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**Article:**

Choe, E.Y., Jorgensen, A. [orcid.org/0000-0001-5614-567X](https://orcid.org/0000-0001-5614-567X) and Sheffield, D. (2020) Simulated natural environments bolster the effectiveness of a mindfulness programme: A comparison with a relaxation-based intervention. *Journal of Environmental Psychology*, 67. 101382. ISSN 0272-4944

<https://doi.org/10.1016/j.jenvp.2019.101382>

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## **Supplementary File-2**

**\*Results from MANOVA reported in manuscript**

**\*Results from ANCOVA (after adjusting for baseline values)**

### **1. Level of mindfulness**

*Results from MANOVA reported in manuscript:*

A time by group by environment univariate repeated measures ANOVA revealed a main effect of time on levels of mindfulness,  $F(2,117)= 4.20$ ,  $p= .02$ ,  $\eta^2= .07$ . A time by group by environment interaction was not found,  $F(2,117)= 0.01$ ,  $p= .99$ ,  $\eta^2= .00$ . However, there was a significant time by group interaction,  $F(2,117)= 4.61$ ,  $p= .01$ ,  $\eta^2= .07$ ; the mindfulness group showed a steady increase in mindfulness across three time periods, whereas the relaxation group did not. ANOVA revealed no differences between the groups at T0,  $F(1,120)= 0.25$ ,  $p= .62$ ,  $\eta^2= .00$ , or at T1,  $F(1,120)= 2.58$ ,  $p= .11$ ,  $\eta^2= .02$ , but the mindfulness group ( $M=16.37$ ,  $SD=1.97$ ,  $CI=[15.86; 16.88]$ ) reported greater mindfulness at T2 than the relaxation group ( $M=15.26$ ,  $SD=2.05$ ,  $CI=[14.75; 15.78]$ ),  $F(1,120)= 9.25$ ,  $p= .03$ ,  $\eta^2= .07$ .

*Results from ANCOVA (after adjusting for baseline values):*

After controlling for baseline, there was no significant time by group by environment interaction,  $F(1,117)= 0.03$ ,  $p= .87$ ,  $\eta^2= .00$ , and no significant time by group interaction,  $F(1,117)= 3.74$ ,  $p= .056$ ,  $\eta^2= .03$ . However, there was a significant main effect of group on level of mindfulness,  $F(1,117) = 8.01$ ,  $p= .005$ ,  $\eta^2= .06$ . ANCOVA reveals that there was no significant difference between groups at T1,  $F(1,119) = 2.81$ ,  $p= .10$ ,  $\eta^2= .02$ , but there was a significant difference between groups at T2,  $F(1,119) = 12.61$ ,  $p= .001$ ,  $\eta^2= .10$ ; the mindfulness group ( $M=16.31$ ,  $SD=1.53$ ,  $CI=[15.91; 16.71]$ ) had greater mindfulness than the relaxation group ( $M=15.32$ ,  $SD=1.51$ ,  $CI=[14.94; 15.70]$ ).

### **2. Nature connectedness**

*Results from MANOVA reported in manuscript:*

Time had a statistically significant effect on nature connectedness,  $F(2,117)= 4.86$ ,  $p= .01$ ,  $\eta^2= .08$ , but a time by group by environment interaction was not found,  $F(2,117)= 0.87$ ,  $p= .42$ ,  $\eta^2= .02$ . The mindfulness group in the natural setting showed a consistent improvement in nature connectedness. There was no significant time by group interaction,  $F(2,117)= 0.69$ ,  $p= .51$ ,  $\eta^2= .012$ , but a significant interaction effect was found between time and environment,  $F(2,117)= 3.14$ ,  $p= .047$ ,  $\eta^2= .05$ . The ANOVA revealed no differences between the groups at T0,  $F(1,120)= 0.26$ ,  $p= .61$ ,  $\eta^2= .00$ , or at T1,  $F(1,120)= 2.86$ ,  $p= .09$ ,  $\eta^2= .02$ , but there was a difference at T2: the natural environment group ( $M=3.79$ ,  $SD=0.72$ ,  $CI=[3.61; 3.97]$ ) reported greater nature connectedness than the group in the non-natural environment ( $M=3.42$ ,  $SD=0.69$ ,  $CI=[3.24; 3.60]$ ),  $F(1,120) = 8.62$ ,  $p= .01$ ,  $\eta^2= .06$ .

