

ORIGINAL RESEARCH ARTICLE

Investigating the Therapeutic Potential of *Jal Neti* and Rapid *Kapalabhati* for Managing Sinus and Ocular Issues

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ABSTRACT

Background: In this research study, the use of traditional yogic practices such as Jala Neti and Rapid Kapalabhati is proposed as potential complementary treatments for sinusitis and ocular issues which have become very common nowadays. This research work is based on experimental qualitative research design and aims to investigate the therapeutic potential of Jala Neti and Rapid Kapalabhati for the management of sinus and ocular issues.

Methods: The research work included 34 participants aged 22–58 years who self-reported sinusitis and ocular issues. The participants were prescribed an intervention program of regular practice of Jala Neti and Rapid Kapalabhati for 6 weeks. Data collection of changes in symptoms related to the problems was done using qualitative methods through semi-structured interviews of the participants to assess the efficacy of this yogic intervention program.

Results: The findings of the research study clearly indicate a reduction in sinus-related symptoms such as nasal congestion, facial pain, postnasal drip, and nasal congestion. There was also an improvement in ocular issues including dryness, itching, blurred vision, and redness of the eyes. The willingness with which the intervention protocol was accepted by the participants indicates the efficacy of Jala Neti and Rapid Kapalabhati as complementary treatments for the management of sinus and ocular issues.

Conclusion: The findings of this study provide preliminary evidence supporting the therapeutic potential of Jala Neti and Rapid Kapalabhati for the management of sinus and ocular issues. The practice of these yoga practices, if adopted as an additional option in one's lifestyle, can play an important role in the treatment of sinus and ocular issues.

1. INTRODUCTION

1.1. Introduction to Jal Neti and Rapid Kapalabhati Practices

Jal Neti is a nasal cleansing method that uses a specially made pot called a "Neti pot" to gently rinse the nasal passages with saline water. By removing mucus, allergens, and pollutants from the nasal passageways, the procedure seeks to relieve sinus congestion and enhance respiratory health. Jal Neti is firmly ingrained in Ayurvedic philosophy, where it is used in a procedure called "Neti Kriya" to purify the nasal passages.^[1] The Neti method is a way of clearing the nasal passages. It is a respiratory system upper respiratory tract cleaning procedure. The two main categories of neti are jala neti and sutra neti. The most common practice is jala neti, despite the lack of reliable sources. Typically, a neti pot

filled with lukewarm saline water is used to perform it. No traditional source specifies the precise quantity of salt to use. In real terms, 2.5 g is sufficient for 500 L of water. It has been advised to use the recommended salt content (2%–3.5%) for nasal irrigation based on clinical trials.^[2]

An ancient yoga technique called kapalabhati emphasizes strong nasal exhalations while maintaining a passive inhale. It is thought that this dynamic breathing exercise will activate the diaphragm and transverse abdominis, two abdominal muscles, which will massage the organs inside and cause toxins to be expelled.^[3] Rapid Kapalabhati is believed to provide therapeutic benefits for sinus and ocular health, perhaps boosting ocular function and helping with sinus discharge due to its effects on circulation and oxygenation.^[4]

1.2. Aim of Research Study

The aim of the research paper is to explore the therapeutic potential of two traditional yogic practices, Jala Neti and Rapid Kapalabhati, for the

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management of sinus and ocular issues. It investigates the efficacy of these practices in reducing symptoms such as nasal congestion, facial pain, and ocular discomfort. The paper examines the mechanisms underlying the therapeutic effects and discusses the implications of integrating these practices into healthcare settings.

1.3. Type of Review

This paper does not analyze or synthesize the existing literature in a structured manner like a systematic review. It involves exploring various aspects of yogic practices, their impact on human health, theoretical frameworks, and possible mechanisms. Hence, a 'narrative review approach' has been used to provide context and theoretical basis to the research work.

