



UC DAVIS
Center for Mind and Brain

Meditation Practice is Associated With Greater Well-Being During the COVID-19 Pandemic

PRERANA DEWAN¹, QUINN A. CONKLIN¹, JENNIFER J. POKORNY¹, BRANDON G. KING¹, CLIFFORD D. SARON^{1,2}
1) UC DAVIS CENTER FOR MIND AND BRAIN 2) UC DAVIS MIND INSTITUTE



CCC Study Website

Introduction

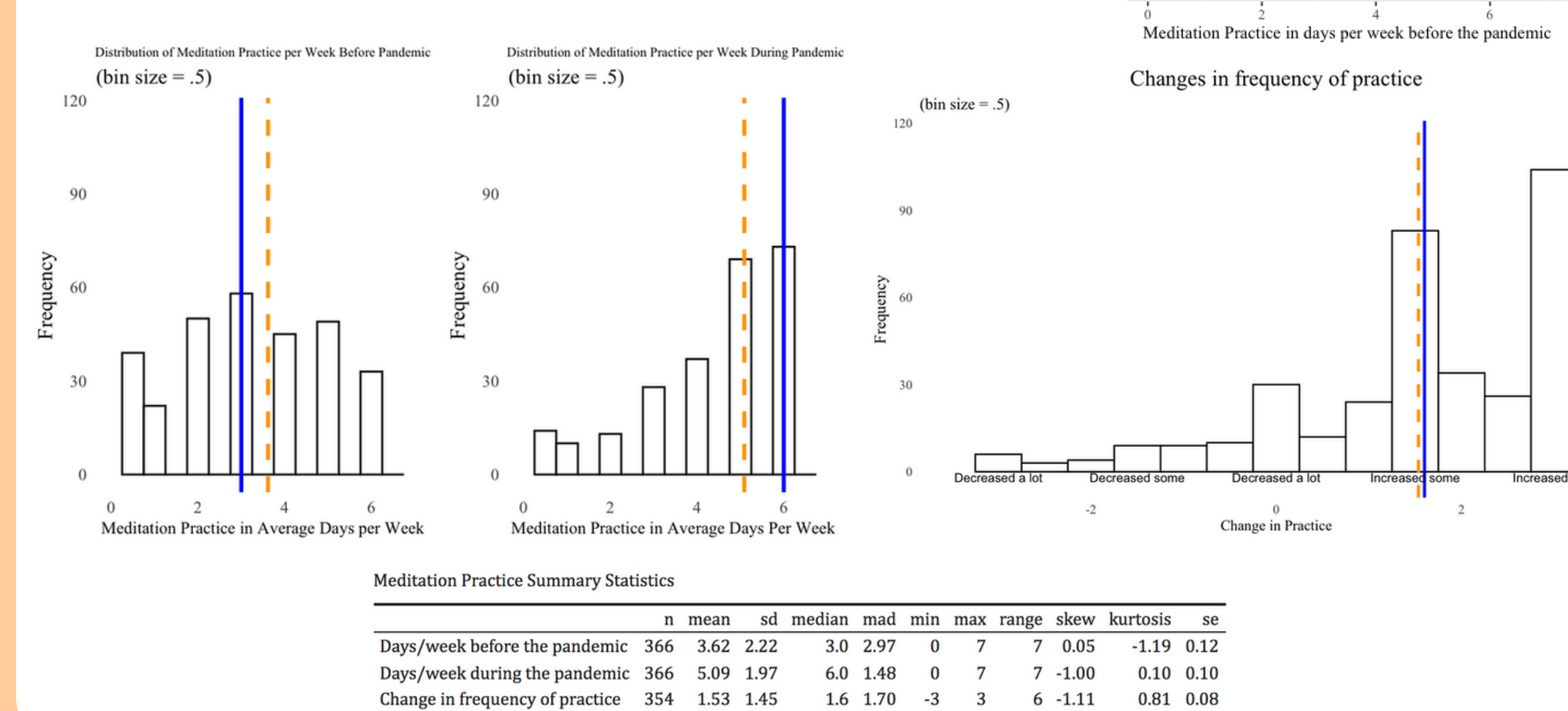
Meditation is a tool with a long history of use and is known to reduce stress and enhance overall health and well-being (Carmody and Baer, 2008). The uncertainty and distressing nature of the COVID-19 pandemic, along with mitigation measures including isolation and social distancing, have taken a toll on mental health (Kumar and Nayar, 2021). Previous studies have showcased the benefits of mindfulness and meditation practices as a means to minimize stress and deal with the challenges manifested by the pandemic (Green et al., 2021, Antonova et al., 2021, Polizzi et al. 2020). Here we investigate the relationship between meditation practice and well-being during the onset of the pandemic.

