**Online supplement to**

**A real-life comparison of three self-medication preparations for overlapping indications related to abdominal cramps and pain**

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Supplemental Table 1: Perceived triggers of GI cramps and pain. Numbers are % of participants choosing a given option with multiple nominations being possible.

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|  | **HBB** | **PLUS** | **PO** |
| n | 496 | 381 | 282 |
| Stress | 53.4 | 46.2 | 58.5 |
| Too little physical activity | 21.9 | 22.7 | 23.4 |
| Nutrition (e.g., too fatty, too sweet) | 36.2 | 35.6 | 36.9 |
| Food intolerance (e.g., lactose, gluten) | 17.8 | 20.8 | 24.5 |
| Heartburn | 11.5 | 11.6 | 14.2 |
| Bloating | 31.4 | 41.2 | 48.2 |
| Flatulence | 17.2 | 23.5 | 30.9 |
| Diarrhea | 17.2 | 17.7 | 23.8 |
| Sluggish bowels | 12.3 | 19.8 | 23.8 |
| Constipation | 13.4 | 17.9 | 19.1 |
| Unfavorable intestinal bacteria | 6.5 | 7.4 | 15.6 |
| Infection | 5.3 | 6.1 | 5.7 |
| Environmental pollution | 2.6 | 1.8 | 2.8 |
| Other | 23.5 | 19.8 | 7.1 |
| Don’t know | 10.9 | 7.7 | 14.5 |

Supplemental Table 2: Effects of preparation, demographic, and baseline variables on improvement of impairment of work/daily chores on a 0-10 Likert scale, which was by 3.7, 2.9 and 3.5 points for HBB, PLUS and PO, respectively, in the overall group (see main Figure 2). Data are shown as effect size estimate with its 95% CI. These are absolute effect sizes for the categorical independent variables (preparations and gender) relative to the indicated reference group; they are values per year of age and per score of baseline values on the Likert scale for the continuous independent variables. N.d.: not determined because not an approved indication for the preparation.

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| --- | --- | --- | --- | --- |
|  | **Indication** | | | |
|  | **GI cramps and pain** | **IBS** | **Bloating** | **Flatulence** |
| Preparation |  | | | |
| HBB | -0.1037 [-0.4171; 0.2096] | reference group | reference group | reference group |
| PLUS | reference group | n.d. | n.d. | n.d. |
| PO | -0.3845 [-0.7448; -0.0243] | -0.3420 [-0.8719; 0.1878] | -0.2063 [-0.6072; 0.1945] | -0.1278 [-0.6392; 0.3837] |
| Gender |  | | | |
| Female | reference group | reference group | reference group | reference group |
| Male | 0.0214 [-0. 0.297; 0.3396] | 0.1797 [-0.3883; 0.7478] | 0.3062 [-0.1602; 0.7726] | 0.3483 [-0.2187; 0.9152] |
| Age | -0.0183 [-0.0260; -0.0106] | -0.0122 [-0.0273; 0.0030] | -0.0195 [-0.0318; -0.0071] | -0.0141 [-0.0287; 0.0004] |
| Baseline symptom severity | 0.0464 [-0.0300; 0.1227] | 0.1047 [-0.0473; 0.2568] | 0.0938 [-0.0235; 0.2111] | 0.0646 [-0.0742; 0.2035] |
| Baseline leisure impairment | 0.4913 [0.4280; 0.5546] | 0.5458 [0.4149; 0.6766] | 0.5099 [0.4095; 0.6104] | 0.5260 [0.4040; 0.6479] |
| Baseline sleep impairment | 0.0069 [-0.0414; 0.0552] | -0.0357 [-0.1229; 0.0514] | -0.0112 [-0.0869; 0.0645] | -0.0221 [-0.1157; 0.0715] |

Supplemental Table 3: Effects of preparation, demographic, and baseline variables on improvement of impairment of leisure activities on a 0-10 Likert scale, which was by 3.7, 3.8 and 3.4 points for HBB, PLUS and PO, respectively, in the overall group (see main Figure 2). Data are shown as effect size estimate with its 95% CI. These are absolute effect sizes for the categorical independent variables (preparations and gender) relative to the indicated reference group; they are values per year of age and per score of baseline values on the Likert scale for the continuous independent variables. N.d.: not determined because not an approved indication for the preparation.