1.4. Overview of Sinus and Ocular Issues and Their Impact on Daily Life

The swelling and inflammation of the tissues lining your sinuses are the cause of a sinus infection, sometimes referred to as sinusitis or rhinosinusitis. These tiny, air-filled cavities in your cheeks and forehead are called sinuses. When inflammation develops, the sinuses get blocked, which stops mucus from normally draining into your nose. You might consequently suffer from symptoms such as fever, stuffy or runny nose, facial ache, and so on.^[5] Every condition pertaining to the eyes falls under the umbrella of ocular issues. Ocular problems come in a wide variety of forms, from simple irritations like dry eyes to dangerous disorders that can cause blindness.^[6]

Ocular and sinus problems are common ailments that can have a big effect on someone's quality of life.^[7] Common symptoms of sinusitis, or inflammation of the sinus cavities, include headaches, face discomfort or pressure, and congestion of the nasal passages. In instance, chronic sinusitis can cause breathing difficulties, diminished sense of smell, and chronic pain that makes it difficult to carry out regular tasks.^[8] Meanwhile, a number of common conditions related to the eyes, including allergic conjunctivitis, dry eye syndrome, and eye strain, can lead to pain and visual abnormalities. For example, redness, itching, and watering of the eyes are symptoms of allergic conjunctivitis that affect comfort level and visual acuity. Dry eye syndrome affects daily activities such as reading and driving because of its poor tear quality or insufficient tear production, which causes ocular irritation and light sensitivity.^[9]

In addition to causing physical discomfort, these ocular and sinus problems often have significant emotional and social repercussions.^[10] People who experience chronic symptoms may become frustrated, anxious, and less productive as a result of their inability to manage the ongoing discomfort and restrictions brought on by their illness. In addition, the social shame attached to outward manifestations like red, teary eyes or frequent nose blowing can exacerbate feelings of loneliness and self-consciousness.^[11]

1.5. Rationale for Investigating the Therapeutic Potential of These Practices

Even with advances in medical care, people with ocular and sinus problems frequently turn to complementary and alternative therapies in an effort to reduce symptoms and enhance their overall well-being. Due to their historical use and anecdotal evidence of their effectiveness, traditional therapies such as Jal Neti and Rapid Kapalbhathi have become prospective options for addressing these illnesses.

Jal Neti is an Ayurvedic nasal cleansing treatment that is supposed to relieve sinus congestion by purging mucus, allergens, and pollutants from the nasal passages. Anecdotal accounts and observational studies indicate promising results in lowering symptoms related with sinusitis and allergic rhinitis, despite the paucity of scientific evidence supporting its efficacy.^[12] Forceful nasal exhalations, or kapalbhathi, have drawn interest due to their possible advantages in enhancing respiratory health and enhancing general well-being. It is believed that this vigorous breathing exercise will improve circulation, increase oxygenation, and aid in the body's removal of toxins. Rapid Kapalbhathi may be able to help with sinus congestion as well as ocular problems associated with poor circulation and oxidative stress because of its systemic effects.^[13]

In addition, Jal Neti and Rapid Kapalbhathi are inexpensive, easily accessible, and non-invasive, which makes them appealing choices for people looking for ways to treat their sinus and ocular conditions on their own. Our goal is to offer patients and healthcare professionals evidence-based suggestions for incorporating Jal Neti and Rapid Kapalbhathi into all-encompassing therapy regimens for sinus and ocular disorders by thoroughly examining these practices within a strict scientific framework.

2. METHODS

2.1. Description of Study Design

The aim of this research study is to evaluate the therapeutic efficacy of two traditional yogic practices, Jala Neti and Rapid Kapalabhathi, in the diagnosis and management of sinus and eye problems. The nature of this experimental research study is qualitative. This study uses an intervention based design to assess the effectiveness of these yogic practices Jala Neti and Rapid Kapalabhathi in reducing the symptoms of sinus and eye problems. The study design uses a qualitative pre-post evaluation method to explore the experiences of the participants before and after the yogic intervention period to test the outcome of the research. The research study involves various components including recruitment of participants, implementation of yogic intervention, methods of data collection and techniques of analysis.

