

Supplementary Table 1. Hunger and thirst rating, and emotional state rating (stress, anxiety, happiness) in six groups of participants

	Men (M) N=17	Postmenopausal women (pmW) N=14	Women taking oral contraceptives (ocW) N=10	Women with anovulatory cycle (aoW) N=8	Women across 1 menstrual cycle (1mcW) N=21	Women across 2 menstrual cycles (2mcW)* N=29	Overall P value (between groups comparison)	Post-hoc P value (between groups comparison)
Hunger rating; median (IQR)								
1 st measurement/mid-follicular	3.50 (4.25)	5.00 (2.75)	5.00 (1.75)	4.00 (6.00)	7.00 (4.25)	4.00 (4.50)	0.120	Na
2 nd measurement/ovulation	4.50 (3.75)	3.00 (4.50)	3.00 (4.00)	3.00 (3.00)	5.00 (5.00)	5.00 (4.00)	0.379	Na
3 rd measurement/mid-luteal	4.50 (3.00)	5.00 (5.00)	5.00 (5.00)	6.00 (2.75)	6.00 (5.00)	5.00 (5.00)	0.425	Na
4 th measurement/late luteal					7.00 (2.50)	4.00 (3.00)	0.059	Na
Overall P value	0.459	0.607	0.651	0.385	0.202	0.680		
Thirst rating; median (IQR)								
1 st measurement/mid-follicular	4.00 (3.00)	3.50 (2.75)	5.00 (2.00)	4.00 (7.00)	4.00 (4.00)	6.00 (3.00)	0.063	Na
2 nd measurement/ovulation	4.00 (3.00)	4.00 (7.75)	5.00 (4.00)	4.50 (4.75)	6.00 (4.00)	6.00 (4.00)	0.177	Na
3 rd measurement/mid-luteal	6.00 (2.00)	4.50 (5.25)	7.00 (3.00)	5.00 (2.00)	6.00 (4.00)	5.00 (3.00)	0.128	Na
4 th measurement/late luteal					6.00 (2.75)	5.50 (5.00)	0.716	Na
Overall P value	0.057	0.326	0.102	0.861	0.309	0.037		
Post-hoc P value	Na	Na	Na	Na	Na	0.029 ¹³ , 0.030 ²³		
Stress; median (IQR)								
1 st measurement/mid-follicular	2.00 (2.00)	3.00 (3.00)	2.00 (3.00)	2.00 (2.00)	2.00 (3.00)	2.00 (4.00)	0.324	Na
2 nd measurement/ovulation	2.00 (2.00)	3.50 (2.00)	3.50 (6.00)	1.50 (2.00)	3.50 (4.00)	3.00 (3.00)	0.036	0.004 ¹² , 0.002 ²⁴ , 0.039 ³⁴
3 rd measurement/mid-luteal	2.00 (2.00)	4.00 (2.00)	3.00 (6.00)	2.50 (2.00)	2.00 (3.00)	3.00 (5.00)	0.072	Na
4 th measurement/late luteal					3.00 (4.00)	3.00 (4.00)	0.754	Na
Overall P value	0.199	0.401	0.177	0.350	0.419	0.409		
Anxiety; median (IQR)								
1 st measurement/mid-follicular	2.00 (2.00)	3.00 (1.00)	1.00 (3.00)	1.50 (4.00)	1.00 (2.00)	2.00 (2.00)	0.134	Na

2 nd measurement/ovulation	2.00 (1.00)	4.00 (3.00)	4.00 (3.00)	2.00 (2.00)	1.00 (2.00)	2.00 (2.00)	0.028	0.003 ¹² , 0.022 ²⁴ , 0.002 ²⁵ , 0.010 ²⁶
3 rd measurement/mid-luteal	2.00 (1.00)	4.00 (2.00)	3.00 (4.00)	1.50 (1.00)	1.00 (2.00)	2.00 (2.00)	<0.001	<0.001 ¹² , 0.012 ²³ , 0.001 ²⁴ , <0.001 ²⁵ , 0.003 ²⁶ , 0.042 ³⁴ , 0.019 ³⁵
4 th measurement/late luteal					1.00 (2.00)	2.00 (3.00)	0.676	Na
Overall P value	0.217	0.205	0.125	0.538	0.986	0.764		
Happiness; median (IQR)								
1 st measurement/mid-follicular	7.00 (3.00)	7.00 (4.00)	8.00 (3.00)	8.00 (3.00)	9.00 (1.00)	8.00 (2.00)	0.309	Na
2 nd measurement/ovulation	8.00 (2.00)	6.50 (3.00)	7.00 (3.00)	8.00 (2.00)	9.00 (1.00)	8.00 (2.00)	0.002	0.021 ¹² , 0.008 ¹³ , 0.005 ²⁵ , 0.002 ²⁶ , 0.003 ³⁵ , 0.001 ³⁶
3 rd measurement/mid-luteal	8.00 (3.00)	7.00 (2.00)	6.00 (3.00)	8.50 (2.00)	9.00 (2.00)	9.00 (1.00)	0.001	0.029 ²⁴ , 0.001 ²⁵ , <0.001 ²⁶ , 0.036 ³⁴ , 0.002 ³⁵ , 0.001 ³⁶
4 th measurement/late luteal					9.00 (2.00)	9.00 (2.00)	0.880	Na
Overall P value	0.345	0.933	0.123	0.472	0.908	0.860		

*for 2mcW group the ordering of the data does not follow the actual timeline of measurement sessions (like for all other groups), but instead the phases of menstrual cycle. 1st measurement denotes mid-follicular phase, 2nd is ovulation, 3rd is mid-luteal and 4th measurement is late luteal phase.

Overall P value for between group comparisons was obtained with Kruskal-Wallis test. Post-hoc P values for between groups comparison were obtained with Mann-Whitney test:

¹Men (M); ²Postmenopausal women (pmW); ³Oral contraceptive users (ocW); ⁴Women with an anovulatory cycle (aoW); ⁵Women measured during four consecutive phases of one complete menstrual cycle, starting with mid-follicular phase (1mcW); ⁶Women measured in four phases of two different, consecutive menstrual cycles (2mcW).

Overall P value for within group comparisons was obtained with Friedman test. Post-hoc P values for within group pairwise comparison were obtained with Wilcoxon Signed Rank test: ¹first measurement or mid-follicular phase; ²second measurement or ovulation; ³third measurement or mid-luteal phase; ⁴fourth measurement or late luteal phase. Na – not applicable.