



POST-COVID-19 ENT-RELATED SYMPTOMS IMPACT IN THE LATINO PUERTO RICAN POPULATION



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Introduction

Olfactory and gustatory disorders (OGDs) have emerged as common short and long-term complications associated with COVID-19 infection. Despite the resolution of other COVID-19 symptoms, some patients may experience persistent smell and taste dysfunction. Studies have shown that a significant proportion of COVID-19 patients present with OGDs, with 41.0% experiencing olfactory dysfunction and 38.2% experiencing gustatory dysfunction [1]. Furthermore, nearly 30% of patients experience persistent OGDs 12 months after initial infection [2].

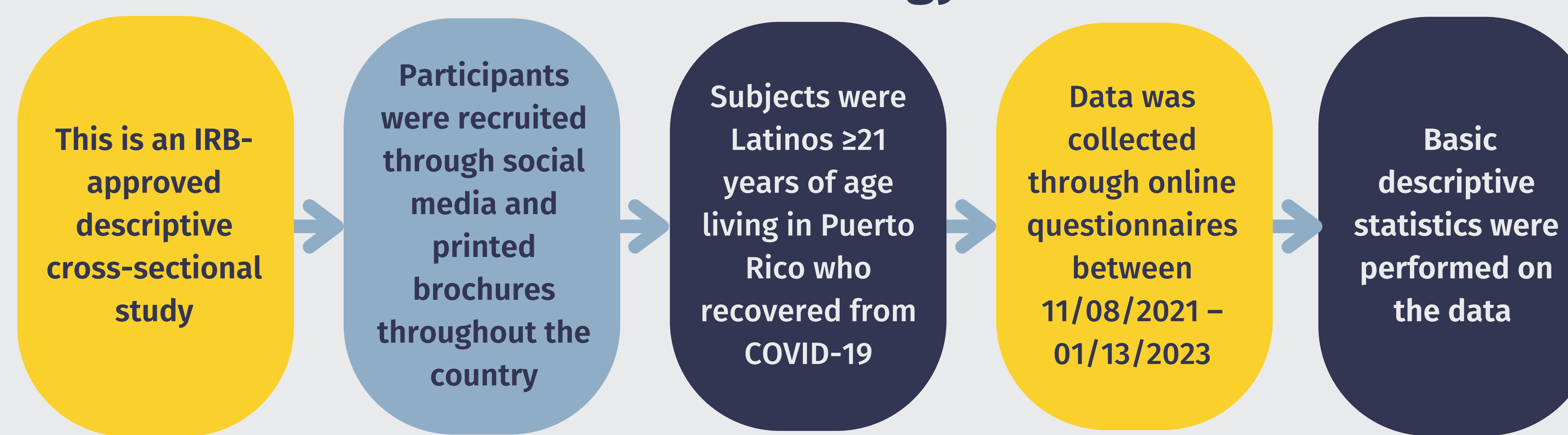
These long-term effects of OGDs raise concerns about their potential impact on patients' quality of life (QoL). A longitudinal web-based nationwide survey concluded that COVID-19-associated chemosensory losses substantially affect quality of life and safety [3]. In this survey, 96% of subjects reported experiencing at least one of the defined QoL deficits [3].

This research project aims to investigate the impact of the loss of smell and taste on the quality of life of Latinos in Puerto Rico, an underrepresented population in existing studies. By understanding this population's specific challenges, we can develop targeted interventions and support systems to improve their overall well-being.