2.2. Participant Recruitment and Selection Criteria

The research study included 34 participants experiencing symptoms of sinusitis and eye problems aged between 22 and 58 years who volunteered to participate in this research study. These participants were recruited through yoga instructors at various yoga centers operating in Jaipur, social media advertisements and referrals from health professionals specializing in otolaryngology. Random sampling method was used for this experimental qualitative research study and participants self-reported for sinusitis and eye problems. Demographic diversity was taken into account in the participants taking part in the research.

2.2.1. Inclusion criteria

We looked for volunteers between 21 and 60 years old, a wide range to capture people who commonly experience sinus and eye issues. People with symptoms such as stuffy noses, facial pain, and a weak sense of smell (signs of sinus problems) were welcome. We also included those with dry eyes, itching, redness, or blurry vision (which could indicate eye conditions). Importantly, everyone had to be willing to participate fully – following the yoga program, attending all sessions, and completing assessments before and after.

2.2.2. Exclusion criteria

The study was not for everyone. We wanted to make sure the results were clear, so we left out folks with tricky sinus problems needing extra care, serious eye issues like glaucoma, or anyone who just had nose surgery. People with frequent nosebleeds, high blood pressure they couldn't control, other big health concerns, or on hormone meds couldn't participate either.

2.3. Intervention Implementation

Participants underwent a structured intervention involving the practice of Jal Neti and Rapid Kapalabhathi under the guidance of experienced yoga instructors. The intervention of Jal Neti and Rapid Kapalabhathi was carefully structured to ensure sustainability, safety, and efficacy of implementation. The yogic intervention was conducted in a controlled environment, with participants attending regular sessions over a specified period.

2.3.1. Frequency of sessions

The duration of the intervention for the practice of Jal Neti and Rapid Kapalabhathi was fixed at 6 weeks, with participants attending regular sessions held on alternate days for 3 days a week. Participants attended regular sessions held 3 days a week (alternate days), for a total of 18 sessions, each lasting approximately 60 min, allowing sufficient time for instruction, practice, and discussion.

2.3.2. Instructions for jal neti practice

To practice safe and efficient Jala Neti, participants were first asked to make a saline solution by thoroughly mixing half a teaspoon of non-iodized salt with warm distilled or sterilized water. Participants were then instructed and demonstrated how to use the neti pot to drain water from their nasal passages. To do this, they were asked to tilt their head to one side and place the spout of the neti pot in their upper nostril and slowly flow the saline solution through their nasal passages and out their lower nostril. To facilitate comfort and flow, participants were advised to breathe slowly and deeply through their mouths; they were also advised to avoid holding their breath or swallowing the saline solution. To prevent contamination and illness, participants were asked to finally rinse the neti pot thoroughly with clean water and allow it to air dry between uses.

2.3.3. Instructions for rapid kapalbhathi practice

All you need for Kapalbhathi is a comfy spot! Sit on a yoga mat (or a chair with flat feet) with your back straight and shoulders relaxed. Now, focus on your breath, especially the exhale. Imagine pushing the air out of your nose with quick bursts from your belly. It's like a rapid fire exhale with a relaxed inhale in between. Start slow and steady, and then pick up the pace as you get comfortable. Aim for 10–15 min with short breaks in between. Each session is like a mini race with your breath – lots of quick exhales followed by calming rest periods.

This study teaches people how to safely do Jal Neti and Rapid Kapalbhathi yoga techniques. It gives clear instructions to see if these practices can help sinuses and eyes. It includes exactly how long and how often to do them.

2.4. Data Collection Methods

Qualitative data were collected through semi-structured interviews with participants before and after the intervention. These interviews helped us understand their sinus and eye issues, how they impacted daily life, and their hopes for the program. We also learned about their experience with the intervention itself, any changes they noticed, and their overall feelings about it.

