



Corrigendum to “Effects of an immersive psychosocial training program on depression and well-being: A randomized clinical trial” [J. Psychiatr. Res. 150 (2022) 292–299]

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The authors regret that there was an error in calculating the PHQ-9 score. Specifically, question two was counted twice and question three was skipped, resulting in very modest changes in PHQ-9 scores.

Most notably, one participant in the training program had a change in final score from four (below the threshold for depression) to five (mildly depressed) after correction. This participant started the intervention with a score of 19, which is indicative of moderately severe depression. They now end the intervention with a score classified as mild depression. This changes the intervention group's remission rate to 93% instead of 100%, although 100% of intervention participants exhibited a clinically meaningful response defined as remission or reduction in clinical classification using the PHQ-9.

We also note that a participant in the gratitude control group that began the study without depression now crosses the threshold for mild depression and ends with a depression-qualifying score of 6. The baseline group now starts with 11 depressed individuals rather than 13, and there are still no significant differences in baseline depression score or severity between the treatment and control groups at baseline.

The update to the PHQ-9 score also results in other slight changes to various plots and tables, as most of the original plots and tables included “Depression (PHQ-9)” as one of the measures displayed. Please see the following link to view the updated dataset, updated versions of relevant plots and tables, and the code used to generate them:

<https://www.dropbox.com/scl/fo/3tzkwco8mcrr0px0pcfw/ALFvIeKp-74kolasQB21arw?rlkey=d0ktqghufzxdwubygxd9eghv&st=h7ip7pir&dl=0>

These corrections do not change the overall findings of the study.

Finally, we note that after the article was first made available online on March 9th, 2022, Dr. Snyder became a co-founder of a startup, Marble Therapeutics, on July 12th, 2022. Mr. Robbins later invested in Marble Therapeutics on September 26th, 2022, three months after the

final version of the article was published. We do not believe there was a conflict at the time this work was done, but nevertheless wish to note this relationship.

The authors appreciate the opportunity to correct the scientific record with regard to this work and a detailed summary of the corrections is provided in the table below.

The authors would like to apologise for any inconvenience caused.

Detailed summary of corrections

Updated item	Summary of corrections
Data table	The original data table (“Final Data Table.csv” at the Dropbox link in our original paper) had incorrect values for the PHQ-9 score. Specifically, question three was skipped and question two was double-counted. The updated data table (“Final Data Table - corrected.csv” at the link above) contains correct PHQ-9 scores, which differ modestly from those in the original data table. Additionally, the “height” and “weight” columns in the original data table were coded. In the updated data table, we have replaced the codes with their numerical values; however, these columns were not used in the paper.
Graphical abstract	New depression remission statistics at study week six: Training program: 93% (13/14) - originally 100% (14/14) Control group: 27% (3/11) - originally 31% (4/13)

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Updated item	Summary of corrections
Fig. 2A	The boxplot titled “Change in Depression Severity” was taken from Fig. 2A, whose updated version is available in the folder linked above (within the subfolder “Updated Boxplots - and Code Used to Generate Them”).
Fig. 2B	The updated version of this boxplot is available in the folder linked above (within the subfolder “Updated Boxplots - and Code Used to Generate Them”).
Table 1	The updated version of this figure is available in the folder linked above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). The only effect size that changed was that for depression. Original effect size for depression change (training program vs. control group, baseline to week six): −0.85, 95% CI [−1.47, −0.22], $p = 0.02$ Updated numbers: −0.91, 95% CI [−1.54, −0.28], $p = 0.01$ Note: p -values for this figure were taken directly from the updated Table 3 (column “T31-T.p”).
Table 2	Updated versions of tables are available in the folder linked above (within the subfolder “Updated Tables - and Code Used to Generate Them”). For Table 1, the “not depressed” line changes from “9 control, 9 training program, $p = 1$ ” to “11 control, 9 training program, $p = 0.55$.” The “mildly depressed” line changes from “9 control, 8 training program, $p = 0.76$ ” to “7 control, 8 training program, $p > 0.99$.” Additionally, all p -values originally marked as “1” due to rounding have been updated to “ $p > 0.99$ ” for increased precision. Updated (vs. original) % changes for depression: Week one - baseline: Control group: −34.4 (vs. −39.3) Training program: −61.8 (vs. −69.3) Week six - baseline: Control group: −19.7 (vs. −23) Training program: −80.3 (vs. −82.7) Week six - week one: Control group: 22.5 (vs. 27) Training program: −48.3 (vs. −43.5)
Table 3	Updated (vs. original) p -values: Note - some non-depression p -values change because of multiple hypothesis correction (adjusted p -values depend on all the non-adjusted p -values). However, no p -values change from significant to non-significant or vice versa using the predefined threshold of $\alpha = 0.05$. Depression: Week six - baseline: 0.01 (vs. 0.02) for t -test Week six - week one: 0.10 (vs. 0.15) for t -test; 0.28 (vs. 0.46) for Wilcoxon test Meaning: Week one - baseline: 0.01 (vs. 0.02) for t -test Attachment avoidance: Week one - baseline: 0.38 (vs. 0.39) for Wilcoxon test Hope: Week one - baseline: 0.14 (vs. 0.15) for t -test Gratitude: Week six - week one: 0.35 (vs. 0.36) for Wilcoxon test SSS: Week six - week one: 0.35 (vs. 0.36) for