Objectives

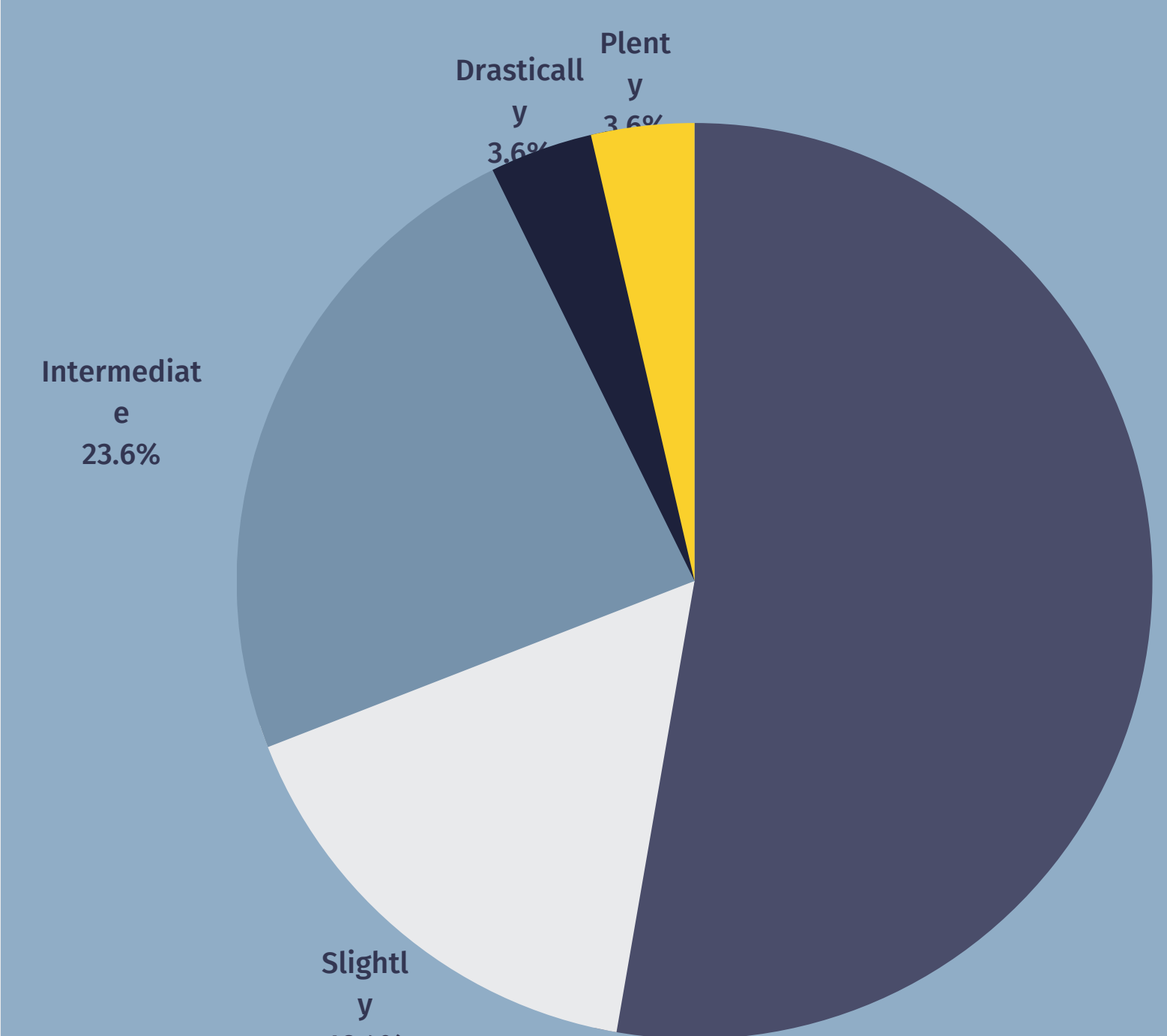
1. Investigate the impact of the loss of smell and taste on the quality of life of Latinos in Puerto Rico who have recovered from COVID-19
2. Determine the prevalence of taste and smell dysfunction in this population after the infection
3. Understand the impact of taste and smell dysfunction on the lifestyle and emotions of Latinos in Puerto Rico