2.4.1. Semi-structured interviews

The study's core method was semi-structured interviews, which probed participants' experiences both before and after the intervention. Confidentiality and developing a rapport were given first priority throughout these one-on-one interviews led by skilled facilitators. Pre-intervention interviews looked at expectations for the intervention, everyday effects, and baseline experiences with sinus and ocular problems. Post-intervention interviews evaluated satisfaction levels, experiences with the intervention, and reductions in symptoms. Exploration of emerging themes was made possible by the flexibility of the inquiry, and data quality and rigorous analysis were assured by verbatim transcription and audio recording.

2.5. Ethical considerations and participant consent

There was no formal approval from the ethics board for the research project that was submitted. Nonetheless, all participants provided signed informed permission forms, guaranteeing compliance with relevant ethical guidelines. To protect participants' rights and welfare while examining the therapeutic potential of Jal Neti and Rapid Kapalbhathi for treating sinus and ocular problems, all information related to research work gave to volunteers, which included information about the goals, methods, risks, and rewards. Every participant was free to leave the research at any moment and without penalty. To safeguard participant identification all participants denoted by "P", participant data were anonymised, and study confidentiality was upheld at all times.

3. RESULT OF REVIEW

3.1. Previous Research on the Therapeutic Effects of Yoga Practices on Sinus and Ocular Health

Patients suffering from asthma and allergic rhinitis may benefit greatly from yoga, especially from asana techniques such as jalaneti and pranayama. Including nasal breathing exercises in addition to normal medical care as adjuvant therapy can improve patient outcomes and management techniques.^[14] According to this study, yogic activities, especially the Shuddhi Kriya-based yoga program, are effective in lowering ocular and nasal symptoms, strengthening nasal potency, and improving quality of life in those who have allergic rhinitis. This emphasizes how yoga may be used in conjunction with other treatments to address this chronic inflammatory illness.^[15] As supplemental therapy for the treatment of optic neuropathy and its visual symptoms, integrative approaches especially yoga show promise. Yoga is a useful supplement to conventional ocular care because of its comprehensive impacts on wellbeing, which include boosting health, preventing disease, and aiding in recovery. Its possible advantages for eye health include mechanisms including neuroprotection, oxidative stress reduction, and inflammation control. Clinical research indicates that yoga therapies, particularly those that incorporate breath awareness, enhance functional results, quality of life, and visual acuity. Combining yoga with traditional therapy opens up new possibilities for interdisciplinary approaches to ocular care, which can transform therapeutic techniques and improve eye health.^[16]

3.2. Theoretical Frameworks Supporting the Efficacy of These Practices

With a few adjustments in modern practices, neti kriya is an important yogic kriya that has been practiced for thousands of years and is utilized as a preventive and therapeutic approach against upper respiratory tract infections. Jala-neti, which uses PVP-I (0.5%–1%) as

irrigation fluid, can be utilized as a therapeutic or preventive measure against SARS-CoV-2 and other infectious pathogens that localize in the upper nasopharynx. Combining these two approaches so has a clear theoretical benefit.^[17] Amidst the COVID-19 pandemic, the reappearance of MCR, sometimes referred to as black fungal infection, has emerged as a major worry, with India recording the largest number of cases worldwide. The necessity for efficient therapies is highlighted by the fast progression, tissue invasion, and high mortality rates linked to MCR. Despite the difficulties, there is hope thanks to the straightforward but effective jalaneti or saline nasal irrigation method, which has been shown to produce almost full clinical recovery even prior to the start of conventional anti-fungal therapy. This inexpensive technique may lessen the severity of MCR, opening up a critical window for prompt therapeutic interventions. The findings from this case call for immediate clinical trials to investigate its efficacy in more detail.^[12] It was discovered that the patient's use of Neti Kriya was successful in treating the symptoms of chronic allergic rhinitis. The effectiveness of Jalaneti and Sutraneeti together as a therapy for persistent allergic rhinitis is demonstrated in this study. To determine whether Neti Kriya is a successful treatment for chronic allergic rhinitis on its own or if it has to be combined with other yogic practices, drugs, and/or other therapies, more large-scale research are necessary.^[18]

