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Safe and Sound Protocol with Brief Therapy for Misophonia: A Pilot Study

Author: Thomas H. Dozier*

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Correspondence: Thomas H. Dozier, 5801 Arlene Way, Livermore, CA 94550, 925-322-5100, tdozier@misophonia.org

Summary

Misophonia is a recently identified and poorly understood condition in which a person perceives an innocuous stimulus such as eating, sniffing or hair twirling, and experiences a strong negative emotional response and physiological distress. Some experts consider misophonia an emotional response disorder while others consider misophonia an emotional and physical reflex disorder. The Safe and Sound Protocol (SSP) is a five-hour music listening program based on polyvagal theory designed in improve autonomic regulation, reduce auditory hypersensitivity, and increase social engagement. A brief misophonia therapy with emphasis on relaxation and the five-hour SSP listening program was provided to nine participants. The median reduction in misophonia severity was 15% on the Misophonia Assessment Questionnaire and 25% on the Misophonia Response Scale. Further investigation of SSP as a component of treatment for misophonia is warranted.

Safe and Sound Protocol with Brief Therapy for Misophonia: A Pilot Study

Misophonia was first identified as a condition in 1997 and is not currently included in the DSM-5 or the ICD-11 (Dozier & Mitchell, 2023). Misophonia is an under-studied condition in which a person has an extreme reaction to subtle stimuli (for example, mouth or nasal sounds or hair twirling), and there are no empirically validated treatments for misophonia. Misophonia is generally viewed as a poorly understood emotional response disorder (Swedo et al., 2022) and by others as a physical and emotional reflex disorder (Dozier, Lopez, & Pearson, 2017). A recent theory of misophonia provides the model of misophonia as a physical and emotional reflex disorder and is shown in Figure 1 (Dozier & Mitchell, 2023).

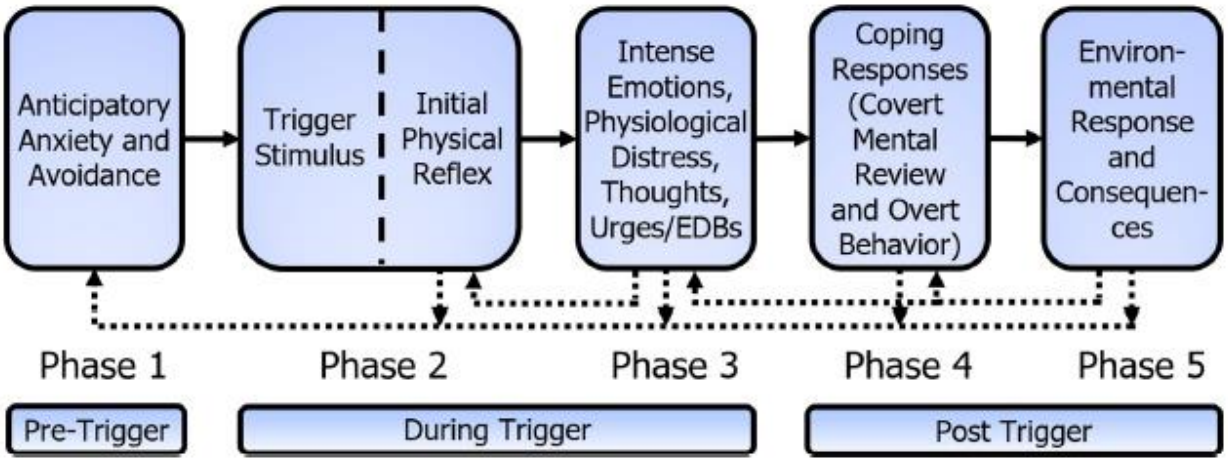

Figure 1. Mitchell-Dozier model of misophonia. (1) Anticipatory anxiety and avoidance, (2) the misophonic trigger stimulus elicits the initial physical reflex (e.g., muscle flinch), (3) intense emotional response of misophonia, physiological distress, thoughts, urges and emotion driven behaviors while the trigger continues, (4) coping responses after the trigger, including covert mental review and overt behavior, and (5) environmental response and internal and external consequences. The dotted connection indicates phase 3 contributes to strengthening of the initial physical reflex, phases 2 to 5 contribute to strengthening anticipatory anxiety and avoidance of phase 1 and phase 5 contributes to strengthening phases 3 and 4. (Source: Dozier & Mitchell, 2023)

This model of misophonia is used by therapists associated or trained by Misophonia Institute to provide treatment for misophonia. These treatments include Sequent Repatterning Hypnotherapy developed by Chris Pearson, Cognitive Behavioral Therapy – Misophonia developed by Nate Mitchell, and Relaxation and Counterconditioning Therapy developed by Tom Dozier.