Methodology

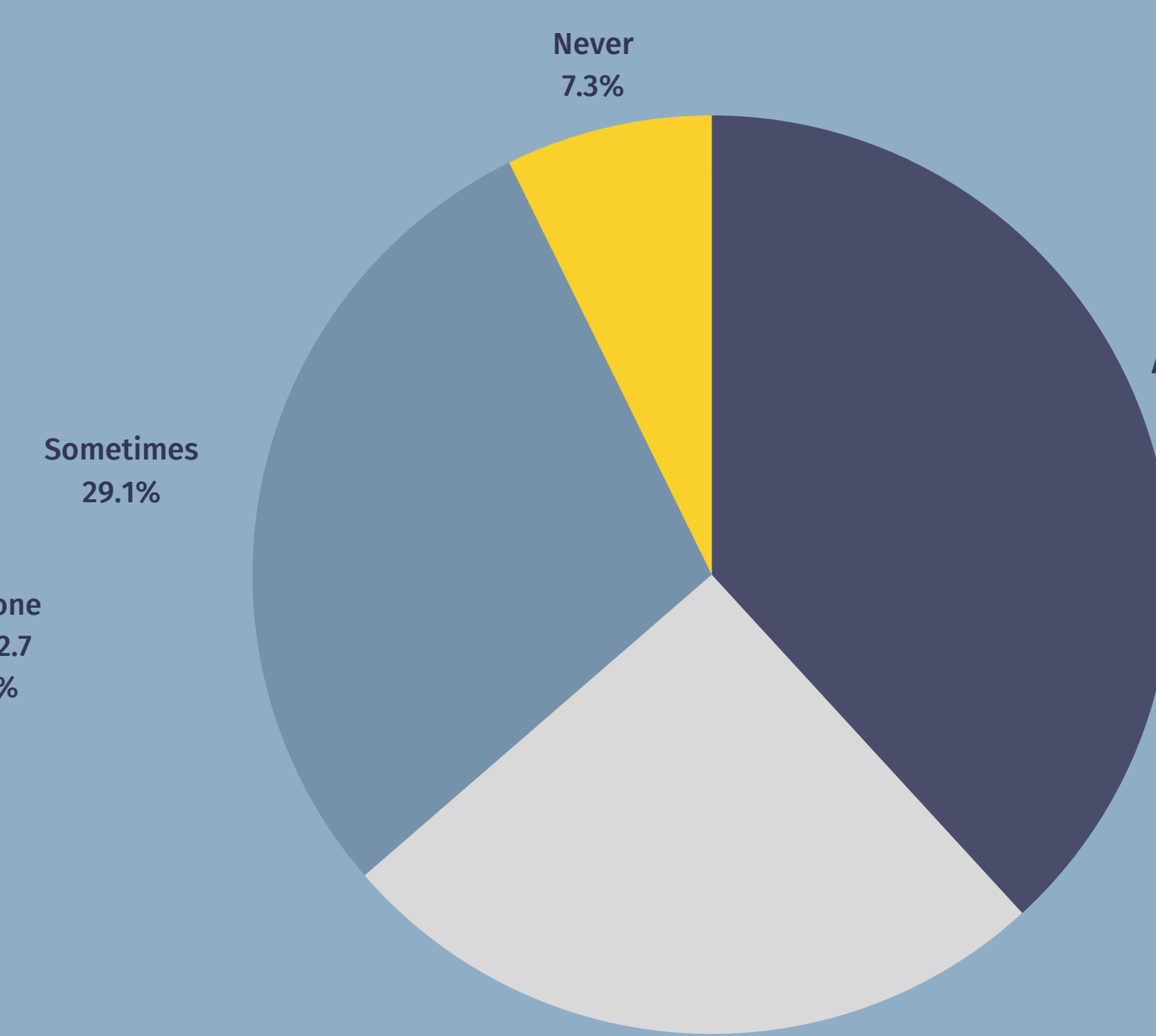


Results

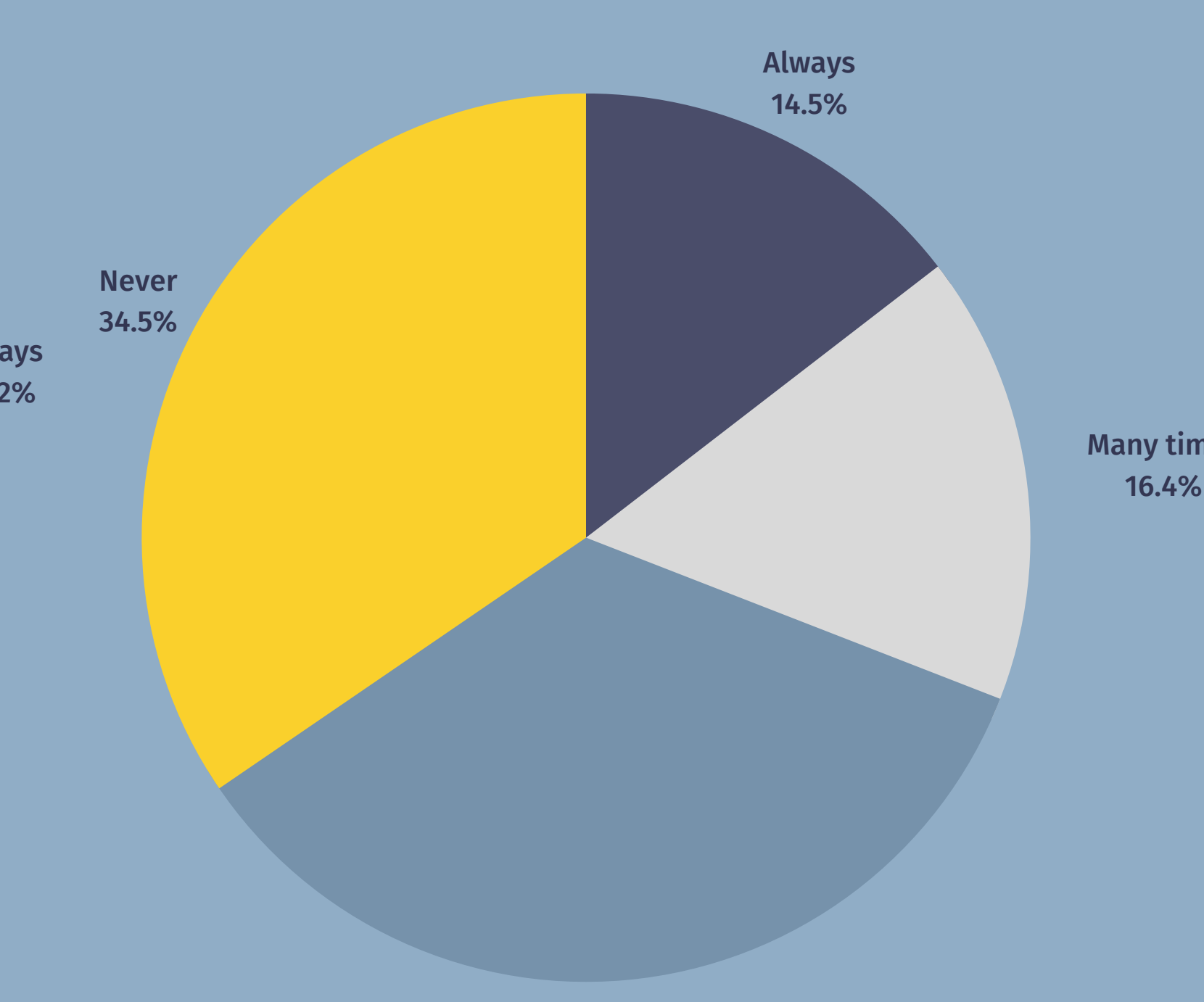
One hundred sixty subjects (N=160, mean age 35 ± 14 years, 66% women) were recruited. Twenty-seven percent (43/160) and 26% (41/160) reported taste and smell dysfunction, respectively. However, 18% (29/160) disclosed simultaneous loss, and 34% (55/160) either or both. Twenty-one percent (9/43) and 24% (10/41) of the participants did not recover their typical sense of smell and taste, respectively.