Results from ANCOVA (after adjusting for baseline values):

After controlling for baseline, there was no significant time by group by environment interaction,  $F(1,117) = 0.84$ ,  $p = .36$ ,  $\eta^2 = .01$ , and no significant time by group interaction,  $F(1,117) = 1.05$ ,  $p = .31$ ,  $\eta^2 = .01$ . However, there was a significant interaction effect between time and environment,  $F(1,117) = 4.03$ ,  $p = .047$ ,  $\eta^2 = .033$ , and a significant main effect of environment was found,  $F(1,117) = 8.61$ ,  $p = .004$ ,  $\eta^2 = .07$ . ANCOVA reveals that there was a significant difference between environments at T1,  $F(1,119) = 4.24$ ,  $p = .04$ ,  $\eta^2 = .03$ ; the group in the natural environment ( $M=3.66$ ,  $SD=0.47$ ,  $CI=[3.55; 3.78]$ ) reported greater nature connectedness than the group in the non-natural environment ( $M=3.49$ ,  $SD=0.47$ ,  $CI=[3.38; 3.61]$ ). There was also a significant difference between environments at T2,  $F(1,119) = 11.40$ ,  $p = .001$ ,  $\eta^2 = .09$ ; the group in the natural environment ( $M=3.77$ ,  $SD=0.55$ ,  $CI=[3.64; 3.91]$ ) reported greater nature connectedness than the group in the non-natural environment ( $M=3.44$ ,  $SD=0.54$ ,  $CI=[3.30; 3.58]$ ).

### **3. Positive and Negative Affect**

#### **Positive affect**

Results from MANOVA reported in manuscript:

Time had a statistically significant impact on positive affect scores,  $F(2,117) = 8.71$ ,  $p < .001$ ,  $\eta^2 = .13$ , but a time by group by environment interaction was not found,  $F(2,117) = 0.04$ ,  $p = .96$ ,  $\eta^2 = .001$ . We also found no significant time by group interaction,  $F(2,117) = 1.11$ ,  $p = .33$ ,  $\eta^2 = .02$ , and no significant interaction effect between time and environment,  $F(2,117) = 0.51$ ,  $p = .60$ ,  $\eta^2 = .01$ .

Results from ANCOVA (after adjusting for baseline values):

After controlling for baseline, there was no significant time by group by environment interaction,  $F(1,117) = 0.09$ ,  $p = .76$ ,  $\eta^2 = .001$ ; no significant interaction effect between time and group,  $F(1,117) = 1.39$ ,  $p = .24$ ,  $\eta^2 = .012$ ; and no significant interaction effect was found between time and environment,  $F(1,117) = 0.61$ ,  $p = .44$ ,  $\eta^2 = .005$ . Moreover, there was no significant main effect of group on positive affect,  $F(1,117) = 3.79$ ,  $p = .054$ ,  $\eta^2 = .03$ , and no significant main effect of environment on positive affect,  $F(1,117) = 0.61$ ,  $p = .44$ ,  $\eta^2 = .01$ .

#### **Negative affect**

Results from MANOVA reported in manuscript:

Time had a significant impact on negative affect scores,  $F(2,117) = 14.89$ ,  $p < .001$ ,  $\eta^2 = .20$ , but a time by group by environment interaction was not found,  $F(2,117) = 0.10$ ,  $p = .91$ ,  $\eta^2 = .002$ . There was a significant time by environment interaction,  $F(2,117) = 3.57$ ,  $p = .03$ ,  $\eta^2 = .06$ . ANOVA revealed no differences between the environments at baseline,  $F(1,120) = 0.01$ ,  $p = .98$ ,  $\eta^2 = .00$ , or at post intervention,  $F(1,120) = 0.18$ ,  $p = .67$ ,  $\eta^2 = .00$ , but the group in natural environments ( $M=20.42$ ,  $SD=6.00$ ,  $CI=[18.89; 21.94]$ ) reported lower negative affect at one-week follow-up than the group in non-natural environments ( $M=23.55$ ,  $SD=7.46$ ,  $CI=[21.62; 25.48]$ ),  $F(1,120) = 6.54$ ,  $p = .01$ ,  $\eta^2 = .05$ . There was also a significant interaction between time and group,  $F(2,117) = 3.23$ ,  $p = .04$ ,  $\eta^2 = .05$ ; the mindfulness group showed a steady decrease

in negative affect across three time periods, whereas the relaxation group did not. ANOVA revealed no difference between the environments at T0,  $F(1,120) = 0.00$ ,  $p = .99$ ,  $\eta^2 = .00$ , or at T1,  $F(1,120) = 0.06$ ,  $p = .81$ ,  $\eta^2 = .00$ , but the mindfulness group ( $M=20.47$ ,  $SD=5.46$ ,  $CI=[19.05; 21.90]$ ) showed lower negative affect at T2 than the relaxation group ( $M=23.35$ ,  $SD=7.83$ ,  $CI=[21.38; 25.32]$ ),  $F(1, 120) = 5.45$ ,  $p = .02$ ,  $\eta^2 = .04$ .

