MHSA Innovation Projects Evaluation SoundHeal Progress Report August 2024 Nancy Arrington

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Project Overview

The SoundHeal project aims to study the impact of music, sound therapy, vibrations, and meditation with the Heal Pod in conjunction with traditional talk therapy on clients receiving mental health services treatment under the San Luis Obispo (SLO) County Behavioral Health Department. Clients who participate in the SoundHeal project complete meditation sessions in the 4x4 feet Heal Meditation Pod before or after their schedule individual or group therapy session. The Heal Pod is equipped with speakers and a touchpad. In the Heal Pod, clients select a desired guided or unguided meditation track. After the meditation session, clients are then prompted to complete a brief "daily" journal entry where they indicate their feelings/emotions before and after the Heal Pod session. In addition to the "daily" journals, clients are asked to complete a "monthly" feedback survey. The goal of the SoundHeal project is to help clients develop a wellness practice and to help facilitate traditional talk therapy by helping clients get into a better frame of mind through the meditation practice.

This 2024 annual program evaluation progress report briefly summarizes the Heal Pod implementation strategy in the Justice Services Division of the SLO County's Behavioral Health Department, provides preliminary analysis of the Heal Pod's effectiveness, and outlines feedback about the data collection tools currently in use. In the 2023 annual report, we assessed the daily journals completed by clients between program launch in 2022 and May of 2023. In this 2024 annual report, we focus on assessing the monthly journal feedback that clients completed between September of 2022 and March of 2024, but we briefly update a summary of the daily journals completed between January of 2023 and March of 2024. In addition, we address the first attempt at surveying the therapy providers on their attitudes towards the Heal Pod.

This assessment shows that frequent users report that the Heal Pod helps with their wellbeing. Users also report that the Heal Pod helps with coping skills such as taking time for oneself, taking care of oneself, and planning future oriented activities. Quantitative results from the daily journals mirror last year's analysis. Some of the stated goals of the Heal Pod (for example, assessments of the impacts on medication intake) cannot be assessed with current data.

Background

The Heal Meditation Project (Heal) is sponsored by the SLO County Behavioral Health Department in partnership with SoundHeal, Inc., a sound meditation technology company. Funding was provided in 2021 by the California Mental Health Services Act under its *Innovation Incubator* program. SoundHeal works alongside the Justice Services (JSD) and Drug and Alcohol (DAS) Divisions of the SLO County Behavioral Health Department that serve clients with court-ordered mental health treatment plans and/or substance use disorder. These programs are designed to address the needs of individuals at different points in the justice process and/or substance use recovery. SoundHeal provides an additional, alternative treatment option for clients receiving services in these divisions through use of the Heal Pod.

The Heal Pod used by SoundHeal is a 4x4ft sound insulated, enclosed space with a curtain entry and a padded chair with a backrest. The Heal Pod is located at the Health Department's central campus. The pod sits in a room adjacent to the counseling rooms where therapists meet the participants for their session.

Inside the pod, clients select a meditation track that includes sounds and vibrations to help induce and promote meditation. The meditation sessions start with 5 minutes of meditation with clients graduating to longer sessions. The sounds offered were designed by SoundHeal to cope with and reduce stress, anxiety, irritability, pain, as well as improve self-worth, esteem, and confidence. The meditation tracks are organized into a curriculum that is selected by the participant with input from the therapist, who received curriculum training from SoundHeal during the project's initiation.

Stated Goals of the HealPod program

As stated in the Heal Pod proposal, "the key learning goal of this project is to learn whether this sound meditation technique will be effective for increasing court/diversion clients' wellness participation and ultimately, improving their mental health outcomes" (SoundHeal Work Plan Fiscal Year 2021). More specifically, SoundHeal identified 5 question-based goals of the project:

- 1. Does the use of sound meditation intervention increase the well-being and overall outlook of life of participants?
- 2. Which specific sound meditations have the greatest impact on participants with dual diagnosis?
- 3. What is the appropriate number of times the intervention is most positively effective in the participants' behavior?
- 4. What is the optimal duration of an individual session to most positively be effective in the participants' behavior?
- 5. Does the intervention positively impact the medication intake of participants?

