1 **SUPPLEMENTARY INFORMATION**

2 An analysis of variance design was used in all cases. 3 X 2 X 2 with the last as a repeated

3 measures (Capsule – Placebo / Electrolyte X Drink – No drink / Plain water / Coloured water)

4 X Time – Baseline / End study).

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6 **Table S1. The influence of interventions on Agreeableness**

| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| Agreeableness | Time | $F(1,154) = 3.042$, $p = 0.083$ |
| | Time X Capsule | $F(1,154) = 1.928$, $p = 0.167$ |
| | Time X Drink | $F(2,154), = 0.417$, $p = 0.660$ |
| | Time X Capsule X Drink | $F(2,154) = 4.510$, $p = 0.012$ |
| | Capsule | $F(1,154) = 1.928$, $p = 0.167$ |
| | Drink | $F(1,154) = 3.599$, $p = 0.030$ |
| | Capsule X Drink | $F(1,154) = 0.235$, $p = 0.791$ |

7 **Table S2. The influence of interventions on Composure**

| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| Composure | Time | $F(1,157) = 1.715$, $p = 0.192$ |
| | Time X Capsule | $F(1,157) = 6.946$, $p = 0.009$ |
| | Time X Drink | $F(2,157) = 1.503$, $p = -.226$ |
| | Time X Capsule X Drink | $F(2,157) = 3.821$, $p = 0.024$ |
| | Capsule | $F(1,157) = 0.010$, $p = 0.910$ |
| | Drink | $F(2,157) = 3.074$, $p = 0.049$ |
| | Capsule X Drink | $F(2,157) = 3.752$, $p = 0.026$ |

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9 **Table S3. The influence of interventions on Clearheadness**

| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| Clearheadedness | Time | $F(1,155) = 0\ .865$, $p = 0.354$ |
| | Time X Capsule | $F(1,155) = 0.193$, $p = 0.661$ |
| | Time X Drink | $F(2,155) = 3.440$, $p = 0.035$ |
| | Time X Capsule X Drink | $F(2,155) = 0.498$, $p = 0.609$ |
| | Capsule | $F(1,155) = 0.467$, $p = 0.496$ |
| | Drink | $F(2,155) = 0.322$, $p = 0.718$ |
| | Capsule X Drink | $F(2,155) = 1.333$, $p = 0.267$ |

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13 **Table S4.  The influence of interventions on Elation**

| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| **Elation** | Time | $F(1,158) = 11.160$, $p<0\ .001$ |
| | Time X Capsule | $F(1,158) = 3.738$, $p = 0.055$ |
| | Time X Drink | $F(2,158) = 0.135$, $p = 0.873$ |
| | Time X Capsule X Drink | $F(2,158) = 1.410$, $p = 0.247$ |
| | Capsule | $F(1,158) = 0.069$, $p = .0793$ |
| | Drink | $F(2,158) = 0.568$, $p = 0.558$ |
| | Capsule X Drink | $F(2,158) = 2.243$, $p = 0.110$ |

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18 **Table S5.    The influence of interventions on Confidence**

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| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| Confidence | Time | $F(1,153) = 2.360$, $p = 0.127$ |
| | Time X Capsule | $F(1,153) = 0.462$, $p = .0.498$ |
| | Time X Drink | $F(2,153) = 1.010$, $p = 0.366$ |
| | Time X Capsule X Drink | $F(2,153) = 0.701$, $p = 0.495$ |
| | Capsule | $F(1,153) = 0.600$, $p = 0.440$ |
| | Drink | $F(2,153) = 4.681$, $p = 0.011$ |
| | Capsule X Drink | $F(2,153) = 1.314$, $p = 0.272$ |

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22 **Table S.6   The influence of interventions on Energy**

| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| Energy | Time | $F(1,156) = 18.460$, $p < 0.001$ |
| | Time X Capsule | $F(1,156) = 0.002$,  $p = 0.964$ |
| | Time X Drink | $F(1,156) = 0.703$,  $p = 0.497$ |
| | Time X Capsule X Drink | $F(1,156) = 0.228$,  $p = 0.796$ |
| | Capsule | $F(1,156) = 1.417$, $p = 0.263$ |
| | Drink | $F(1,156) = 2.545$, $p = 0.082$, |
| | Capsule X Drink | $F(1,156) = 6.384$, $p = 0.002$ . |

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28 **Table S.7 THE EFFECT OF THE INTERVENTIONS UPON RESPONSE TIMES DURING**
29 **THE ARROW FLANKERS TASK**

| Cognitive task | Effect/Interaction | ANOVA |
|---|---|---|
| **Congruent** | Time | $F(1, 141) = 10.764, p = 0.001$ |
| | Time X Drink | $F(2,142) = 1.579, p = 0.223$ |
| | Time X Capsule | $F(1,142) = 2.903, p = 0.089$ |
| | Time X Drink X Capsule | $F(2,142) = 0.007, p = 0.993$ |
| | Time | $F(2, 141) = 4.165, p = 0.017$ |
| | Capsule | $F(2,142) = 2.618, p = 0.072$ |
| | Drink X Capsule | $F(2,142) = 1.437, p = 0.241$ |