How does meditation effect well-being?

We predicted that more meditation practice per week would be related to greater well-being.

Change in practice

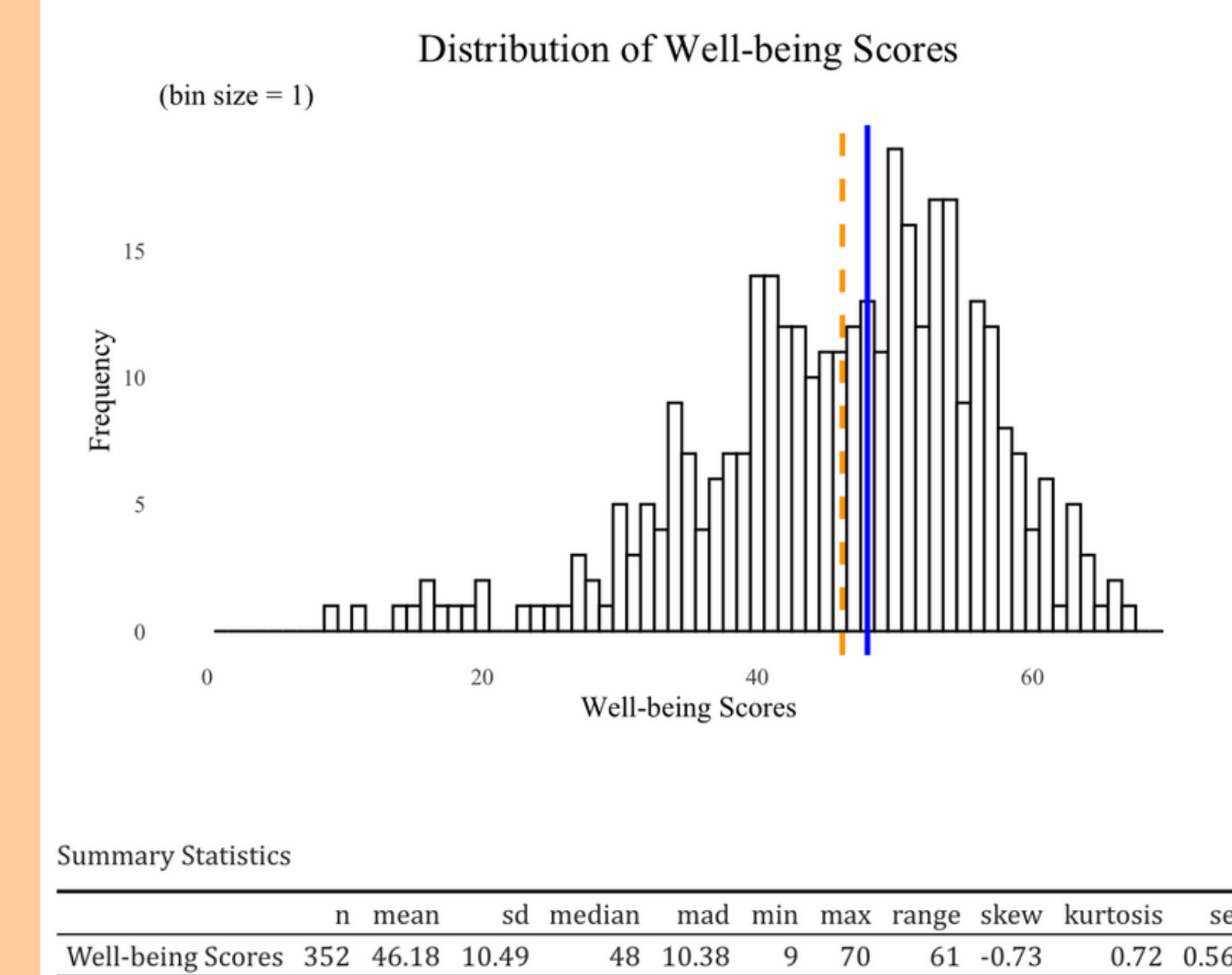
Participants practiced formal meditation an average of **3.62 days per week** before the pandemic and **5.09 days per week** during the pandemic. Frequency of practice prior to the pandemic was positively correlated with practice during the pandemic, $r = 0.43, p < 0.001$.



