## Impact of DSMES-app interventions on Medication Adherence in Type 2

Diabetes Mellitus: Systematic Review \& Meta-Analysis

Table S1. Search Strategy used in Cochrane Controlled Register of Trials (CENTRAL)

| ID | Search Details | Number |
| :---: | :---: | :---: |
| \#1 | [Diabetes Mellitus, Type 2] explode all trees | 17351 |
| \#2 | [Telemedicine] explode all trees | 2438 |
| \#3 | [Self-Management] explode all trees and with qualifier(s): [education ED] | 39 |
| \#4 | "self-management education" OR "self-management support" OR "diabetes education" OR "health promotion" OR "patient education" OR "health education" | 34078 |
| \#5 | [Medication Adherence] explode all trees | 2189 |
| \#6 | [Patient Compliance] explode all trees | 11739 |
| \#7 | "cell phone" OR "cellphone" OR "cellular phone" OR "cellular telephone" OR "mobile phone" OR "mobile telephone" OR "mobile applications" OR "mobile apps" OR "text messaging" OR "texting" | 5554 |
| \#8 | \#3 OR \#4 | 34087 |
| \#9 | \#7 OR \#2 | 7593 |
| \#10 | \#5 OR \#6 | 11739 |
| \#11 | \#1 AND \#8 | 1285 |
| \#12 | \#11 AND \#9 | 101 |
| \#13 | \#12 AND \#10 | 11 |

Figure S2. Intervention Effect on Medication Adherence at 0.2 pre/post correlation

| Study name | Statistics for each study |  |  |  |  |  |  | Std diff in means and 95\% CI |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Std diff in means | Standard error | Variance | Lower limit | Upper limit | Z-Value | p-Value |  |  |  |  |  |
| Huang et al, 2019 | 0.596 | 0.320 | 0.102 | -0.031 | 1.223 | 1.863 | 0.063 |  |  |  |  |  |
| Kleinmann et al, 2017 | 0.246 | 0.251 | 0.063 | -0.246 | 0.739 | 0.980 | 0.327 |  |  |  |  |  |
| Yang et al, 2020 | 0.376 | 0.134 | 0.018 | 0.114 | 0.637 | 2.813 | 0.005 |  |  |  |  |  |
|  | 0.377 | 0.111 | 0.012 | 0.160 | 0.594 | 3.406 | 0.001 |  |  |  |  |  |
|  |  |  |  |  |  |  |  | -2.00 | -1.00 | 0.00 | 1.00 | 2.00 |
|  |  |  |  |  |  |  |  |  | rs Usua |  | DSM |  |

Figure S3. Intervention Effect on Medication Adherence at 0.8 pre/post correlation


Figure S4. Intervention Effect on HbA 1 c at 0.2 pre/post correlation

| Study name | Statistics for each study |  |  |  |  |  |  |  | Difference in means and 95\% CI |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Difference in means | Standard error | Variance | Lower <br> limit | Upper limit | Z-Value | p-Value |  |  |  |  |
| Dominguez et al, 2019 | -0.100 | 0.210 | 0.044 | -0.512 | 0.312 | -0.476 | 0.634 |  |  |  |  |
| Huang et al, 2019 | -0.500 | 0.810 | 0.656 | -2.087 | 1.087 | -0.617 | 0.537 | $\ldots$ |  |  |  |
| Kleinmann et al, 2017 | -0.600 | 0.337 | 0.114 | -1.261 | 0.061 | -1.779 | 0.075 |  |  |  |  |
| Yang et al, 2020 | -0.350 | 0.104 | 0.011 | -0.554 | -0.146 | -3.359 | 0.001 |  |  |  |  |
|  | -0.324 | 0.089 | 0.008 | -0.499 | -0.149 | -3.625 | 0.000 |  |  |  |  |
|  |  |  |  |  |  |  |  | -2.00 | -1.00 | 1.00 | 2.00 |

HbA1c: Glycosylated Hemoglobin

Figure S5. Intervention Effect on HbA1c at 0.8 pre/post correlation


## HbA1c: Glycosylated Hemoglobin

Figure S6. Intervention Effect on BMI at 0.2 pre/post correlation


Figure S7. Intervention Effect on BMI at 0.8 pre/post correlation


BMI: Body Mass Index