*Results from ANCOVA (after adjusting for baseline values):*

After controlling for baseline, a time by group by environment interaction was not found,  $F(1,117) = 0.16$ ,  $p = .69$ ,  $\eta^2 = .001$ . There was a significant time by environment interaction,  $F(1,117) = 5.00$ ,  $p = .03$ ,  $\eta^2 = .04$ . There was also a significant interaction between time and group,  $F(1,117) = 4.93$ ,  $p = .03$ ,  $\eta^2 = .04$ . However, there was no significant main effect of environment on negative affect,  $F(1,117) = 3.00$ ,  $p = .09$ ,  $\eta^2 = .03$ , and no significant main effect of group on negative affect,  $F(1,117) = 2.26$ ,  $p = .14$ ,  $\eta^2 = .02$ . ANCOVA revealed no significant difference between groups at T1,  $F(1,119) = 0.08$ ,  $p = .78$ ,  $\eta^2 = .001$ , but there was a significant difference between groups at T2,  $F(1,119) = 7.10$ ,  $p = .009$ ,  $\eta^2 = .06$ ; the mindfulness group ( $M=20.47$ ,  $SD=5.95$ ,  $CI=[18.94; 22.01]$ ) showed lower negative affect than the relaxation group ( $M=23.35$ ,  $SD=5.95$ ,  $CI=[21.86; 24.84]$ ). Moreover, ANCOVA showed that there was no significant difference between environments at T1,  $F(1,119) = 0.24$ ,  $p = .63$ ,  $\eta^2 = .002$ , but a significant difference between environments at T2,  $F(1,119) = 8.50$ ,  $p = .004$ ,  $\eta^2 = .07$ ; the group in the natural environments ( $M=20.42$ ,  $SD=5.90$ ,  $CI=[18.93; 21.91]$ ) showed lower negative affect than the group in the non-natural environments ( $M=23.55$ ,  $SD=5.97$ ,  $CI=[22.03; 25.06]$ ).

#### **4. Depression, Anxiety and Stress**

##### **Depression**

*Results from MANOVA reported in manuscript:*

A time by group by environment univariate repeated measures ANOVA revealed a main effect of time on depression scores,  $F(2,117) = 10.39$ ,  $p < .001$ ,  $\eta^2 = .15$ ; but a time by group by environment interaction was not found,  $F(2,117) = 2.08$ ,  $p = .13$ ,  $\eta^2 = .03$ . There was a significant interaction effect between time and environment,  $F(2,117) = 6.89$ ,  $p = .001$ ,  $\eta^2 = .11$ . ANOVA reported no difference between environments at T0,  $F(1,120) = 2.63$ ,  $p = .11$ ,  $\eta^2 = .02$ , or at T1,  $F(1,120) = 3.07$ ,  $p = .08$ ,  $\eta^2 = .02$ , but the difference in participants' level of depression between the natural and the non-natural environment was greater at T2,  $F(1,120) = 5.17$ ,  $p = .03$ ,  $\eta^2 = .04$ . Furthermore, there was a significant interaction between time and group,  $F(2,117) = 6.11$ ,  $p = .003$ ,  $\eta^2 = .09$ . ANOVA revealed no difference between the environments at T0,  $F(1,120) = 0.89$ ,  $p = .35$ ,  $\eta^2 = .00$ , or at T1,  $F(1,120) = 2.73$ ,  $p = .10$ ,  $\eta^2 = .02$ . However, the mindfulness group ( $M=5.32$ ,  $SD=4.84$ ,  $CI=[4.06; 6.58]$ ) showed a lower level of depression at T2 than the relaxation group ( $M=9.40$ ,  $SD=9.17$ ,  $CI=[7.09; 11.71]$ ),  $F(1,120) = 9.24$ ,  $p = .003$ ,  $\eta^2 = .07$ .

*Results from ANCOVA (after adjusting for baseline values):*

After controlling for baseline, there was no significant time by group by environment interaction,  $F(1,117)= 0.35, p= .56, \eta^2= .003$ ; no significant time by environment interaction,  $F(1,117)= 0.15, p= .70, \eta^2= .001$ ; and no significant interaction between time and group,  $F(1,117)= 2.48, p= .12, \eta^2= .02$ . However, there was a significant main effect of environment on depression,  $F(1,117) = 11.40, p= .001, \eta^2= .09$ , and a significant main effect of group on depression,  $F(1,117) = 13.09, p< .001, \eta^2= .10$ .