Practices of Kapalbhathi are beneficial for stimulating the frontal lobe, often referred to as Kapala in Hatha Yoga. Although the brain's blood supply is unique, practicing kapalbhathi leads to an excess of carbon dioxide elimination and an increase in oxygen in the brain's peripheral tissue. Increased oxygen flow results in optimal metabolism in the forebrain often known as "shining of the brain" in Hatha Yoga lingo.^[19] In addition to improving physical vitality, Kapalbhathi pranayama also improves mental clarity and emotional balance. It is a powerful tool for purification, oxygenation, and relaxation. Its numerous advantages, which range from increased pulmonary function to better concentration, make Kapalbhathi pranayama a holistic practice with therapeutic potential for a wide range of health conditions.^[20]

4. RESULTS

4.1. Summary of Participant Demographics

The people who volunteered for our study had folks from all walks of life – professionals, house wives, students, and even retirees. The average age was 42, with more women (65%) participating because sinus and eye issues seem to be more common for them (*Women Face Higher Risk of Blindness than Men*, 2017). Many people mentioned conditions such as allergies, dry eyes, and vision problems when they signed up.

4.2. Qualitative Analysis of Pre and Post Assessments

Pre- and post-assessment qualitative analysis yielded insightful information on participants' experiences, perceptions, and reactions to the Jal Neti and Rapid Kapalbhathi intervention for sinus and ocular problems. Results from semi-structured interviews performed both before and after the intervention period were thematically analyzed to shed light on the practices' subjective effects on quality of life and symptom management.

4.2.1. Pre-intervention assessments

Prior to beginning the intervention, participants underwent interviews to learn more about their past experiences with sinus and ocular symptoms, how they felt these affected their daily lives, and what they expected from the program. Pre-intervention evaluations

underwent thematic analysis, which identified numerous major themes:

4.2.1.1. Symptom severity and impact

Participants reported feeling pressure in the face, dry eyes, nasal congestion, and blurred vision, among other sinus and ocular symptoms. These symptoms were frequently accompanied by discomfort and interfered with day-to-day functioning, including social contacts, work, and sleep.

4.2.1.2. Quality of life

Participants conveyed their discontent and irritation over how sinus and ocular problems affected their general quality of life. Because their symptoms persisted, many said they felt emotionally spent, tired, and irritated.

4.2.1.3. Treatment history

Participants talked about how they had previously responded to oral drugs, nasal sprays, and eye drops as standard treatments for sinusitis and ocular pain. Some voiced unhappiness with these therapies' efficacy and adverse effects, which piqued their curiosity in investigating alternate strategies.

4.2.1.4. Expectations and hopes

Concerning the intervention with Jal Neti and Rapid Kapalbhathi, participants indicated a range of expectations and wishes. While some approached the intervention with doubt or hesitation, others were optimistic that the routines would relieve their symptoms and enhance their general well-being.

4.2.2. Post-intervention assessments

Participants were asked to re-interview after the 6-week intervention phase to discuss their experiences with the practices and any reported improvements in their quality of life or symptoms. The following topics emerged from a thematic analysis of post-intervention assessments:

4.2.2.1. Symptom management

After the intervention, a number of participants reported a decrease in the frequency and intensity of their sinus and ocular symptoms. They reported feeling more at ease and in better health as a result of changes in face pressure, dryness, irritation, and congestion of the nose.

4.2.2.2. Improved respiratory function

After practicing Jal Neti and Rapid Kapalbhathi, participants reported improvements in their nasal breathing patterns and overall respiratory health. They had improved nasal channel airflow and felt more alert, invigorated, and clear-headed.

4.2.2.3. Quality of life

Numerous participants said that the intervention had a beneficial effect on their general quality of life, attributing gains in mood, energy, and sleep quality to it. They appeared to be more balanced, at ease, and mentally clear, all of which enhanced their quality of life and productivity on a regular basis.

