SUPPLEMENTARY MATERIAL

APPENDIX 1. COMPONENTS OF O´DOUL´S NON-ALCOHOLIC BEER

The compounds of this non-alcoholic beer are the following:

- Water, two-row barley malt, Munich malt, willamette hops, whole cone hops, brewer's yeast, and cereal grains (such as rice, corn, or sorghum) and high fructose corn syrup.
- The nutritional components are: % alcohol 0.4, 90 kcal/350 mL, 0 g fat, 18 g carbohydrates/350 mL, 1.9 g protein/350 mL.

In addition to this information, we provide the information from a thesis evaluating the Phytonutrient concentration as the total polyphenol content and the flavonoid content [(+) - catechin and (-) - epicatechin]:

Title: Effects of shelf-life on phytonutrient composition in stored non-alcoholic beer. Author: Majoni, Sandra (The Graduate School University of Wisconsin-Stout, Menomonie, WI 54751, USA).

Available at:

https://pdfs.semanticscholar.org/905a/45b6078281e19e5bc3e28dbaf9beb8d6a3a5.pdf

The following are the main tables in the thesis, indicating the amount of these compounds.

Supplementary Table 1. Total Polyphenol (TPP)[1] Content of Four Non-Alcoholic and One Alcoholic Beer [2] beverage Measured at Wavelength 765 nm.

Beer beverage type	TPP at day 0 (mg GAE/L)	TPP at day 30 (mg GAE/L)	TPP at day 60 (mg GAE/L)
Beck`s[®3]	229 ± 13^A	233 ± 1^A	249 ± 4^A
Clausthaler[®3]	271 ± 4^B	275 ± 1^B	281 ± 3^A
Kaliber[®3]	265 ± 10^B	264 ± 4^B	283 ± 4^A
O'Doul's[®3]	485 ± 8^B	480 ± 2^B	505 ± 4^A
Leinenkugel`s[®4]	622 ± 9^B	669 ± 5^A	668 ± 9^A
Average	374 ± 159	384 ± 173	397 ± 169

Values followed by different upper case letters in each row are significantly different, ($p < 0.05$),

[1]TPP content expressed as milligram gallic acid equivalents (GAE) per liter (mg/L),

[2] Mean of the three trials $\pm$ standard deviation (SD),

[3] Non-alcoholic beer,

[4] Alcoholic beer.

Supplementary Table 2. Flavonoid Content [(+) - Catechin and (-) – Epicatechin Concentration] of the Four Non-Alcoholic and One Alcoholic Beer Beverages expressed in mg/L.

Beer Samples	(+) - Catechin (mg/L)			(-) - Epicatechin (mg/L)		
	Day 0	Day 30	Day 60	Day 0	Day 30	Day 60
Beck`s[®2]	0.04 ± 0.00^A	0.05 ± 0.02^A	nd[4]	0.43 ± 0.32	nd	nd
Clausthaler[®2]	0.16 ± 0.00^A	0.17 ± 0.02^A	0.08 ± 0.00^A	0.33 ± 0.02	nd	nd
Kaliber[®2]	0.27 ± 0.02^A	0.20 ± 0.04^A	0.12 ± 0.00^B	0.77 ± 0.02	nd	nd
O'Doul's[®2]	0.58 ± 0.02^A	0.53 ± 0.05^A	0.52 ± 0.11^A	0.88 ± 0.04	nd	nd
Leinenkugel`s[®3]	0.12 ± 0.00^A	0.08 ± 0.00^A	0.04 ± 0.00^B	0.69 ± 0.02	nd	nd
Average	0.23 ± 0.20	0.20 ± 0.17	-	0.62 ± 0.25	-	-

Values followed by different upper case letters in each row are significantly different ($p < 0.05$), [1] Mean of three trials ± standard deviation (SD), [2]Non-alcoholic beer, [3]Alcoholic beer, [4]nd Concentration below the detection limit.

Finally, there are other components in non-alcoholic beer, derived from ingredients such as malt, that offer additional benefits to health. Some of these compounds (the most relevant) are shown in the following table . (Data obtained from U.S. Department of Agriculture-> Malt beverage, includes non-alcoholic beer, accessed at: https://fdc.nal.usda.gov/fdc-app.html#/food-details/174863/nutrients)

Supplementary Table 3. Other components in non-alcoholic beer.

Name	Amount*	min	max
Calcium	7 mg	3	8
Iron	0.06 mg	0.01	0.1
Zinc	0.02 mg	NA	NA
Thiamin	0.016 mg	NA	NA
Riboflavin	0.048 mg	NA	NA
Niacin	1.113 mg	NA	NA
Vitamin B6	0.027mg	NA	NA
Pantotenic acid	0.037 mg	NA	NA
Vitamin B12	0.02 µg	NA	NA
Folate	14 µg	NA	NA

*Portion 100g

SUPPLEMENTARY FIGURE 1. The figure shows the long hallway where the patients were trained for exercise.