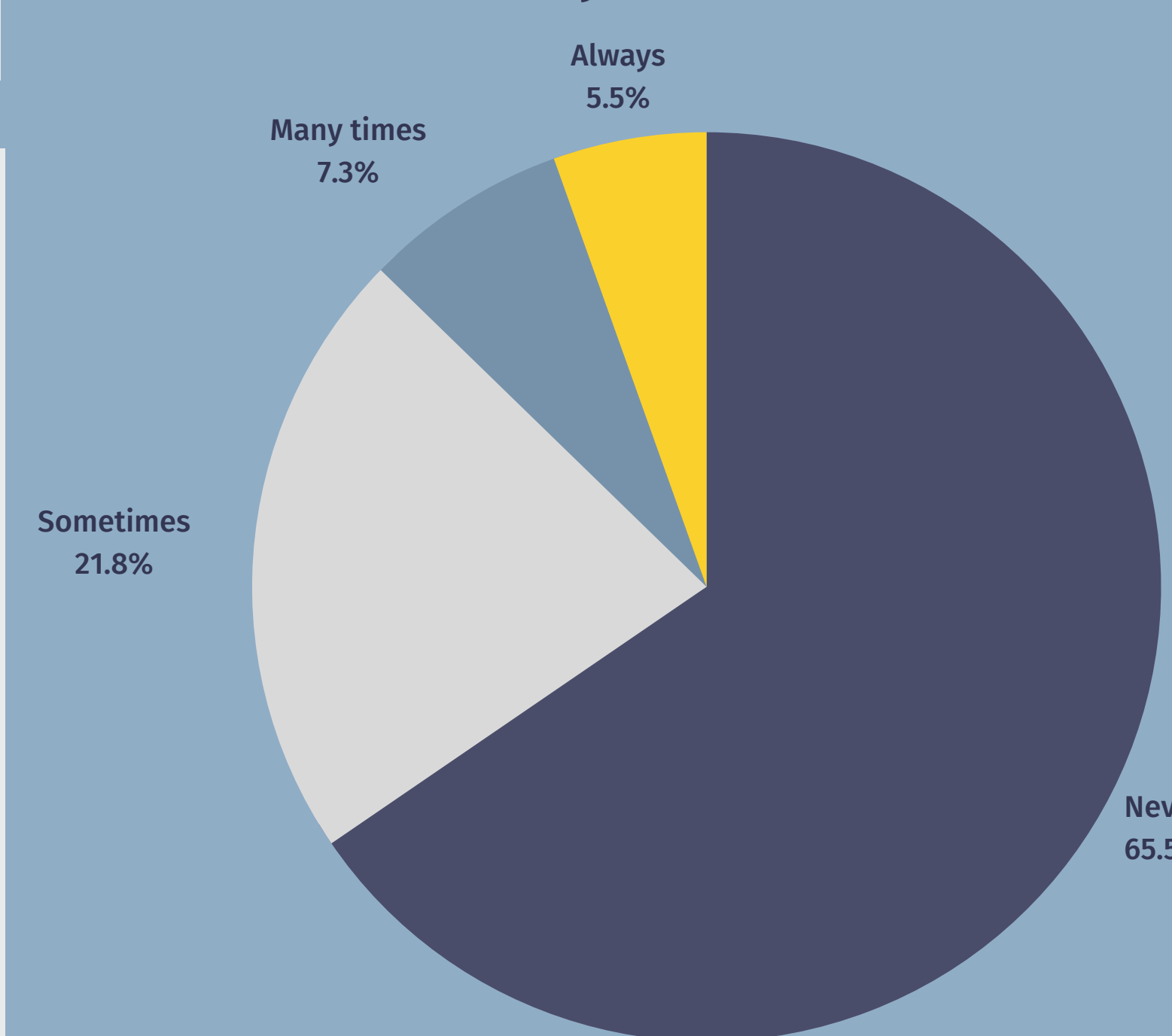
Graph 1. Impact of Olfactory and Taste Loss on Lifestyle (n=55)