ANCOVA showed that there was a significant difference between environments at T1,  $F(1,119) = 9.85, p= .002, \eta^2= .08$ ; the group in the natural environments ( $M=6.31, SD=5.51, CI=[4.92; 7.70]$ ) showed lower depression than the group in the non-natural environments ( $M=9.55, SD=5.58, CI=[8.13; 10.96]$ ). There was also a significant difference between environments at T2,  $F(1,119) = 9.85, p= .002, \eta^2= .08$ ; the group in the natural environments ( $M=5.49, SD=6.93, CI=[3.76; 7.23]$ ) showed lower depression than the group in the non-natural environments ( $M=9.43, SD=6.90, CI=[7.66; 11.19]$ ). Moreover, ANCOVA reported a significant difference between groups at T1,  $F(1,119) = 7.16, p= .01, \eta^2= .06$ ; the mindfulness group ( $M=6.50, SD=5.57, CI=[5.06; 7.94]$ ) showed lower depression than the relaxation group ( $M=9.22, SD=5.63, CI=[7.82; 10.61]$ ). There was a significant difference between groups at T2,  $F(1,119) = 14.05, p< .001, \eta^2= .11$ ; the mindfulness group ( $M=5.05, SD=6.71, CI=[3.31; 6.79]$ ) showed lower depression than the relaxation group ( $M=9.65, SD=6.74, CI=[7.97; 11.34]$ ).

## **Anxiety**

### Results from MANOVA reported in manuscript:

A time by group by environment univariate repeated measures ANOVA revealed a main effect of time on anxiety scores,  $F(2,117)= 6.06, p= .003, \eta^2= .09$ . A time by group by environment interaction was not found,  $F(2,117)= 0.36, p= .70, \eta^2= .01$ . There was no significant time by environment interaction  $F(2,117)= 1.09, p= .34, \eta^2= .02$ , but a significant interaction effect was found between time and group,  $F(2,117)= 3.45, p= .04, \eta^2= .06$ ; the mindfulness group showed a steady decrease in anxiety across three time periods, whereas the relaxation group did not. However, a further ANOVA revealed no significant difference between the groups at T0,  $F(1,120)= 0.25, p= .62, \eta^2= .01$ , or at T1,  $F(1,120)= 2.58, p= .11, \eta^2= .01$ , or at T2,  $F(1,120)= 1.01, p= .32, \eta^2= .00$ .

### Results from ANCOVA (after adjusting for baseline values):

After controlling for baseline, there was no significant time by group by environment interaction,  $F(1,117)= 0.49, p= .49, \eta^2= .004$ ; no significant interaction effect between time and environment,  $F(1,117)= 0.55, p= .81, \eta^2= .00$ ; and no significant interaction effect between time and group,  $F(1,117)= 3.42, p= .07, \eta^2= .03$ . Moreover, no significant main effect of group on anxiety was found,  $F(1,117) = 1.974, p= .16, \eta^2= .02$ . However, ANCOVA reported no significant difference between groups at T1,  $F(1,119) = 2.59, p= .73, \eta^2= .001$ , but a significant difference between groups at T2,  $F(1,119)= 5.19, p= .025, \eta^2= .04$ ; the mindfulness group ( $M=7.65, SD=5.26, CI=[6.28; 9.02]$ ) showed lower anxiety than the relaxation group ( $M=9.85, SD=5.31, CI=[8.53; 11.18]$ ).

## **Stress**

### Results from MANOVA reported in manuscript:

Time had a significant effect on stress scores,  $F(2,117) = 5.99$ ,  $p = .003$ ,  $\eta^2 = .09$ . The time by group by environment interaction was significant,  $F(2,117) = 3.91$ ,  $p = .02$ ,  $\eta^2 = .06$ . However, there was no significant interaction effect between time and group,  $F(2, 117) = 1.18$ ,  $p = .31$ ,  $\eta^2 = .02$  or between time and environment,  $F(2,117) = 0.94$ ,  $p = .39$ ,  $\eta^2 = .02$ . The 3-way interaction suggests that the combined effect of the mindfulness programme and the natural environment are greater than the effect of either separately. However, the examination of univariate ANOVA at each time point revealed that there were no main effects of environment or group at each time point, nor there were any significant interaction effects at each time point.

### Results from ANCOVA (after adjusting for baseline values):

After controlling for baseline, the time by group by environment 3-way interaction was significant,  $F(1,117) = 7.59$ ,  $p = .01$ ,  $\eta^2 = .06$ . However, there was no significant interaction effect between time and group,  $F(1, 117) = 0.21$ ,  $p = .65$ ,  $\eta^2 = .002$  or between time and environment,  $F(1,117) = 0.48$ ,  $p = .49$ ,  $\eta^2 = .004$ . There was no main significant effect of group on stress,  $F(1,117) = 1.12$ ,  $p = .29$ ,  $\eta^2 = .01$ , and no significant main effect of environment on stress,  $F(1,117) = 2.67$ ,  $p = .11$ ,  $\eta^2 = .02$ .