The Safe & Sound Protocol (SSP; Unyte Health, 2023) is a practical application of polyvagal theory, designed to help people learn to attain a grounded physiological and emotional state where they feel safe, connected, calm, and social. It has been shown to improve auditory hypersensitivity, behavioral state regulation, and social engagement behaviors through five hours of listening to SSP specially-filtered music with a safe listening partner. There are thousands of trained SSP providers and tens-of-thousands of people who have completed SSP. Numerous clinical trials of SSP have demonstrated significant improvements in autonomic state regulation, sensory processing, mental health, and social engagement. The results of data collected on SSP delivery system have found improvements in autonomic state regulation, sensory processing, social engagement, and functional skills. SSP is not a stand-alone treatment package. It is to be

provided in conjunction with other therapeutic treatment. For more information on SSP see https://integratedlistening.com/products/ssp-safe-sound-protocol/

We hypothesized that a combination of SSP and brief, basic misophonia treatment will provide a reduction in misophonia severity for study participants.

Method

Participants

The opportunity to participate in this pilot study was posted on Facebook misophonia groups and in the Misophonia Institute email newsletter. Interested individuals were emailed an Informed Consent document.

Nine individuals signed up and completed the study. Demographics are as follows: 7 female, 2 male, age range 15 to 60 years (mean 40.2, sd15.4), race white.

Procedure

Participants were informed that they could choose an SSP provider of their choice or work with Tom Dozier, the principle investigator of this study. All participants chose to work with Tom Dozier. After returning the informed consent, each person was added as a client on the SSP provider portal. The misophonia severity measures were emailed to the individual as fillable PDF documents and returned via email. The SSP intake assessment was sent via the SSP provider portal and completed online.

Once the SSP assessment and misophonia severity measures were completed, an initial session was scheduled. The meeting was conducted on HIPAA compliant Zoom. The initial session included a discussion on autonomic regulation, how the SSP has been shown to improved autonomic regulation, and an overview of misophonia theory. Individuals were also tested for an initial physical reflex (IPR; see Figure 1, phase 2) to determine if they could perceive the IPR and determine the affected muscle or part of the body, using the procedure from Dozier & Morrison (2017). Participants were encouraged to breathe and relax muscles when they might be exposed to a trigger, and to breathe and relax muscles if there was an ongoing trigger.

SSP sessions require a safe listening partner for co-regulation. Five participants listened with a family member, one with a friend, two with their dog, and one with Tom Dozier via Zoom. Remote (not in the therapist's office) SSP listening sessions are provided via the Unyte ILS app. Titration, or the rate of providing SSP listening, is important to ensure the listener does not experience dysregulation. Unyte recommendation for listening is 30-minute sessions. Unyte has an SSP slogan of, "You can go too fast, but you can't go too slow." An initial 5-minute session was conducted in the first session with Tom Dozier. All participants remained calm during this short listening session. Participants were instructed to conduct a 5-minute listening session with their listening partner that day, and then complete a 10-minute listening session every day, provided they did not experience dysregulation during the session. If they experienced dysregulation during the session, they were to stop that session, and continue SSP with shorter sessions. (None of the participants experience any dysregulation). Once the first hour of SSP was complete, the session time was increased to 20 minutes per day for the remaining four hours of SSP. Participants were allowed to use shorter listening sessions and to skip days.

Participants were asked to have a follow-up session the next week, additional sessions if they desired, and a final session after they completed SSP. The daily relaxation and especially

relaxing when exposed to triggers was emphasized in all sessions. After completing SSP, the misophonia severity measures were emailed to the participant and returned by email.

Measures

Misophonia severity questionnaires included the Misophonia Assessment Questionnaire (MAQ) and the Misophonia Response Scale (MRS). The MAQ consists of 21 questions about the negative impact of misophonia on the person's activities, thoughts, and feelings (Dozer 2015a). Each question has a 0 to 3 rating, with 0 being "not at all" and 3 being "almost all of the time," and a maximum possible sum score of 63. The Misophonia Response Scale (MRS) rates emotional and physical response severity and how misophonia interferes in 5 domains of life on a 1-7 scale. The MRS also includes factors of frequency of triggers, time to recover from a trigger, and avoidance. The maximum MRS score is 49, and historical average severity of those seeking treatment is 20. Both the MAQ and MRS are validated measures of misophonia severity. (Altin et al., 2022; Dibb et al., 2021)

Results

Misophonia severity response to treatment is shown in Figures 2 and 3 and in Table 1. The data is ordered from most to least severe, based on MAQ score. The average point reduction was 5.3 for the MAQ and 4.5 for the MRS. The average percentage reduction in severity was 25% on the MAQ and 28% on the MRS.

