cholesterol (mg/dL) | 130.9 ± 27.9              | 130.6 (105.7–174.9) | 151.1 ± 42.8            | 136.9 (91.2–234.6)  | 0.3444 |
| HDL-C (mg/dL)             | 30.7 ± 13.3               | 26.7 (18.1–50.2)    | 29.4 ± 4.9              | 28.7 (22.2–39.1)    | 0.7479 |
| LDL-C (mg/dL)             | 78.0 ± 20.6               | 76.7 (56.9–110.2)   | 99.8 ± 40.4             | 90.6 (51.3–179.7)   | 0.2719 |
| ALT (U/L)                 | 11.9 ± 3.2                | 12.1 (7.4–15.5)     | 13.4 ± 7.9              | 13.2 (1.7–34.5)     | 0.6766 |
| GGT (U/L)                 | 13.2 ± 3.9                | 12.1 (7.7–17.2)     | 12.7 ± 5.8              | 11.4 (7.0–27.9)*    | 0.9721 |

HDL-C—high-density lipoprotein cholesterol; LDL-C—low-density lipoprotein cholesterol; ALT—alanine aminotransferase; GGT—gamma-glutamyltransferase; \* nonparametric distribution (Shapiro-Wilk test;  $p \leq 0.05$ ); \*\* compared while using t-Student test or Mann-Whitney test (based on distribution).