The current clinical trial study on the *Shuddhi Kriya Yoga* Program (SKYP) for managing allergic rhinitis, while providing insightful findings, also presents several limitations .The eight-week duration of the *yoga* intervention, though effective in demonstrating immediate impacts, may not suffice to assess long-term effects. An extended trial period would be more ideal to observe sustained outcomes. The relatively small sample sizes in both the experimental and control groups limit the ability to generalize the study's findings to a broader population. Given the nature of the intervention, blinding subjects to the treatment was not feasible, potentially introducing bias into the study results. Conducted in a single center, the study's findings may not be universally applicable to the larger population, especially considering geographical and cultural differences. In India, where *yoga* is widely practiced and positively regarded, participants' pre-existing favorable opinions towards *yoga* might have influenced the outcomes, potentially contributing to a bias. The study did not include the measurement of biomarkers associated with allergic rhinitis, such as cytokines, neurotrophins, pro-inflammatory neuropeptides, IgE levels, and stress hormones. The inclusion of these biomarkers could have provided a more comprehensive assessment of the intervention's impact.

6.7 SUGGESTIONS FOR FUTURE STUDIES

Based on the limitations and findings of this prevalence study on allergic rhinitis (AR) among college students in Vadodara city, several suggestions emerge for future research. Firstly, future studies should consider including a wider geographical area to enhance the generalizability of the findings. Expanding the research to multiple cities or regions would provide a more comprehensive understanding of AR prevalence and its variations across different environments. Secondly, incorporating laboratory tests and clinical assessments into the study design would validate self-reported questionnaire data, leading to more accurate diagnoses of AR. This could

involve allergy tests, nasal examinations for conditions like deviated nasal septum or nasal polyps, and assessments of medication usage. Thirdly, it would be beneficial to investigate the specific effects of AR on academic performance in greater detail. Future studies could explore how AR impacts reading hours, attentiveness in class, college attendance, and overall academic achievement. Additionally, examining the environmental factors, such as the presence of greenery and pollen exposure around educational institutions, could provide valuable insights into potential triggers of AR among college students. Lastly, future research should aim to include a broader age range and a more diverse participant demographic.

Future Studies on the *Shuddhi Kriya Yoga* Program should consider extending the duration of the *yoga* intervention and include long-term follow-up assessments to evaluate the sustainability of the benefits and observe any long-term effects. Research with larger sample sizes and more diverse participant demographics would enhance the generalizability of the findings. This includes varying ages, ethnicities, and severities of allergic rhinitis. Conducting the study across multiple centers would help in understanding the effectiveness of the program in different geographical and cultural contexts. While blinding participants in *yoga* interventions is challenging, future studies should aim for more rigorous randomization methods and consider blinding the assessors to reduce potential bias. Including objective biomarkers such as cytokines, IgE levels, and stress hormones in the assessment would provide a more comprehensive evaluation of the physiological impact of the *yoga* program. Comparing SKYP with other non-pharmacological interventions, such as other forms of exercise or relaxation techniques, could provide insights into its relative effectiveness. Investigating the underlying mechanisms through which *yoga* affects allergic rhinitis symptoms could contribute to a better understanding of its therapeutic potential. Evaluating the cost-effectiveness of SKYP in the management of allergic

rhinitis would be beneficial, especially for healthcare policy and public health strategies. Studies exploring the integration of SKYP with conventional allergic rhinitis treatments could provide a more holistic approach to management.