Implementation

Design

The client population for the Heal Pod project are individuals receiving services through the forensic mental health program, Behavioral Health Treatment Court, and DAS. Participation in the Heal Pod program is voluntary for therapists and clients. Therapists share Heal Pod as an option to their clients. Clients who choose to participate are scheduled for Heal Pod meditation

sessions just before their individual or group counseling sessions. During their appointment, clients enter the pod and select a meditation track.

Immediately after the Heal Pod meditation session, clients filled out a handwritten Daily Meditation Journal (see Appendix 1 for full text). These meditation journals can be taken to the counseling session to be shared with the therapist and serve as a therapy tool about clients' experiences and feelings before and after meditation. After approximately 10 sessions in the Heal Pod, clients complete a feedback journal ("monthly" journals) that asks questions about clients' overall experiences with the Heal Pod (see Appendix 2 for full text).¹ Table 1 outlines summary statistics for both the Monthly and Daily Journals. It is worth noting that those who complete the monthly journals on average use the Heal meditation pod more often than clients who do not submit monthly journals. Starting early 2024, the HealPod switched to digital journals. The change to a digital entry mode made it easier for the participants to type in some additional thoughts and comments by, for example, asking clients to clarify what they meant when they selected the answer "other."

	Monthly Journals	Daily Journals
Number of Participants	38	57
Total number of Journals	63	515
Median number of journals per participant	1	5
Maximum # per participants	4	43
Minimum # per participants	1	1
Average Number of Daily Journals per client	13	2

Table 1 shows summary statistics of monthly and daily journals.

In addition to the daily and monthly journals, SoundHeal has surveyed participating therapists about their experiences and observations of clients who participate in the HealPod program. The first survey was sent to therapists in the summer of 2023.

Result Summary

¹ In addition, the monthly journals ask questions about the clients user experience in the pod: About 75% of those who completed a monthly journal found the pod spacious, while 10% did not. 85% felt immersed in the sounds, 90% said the touchscreen was easy to use. 80% agreed that the vibrations were great. In terms of ease of use, 70% said the pod was easy to use, 20% were neutral while 10% found it difficult. When asked for feedback on how to improve the experience, nearly half said 'Good as is', while 1/3 said the bench is not comfortable and the vibrations could be stronger. Overall though, 85% reported being either partly or very satisfied.

Monthly Meditation Journals

The data encompasses 38 individual participants reporting their experiences in 63 monthly journal entries between September 2022 and March 2024.² See Appendix 2 for the full text of the monthly journal survey. Over half of respondents submitted a single monthly journal; 30% submitted two monthly journals; and 15% submitted 3 or more monthly journals. Given the limited number of repeated monthly journals, we use a participants' first or only monthly journal for the evaluation of the goals below so that we can discuss findings in terms of the proportion of this group of more regular users (compared to proportions of surveys submitted, which weight answers and experiences from those who complete multiple monthly journals over those who only submitted one).

Goal 1: Wellbeing and Overall Outlook

The monthly journals ask participants "How often does Heal meditation help with your wellbeing?" Figure 1 shows the proportion of respondents who gave each response. Most reported that Heal meditation "always" or "very frequently" helps with well-being.

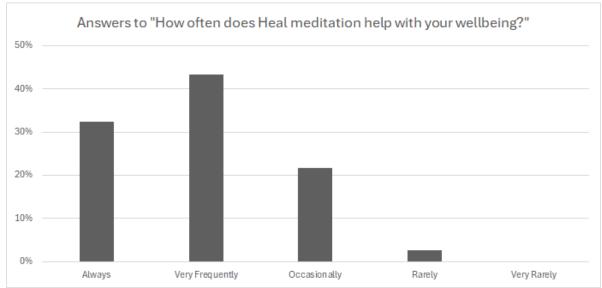


Figure 1: Participant responses when asked how often Heal meditation helps them with their well-being. 33% responded 'always' and 43% responded 'very frequently'. More than 20% said that Heal meditation helps them 'occasionally'.

The monthly journals also ask participants to identify which coping skills (from a list of actions and behaviors) Heal meditation has helped build. Figure 2 reports the proportion of respondents who indicated various behaviors and actions associated with coping skills. "Me time" and "Take breaks" were the most commonly selected options. Other commonly selected behaviors are reorganizing, building good habits, and accepting challenges. Over 25% reported that their time in the Pod helped them spend more time moving outside, be it walking, biking, running or

² We originally obtained 64, but one entry was a duplicate.

hiking. Some frequent users reported that their time in the Heal Pod improved their diet and exercise habits. They said that the meditation helped them with eating more healthily (13%), cooking (11%) and exercising (also 11%). While taking time for oneself and engaging in healthy behaviors may not necessarily result in an increase in patient wellbeing, building these skills at least suggests attention to one's wellbeing.