	n	mean	sd	median	mad	min	max	range	skew	kurtosis	se
Days/week before the pandemic	366	3.62	2.22	3.0	2.97	0	7	7	0.05	-1.19	0.12
Days/week during the pandemic	366	5.09	1.97	6.0	1.48	0	7	7	-1.00	0.10	0.10
Change in frequency of practice	354	1.53	1.45	1.6	1.70	-3	6	6	-1.11	0.81	0.08

Well-being Scores

Well-being items are summed for a possible range of 0 to 70. **The average well-being score amongst the practitioners was 46.18.**



	n	mean	sd	median	mad	min	max	range	skew	kurtosis	se
Well-being Scores	352	46.18	10.49	48	10.38	9	70	61	-0.73	0.72	0.56

Conclusion

- On average, study participants increased the frequency with which they were practicing meditation during the pandemic.
- More meditation practice per week was associated with greater well-being, and this remained true when accounting for age and gender.
- These data suggest that practicing meditation more frequently promotes greater emotional, social, and psychological well-being.
- Alternatively, this correlation could suggest that individuals with greater well-being may be better able to maintain a regular meditation practice.
- **These results suggest that meditation may be a useful tool for promoting a sense of well-being and emotional resilience as individuals navigate the challenges brought on by the pandemic.**