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Updated item	Summary of corrections
Table S2	Wilcoxon test Safe: Week one - baseline: 0.01 (vs. 0.02) for t -test Alive: Week six - week one: 0.44 (vs. 0.45) for Wilcoxon test Updated (vs. original) mean/SD for depression at each time point: Control, baseline: 6.1 ± 4.4 (vs. 6.1 ± 4.1) Training program, baseline: 7.6 ± 6.3 (vs. 7.5 ± 6.8) Control, week one: 4 ± 3.6 (vs. 3.7 ± 3.9) Training program, week one: 2.9 ± 4.6 (vs. 2.3 ± 4.2) Control, week six: 4.9 ± 4.4 (vs. 4.7 ± 4.5) Training program, week six: 1.5 ± 1.8 (vs. 1.3 ± 1.8)
Tables S3-S5	These tables focus on the subset of participants that began the trial depressed. As mentioned above, the PHQ-9 correction reduces the number of initially depressed control participants by two, resulting in several numerical changes across these tables. However, the updated numbers are qualitatively similar. Updated versions of these tables, like the others, are available in the folder linked above. We also note that we have updated Table S4 code to use the “round” rather than “signif” function for simplifying means, for consistency with Table S3 code.
Table S6	Updated (vs. original) p -values: Note - some non-depression p -values change because of multiple hypothesis correction (adjusted p -values depend on all the unadjusted p -values). However, no p -values change from significant to non-significant or vice versa using the predefined threshold of $\alpha = 0.05$. Depression: Week one - baseline: 0.11 (vs. 0.13) Week six - baseline: 0.02 (vs. 0.03) Week six - week one: 0.38 (vs. 0.43) Accomplishment: Week six - week one: 0.38 (vs. 0.39) Attachment avoidance: Week six - baseline: 0.02 (vs. 0.01) Gratitude: Week six - week one: 0.39 (vs. 0.40)
Table S7	Updated (vs. original) % changes for depression: Week one - baseline: Control group: −34.4 (vs. −39.3) Training program: −55.9 (vs. −63.6) Week six - baseline: Control group: −19.7 (vs. −23) Training program: −77.9 (vs. −80.3) Week six - week one: Control group: 22.5 (vs. 27) Training program: −50 (vs. −45.8)
Table S8	Updated (vs. original) p -values: Note - some non-depression p -values change because of multiple hypothesis correction (adjusted p -values depend on all the unadjusted p -values). However, no p -values change from significant to non-significant or vice versa using the predefined threshold of $\alpha = 0.05$. Depression: Week one - baseline: 0.23 (vs. 0.22) for t -test; 0.26 (vs. 0.27) for Wilcoxon Week six - baseline: 0.02 (vs. 0.03) for t -test Week six - week one: 0.09 (vs. 0.14) for t -test; 0.26 (vs. 0.40) for Wilcoxon Anxiety:

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Updated item	Summary of corrections
	<p>Week one - baseline: 0.37 (vs. 0.38) for Wilcoxon</p> <p>Stress:</p> <p>Week six - week one: 0.26 (vs. 0.27) for Wilcoxon</p> <p>Loneliness:</p> <p>Week six - week one: 0.26 (vs. 0.27) for Wilcoxon</p> <p>Relationships:</p> <p>Week one - baseline: 0.11 (vs. 0.12) for <i>t</i>-test</p> <p>Week six - week one: 0.11 (vs. 0.12) for <i>t</i>-test</p> <p>Attachment avoidance:</p> <p>Week one - baseline: 0.26 (vs. 0.27) for Wilcoxon</p> <p>Gratitude:</p> <p>Week six - week one: 0.34 (vs. 0.35) for Wilcoxon</p> <p>Physical role functioning:</p> <p>Week six - baseline: 0.26 (vs. 0.27) for Wilcoxon</p> <p>Sexual satisfaction:</p> <p>Week one - baseline: 0.09 (vs. 0.10) for <i>t</i>-test</p>
Table S9	<p>Updated (vs. original) mean/SD for depression at each time point:</p> <p>Control, baseline: 6.1 ± 4.4 (vs. 6.1 ± 4.1)</p> <p>Training program, baseline: 6.8 ± 5.3 (vs. 6.6 ± 5.4)</p> <p>Control, week one: 4 ± 3.6 (vs. 3.7 ± 3.9)</p> <p>Training program, week one: 3 ± 4.6 (vs. 2.4 ± 4.3)</p> <p>Control, week six: 4.9 ± 4.4 (vs. 4.7 ± 4.5)</p> <p>Training program, week six: 1.5 ± 1.8 (vs. 1.3 ± 1.8)</p>
Table S10	<p>Updated (vs. original) <i>p</i>-values:</p> <p>Note - some non-depression <i>p</i>-values change because of multiple hypothesis correction (adjusted <i>p</i>-values depend on all the original <i>p</i>-values). However, no <i>p</i>-values change from significant to non-significant or vice versa using the predefined threshold of $\alpha = 0.05$.</p> <p>Depression:</p> <p>Week one - baseline: 0.17 (vs. 0.19)</p> <p>Week six - baseline: 0.03 (vs. 0.05)</p> <p>Week six - week one: 0.27 (vs. 0.34)</p> <p>Attachment avoidance:</p> <p>Week one - baseline: 0.17 (vs. 0.18)</p> <p>Physical role functioning:</p> <p>Week six - baseline: 0.29 (vs. 0.30)</p>
Table S11	<p>Alive:</p> <p>Week six - week one: 0.33 (vs. 0.34)</p> <p>In the original Table S11, the columns for “Week Six - Week One” were mistakenly duplicates of the columns for “Week Six - Baseline,” due to a typo in the code (fixed in the updated code for this table, which is available in the folder linked above).</p> <p>As expected, the only test statistics that changed due to the PHQ-9 correction are those for depression.</p> <p>Updated (vs. original) statistics for Week One - Baseline:</p> <p><i>T</i>-test <i>t</i> Statistic: 1.8 (unchanged from original)</p> <p><i>T</i>-test DF: 31 (vs. 30.1)</p> <p>Rank-Sum <i>W</i> Statistic: 176.5 (vs. 177)</p> <p>Updated (vs. original) statistics for Week Six - Baseline:</p> <p><i>T</i>-test <i>t</i> Statistic: 3.1 (vs. 2.9)</p> <p><i>T</i>-test DF: 34.4 (vs. 32.5)</p> <p>Rank-Sum <i>W</i> Statistic: 132 (vs. 137.5)</p> <p>Updated (vs. original) statistics for Week Six - Week One:</p>