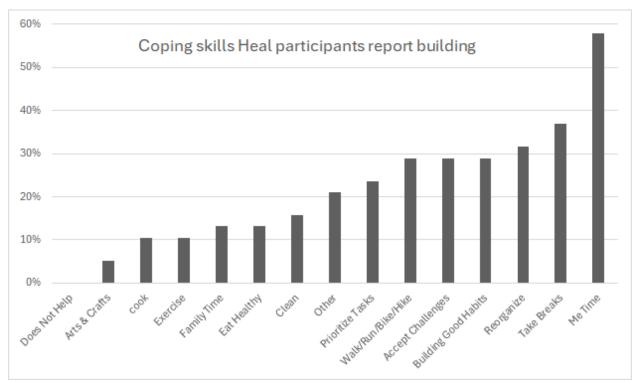


Figure 2: The percentage of respondents who reported Heal meditation helped them with a particular skill from a set list. Nearly 60% reported that the meditations helped them take time for themselves, relatedly, about 40% reported that they took more breaks.

One component of the first goal is improvements on participants overall outlook on life. To the extent that the behaviors listed in Figure 2 are associated with outlook on life (e.g. accepting challenges and prioritizing tasks), there may be preliminary evidence that Heal Pod use is associated with improvements on outlook on life. It is notable that no participant in the program responded that their experience in the Heal Pod was not helpful.

Goal 2: Impact of specific meditations on participants with dual diagnosis

While all participants who completed a monthly journal reported that their use of Heal meditation helped with multiple psychological issues (for example both depression and anxiety, or stress and eating issues), these outcomes are not tied to specific tracks, and there is limited information about the specifics of respondents' diagnoses. However, the daily journals do ask which meditation tracks the client used, and clinician surveys include insight into noticeable well-being improvements for patients with a dual diagnosis. Future evaluations can compare

how participants who selected different tracks reported feeling after the Heal meditation session along with provider feedback. It is possible and likely that how a client feels on a certain day affects the track that they choose to use. Identifying precise effects of specific tracks on outcomes under these conditions may require modifications to the current data collection or an alternative model for future research.

Goal 3: Identifying the appropriate number of uses to positively affect behavior

The monthly journals ask respondents how often the use the Heal meditation pods and whether they would like to use the pod more often, which can indirectly provide insight into goal 3. Most participants (about 5 out of every 6) reported using the pod once a week. When asked, half responded that they would like to increase the number of sessions, usually to 2 times a week, suggesting that 1 to 2 uses per week might align with respondents' preferences. Table 2 disaggregates those who have submitted a monthly journal by how many daily journals they have completed (and presumably how many HealPod sessions completed). More frequent users are less likely to report that the Heal Pod rarely helps with wellbeing, although patterns are inconsistent and directionality is unclear (it is likely that those who feel the Heal Pod helps will use the Heal Pod more often).

Frequence of	Rarely helps	Occasionally	Very	Always helps	Total of
Daily Use	with	helps with	Frequently	with	always and
among	wellbeing	wellbeing	helps with	wellbeing	very
monthly			wellbeing		frequently
journal					
respondents					
Under 10	7%	20%	40%	33%	73%
sessions					
10-20	0%	33%	58%	8%	66%
sessions					
20-30	0%	75%	25%	0%	25%
sessions					
30+ sessions	0%	17%	50%	33%	83%

Table 2 Grouping the monthly journal respondents by number of daily meditation sessions completed, we see that more frequent users are less likely to respond that the Heal pod rarely helps with well being.

Goal 4: What is the optimal duration of an individual session to most positively be effective in the participants' behavior?

When asked, approximately 60% of participants reported that they would like longer sessions. The daily journals list tracks used in each session, and information about track length would allow us to correlate track length with post-session reactions. However, it is worth noting that a respondent's mental/physical/emotional state likely affects which tracks they choose to use,

which muddles our ability to identify independent effects of the Heal Pod meditation on outcomes. For example, someone who is having a particularly bad day may choose to listen to a longer track because they may want more time to reflect. However, their post pod reactions may still reflect their rough day. If we overlook how a person's attitude affects their choice in how to engage with the pod, we might identify a correlation between longer tracks and grumpier postuse reflections and incorrectly assume that longer sessions are worse for outcomes.