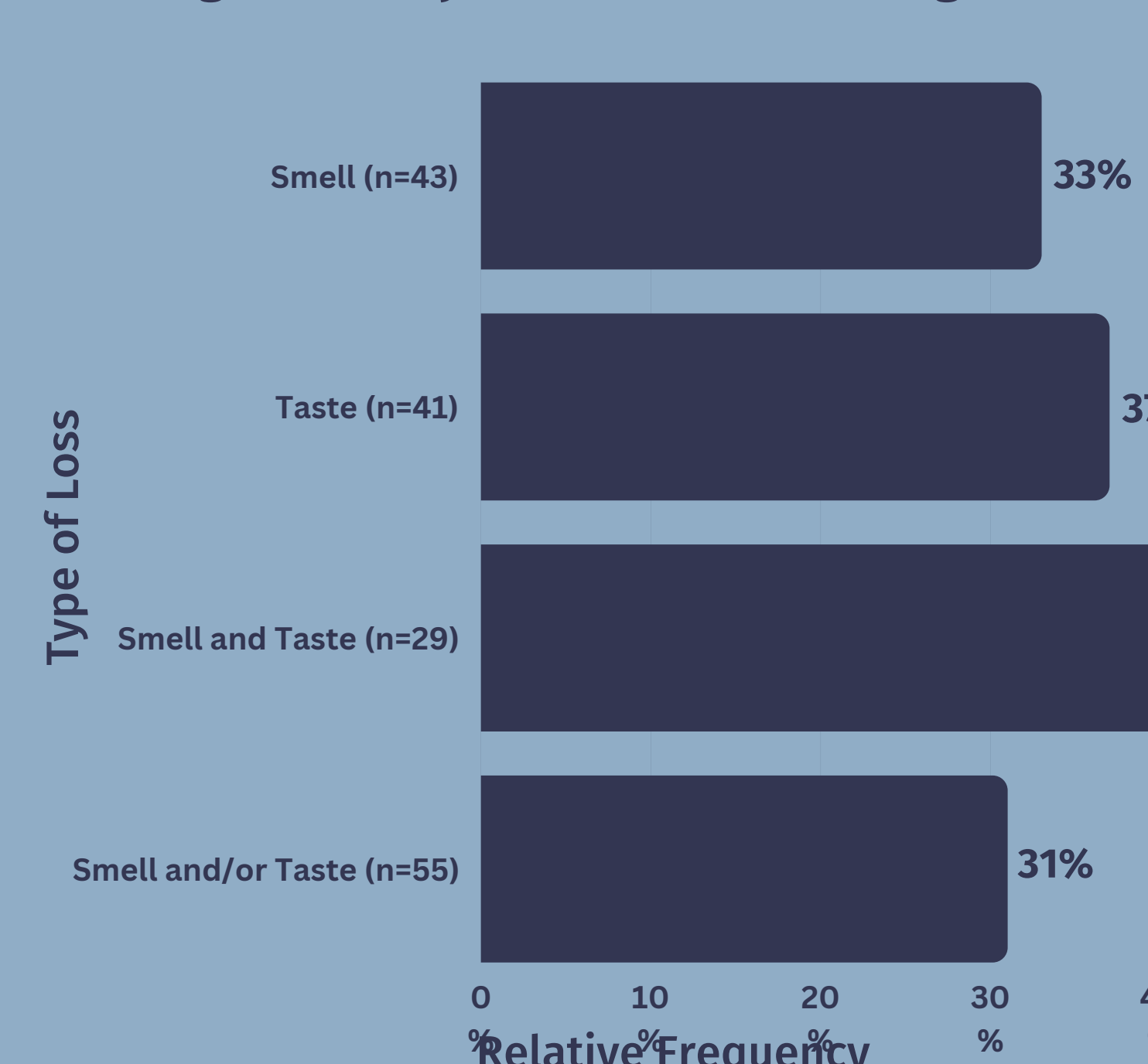
Graph 2. Distribution of Self-Reported Calmness During Olfactory and/or Taste Changes (n=55)