SUPPLEMENTARY FIGURE 2. Chart showing an example of the Borg`s scale. A validated scale for Spanish language was provided to the patients.

Borg's Rating of Perceived Exertion (RPE) Scale

Perceived Exertion Rating	Description of Exertion
6	No exertion; sitting and resting
7	Extremely light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

APPENDIX 2. ANCOVA ANALYSIS

	Unadjusted and adjusted values for **MAMC (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	38.1	6.5	40.2	7	37.3	3.8
Intervention	22	31.8	6.7	40.2	7	42.9	3.7

	Unadjusted and adjusted values for **PhA (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	6.05	0.15	5.97	0.14	5.86	0.08
Intervention	22	5.77	0.15	5.85	0.16	5.96	0.08

	Unadjusted and adjusted values for **HGS (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	19.95	2.45	20.88	2.39	20.00	0.71
Intervention	22	17.69	2.06	19.67	2.30	20.59	0.73

	Unadjusted and adjusted values for **sit-to-stand test (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	24.19	1.30	20.92	0.96	20.73	0.67
Intervention	22	23.42	1.33	20.91	0.85	21.09	0.67

	Unadjusted and adjusted values for **number of steps/day (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	8717	654	11391	937	11305	581
Intervention	22	8533	868	11141	864	11223	568

	Unadjusted and adjusted values for **CLDQ (global) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	5.20	0.19	5.44	0.19	5.28	0.16
Intervention	22	4.55	0.22	5.28	0.17	5.43	0.16

	Unadjusted and adjusted values for **endothelial function (AUC) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	101.10	2.70	94.19	2.46	92.64	2.05
Intervention	22	96.63	2.09	91.79	2.38	93.34	2.05

	Unadjusted and adjusted values for **PHES (p<0.001)**

	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	-1.00	0.47	-0.33	0.49	-0.54	0.40
Intervention	22	-0.14	0.45	0.45	0.48	0.18	0.39

	Unadjusted and adjusted values for **CFF (p=0.004)**						
	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	43.9	1.64	45.1	1.28	46.1	1.29
Intervention	22	47.18	1.76	44.5	1.33	43.9	1.23

	Unadjusted and adjusted values for **SF-36 (physical function) (p<0.001)**						
	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	78.5	3.14	87.6	2.70	85.4	2.08
Intervention	22	72.4	5.16	79.3	4.2	81.3	2.03

	Unadjusted and adjusted values for **SF-36 (general health) (p=0.007)**						
	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	39.8	2.03	44.2	2.37	44.6	2.74
Intervention	22	41.4	3.82	44.3	3.36	44.0	2.68

	Unadjusted and adjusted values for **SF-36 (vitality) (p=0.001)**						
	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	60.2	3.83	63.3	4.02	63.4	3.53
Intervention	22	60.6	3.91	66.8	3.84	66.7	3.45

	Unadjusted and adjusted values for **SF-36 (social function) (p<0.001)**						
	Baseline			Final (unadjusted)		Final (adjusted)	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean

| Control | 21 | 85.1 | 4.08 | 84.1 | 3.65 | 80.8 | 3.16 |
| Intervention | 22 | 74.5 | 5.34 | 80.8 | 4.62 | 83.9 | 3.08 |

	Unadjusted and adjusted values for **CLDQ (fatigue) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	4.77	0.25	5.27	0.19	5.11	0.18
Intervention	22	4.17	0.26	5.06	0.25	5.21	0.18

	Unadjusted and adjusted values for **CLDQ (systemic symptoms) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	5.62	0.22	5.61	0.20	5.22	0.51
Intervention	22	4.33	0.27	5.06	0.19	5.43	0.14

	Unadjusted and adjusted values for **CLDQ (activity) (p=0.008)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	5.34	0.26	5.34	0.27	5.23	0.28
Intervention	22	4.80	0.31	5.52	0.31	5.62	0.27

	Unadjusted and adjusted values for **CLDQ (emotional) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	4.93	0.20	5.31	0.23	5.12	0.18
Intervention	22	4.27	0.27	5.33	0.21	5.51	0.18

	Unadjusted and adjusted values for **CLDQ (worry) (p<0.001)**						
	Baseline			**Final (unadjusted)**		**Final (adjusted)**	
Group	n	mean	SE mean	Mean	SE mean	Mean	SE mean
Control	21	5.09	0.24	5.25	0.24	4.98	0.23
Intervention	22	4.31	0.39	5.20	0.38	5.47	0.22