

Design and Effectiveness of a Transdiagnostic Protocol for Misophonia: Effects on Symptoms and Quality of Life Among University Students

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1. Round 1

1.1. Reviewer 1

Reviewer:

In the Introduction, the paragraph beginning with “The phenomenology of misophonia is complex and heterogeneous” identifies anger, disgust, anxiety, physiological activation, perfectionism, negative attribution, and compulsive checking, but the manuscript should present a clearer theoretical pathway linking these constructs. At present, the rationale for combining them in one transdiagnostic protocol is somewhat descriptive. The authors should articulate a hypothesized mechanism in which trigger detection leads to appraisal and attentional fixation, followed by emotional arousal, behavioral control attempts, avoidance, and functional impairment. This would provide a more coherent theoretical basis for the intervention components and strengthen the transition from the qualitative model to the quantitative trial.

The Introduction appropriately discusses prior CBT, mindfulness/acceptance, Unified Protocol, and Metacognitive Interpersonal Therapy approaches; however, the manuscript should more precisely state what is novel about the current protocol. The sentence “Integrating these empirically derived mechanisms with established transdiagnostic, cognitive-behavioral, and metacognitive-interpersonal treatment principles may therefore provide a more contextually responsive and

theoretically comprehensive intervention” should be followed by a concise statement specifying which components are genuinely new or uniquely integrated in this study, such as the combined targeting of sensory sensitivity, anger regulation, perfectionism, negative attribution, compulsive checking, and interpersonal-metacognitive processes.

In the Study Design and Participants section, the manuscript describes the design as “a pretest–posttest control-group design with a 3-month follow-up” and also indicates random allocation after purposive recruitment. The authors should clarify whether the study should be classified as quasi-experimental or randomized controlled, because random assignment is generally a defining feature of a true experimental design. If there were methodological reasons for retaining the quasi-experimental designation, these should be explicitly stated. The current terminology creates ambiguity concerning the actual level of experimental control.

In Table 1, several intervention components are well specified conceptually, but treatment fidelity is not reported. For example, Session 6 includes “identifying automatic thoughts and hostile, intentional, or personalized interpretations of others' sound-producing behaviors.” The authors should explain who delivered the intervention, the therapist's professional qualifications and training, whether a treatment manual was used, whether sessions were supervised or recorded, and whether adherence to the protocol was independently evaluated. Without fidelity information, it is difficult to determine whether observed effects reflect the specified protocol or therapist-specific factors.

In Table 1, the protocol incorporates elements from multiple therapeutic approaches, but the manuscript should distinguish adaptation from direct replication. For example, the session titled “Interpersonal and metacognitive coping” appears to draw on Metacognitive Interpersonal Therapy, while other sessions are informed by Unified Protocol and CBT principles. The authors should explain how techniques were selected, adapted, and sequenced after expert validation. Providing a brief intervention-development matrix or textual explanation linking each qualitative component to the corresponding therapeutic technique would substantially improve reproducibility.

The description of content validity requires additional reporting. The manuscript states that “Components or session contents that did not meet these thresholds were revised,” but it does not provide the final CVR and CVI values for the protocol or indicate whether validity was calculated at the item, session, or total-protocol level. The authors should report the range, mean, or final values of CVR and CVI and specify which components initially failed to meet the thresholds. This would allow readers to judge the strength of the content-validation process rather than merely knowing that it occurred.

In the Data Collection Tools section, reliability is reported only as overall Cronbach's alpha values of .838 for the Misophonia Questionnaire and .897 for the WHOQOL-BREF. Because the inferential analyses are conducted separately for MQ subscales and multiple WHOQOL-BREF domains, internal consistency should ideally be reported for each multi-item subscale used as an outcome. Reporting only total-scale alpha may obscure weaker reliability at the subscale level, particularly because reliability directly affects observed effect sizes and statistical power.

Authors uploaded the revised manuscript.

1.2. Reviewer 2

Reviewer:

In the Study Design and Participants section, the sentence “Eligible participants were randomly allocated to either the experimental group or the control group” requires considerably more detail. The authors should report the method used to generate the random sequence, who generated it, whether allocation concealment was implemented, and whether the person enrolling participants was aware of upcoming assignments. Without this information, it is difficult to evaluate selection bias and the internal validity of group allocation.

The sample-size justification requires correction or expansion. The manuscript states that G*Power indicated a minimum of 36 participants but that recruitment was expanded to 60 to account for attrition. A 20% attrition adjustment to 36 would yield approximately 45 participants rather than 60. The authors should therefore clarify whether 60 was selected for additional power, balanced group allocation, anticipated larger attrition, or another methodological reason. The sentence “To provide a larger

margin for potential attrition and to maintain adequate statistical power... recruitment was expanded to 60 participants” should be supported by a transparent numerical rationale.

The eligibility criteria rely on “a score of 7 or higher on the third subscale of the Misophonia Questionnaire” as a principal inclusion criterion. The authors should justify this threshold with a source or psychometric rationale and explain whether it represents clinically significant symptom severity, a screening cutoff, or simply a convention used in previous studies. Because the third component of the MQ is a single global severity item, relying on it for case identification may affect diagnostic specificity. The manuscript should also clarify whether participants were required to meet any minimum score on the first two MQ subscales.

In the Study Design and Participants section, psychiatric exclusion was limited to “the absence of self-reported psychotic disorders.” This is insufficiently rigorous for an intervention study involving emotional and behavioral outcomes. The authors should clarify whether current psychotherapy, psychiatric medication, severe depression, suicidality, substance-use problems, obsessive-compulsive disorder, autism-spectrum conditions, or hearing-related disorders were assessed. If they were not assessed, this should be acknowledged explicitly as a methodological limitation because such factors could influence both misophonia severity and treatment response.

The manuscript needs a dedicated description of ethical procedures. Neither the Methods nor Findings currently reports the ethics committee approval, approval code, informed consent process, confidentiality procedures, participants' right to withdraw, or whether the control group was offered the intervention after study completion. A sentence such as “All participants provided written informed consent prior to enrollment” should be accompanied by the approving institution and ethics identifier. For a psychological intervention trial, these details are essential rather than optional reporting elements.

Authors uploaded the revised manuscript.

2. Revised

Editor’s decision after revisions: Accepted.

Editor in Chief’s decision: Accepted.