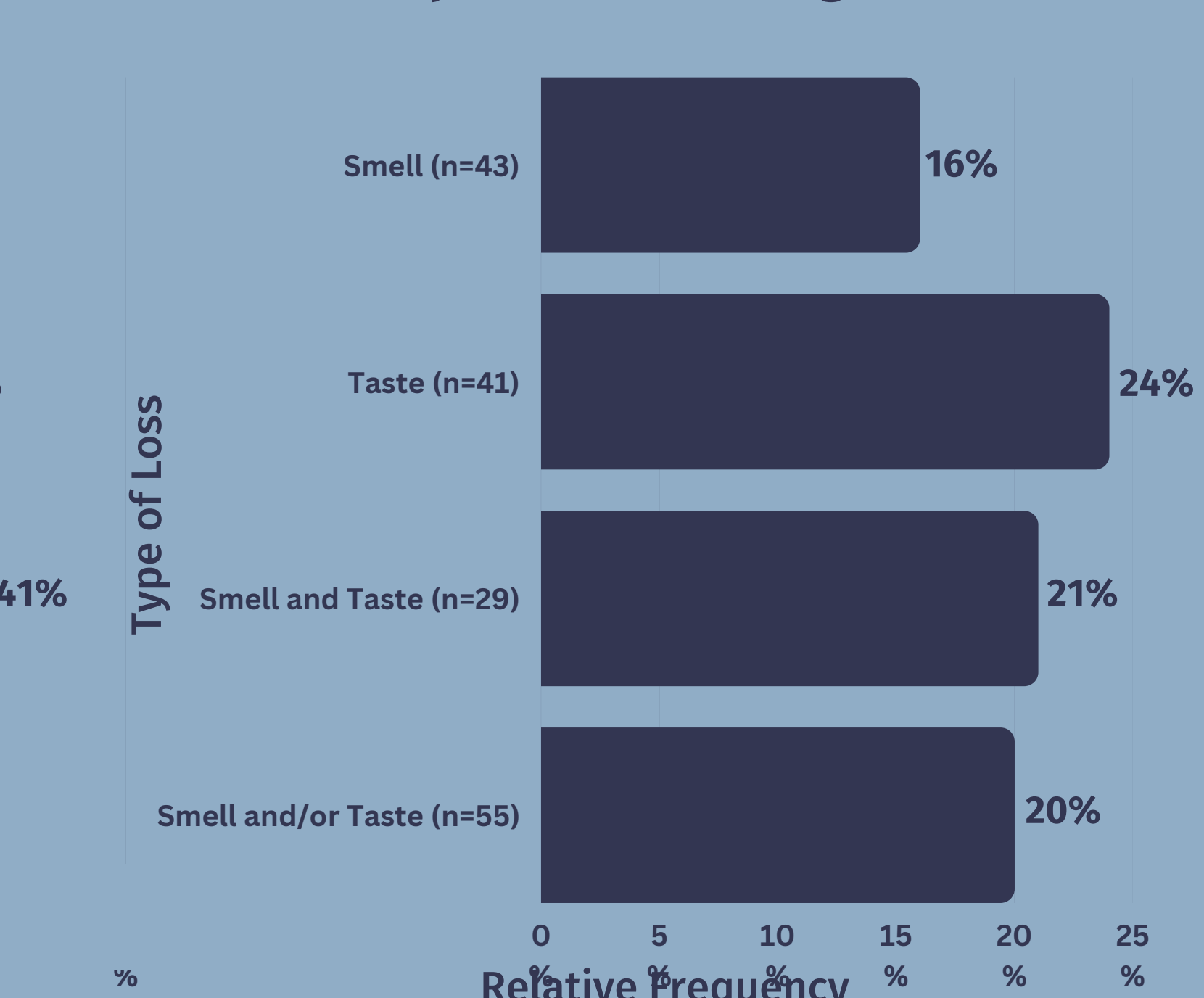
Graph 3. Distribution of Self-Reported Sadness During Olfactory and Taste Changes (n=55)



Graph 4. Distribution of Self-Reported Impact of Mood on Social Activities During Olfactory and Taste Changes (n=55)



Graph 5. Relative Frequency of Participants with Loss of Appetite Due to Olfactory and/or Gustatory Alteration



Graph 6. Relative Frequency of Participants with Weight Loss Due to Loss of Appetite

Conclusion

- The loss of taste and smell following COVID-19 infection has a significant impact on the quality of life of Latinos in Puerto Rico.
- The prevalence of taste and smell dysfunction in this population is high, with over a third of participants experiencing either or both dysfunctions.
- Of those who experienced simultaneous loss, nearly 8% reported that it had a drastic or significant impact on their lifestyle, and over 30% felt discouraged or sad always or most of the time.
- Loss of appetite and weight loss were also common among participants with taste and smell dysfunction.
- Otolaryngologists, especially those who treat this population, should be aware of the long-term effects of the infection when treating their patients, as these persistent dysfunctions are common and can affect the patient's well-being.

References

1. Nguyen, N. N., & Hoang, V. T., et al. (2022, February 25). Long-Term Persistence of Olfactory and Gustatory Disorders in COVID-19 Patients. *Frontiers*. Retrieved March 12, 2023, from [HTTPS://www.frontiersin.org/articles/10.3389/fmed.2022.794550/full](https://www.frontiersin.org/articles/10.3389/fmed.2022.794550/full)
2. Fortunato, F., Martinelli, D., et al. (2022, January 22). Self-reported olfactory and gustatory dysfunctions in COVID-19 patients: A 1-year follow-up study in Foggia district, Italy. *BMC Infectious Diseases*. Retrieved March 12, 2023, from <https://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-022-07052-8>
3. Coelho, D. H., Reiter, E. R., Budd, S. G., Shin, Y., Kons, Z. A., & Costanzo, R. M. (2021). Quality of life and safety impact of COVID-19 associated smell and taste disturbances. *American Journal of Otolaryngology*, 42(4), 103001. <https://doi.org/10.1016/j.amjoto.2021.103001>

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