Goal 5: Does the intervention positively impact the medication intake of participants?

We do not have information on client prescribed medication or medication intake. However, when asked what behaviors Heal meditation helps with, approximately one third of respondents reported that Heal meditation helped them with addiction, either drug or alcohol or both (see Figure 3). Further analysis on this goal will be presented in the final evaluation utilizing clinician surveys and interviews at the completion of the SoundHeal project.

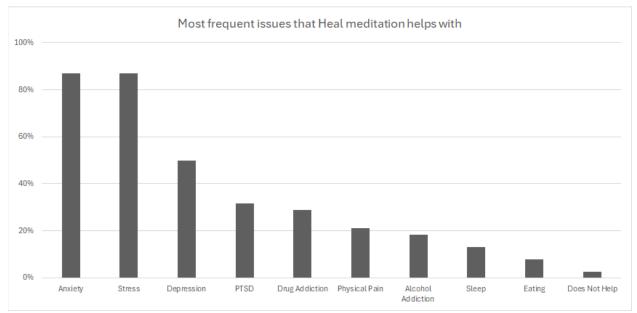


Figure 3 Proportion of respondents who indicated each item in response to "Does Heal Meditation help with?" Almost 90% of frequent users reported that time in the Heal Pod helped with stress and anxiety.

Daily Meditation Journals

The focus of this 2024 annual report is a first analysis of the monthly journals. However, we briefly update findings from the 2023 annual report with daily client journals collected between January of 2023 and March of 2024. The daily journals ask clients to indicate from a list of emotions how they felt before and after using the Heal meditation pod. Patterns are consistent across years. Figure 5 shows the before and after reporting of each emotion indicated in a daily meditation journal. There are a total of 515 journal entries from 57 clients. Not every journal is completed in full, though each has at least one area of feedback as documented by the client.

As Figure 5 shows, more clients indicated feeling stressed, indifferent, scattered, depressed, upset, anxious, and in pain *before* their Heal pod session than after. In contrast, more clients indicated feeling energetic, focused, positive, good mood, and relaxed *after* their Heal pod session than they did before. As displayed in last year's data as well, "relaxed" saw the highest percent change in before and after, and "relaxed" was the most frequently reported emotion of all measured, indicated in 55% (281 journals) of the total.

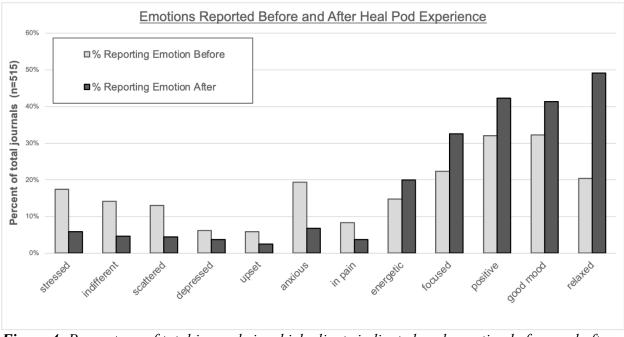


Figure 4: Percentage of total journals in which clients indicated each emotion before and after the Heal pod session.

Table 3 on the next page further disaggregates how clients reported emotions before and after the heal pod session: the second column from the left indicates the total percentage of client journals in which each emotion was reported either before or after a session. The third, fourth, and fifth columns show -- among those journals in which each emotion was reported -- how often those emotions were reported only before the session, both before and after the session, and only after the session. For example, for the emotion of stressed: 18% of respondents indicated a feeling of being stressed either before or after their Heal pod session. Of those 18% who reported feeling stressed before and after the session, and only 5% reported feeling stressed after the session but not before. Table A3 in the appendix compares the differences in reported emotions between the 2023 report and this 2024 report.

Emotion reported	Journals that	Reported	Within each Emotion: Percent Reported Before and After	Within each Emotion: Percent Reported only after
Stressed (n=95)	18%	68%	26%	5%
Scattered (n=73)	14%	68%	23%	8%
Anxious (n=108)	21%	68%	25%	7%
Indifferent (n=86)	17%	72%	13%	15%
Upset (n=34)	7%	62%	26%	12%
In pain (n=48)	9%	60%	29%	10%
Depressed (n=40)	8%	53%	28%	20%
Relaxed (n=281)	55%	10%	27%	63%
Energetic (n=133)	26%	23%	35%	43%
Good mood (n=252)	49%	15%	50%	34%
Focused (n=191)	37%	12%	48%	40%
Positive (n=246)	48%	11%	56%	33%

 Table 3: Comparison of feelings before and after the Heal meditation session.