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| Cognitive task | Effect/Interaction | ANOVA |
|---|---|---|
| **Incongruent** | Time | $F(1, 141) = 10.764, p = 0.001$ |
| | Time X Drink | $F(2,141) = 0.339, p = 0.713$ |
| | Time X Capsule | $F(1,141) = 2.293, p = 0.132$ |
| | Time X Drink X Capsule | $F(2,141) = 0.114, p = 0.132$ |
| | Drink | $F(2, 141) = 4.165, p = 0.017$ |
| | Capsule | $F(1,141) = 1.106, p = 0.295,$ |
| | Drink X Capsule | $F(2,141) = 0.071, p = 0.931$ |

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| Cognitive task | Effect/Interaction | ANOVA |
|---|---|---|
| **Neutral Trials** | Time | $(F(1,141) = 13.877, p < .001$ |
| | Time X Drink | $(F(2,141) = 0.831, p = 0.438$ |
| | Time X Capsule | $F(1,141) = 6.26, p = 0.013$ |
| | Time X Drink X Capsule | $(F(2,141) = 0.074, p = 0.929$ |
| | Drink | $(F(2,141) = 5.606, p = 0.005$ |
| | Capsule | $(F(1,141) = 1.576, p = 0.211$ |
| | Drink X Capsule | $(F(2,141) = 1.670, p = 0.192$ |

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38    **Table S8. THE EFFECT OF THE INTERVENTION UPON RESPONSE TIMES DURING**
39    **THE SERIAL SEVENS TASK**

| Cognitive task | Effect/Interaction | ANOVA |
|---|---|---|
| **Serial sevens** | Time | $F(1,154) = 43.030, p < .001$ |
| | Time X Drink | $F(2,154) = 1.253, p = 0.289$ |
| | Time X Capsule | $F(2,154) = 0.362, p = 0.548$ |
| | Time X Drink X Capsule | $F(2,154) = 4.303, p = 0.046$ |
| | Drink | $F(2,154) = 1.538, p = 0.218$ |
| | Capsule | $F(1,154) = 0.025, p = 0.874$ |
| | Drink X Capsule | $F(2,154) = 1.841, p = 0.162$ |

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41    **Table S.9  THE EFFECT OF THE INTERVENTION UPON EPISODIC MEMORY**

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| Mood subscale | Effect/Interaction | ANOVA |
|---|---|---|
| | Time | $F(1,165)=8.915, p = 0.003$ |
| | Time X Drink | $F(2,165) =2.262, p =0 .107$ |
| | Time X Capsule | $F(1,165) = 0.208, p= 0.649$ |
| | Time X Capsule X Drink | $F(2,165)= 0.877, p =0.417$ |
| | Memory type | $F(1,165) = 90.995, p .001$ |
| | Memory type X Drink | $F(2,165) = 0.617, p=0.541$ |
| | Memory type X Capsule | $F(1,165) = 1.747, p=0.188$ |
| | Memory type X Capsule X Drink | $F(2,165)=0.876, p =0.418$ |
| | Time X Memory type | $F(1,165)=12.082, p =.001$ |
| | Time X Memory type X Drink type | $F(2,165) = 1.014, p=.365$ |
| | Time X Memory type X Capsule | $F(1,165) = 0.647, p =.413$ |
| | Time X Memory type X Drink type X Capsule | $F(2,165) = 0.046, p =.955$ |
| | Capsule | $F(1,165) = 0.454, p = .636$ |
| | Drink | $F(1,165) =0 .009, p = .923$ |
| | Capsule X Drink | $F(1,165) = 0.800, p = .451$ |

43 Note. Type of memory is whether recall was immediately or after 20 minutes

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47 **Table S.10 THE EFFECT OF THE INTERVENTION UPON REACTION TIMES**

| Lamp | Effect/Interaction | ANOVA |
|---|---|---|
| 1 | Time | $(F(1, 160) = 0.542, p = 0.463)$ |

