The results of interventions for body weight reduction is not rare disappointing. Adjustments in daily-life physical activities and in sedentary time in response to exercise may undermine the negative energy balance caused by the interventions, reducing their efficacy.

PURPOSE: To determine the effects of an interdisciplinary program (IP) to treat obesity on sedentary and physical activity (PA) time.

METHODS: A total of 14 obese women (39.3±9.77 years and BMI 34.1±2.99) participated in a 16-week program consisting of 3 sessions/week lasting 2 hours each. Physical exercise was carried out for 1 hour in every session, followed by psychological, nutritional or physical therapy intervention. For sedentary time and PA determination participants wore an accelerometer for seven consecutive days before and during the last week (LW) of IP. The difference between Pre and LW values was determined by repeated measure one-way ANOVA. Pearson’s correlation test was also performed. Significance was set at 5%. The protocol was approved by Unifesp Ethics Committee (#2.579.851).

RESULTS: Following IP, body weight change ranged from -5.9 to +2.40 Kg. However, the program failed (p>0.05) in promoting a significant mean reduction on body weight (Pre 94.06±28.35; Post 93.07±26.56 Kg). Neither the time (min/day) spent sedentary (Pre: 568±63; LW: 600±75), in light (Pre: 257±47; LW: 287±64) or moderate/vigorous (Pre: 24±10; LW: 24±14) PA nor the number of steps/day (Pre: 6,392±1,530; LW: 6,808±2,874) changed in LW compared to the period pre-intervention (p>0.05). The correlation between changes in body weight with changes in time in sedentary (-0.068), light (0.233), moderate/vigorous (-0.292) PA and steps/day (-0.289) was also not significant (p>0.05).

CONCLUSION: Even though we did not find a significant correlation between variation in body weight and variation in time sedentary/active, the lack of change in sedentary and PA time despite the addition of 3 sessions of exercise/week suggests the occurrence of a compensation to minimize the increase in daily energy expenditure caused by exercise, contributing to the resistance to body weight reduction. Our results also demonstrate a failure in adopting a more active life style after participating in an IP.

Financial Support: FAPESP 2015/06630-1, 2017/04528-0 and CAPES.

Resistence training (RT) may induce arterial stiffness (AS) which is associated with increased risk of myocardial infarction and stroke, the two leading causes of death in the developed world. However, there are a lot of variables and situations that can influence AS such as water intake (WI).

PURPOSE: To determine the influence of WI during RE on arterial stiffness.

METHODS: Young adult men (n= 17, 23.1±6.3 years old; 174.0±6.4 cm height; 76.4±13.3 kg weight) with at least 1 year of previous experience in RT and previously hydrated performed in two different occasions (one week interval between them) an RT session (3 sets, 8-12 repetition of 12 exercises for all major muscles groups at 70-80% of 1RM) with [WI session (500ml of water)] and without (NW session) water intake. Aortic stiffness was measured before, immediately after, and 30 and 60 min after the RT session via Ankle-brachial pulse wave velocity (PWV). Repeated measures ANOVA was conducted to compare RT sessions differences (Rest, after, 30min, 60 min). Between-RT sessions differences at each moment were examined using appropriate post hoc analyses.

RESULTS: Increase in post-exercise PWV for the NWI session compared to rest was observed. Moreover WI values were lower than NWI for all post-exercise measures.

<table>
<thead>
<tr>
<th>RT session</th>
<th>Rest</th>
<th>After 30 min</th>
<th>After 60 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>No water</td>
<td>11.3±1.5</td>
<td>12.3±1.1</td>
<td>12.3±1.2</td>
</tr>
<tr>
<td>Water</td>
<td>11.5±0.6</td>
<td>*11.5±1.2</td>
<td>*11.3±1.2</td>
</tr>
</tbody>
</table>

* Significant difference between no water and water sessions (p<0.05). #Significant RT session by time interaction/difference in relation to Rest (P < 0.05). Results are presented in mean and standard deviation.

CONCLUSION: WI during RT may be beneficial to reduce the negative impact of RT on arterial stiffness. This was evidenced by the maintenance of PWV values after WI session and increased values after NWI. From this investigation alone we cannot determine whether WI is influencing the PWV measurement or which physiological mechanisms were influenced by WI.

PURPOSE: To compare the effects of an intervention program of minimal contact using WhatApp® and Fitbit® over the levels of physical activity on a university population.

METHODS: We designed a 12-week intervention program of minimal contact on a university population. Participants were randomly assigned into two groups: intervention (IN) and control (CO). From a total of 177 participants, 19 (11 men, 8 women, aged 18 - 32) completed the program and had the complete accelerometer information measured with the wGT3X-BT10 accelerometer. The program consisted of messages sent by WhatApp® every week based on The Canadian 24 hrs movement: sweat, step, sleep and sit. All the messages were based on the motivational self-determination theory. The participants also wear a portable Fitbit Flex® 2 for 12 weeks. We evaluated the moderate to vigorous physical activity (MVPA) levels and sedentary behaviors in minutes/day and percentage of weekly wearing time by accelerometer using the IPEN criteria. We compared the outcomes by group (t-test, U Mann-Whitney) and time (paired T-test, Wilcoxon).

RESULTS: Both groups met the recommendations of MVPA in high proportion (IN=83.3%, CO=85.7%, >150 min/w). There were no significant differences in MVPA nor sedentary levels between groups at baseline and after 12 weeks. MVPA (in time and percentage) and time in sedentary activities decreased, however, the percentage of sedentary activities increased in IN group but decreased in the CO group. Nonetheless, these differences were no significant. Sedentary behaviors were very high in both groups. Independently of the intervention and the assessment moment, subjects spent more of the 60% of the wearing time on sedentary activities (Table).

CONCLUSIONS: This intervention was not effective to increase MVPA levels or decrease sedentary behaviors. Probably more time is needed to improve the entire 24 hrs movement component and/or the minimal contact should be more supervised in this sample.