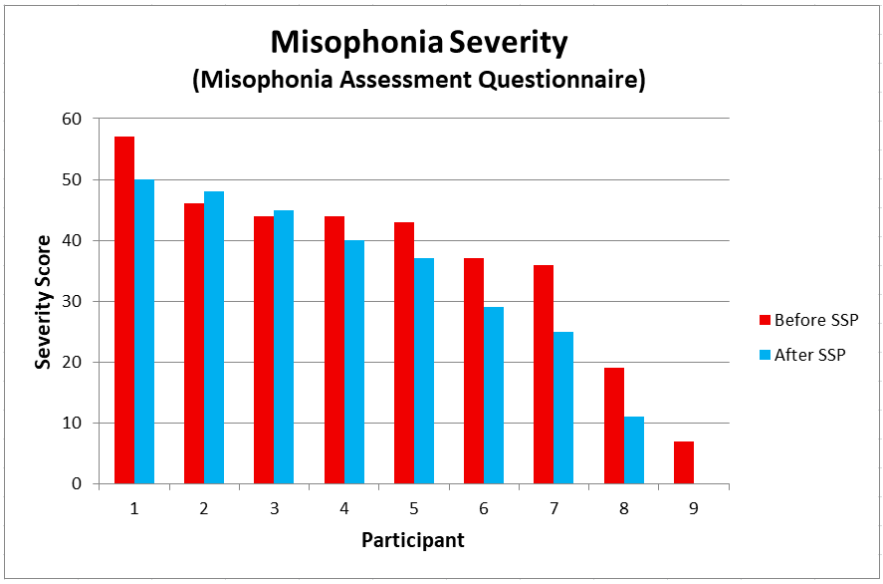

Figure 2. Change in misophonia severity before and after SSP based on the Misophonia Assessment Questionnaire.

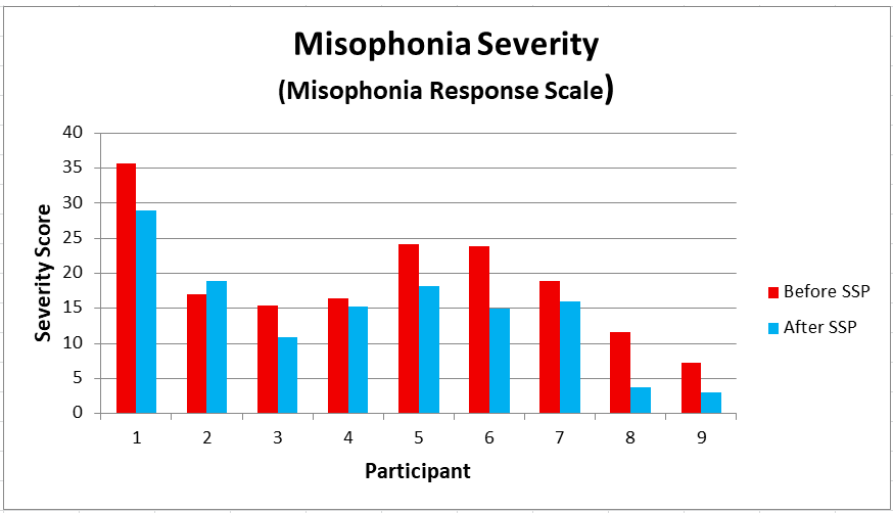

Figure 3. Change in misophonia severity before and after SSP based on the Misophonia Response Scale.

Table 1. Misophonia severity scores for individual participants before and after SSP.

	MAQ Score		Change		MRS Score		Change	
Participant	Before SSP	After SSP	Points	Percent	Before SSP	After SSP	Points	Percent
1	57	50	7	12%	35.7	28.9	6.8	19%
2	46	48	-2	-4%	16.9	18.9	-2.0	-12%
3	44	45	-1	-2%	15.5	10.9	4.5	29%
4	44	40	4	9%	16.4	15.3	1.1	7%
5	43	37	6	14%	24.2	18.2	6.0	25%
6	37	29	8	22%	23.9	15.0	8.9	37%
7	36	25	11	31%	18.9	16.0	2.9	15%
8	19	11	8	42%	11.6	3.7	7.9	68%
9	7	0	7	100%	7.3	2.9	4.4	60%

Discussion

Misophonia is an under-researched condition that causes great distress in individuals, and there are no empirically validated treatments. Even the basic understanding of what misophonia actually “is” is debated. In this study, participants received the standard SSP protocol, along with basic education on misophonia, identifying the initial physical reflex (IPR), and the importance of relaxing muscles before, during, and after misophonia triggers.

Eight participants reported a moderate or better positive response to treatment, but most still experienced misophonia triggers upon completion of this study. Only one participant, with the lowest misophonia severity, reported no longer experiencing triggers. One participant reported a slight worsening of misophonia. This person was the only participant unable to identify an IPR response and the only one that received SSP with a listening partner via Zoom. There were no negative responses toward the SSP listening experience, and all reported experiencing the calm, peaceful feelings. Several reported feeling more connected to their listening partner or a desire for more social engagement. The median response to treatment was a reduction of 15% on the MAQ and 25% on the MRS misophonia severity scales.

Limitations

There are several limitations with this study. First, as a pilot study, this study was not conducted under the oversight of an Institutional Review Board. Second, measures of misophonia severity are based on self-report, which is known to have reliability issues. Third, the number of participants was small. Finally, the study included both SSP and a brief treatment for misophonia, so the contribution of each is unknown.

Conclusion

SSP was very well received by all participants, and a modest level of reduction in misophonia severity was reported by most participants. SSP is a low-cost, low-risk and pleasant intervention and may be reasonably considered as a component of misophonia treatment. Based on these results, more research on SSP as a treatment for misophonia treatment is warranted.

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