Provider Surveys

According to the daily and monthly journals, 9 providers work with patients that use Heal meditation and three providers submitted anonymous surveys about their experience. Overall, those providers who responded had positive feedback about the effect of Heal meditation on their patient's progress. All either agreed or strongly agreed that those who participated in Heal meditation improved their well-being relative to those who did not. Providers also agreed or strongly agreed that use of the Heal Pod improved the quality of therapy for their clients and would recommend Heal to other therapists. Table 4 summarizes some provider responses to survey questions.

It is anticipated that future iterations of the provider survey will produce higher participation. The data collection team will also engage in clinician interviews to identify more nuanced provider experiences with the Heal meditation pod.

	On starting	On effects
Provider 1	"All my clients are recommended that they use the pod at least once. Most stay on even if they didn't want to do it at first."	"Definitely helping with self regulation and calming before therapy."
Provider 2	"The session duration is what is helpful. Since they are short sessions their resistance is low and openness high."	Selected option: "More regular usage/better medication management" to a question about Heal's impact on medication.
Provider 3	"It helps clients who are open and ready for something new".	"Some resonate more than others."

Table 4: Quotations and selected answers from the provider responses to survey questions on the effectiveness of Heal meditation for their clients.

Conclusions

Participants who used the Heal meditation pod reported that the time in the pod allowed them to experience stress free time, where they could focus on themselves and their goals. Furthermore, those who used the pod reported that it helped them engage in positive activities outside of the pod such as goal setting, as well as taking breaks. Overall, about 75% reported that Heal meditation helped with their well-being either very frequently or always in the monthly journals.

Over 85% of participants who completed a monthly journal reported being partially or very satisfied with the experience, yet 100% of clients indicated that the experience encouraged them to build coping skills. Over half would like longer sessions, while even more, over 60%, wish

for more frequent meditations. When asked, nearly half said that they would leave the experience as is, while 1/3 would want to improve the comfort of the bench and increase the vibrations.

The daily journals during the time period of January 2023 to March 2024 reflect similar patterns to the journals assessed in the 2023 report (December 2022 to May 2023): clients more often report feeling stressed, indifferent, scattered, depressed, upset, anxious, and in pain *before* their Heal pod session than after, and more clients indicated feeling energetic, focused, positive, good mood, and relaxed *after* their Heal pod session than they did before.

Preliminary attempts to identify over-time trends within users who submitted multiple monthly journals were inconclusive, largely due to the limited number of users who have submitted more than one monthly journal. Future assessments will assess over time patterns within clients in their responses to daily journals.

As we did in the 2023 annual report, we would like to emphasize limitations of self-reported data from voluntary participants: we are unable quantify an independent effect of the Heal Pod program on client well-being with existing data. The clients who use the Heal Pod also participate in counseling, so improvements in well-being over time may come from counseling, the Heal Pod, or a combination of both. Moreover, clients who are particularly committed to recovery or self-improvement may be more likely to volunteer to participate in the Heal pod program. Identifying an independent effect of the Heal Pod on well-being would require a randomized controlled trial in which some clients are assigned to participate in the Heal Pod and counseling while others are assigned to participate just in counseling. However, a randomized controlled trial is not feasible in a program where clients volunteer to participate. Likewise, data from the meditation journals may suffer from social desirability bias (Grimm 2010), in which research participants communicate what they think they are expected to feel or think. However, as a qualitative assessment of open-ended responses in the 2023 annual report showed, several clients did provide feedback critical of meditation, suggesting that the effects of potential social desirability bias are not universal.

Appendix 1: Daily Meditation Journal Data Collection Tool

Name:	
nume.	

Date & Time:

Heal Meditation Journal (Please fill out after your Heal session)

What was the name of the track you selected today?