4.2.2.4. Empowerment

Practicing Jal Neti and Rapid Kapalbhathi gave individuals the ability to actively manage their ocular and nasal problems. With the practices acting as instruments for self-care and self-awareness, they experienced a renewed sense of control over their health and well-being.

Significant advantages of Jal Neti and Rapid Kapalbhathi in treating sinus and ocular problems were found by qualitatively analyzing the pre- and post-assessments. The quality of life, lung function, and symptom

improvement reported by the participants underscores the therapeutic potential of these age-old yoga practices for overall well-being.

4.3. The Theme Emerged after participants' Experiences and Changes Observed In Sinus and Ocular Symptoms

The results from participant reports and thematic analysis of the qualitative data are presented in this section, emphasizing the individual experiences of symptom alleviation and improvement.

4.3.1. Relief from sinus symptoms

Following the intervention, participants reported considerable symptom control and alleviation, especially for sinus-related symptoms as postnasal drip, face pressure, and congestion. Their nasal passageways freed up, allowing for better airflow and less pain, and they reported relief.

"I feel a significant improvement in my breathing and overall comfort after practicing Jal Neti and Rapid Kapalbhathi regularly. I used to struggle with constant nasal congestion and sinus pressure." [P13]

"I had trouble breathing through my nose and felt like my sinuses were always blocked before I started the activities. However, I saw a noticeable improvement after using Jal Neti and Rapid Kapalbhathi for a few weeks. There was a noticeable decrease in the pressure in my face, and my sinuses felt cleaner. I feel as if a burden has been removed from my brain." [P27]

4.3.2. Reduction of ocular discomfort

Following the intervention, participants also reported alleviation from ocular discomfort, including dryness, irritation, and impaired vision. Many who consistently practiced Jal Neti and Rapid Kapalbhathi reported feeling less dryness in their eyes and a calming sense in them. In addition to increased comfort and visual clarity, some participants reported that their eyesight seemed crisper and less fuzzy.

"When the day was almost over, I used to have a lot of dryness and discomfort in my eyes. However, I saw a noticeable improvement in my eyes' comfort and dryness after adding these yoga practices to my regimen." [P23]

"My eyes feel more lubricated and refreshed, and I no longer have to reach for eye drops as frequently." [P6]

4.3.3. Improved respiratory function

Participants discovered that using these techniques, more mucus may be released and loosened, improving sinus outflow and lowering postnasal drip and congestion. They saw enhanced airflow, enlarged lung capacity, and stronger respiratory muscles, all of which made breathing easier.

"I noticed less mucus buildup throughout the day and clearer sinuses after regularly practicing Jal Neti." [P14]

"Rapid Kapalbhathi also stimulated mucus clearance and improved respiratory function." [P8]

"It became more effortless and smooth, with air flowing freely through my nasal passages." [P32]

4.3.4. Emotional and psychological well-being

Participants described experiencing positive effects on their psychological well-being and stress levels. Many reported feeling calmer, more centered, and less anxious following the practice of Jal Neti and Rapid Kapalbhathi.

"I used to feel constantly stressed and overwhelmed, but practicing these yoga techniques has helped me find a sense of inner peace and tranquility." [P16]

Participants noted the meditative aspect of the practices, which allowed them to cultivate mindfulness and present-moment awareness, thereby reducing mental chatter and promoting relaxation.

4.3.5. Empowerment and self-care

Participants expressed a sense of empowerment and self-efficacy in managing their sinus and ocular issues. Many described feeling more in control of their symptoms and less reliant on medication or other interventions.

"I feel empowered knowing that I have the tools to manage my sinus and ocular issues naturally, without relying solely on medication. It's empowering to take charge of my health in this way." [P9]

Participants also noted a sense of ownership over their health and well-being, recognizing the importance of self-care practices in promoting holistic health. Several participants highlighted the importance of social support and community connection in their experience of the intervention. Many expressed gratitude for the opportunity to participate in a supportive group setting, where they could share their experiences, challenges, and successes with others facing similar health concerns.