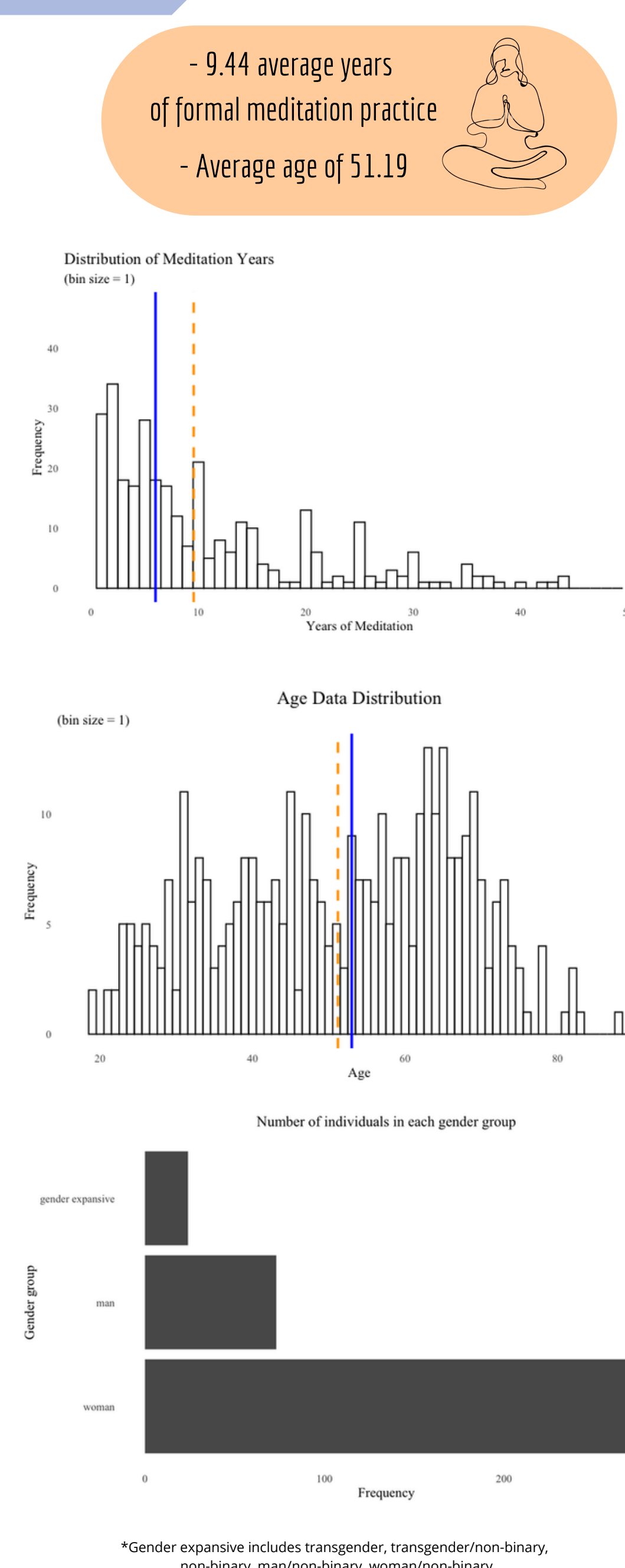


Methods

Participants: We measured the frequency of meditation practice and well-being in a national sample of **389 meditators in the U.S.** enrolled in the Contemplative Coping during COVID-19 study. Participants accepted into the study were required to have some prior meditation experience, to live in the US, and to be 18 or older.

Procedure: Self-report data were collected via Qualtrics every 4 months for a 1 year. Data reported here are from the baseline data collection that took place between June of 2020 and January of 2021.

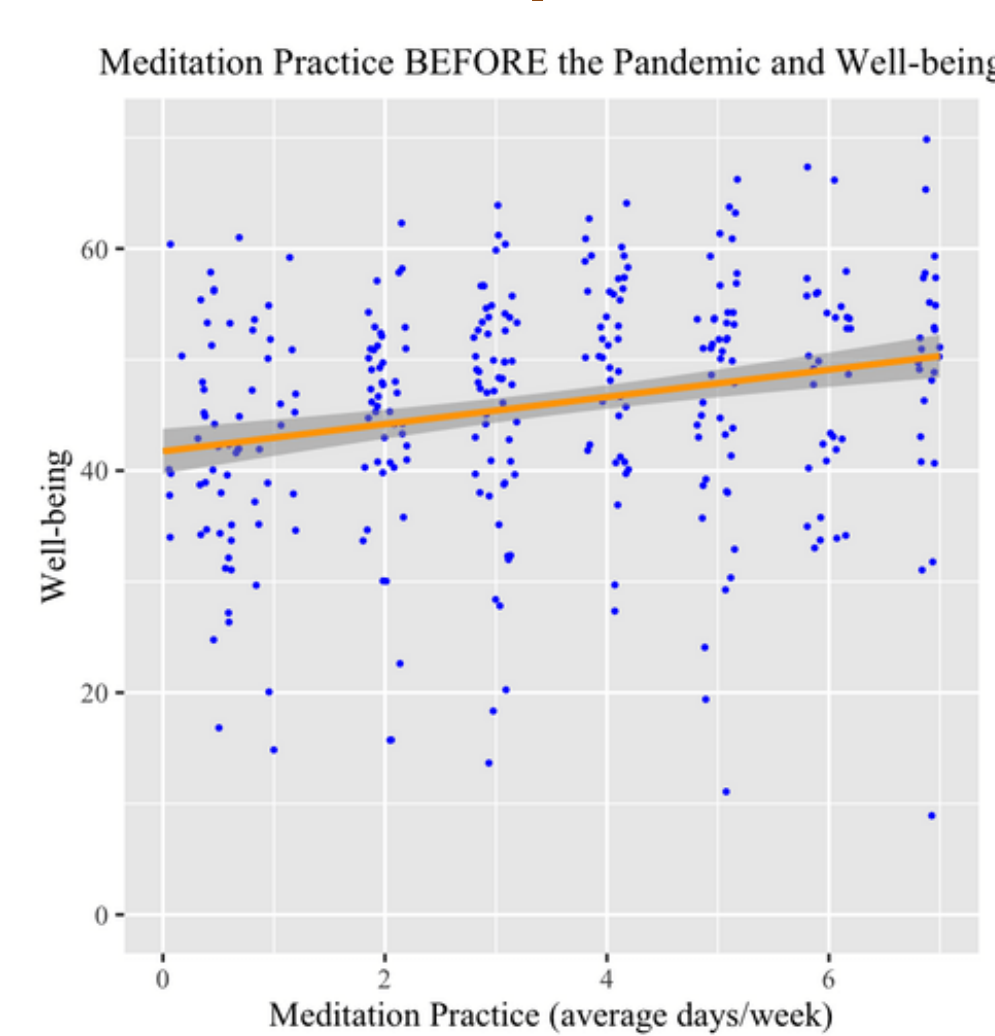
Measures: Participants self-reported how many days per week, on average, they were practicing formal meditation prior to the onset of the pandemic, and since the onset of the pandemic. They also completed the Mental Health Continuum short-form, which consists of 14 items rated on a 6-point Likert scale (Lamers et al., 2011). Response options measure the frequency with which participants experience each aspect of well-being on a scale from 0 (never) to 6 (everyday) over the past month. Examples items include "How often did you feel that you had warm and trusting relationships with others?" or "that your life has a sense of direction or meaning to it." This scale measures three domains of wellbeing: emotional, social, and psychological—with higher scores indicate flourishing.



