**Supplementary Material**

**Supplementary Detailed Results**

**Adult acute studies (n=29)**

**Main aim, population and design**

Of the 29 acute studies selected in the analysis (Table 3), 83% (n=24) evaluated SQ in response to different conditions (food/meals, sleep duration, drug/food supplements, physical activity/exercise). Some studies also used SQ to categorize their population (14,15,40). As shown in Table 3, 59% (n=17) included both men and women (6–8,11,18–20,22,23,25,30–32,34,36,37,43), while 24% (n=7) included only men (13,21,24,26,29,33,40) and 17% (n=5) only women (14,15,27,28,35). Among the studies, 21 enrolled medically healthy and non-obese adults (6,11,14,15,18,20–23,25,27,30–37,40,43), 5 included adults with overweight or obesity (8,13,19,24,29), 1 had adults with diabetes (T1D and T2D) (7), 1 had people with obesity with or without T2D (26) and 1 had premenopausal women (28).

**Acute studies conducted in children and adolescents**

**Main aim, population and design**

Of the four acute studies included, two were randomized controlled studies (39,42) and 2 were randomized crossover study (38,41). Two aimed to assess the effect of different timing-exercise conditions on satiety responsiveness (38,39), while the other two were aimed at examining the satiety responsiveness to different nutritional manipulations(41,42).

In their work, Albert *et al.* (38) and Fillon *et al.* (39) investigated the effect of the delay between an acute exercise and the meal on food intake and appetite sensations, while Thivel and colleagues (42) assessed the effect of post-exercise energy replacement on subsequent food intake. As for them, Kral and collaborators assessed calories compensation at breakfast, appetite control and energy intake across preload condition in children of different weight-status with low or high risk to develop obesity (41).

Among these four studies, 3 enrolled both boys and girls (39,41,42), while one enrolled boys only (38). Albert *et al.* 's study (38) was conducted among lean adolescents (~17 years) while Thivel *et al.* (42) and Fillon *et al.* (39) enrolled adolescents with obesity (~13 years) and Kral *et al.* children with different weight status (~8 years) (41) (Table 4).

**Chronic studies conducted in adults**

**Main aim, population and design**

Of the 19 studies, 2 were observational (9,10) while the remaining were interventional. Fourteen studies evaluated the changes in SQ in response to an intervention (specific meal or meal context, different drug or food supplements, different exercise training interventions), and 3 utilized the SQ to categorize the population in their study (i.e. low or high satiety phenotype) (12,53,58) .

Seven studies enrolled both men and women (10,49–51,53,55,56), while 8 studies enrolled women only (9,45,48,52,54,56,58,59) and 4 men only (12,46,47,55). Seventy-four percent of the chronic studies enrolled individuals with overweight or obesity (10,12,45,47,48,50–54,56–59), and one study included healthy adults only (46), one study was in menopausal women (9), one in patients with ischemic heart disease and impaired glucose tolerance or T2D (44), one in T2D patients (55) and one in men and premenopausal women with overweight (49) (Table 5).