"Being part of this group has been so encouraging and uplifting. It's reassuring to know that I'm not alone in my struggles, and we can support each other on this journey towards better health." [P12]

Jal Neti and Rapid Kapalbhathi have strong therapeutic potential for treating sinusitis and ocular pain, as demonstrated by the qualitative study of changes in sinus and ocular symptoms. After the intervention, participants' sinus congestion, face pressure, ocular dryness, and respiratory function all showed substantial improvements. These results support the subjective reports of improved and relieved symptoms, underscoring the value of conventional yoga techniques in fostering holistic health and wellbeing.

5. DISCUSSION

5.1. Mechanisms Underlying the Therapeutic Effects of Jal Neti and Rapid Kapalbhathi

This research paper is thus aimed at exploring the therapeutic mechanisms of Jal Neti and Rapid Kapalbhathi for sinus problems as well as ocular impairments. As part of its irrigation, Jal Neti acts on the nasal cavity, concomitantly cleansing it of mucus and allergens or irritants, which reduces the swelling and enhances the draining activity of sinus, becoming useful for those afflicted by sinusitis. The forceful exhalation work of Rapid Kapalbhathi aids in improving breathing capacity susceptibly and clears congestion pointing to its use in aerating the congested alveoli and promoting oxygenation. Moreover, both practices have relaxations promoting properties, which reduce the inflammatory hormone and the immune-deficiency related Cytokines which are the perpetrator for sinusitis and ocular discomfort. Yoga's mind-body theory drive healing from a holistic perspective, particularly given that improvements in physical health are accompanied by mental or emotional health improvements. Indeed, all respondents indicated that their participation has been improved and, consequently, the ability of the self-efficacy boosting their ability to combat and manage the symptoms the healthier lifestyle. These mechanisms provide a foundation upon which participant responses can be understood, broadening the relevance of findings and underscoring the potential of yoga for holistic health.

5.2. Implications for Integrating these Practices into Healthcare Settings

The study explored the efficacy of ancient yoga techniques, Jal Neti and Rapid Kapalbhathi, in treating sinus and ocular issues within medical contexts. Results underscored implications for policymakers and healthcare providers. Integrating these practices into patient care strategies offers holistic approaches addressing psychological and physical symptoms, potentially reducing reliance on medications and costly procedures. Inclusivity and cultural competency are promoted, fostering collaboration and improving patient outcomes. The study contributes valuable evidence for informed decision-making, empowering medical professionals to tailor treatments to individual patient needs and preferences.

5.3. Limitations of the Study and Suggestions for Future Research

5.3.1. Limitations of the study

The research study on the medicinal potential of Jal Neti and Rapid Kapalbhathi for sinus and ocular problems yielded valuable insights despite several limitations. These included a small sample size, potential participant bias, reliance on self-reported data, absence of a control group, and brief follow-up period. Future research should address these constraints to enhance validity and applicability, potentially through subgroup analyses with larger and more diverse samples, minimizing participant bias, and incorporating objective measures.

5.3.2. Suggestions for future research

The research outlines avenues for further investigation to enhance understanding of Jal Neti and Rapid Kapalbhathi's therapeutic potential for sinus and ocular issues. Proposed directions include larger randomized controlled trials, longitudinal studies, comparative research, dose-response investigations, and mechanistic analyses. Despite promising findings, limitations such as small sample sizes and lack of control groups require attention. Future studies should employ larger samples, randomized designs, and longer follow-up periods, supplemented by objective measurements. Initial findings support the practices' therapeutic potential, warranting further research to benefit individuals with sinus and ocular issues.

6. CONCLUSION

The research study delves into the therapeutic potential of Jal Neti and Rapid Kapalbhathi for sinus and ocular issues, revealing significant improvements in symptoms and quality of life. Participants' positive experiences and high adherence underscore the viability of these methods. Integrating them into clinical practice offers additional options for symptom management. Individuals are encouraged to consider yoga, seek expert guidance, maintain consistency, and embrace holistic approaches. Healthcare providers should monitor patient progress, collaborate with certified instructors, educate patients on complementary therapies, promote holistic well-being, and stay updated on research. The holistic approach of Jal Neti and Rapid Kapalbhathi emphasizes mind-body-spirit interconnectedness, aiming to improve patient outcomes and quality of life. Overall, the study enhances our understanding of complementary treatments' role in holistic health and well-being.