 How did you Stressed Indifferent Positive 	a feel before enteri	ng the Heal n □ Relaxed □ Upset	neditation pod? (sel □ Anxious □ In pain	ect as many) □ Energetic □ Focused
Details:				
-	ou experience in to smells, and sensati	•	? Write your feeling rienced:	gs, emotions,
 How did you 	l feel after today's	meditation?	(select as many)	
□ Stressed	□ Scattered	□ Relaxed	□ Anxious	🗆 Energetic
□ Indifferent □ Positive	□ Good mood □ Depressed	🗆 Upset	🗆 In pain	□ Focused
Any additional tho	ughts on how you [.]	feel now?		

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Appendix 2: Monthly Meditation Journal

Client ID: _____

Date & Time:

Heal Monthly Meditation Journal

How often does Heal meditation help you with your overall well-being? (select 1)
 Always
 Very Frequently
 Cccasionally
 Never
 Other

 Does Heal meditation help build coping skills? (select as many) 					
🗆 Walk/run/bike/hike 🛛 Cook 🛛 Exercise 🗆 Clean 🗆 Take Breaks					
🗆 Reorganize 🛛 🗆 Fai	mily time	🗆 Eat healthy 🛛 Arts & crafts 🗖 Does not help			
Accept challenges	🗆 Me time	🗆 Prioritize tasks 🛛 🗆 Building good habits			

Any "Other" skills or additional details?

 Does Heal meditation help with? (select as many) 					
🗆 Anxiety	□ Stress	Depression	🗆 Sleep	🗆 Alcohol Addiction	
PTSD	🗆 Sleep	🗆 Physical Pain	🗆 Eating	🗆 Drug Addiction	
In your own	words how H	eal meditation has	helped in red	ucing symptoms?	

• How can we better the Heal meditation experience? (select as many)

	· · · · · · · · · · · · · · · · · · ·
Need more meditations	🗆 5 day, 7 day, 15 day meditation courses
Bench is not comfortable	Vibrations can be stronger
🗆 Bench too low	Improve the quality of sound
Touch screen interface	🗆 Good as is
Any additional thoughts on how we ca	n improve the pod or specific sounds you want?

• What do you enjoy about the Heal meditation experience? (select as many)

- □ Distraction free □ Good sound □ Time to myself
- □ Safe □ Easy to use

Spacious and comfortable
 vibrations
 Protected

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client ID: ____

Date & Time:

Strongly Strongly Agree Agree Neutral Disagree Disagree The pod is spacious 0 0 0 0 I feel immersed in the sounds 0 0 0 0 Touch screen interface is 0 0 0 0 easy to use Vibrations are great 0 0 0 0 How satisfied are you with Heal Meditation? 1-5 (1 = Not satisfied , 5= very satisfied) ٦ 2 3 4 5 How easy is the Heal Pod to use? 1-5 (1=very easy, 5=very difficult) 2 3 4 5 1 How often do you use the Heal Pod in a week? times a week 5 2 3 4 1 Would you like to have Heal Pod sessions in a week? $f Y \ / N$ If "Y" how many sessions would you like to do in a week? times a week 5 2 3 4 1 Would you like to increase the length of your Heal sessions from 5 mins to 10 mins? f Y / Ν

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* Additional question: Have you started using any other apps like YouTube/Calms/Headspace?

Emotion	Percent point difference (before- after) for 2023 report data, total journals = 206	Percent point difference (before- after) for 2024 report data, total journals = 515	Percent change '23-'24
Stressed	11%	12%	1%
Indifferent	8%	10%	1%
Scattered	5%	9%	4%
Depressed	0%	3%	2%
Upset	2%	3%	1%
Anxious	6%	13%	7%
In Pain	1%	5%	4%
Energetic	-7%	-5%	2%
Focused	-1%	-10%	-9%
Positive	-11%	-10%	1%
Good Mood	-6%	-9%	-3%
Relaxed	-24%	-29%	-4%

Table A3: Comparison of before and after emotion responses from 2023 and 2024. The second and third columns report the percentage point difference in reported emotions before and after using the Heal Pod. Positive numbers indicate that more client journals reported feeling the emotion *before* using the pod than after. Negative numbers indicate that more people reported feeling an emption *after* using the pod than before. The second column summarizes data from the 2023 report; the third column summarizes data from this 2024 report. Patterns are typically consistent across years, with the greatest difference between data sets reflected in reports of feeling "focused:" there was a greater improvement in feelings of focus in this 2024 report data than the 2023 report data.

References

Grimm, P. (2010). Social desirability bias. Wiley international encyclopedia of marketing