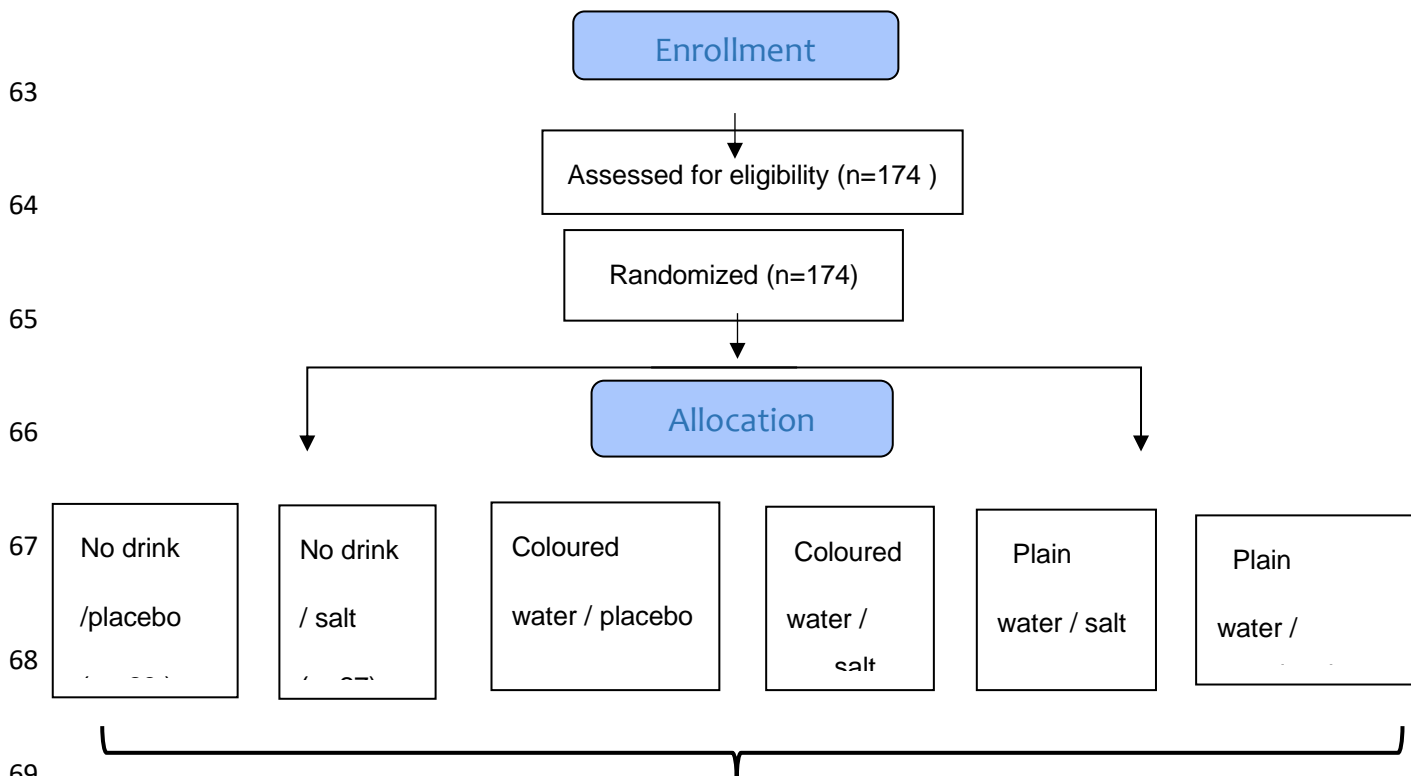| 1 | Time X Drink | $(F(2, 160) = 0.118, p = 0.889)$ |
| 1 | Time X Capsule | $(F(1, 160) = 1.197, p = 0.275)$ |
| 1 | Time X Capsule X Drink | $(F(2, 160) = 0.098, p = 0.907)$ |
| 2 | Time | $(F(1, 160) = 1.393, p = 0.240)$ |
| 2 | Time X Drink | $(F(2, 160) = 0.601, p = 0.549)$ |
| 2 | Time X Capsule | $(F(1, 160) = 0.724, p = 0.384)$ |
| 2 | Time X Capsule X Drink | $(F(2, 160) = 0.328, p = 0.721)$ |
| 4 | Time | $(F(1, 160) = 0.498, p = 0.482)$ |
| 4 | Time X Drink | $(F(2, 160) = 1.104, p = 0.334)$ |
| 4 | Time X Capsule | $(F(1, 160) = 4.097, p = 0.045)$ |
| 4 | Time X Capsule X Drink | $(F(2, 160) = 0.409, p = 0.605)$ |
| 8 | Time | $(F(1, 153) = 0.013, p = 0.653)$ |
| 8 | Time X Drink | $(F(2, 153) = 1.203, p = 0.398)$ |
| 8 | Time X Capsule | $(F(1, 153) = 0.483, p = 0.962)$ |
| 8 | Time X Capsule X Drink | $(F(2, 153) = 3.938, p = 0.005)$ |

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**C O N S O R T**

**TRANSPARENT REPORTING of TRIALS**

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**Enrollment**

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Assessed for eligibility (n=174 )

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Randomized (n=174)

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**Allocation**

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| No drink /placebo | No drink / salt | Coloured water / placebo | Coloured water / salt | Plain water / salt | Plain water / |

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**Discontinued intervention (n=0)**

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**Analysis**

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**Outliers**

72   Agreeable n=0       n=4         n=2         n=0         n=1       n=2

73   Composed n=1     n=0         n= 1         n=1         n=1       n= 3

74   Clearheaded n=2    n=0         n=0         n=3         n=1       n= 2

75   Energetic n= 0      n=1         n=2         n=2         n=0       n=2

76   Elated n= 1        n= 0         n= 1         n=1         n=2       n= 3     Confident n=3       n= 2

77   n=0             n=2         n=1         n=2

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