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|  | **Indication** | | | |
|  | **GI cramps and pain** | **IBS** | **Bloating** | **Flatulence** |
| Preparation |  | | | |
| HBB | 0.1073 [-0.1934; 0.4080] | reference group | reference group | reference group |
| PLUS | reference group | n.d. | n.d. | n.d. |
| PO | -0.3356 [-0.6813; 0.0100] | -0.3333 [-0.8448; 0.1782] | -0.1326 [-0.5314; 0.2662] | -0.3000 [-0.8055; 0.2055] |
| Gender |  | | | |
| Female | reference group | reference group | reference group | reference group |
| Male | 0.3047 [-0.0009; 0.6104] | 0.2416 [-0.3071; 0.7903] | 0.3394 [-0.1248; 0.8036] | 0.6154 [0.0551; 1.1757] |
| Age | -0.0069 [-0.0143; 0.0006] | -0.0085 [-0.0231; 0.0061] | -0.0061 [-0.0184; 0.0062] | 0.0004 [-0.0140; 0.0148] |
| Baseline symptom severity | 0.0978 [0.0260; 0.1696] | 0.1282 [-0.0157; 0.2722] | 0.1239 [0.0091; 0.2388] | 0.0495 [-0.0872; 0.1862] |
| Baseline work/daily chore impairment | 0.4484 [0.3912; 0.5056] | 0.4132 [0.2996; 0.5267] | 0.4199 [0.3272; 0.5127] | 0.4012 [0.2907; 0.5116] |
| Baseline sleep impairment | 0.0114 [-0.0349; 0.0577] | -0.0417 [-0.1261; 0.0427] | 0.0123 [-0.0623; 0.0868] | 0.0557 [-0.0349; 0.1462] |

Supplemental Table 4: Effects of preparation, demographic, and baseline variables on improvement of impairment of sleep on a 0-10 Likert scale, which was by 2.8, 3.1 and 2.5 points for HBB, PLUS and PO, respectively, in the overall group (see main Figure 2). Data are shown as effect size estimate with its 95% CI. These are absolute effect sizes for the categorical independent variables (preparations and gender) relative to the indicated reference group; they are values per year of age and per score of baseline values on the Likert scale for the continuous independent variables. N.d.: not determined because not an approved indication for the preparation.

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|  | **Indication** | | | |
|  | **GI cramps and pain** | **IBS** | **Bloating** | **Flatulence** |
| Preparation |  | | | |
| HBB | -0.1252 [-0.4912; 0.2409] | reference group | reference group | reference group |
| PLUS | reference group | n.d. | n.d. | n.d. |
| PO | -0.3527 [-0.7733; 0.0680] | -0.1787 [-0.7365; 0.3792] | -0.1114 [-0.5671; 0.3443] | -0.0030 [-0.5944; 0.6003] |
| Gender |  | | | |
| Female | reference group | reference group | reference group | reference group |
| Male | 0.0435 [-0.3292; 0.4162] | 0.2523 [-0.3441; 0.8486] | 0.4036 [-0.1251; 0.9323] | 0.4243 [-0.2340; 1.0826] |
| Age | 0.0007 [-0.0083; 0.0097] | -0.0007 [-0.0165; 0.0151] | -0.0018 [-0.0159; 0.0122] | 0.0022 [-0.0147; 0.0192] |
| Baseline symptom severity | 0.2181 [0.1307; 0.3055] | 0.2428 [0.0874; 0.3983] | 0.2733 [0.1427; 0.4039] | 0.2740 [0.1145; 0.4336] |
| Baseline work/daily chore impairment | 0.1586 [0.0549; 0.2623] | 0.1734 [-0.0053; 0.3520] | 0.0936 [-0.0684; 0.2557] | -0.0103 [-0.2086; 0.1881] |
| Baseline leisure impairment | 0.1310 [0.0207; 0.2413] | 0.1186 [-0.0801; 0.3173] | 0.1869 [0.0150; 0.3589] | 0.2859 [0.0749; 0.4969] |