*Gender expansion includes transgender, transgeneron-binary, non-binary, man/non-binary, woman/non-binary

Well-being & Meditation

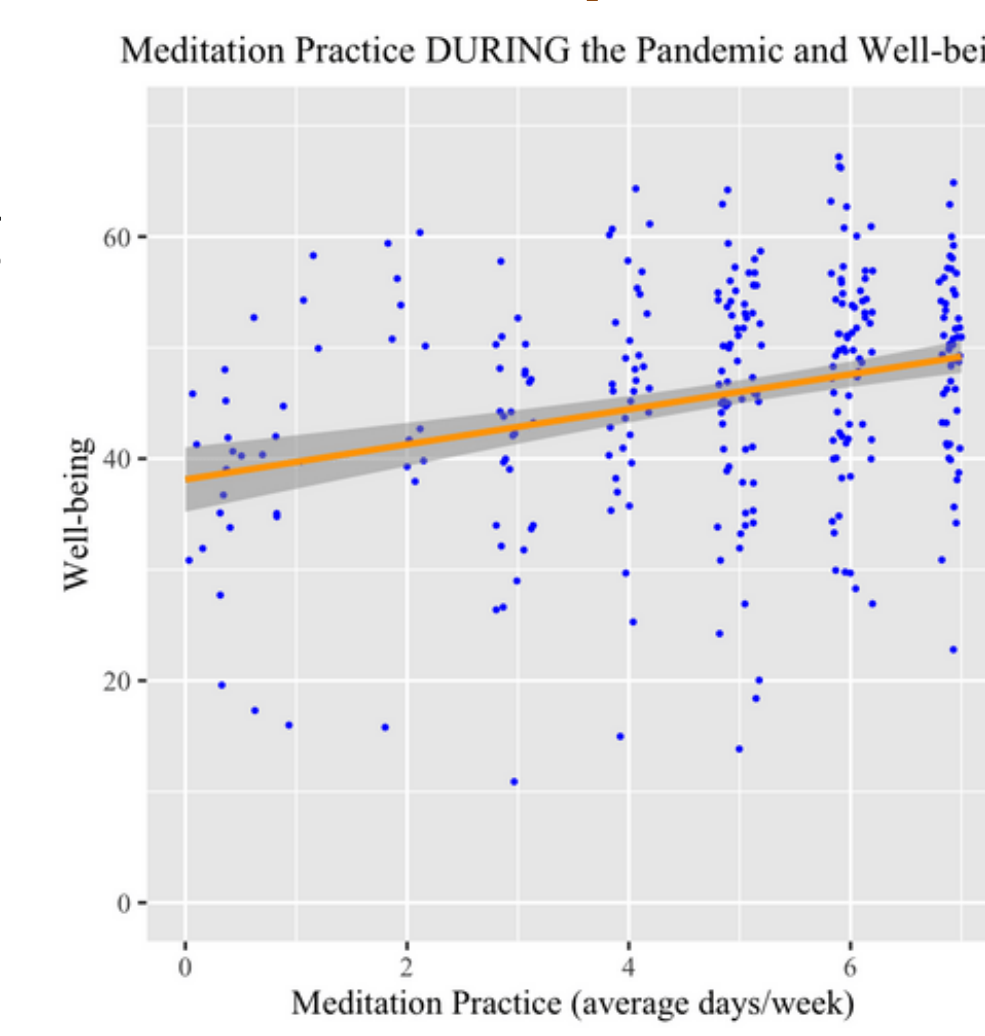
Before pandemic:
 $r = 0.26, p < 0.001$



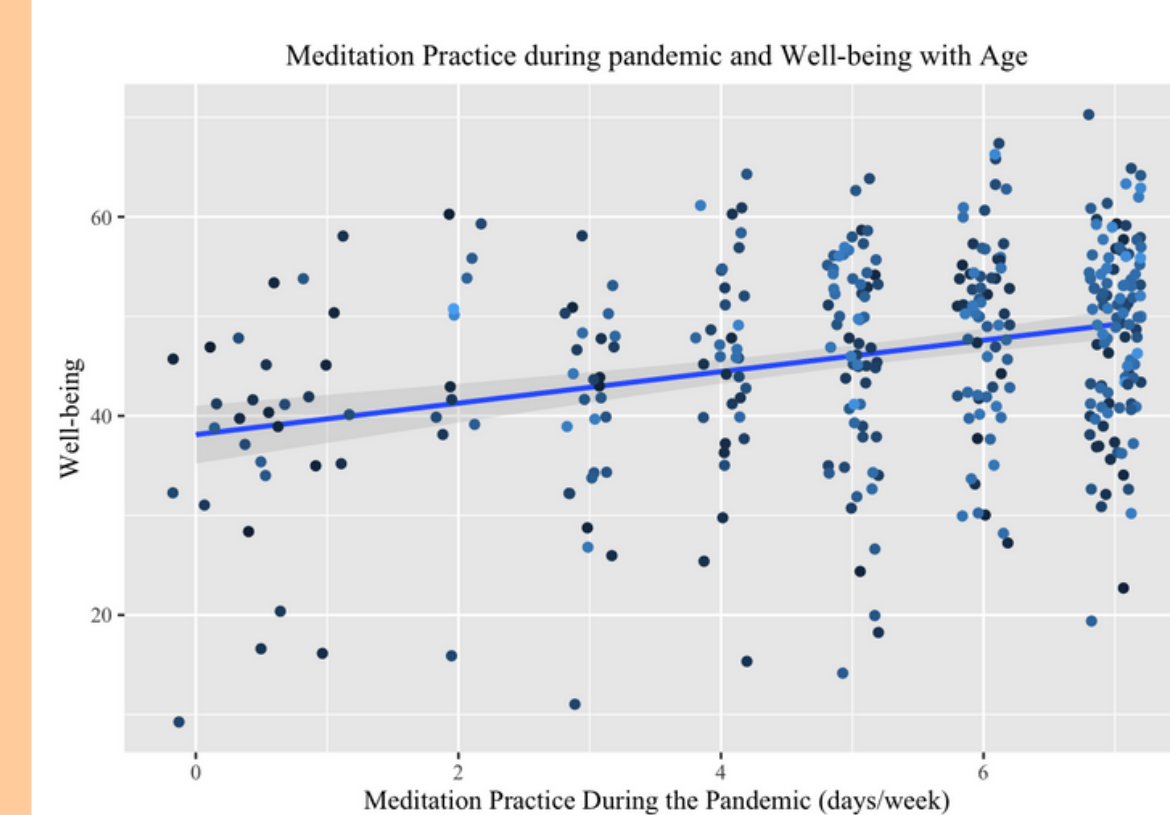
Meditation practice before and during the pandemic were both positively correlated with well-being scores at baseline.



