

Emotional Perceptions: Comparing and Contrasting Misophonia and Hyperacusis

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INTRODUCTION

- Misophonia is sensitivity to certain sounds that trigger negative responses.
- Hyperacusis is an increased sensitivity to loudness of a broad range of sounds.
- There is a gap in research related to both hearing tolerance disorders.
- These conditions have some overlap.
- We examined their differences related to emotional responses.
- In the future, we plan to analyze the areas of the brain that are affected.
- Behavioral datasets were collected as part of a larger project.

AIM

- This project examines how misophonia and hyperacusis differ in their emotion perceptions.
- This project aims to determine differences in reactions times between the four groups as well.

Groups	# of Participants	Age Mean (SD)	Sex (F)
Control	34	21.21 (2.28)	20
Hyperacusis	19	20.95 (2.48)	13
Misophonia	18	20.94 (2.18)	15
Co-Morbid	19	20.32 (1.97)	14

METHOD

- 90 participants underwent a hearing assessment and psychological interview.
- Groups: misophonia (M), hyperacusis (H), co-morbid misophonia and hyperacusis (MH), and controls (C).
- Participants listened to 90 international affective digitized sounds (IADs)
- Participants rated the stimuli as unpleasant, neutral, and pleasant.
- Participants underwent functional magnetic resonance imaging scans.
- Participants reaction times to the IADs stimuli were recorded.
- We conducted MANOVA for statistical analysis in SPSS software.

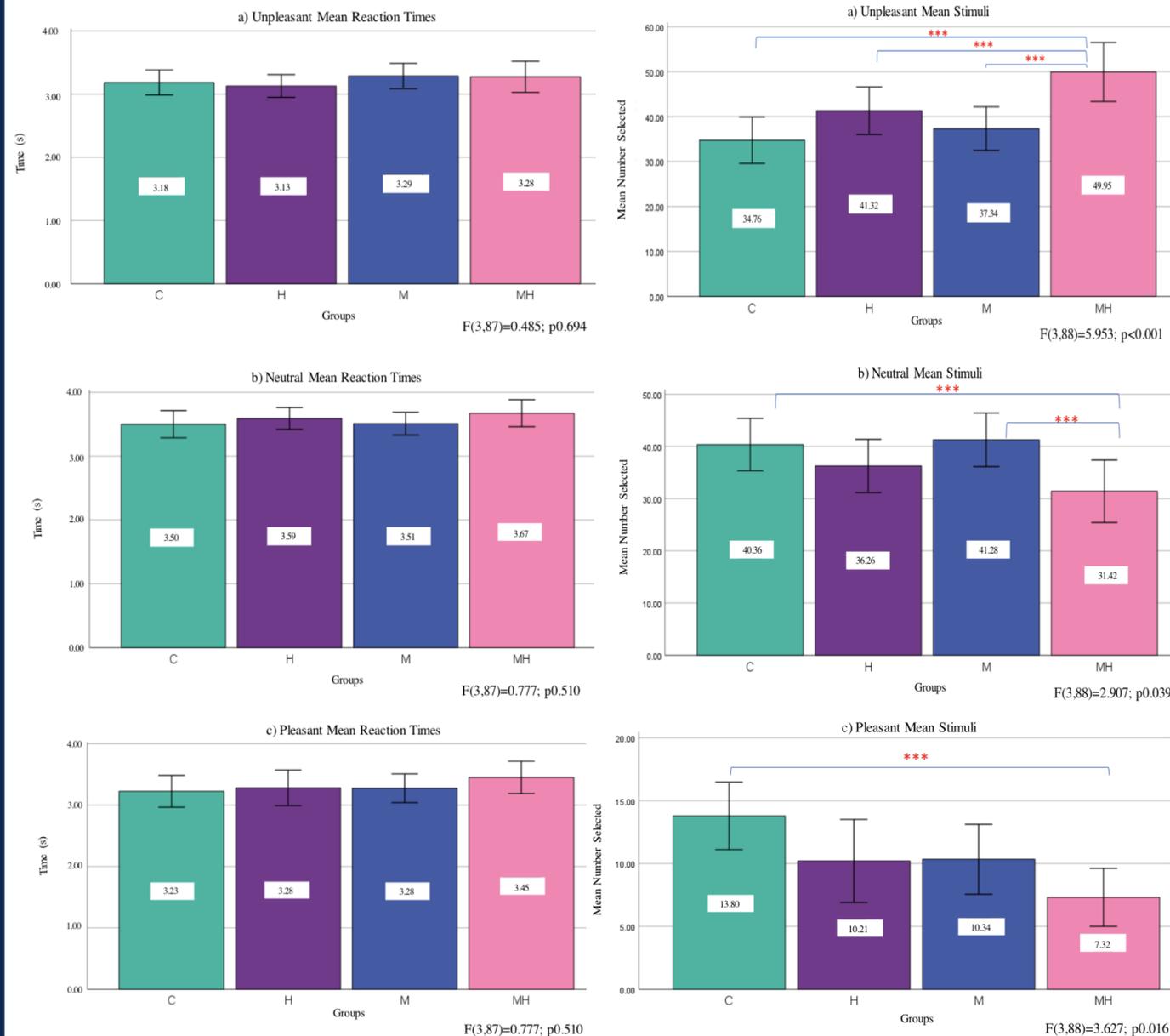


Figure 1. Mean reaction times across 4 groups; Controls (C), Hyperacusis (H), Misophonia (M), and Co-morbid (MH) for a) unpleasant, b) neutral, and c) pleasant stimuli.

Figure 2. Mean categorical emotion perception across 4 groups; Controls (C), Hyperacusis (H), Misophonia (M), and Co-morbid (MH) for a) unpleasant, b) neutral, and c) pleasant stimuli.

RESULTS

- There was no difference in the reaction times between each of the groups.
- The MH group categorized more stimuli as unpleasant compared to the other groups.
- The C and M groups found more stimuli to be neutral compared to the MH group.
- The C group found more stimuli pleasant than the MH group.

CONCLUSION

- Our study highlights the unique emotional perceptions among the different groups.
- This opens avenues for better characterization and management of sound tolerance disorders.

ACKNOWLEDGEMENTS

- I would like to give a special thanks to Dr. Fatima T. Husain and Namitha Jain for their guidance and support. I would also like to acknowledge and thank Dr. Andriara Schwingel, Diana Morales, and Ana Selzer for the opportunity to explore research through the START program.

