

Table S1. Post-intervention assessments: Anthropometric profile, blood pressure levels, blood chemistry and fitness parameters in the 4 subgroups. Results are presented as Δ (T1-T0), means and SDs. Statistical significance was set for p values $\leq .05$.

| | OB-GYM | | | | OB-NW | | | | DM2-GYM | | | | DM2-NW | | | | Between-groups | |
|--|------------------|-------|----------|----------|------------------|-------|----------|----------|---------------|-------|----------|----------|------------------|-------|----------|----------|----------------|----------|
| | <i>n=49</i> | | | | <i>n=37</i> | | | | <i>n=10</i> | | | | <i>n=12</i> | | | | factor | |
| | Δ Mean | SD | <i>t</i> | <i>p</i> | Δ Mean | SD | <i>t</i> | <i>p</i> | Δ Mean | SD | <i>t</i> | <i>p</i> | Δ Mean | SD | <i>t</i> | <i>p</i> | <i>F</i> | <i>p</i> |
| Body weight (kg) | -3.98 | 4.28 | -6.50 | <.01 | -3.32 | 4.12 | -4.91 | <.01 | -2.20 | 3.12 | -2.23 | .05 | -2.75 | 3.47 | -2.75 | .02 | 0.72 | .54 |
| BMI (kg/m²) | -1.35 | 1.66 | -5.71 | <.01 | -1.24 | 1.62 | -4.65 | <.01 | -0.75 | 1.06 | -2.23 | .05 | -1.03 | 1.28 | -2.77 | .02 | 0.48 | .70 |
| FM Index (kg of fat mass/m²) | -1.00 | 1.43 | -4.85 | <.01 | -1.33 | 1.85 | -4.24 | <.01 | -1.00 | 1.02 | -3.08 | .01 | -1.23 | 1.29 | -3.16 | .01 | 0.35 | .79 |
| FFM Index (kg of fat free mass/m²) | -0.21 | 0.96 | -1.53 | .13 | .13 | 1.14 | 0.67 | .51 | 0.34 | 1.40 | 0.77 | .46 | 0.03 | 0.78 | 0.15 | .89 | 1.17 | .33 |
| Waist circumference (cm) | -5.22 | 5.62 | -6.29 | <.01 | -5.06 | 5.55 | -5.08 | <.01 | -3.10 | 5.00 | -1.96 | .08 | -4.11 | 2.57 | -4.80 | <.01 | 0.21 | .89 |
| Waist-Height Ratio | -0.03 | 0.03 | -6.41 | <.01 | -0.03 | 0.03 | -5.09 | <.01 | -0.02 | 0.03 | -1.90 | .09 | -0.02 | 0.01 | -5.05 | <.01 | 0.65 | .58 |
| SBP (mmHg) | -9.32 | 13.01 | -4.75 | <.01 | -8.81 | 17.17 | -2.86 | .01 | -3.89 | 11.40 | -1.02 | .34 | -6.11 | 14.53 | -1.26 | .24 | 0.43 | .73 |
| DBP (mmHg) | -8.07 | 11.67 | -4.58 | <.01 | -4.19 | 15.28 | -1.53 | .14 | -7.78 | 6.67 | -3.50 | .01 | 0.56 | 8.46 | 0.20 | .85 | 1.51 | .22 |
| Fasting blood glucose (mg/dl) | -0.13 | 11.91 | -0.07 | .94 | -0.39 | 9.37 | -0.23 | .82 | -28.80 | 64.47 | -1.41 | .19 | -8.89 | 23.70 | -1.13 | .29 | 4.49 | .01 |
| HbA1c (%) | 0.005 | 0.32 | 0.10 | .92 | -0.20 | 0.22 | -4.62 | <.01 | -0.77 | 1.65 | -1.48 | .17 | -0.23 | 0.79 | -0.92 | .38 | 3.79 | .01 |
| Total cholesterol (mg/dl) | -1.81 | 26.87 | -0.47 | .64 | -10.69 | 21.76 | -2.78 | .01 | -0.70 | 26.34 | -0.08 | .93 | -2.00 | 35.67 | -0.18 | .86 | 0.86 | .47 |