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Updated item	Summary of corrections
	<p><i>T</i>-test <i>t</i> Statistic: 2 (vs. 1.7)</p> <p><i>T</i>-test DF: 41.8 (vs. 41.4)</p> <p>Rank-Sum <i>W</i> Statistic: 188 (vs. 204.5)</p> <p>Note, to aid in the interpretation of the <i>t</i>-test statistics: as seen in the code in the folder linked above, the order of vectors for the <i>t</i>-test in R was: control, training program.</p>
Table S12	<p>The only line that changes is that for depression.</p> <p>Updated (vs. original) values:</p> <p>Mean baseline depression score, control group: 6.1 (unchanged from original)</p> <p>Mean baseline depression score, training program: 7.6 (vs. 7.5)</p> <p><i>p</i>-value for <i>t</i>-test comparing means: 0.38 (vs. 0.41)</p>
Fig. S1	<p>Updated versions of the plots in this figure are available at the link provided above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). The only effect sizes that changed were those for depression.</p> <p>Original effect sizes for depression change (training program vs. control group):</p> <p>Baseline to Week One: -0.54, 95% CI [-1.16, 0.08], <i>p</i> = 0.14</p> <p>Week One to Week Six: -0.51, 95% CI [-1.13, 0.11], <i>p</i> = 0.14</p> <p>Updated numbers:</p> <p>Baseline to Week One: -0.53, 95% CI [-1.15, 0.09], <i>p</i> = 0.14</p> <p>Week One to Week Six: -0.59, 95% CI [-1.21, 0.03], <i>p</i> = 0.10</p> <p>Note: <i>p</i>-values for this figure were taken directly from the updated Table 3 (columns “T21-T.p” and “T32-T.p”, for panels A and B respectively).</p>
Fig. S2	<p>Updated versions of the plots in this figure are available at the link provided above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). This figure focuses on the subset of participants that began the trial depressed. As mentioned above, the PHQ-9 correction reduces the number of initially depressed control participants by two, resulting in several numerical changes in this figure. However, the updated numbers are qualitatively similar to the original numbers.</p> <p>Note: <i>p</i>-values for this figure were taken directly from the updated Table S5 (columns “T21-T.p”, “T31-T.p”, and “T32-T.p”, for panels A, B, and C respectively).</p>
Fig. S3	<p>Updated versions of the plots in this figure are available at the link provided above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). The only effect sizes that changed were those for depression.</p> <p>Original effect sizes for depression change (within the training program group):</p> <p>Baseline to Week One: -0.94, 95% CI [-1.58, -0.29], <i>p</i> = 0.003</p> <p>Baseline to Week Six: -1.26, 95% CI [-2.07, -0.45], <i>p</i> < 0.001</p> <p>Week One to Week Six: -0.35, 95% CI [-0.86, 0.16], <i>p</i> = 0.18</p> <p>Updated numbers:</p> <p>Baseline to Week One: -0.89, 95% CI [-1.49, -0.29], <i>p</i> = 0.003</p> <p>Baseline to Week Six: -1.30, 95% CI [-2.10, -0.50], <i>p</i> < 0.001</p> <p>Week One to Week Six: -0.39, 95% CI [-0.85, 0.07], <i>p</i> = 0.10</p>

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Updated item	Summary of corrections
Fig. S4	Updated versions of the plots in this figure are available at the link provided above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). The only effect sizes that changed were those for depression. Original effect sizes for depression change (within the control group): Baseline to Week One: –0.58, 95% CI [–0.98, –0.19], $p = 0.10$ Baseline to Week Six: –0.32, 95% CI [–0.68, 0.03], $p = 0.22$ Week One to Week Six: 0.23, 95% CI [–0.24, 0.69], $p = 0.49$ Updated numbers: Baseline to Week One: –0.54, 95% CI [–0.91, –0.16], $p = 0.12$ Baseline to Week Six: –0.28, 95% CI [–0.64, 0.08], $p = 0.29$ Week One to Week Six: 0.24, 95% CI [–0.24, 0.71], $p = 0.47$
Fig. S5	Updated versions of the plots in this figure are available at the link provided above (within the subfolder “Updated Effect Size Plots - and Code Used to Generate Them”). The only effect sizes that changed were those for depression. Original effect sizes for depression change (within the initially depressed training program participants): Baseline to Week One: –1.39, 95% CI [–2.44, –0.34], $p = 0.004$ Baseline to Week Six: –1.85, 95% CI [–2.82, –0.88], $p < 0.001$ Week One to Week Six:

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Updated item	Summary of corrections
	–0.43, 95% CI [–0.94, 0.08], $p = 0.11$ Updated numbers: Baseline to Week One: –1.31, 95% CI [–2.28, –0.34], $p = 0.004$ Baseline to Week Six: –1.93, 95% CI [–2.85, –1.00], $p < 0.001$ Week One to Week Six: –0.44, 95% CI [–0.91, 0.02], $p = 0.08$
Fig. S6	All panels change because the y-axis of each plot was PHQ-9 score, which has now been updated. Updated versions of the plots in this figure are available in the folder linked above (within the subfolder “Updated Boxplots - and Code Used to Generate Them”).
Figs. S7, S9, S11	All panels change because points were colored by initial depression status. Updated versions of the plots in these figures are available in the folder linked above (within the subfolder “Updated Boxplots - and Code Used to Generate Them”).
Figs. S8 and S10, S12	All panels change because these figures focused on initially depressed participants, and there are now two fewer initially depressed participants in the control group. Updated versions of the plots in these figures are available in the folder linked above (within the subfolder “Updated Boxplots - and Code Used to Generate Them”).
New remission statistics at week one (these statistics are not covered in figures/tables)	Training program: 71% (10/14) - originally 79% (11/14) Control group: 45% (5/11) - originally 62% (8/13)