

Loneliness Reduction Mediates the Effect of a Meditation Program on Human Flourishing

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Introduction

Human flourishing encompasses a broad range of physical and mental states, including happiness, life satisfaction, and close social relationships (Van der Weele, 2017). Interventions can improve one's ability to flourish, but the mechanisms through which this improvement occurs require closer inspection. Understanding these pathways will inform the precision and effectiveness of interventions.

We tested this using data from an RCT of a technology-based mindfulness intervention (Healthy Minds Program) compared to usual care. **We investigated whether HMP improves flourishing by reducing loneliness and quantified the proportion operating through this pathway as compared to other mechanisms.**

Methods

Participants

- BeWell RCT: HMP (n=468) vs. usual care control (n=234)
- Community sample, 4-week intervention period

Measures

- Loneliness: NIH Toolbox
- Flourishing: Human Flourishing Measure (Harvard University)

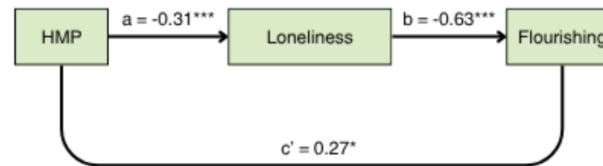
Analysis

- Change-score mediation (*loneliness: baseline to post; flourishing: baseline to follow-up*)
- Missing data handled through MLE
- 80.2% of the sample completed the posttest loneliness measure, and 85% completed the follow-up flourishing measure
- Bootstrapped indirect effects (5,000 iterations, 95% CI)
- Proportion mediated calculated as indirect effect / total effect

Results

We observed that while both groups showed improvements in flourishing, **HMP reduced loneliness more than UC.**

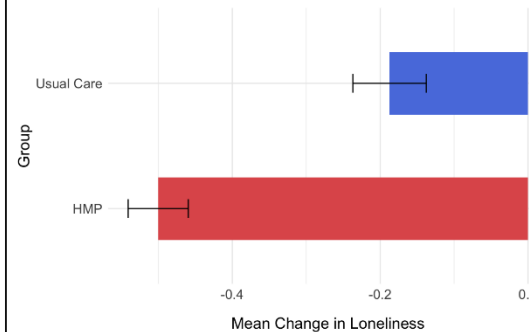
Mediation Model



Indirect effect: 0.20, 95% CI [0.11, 0.30]
Total effect (c): 0.47***
Proportion mediated: 42%

p*** < 0.01
p* < 0.05

1. HMP reduced loneliness significantly more than UC
a. a path: $\beta = -0.31$, $p < .001$
2. Loneliness reduction predicted higher flourishing
a. b path: $\beta = -0.63$, $p < .001$
3. **Approximately 42% of HMP's effect on flourishing operated through loneliness reduction**
a. Indirect effect/Total effect: 0.20/0.47



Discussion

Findings suggest that **loneliness reduction is a key mechanism through which the Healthy Minds Program enhances human flourishing.**

It is important to note that the flourishing measure includes a 2-item subscale assessing close social relationships, which may partially overlap with loneliness and possibly inflate the observed mediation effect.

Results support theoretical models linking social connectedness to well-being. Future work should also examine additional mechanisms (e.g., meaning, emotion regulation) and test generalizability across populations.

References

Van der Weele, T. J. (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences*, 114(31), 8148–8156. <https://doi.org/10.1073/pnas.1702996114>