| | | | | | | | | | | | | | | | | | | | |
|--|-------|-------|-------|------|-------|-------|-------|-----|--------|--------|-------|------|------|-------|------|------|------|------|--|
| HDL | | | | | | | | | | | | | | | | | | | |
| cholesterol (mg/dl) | -0.09 | 8.84 | -0.07 | .95 | -4.00 | 7.43 | -2.95 | .01 | 2.30 | 8.23 | 0.88 | .40 | 0.00 | 5.91 | 0.00 | 1.00 | 2.17 | .10 | |
| Triglycerides (mg/dl) | -7.45 | 46.73 | -1.09 | .28 | 3.00 | 49.50 | 0.32 | .75 | -60.50 | 135.70 | -1.41 | .19 | 7.50 | 59.54 | 0.40 | .70 | 2.78 | .05 | |
| Vertical Bending (cm) | 4.45 | 6.79 | 4.25 | <.01 | 4.67 | 2.73 | 4.18 | .01 | 3.89 | 3.41 | 3.42 | .01 | 2.60 | 1.34 | 4.33 | .01 | 0.13 | .94 | |
| Horizontal Bending (cm) | 3.14 | 4.89 | 4.16 | <.01 | 3.00 | 3.67 | 1.83 | .14 | 2.33 | 2.78 | 2.51 | .04 | 1.80 | 4.55 | 0.88 | .43 | 0.30 | .82 | |
| VO₂ max (ml/kg/min) | 8.38 | 6.40 | 8.59 | <.01 | 3.83 | 3.65 | 2.57 | .05 | 9.06 | 6.40 | 4.25 | <.01 | 7.9 | 3.06 | 5.77 | <.01 | 5.70 | <.01 | |

Abbreviations: **OB-GYM:** individuals with obesity participating at gym-based exercise program; **OB-NW:** individuals with obesity participating at the Nordic walking exercise program; **DM2-GYM:** obese individuals with DM2 participating at the gym-based exercise program; **DM2-NW:** obese individuals with DM2 participating at the Nordic walking program; **BMI:** body mass index; **FM:** fat mass; **FFM:** fat free mass; **SBP:** systolic blood pressure; **DBP:** diastolic blood pressure; **HbA1c:** glycosylated haemoglobin; **HDL:** high-density lipoprotein; **VO₂ max:** maximal oxygen uptake.

Table S2a. Descriptive statistics: Results are presented as Δ (T1-T0) means and Standard Deviation (SDs).

| | Mean | SDs |
|----------------|--------|---------|
| Δ GLI | -3,237 | 25,8371 |
| Δ HBA1C | -,174 | ,6867 |
| Δ COL | -4,560 | 26,2241 |
| Δ HDL | -1,041 | 8,2600 |
| Δ TG | -8,379 | 65,0380 |

Abbreviations: **GLI:** Fasting blood glucose; **HbA1c:** glycosylated haemoglobin; **COL:** Total cholesterol; **HDL:** high-density lipoprotein; **TG:** Triglycerides.

Table S2b. Delta changes of plasma triglycerides and glucose metabolism correlations.

| | | Δ GLI | Δ HBA1C | Δ COL | Δ HDL | Δ TG |
|----------------|----------------------|--------------|----------------|--------------|--------------|-------------|
| Δ GLI | Pearson Correlations | | | | | |
| | Sign. (two-tailed) | | | | | |
| Δ HBA1C | Pearson Correlations | 0,781** | | | | |
| | Sign. (two-tailed) | 0,000 | | | | |
| Δ COL | Pearson Correlations | 0,108 | -0,023 | | | |
| | Sign. (two-tailed) | 0,299 | 0,833 | | | |
| Δ HDL | Pearson Correlations | 0,124 | 0,192 | 0,069 | | |
| | Sign. (two-tailed) | 0,240 | 0,084 | 0,505 | | |
| Δ TG | Pearson Correlations | 0,545** | 0,474** | 0,175 | -0,187 | |
| | Sign. (two-tailed) | 0,000 | 0,000 | 0,089 | 0,071 | |

Abbreviations: **GLI:** Fasting blood glucose; **HbA1c:** glycosylated haemoglobin; **COL:** Total cholesterol; **HDL:** high-density lipoprotein; **TG:** Triglycerides.

Statistical significance was set for p values ≤ 0.05