During pandemic:
 $r = 0.30, p < 0.001$

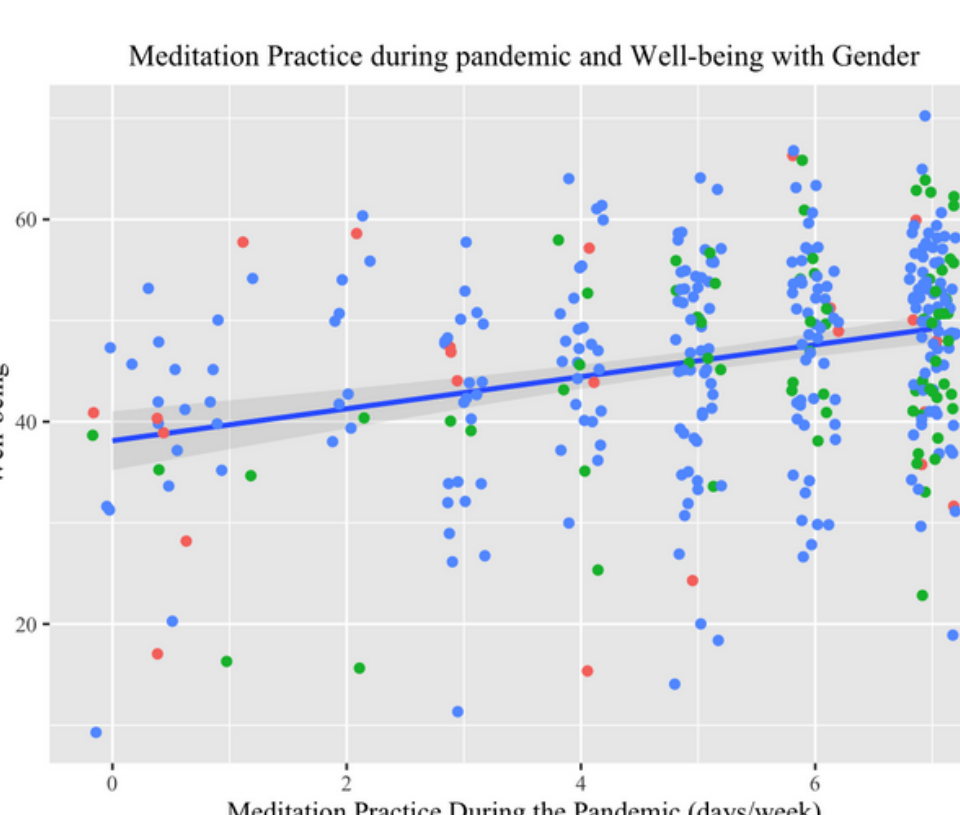


Age and Gender



Model 1	Estimate	Std. Error	t-value	p-value
Intercept	34.72	2.00	17.32	< 2e-16 ***
Meditation Practice	1.36	0.28	4.83	2.02e-05 ***
Age	0.089	0.04	2.49	0.0132 *

Adjusted R-squared: 0.09976



Model 2	Estimate	Std. Error	t-value	p-value
Intercept	36.88	2.36	15.63	< 2e-16 ***
Meditation Practice	1.59	0.28	5.76	1.88e-08 ***
Gender.man	0.26	2.45	0.11	0.915
Gender.woman	1.56	2.20	0.71	0.481

Adjusted R-squared: 0.08449

In model 1 we found that meditation practice ($F = 34.7, p < 0.001$) and age ($F = 6.20, p < 0.001$) significantly predict well-being. In model 2 meditation practice remained significant ($F = 34.6, p < 0.001$) while accounting for gender, but gender did not predict well-being ($F = 0.59, p > 1$).

Acknowledgements

Thank you to the Mind and Life Institute, the Yoga Science Foundation, Fetzer Institute, and other anonymous donors for funding the CCC Study and to our participants for their contributions.

References

- 1) Anant Kumar & K. Rajasekharan Nayar (2021) COVID 19 and its mental health consequences, *Journal of Mental Health*, 30:1, 1-2, DOI:10.1080/09638237.2020.1757052
- 2) Antonova, E., Schlosser, K., Pandey, R., & Kumari, V. (2021). Coping With COVID-19: Mindfulness-Based Approaches for Mitigating Mental Health Crisis. *Frontiers in psychiatry*, 12, 563417. <https://doi.org/10.3389/fpsy.2021.563417>
- 3) Carmody, J., Baer, R.A. Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *J Behav Med* 31, 23–33 (2008). <https://doi.org/10.1007/s10865-007-9130-7>
- 4) Green, J., Huberty, J., Puzia, M., & Stecher, C. (2021). The Effect of Meditation and Physical Activity on the Mental Health Impact of COVID-19 Related Stress and Attention to News Among Mobile App Users in the United States: Cross-sectional Survey. *JMIR mental health*, 8(4), e28479. <https://doi.org/10.2196/28479>
- 5) Lamers, Sanne MA, et al. "Evaluating the psychometric properties of the mental health continuum-short form (MHC-SF)." *Journal of clinical psychology* 67.1 (2011): 99-110.
- 6) Polizzi, C., Lynn, S. J., & Perry, A. (2020). Stress and Coping in the Time of Covid-19: Pathways to Resilience and Recovery. *Clinical neuropsychiatry*, 17(2), 59–62. <https://doi.org/10.36131/CN20200204>