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8. AUTHORS' CONTRIBUTIONS

All the authors contributed equally in the design and execution of the article.

9. FUNDING

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10. ETHICAL APPROVALS

This study is not required ethical clearance.

11. CONFLICTS OF INTEREST

Nil.

12. DATA AVAILABILITY

This is an original manuscript and all data are available for only review purposes from principal investigators.

13. PUBLISHERS NOTE

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REFERENCES

1. Meera S, Vandana Rani M, Sreedhar C, Robin DT. A review on the therapeutic effects of NetiKriya with special reference to JalaNeti. *J Ayurveda Integr Med.* 2020;11(2):185-9. doi: 10.1016/j.jaim.2018.06.006
2. Achilles N, Mösges R. Nasal saline irrigations for the symptoms of acute and chronic rhinosinusitis. *Curr Allergy Asthma Rep* 2013;13(2):229-35. doi: 10.1007/s11882-013-0339-y
3. Ansari RM. Kapalabhati pranayama: An answer to modern day polycystic ovarian syndrome and coexisting metabolic syndrome? *Int J Yoga.* 2016;9(2):163-7. doi: 10.4103/0973-6131.183705
4. Cohen M, Tyagi A. Yoga and heart rate variability: A comprehensive review of the literature. *Int J Yoga.* 2016;9(2):97-117. doi: 10.4103/0973-6131.183712
5. Riley CA, Navarro AI, Trinh L, Abuzeid WM, Humphreys IM, Akbar NA, Shah S, Lee JT, Wu T, Schneider JS, Tolisano AM, McCoul ED. What do we mean when we have a "sinus infection?" *Int Forum Allergy Rhinol (Print).* 2022;13(2):129-39. doi: 10.1002/alr.23063
6. Cleveland Clinic. Common Eye Disorders and Diseases that Cause Vision Problems. Cleveland Clinic; 2020. Available from: <https://my.clevelandclinic.org/health/diseases/17130-eye-diseases> [Last accessed on 2024 Aug 10].
7. Kim YH, Kim J, Kang MG, Lee DH, Chin HS, Jang TY, Kim NR. Optic nerve changes in chronic sinusitis patients: Correlation with disease severity and relevant sinus location. *PLoS One.* 2018;13(7):e0199875. doi: 10.1371/journal.pone.0199875
8. Cleveland Clinic. Sinus Infection (Sinusitis). Cleveland Clinic; 2023. Available from: <https://my.clevelandclinic.org/health/diseases/17701-sinusitis> [Last accessed on 2024 Aug 10].
9. Craig JP, Nichols KK, Akpek EK, Caffery B, Dua HS, Joo CK, Liu Z, Nelson JD, Nichols JJ, Tsubota K, Stapleton F. TFOS DEWS II Definition and classification report. *Ocul Surf.* 2017;15(3):276-83. doi: 10.1016/j.jtos.2017.05.008

10. Watkinson S. Living with Ocular Disease and Quality of Life. Ch. 5. New York: Springer EBooks; 2023. p. 81-101. doi: 10.1007/978-3-031-21728-9_5
11. Nyaiteera V, Nakku D, Nakasagga E, Llovet E, Kakande E, Nakalema G, Byaruhanga R, Bajunirwe F. The burden of chronic rhinosinusitis and its effect on quality of life among patients re-attending an otolaryngology clinic in south western Uganda. BMC Ear Nose Throat Disord. 2018;18(1):10. doi: 10.1186/s12901-018-0058-z
12. Rastogi S, Verma A. Jalaneti as primary intervention in suspected rhino-orbito-cerebral mucormycosis helps improving the recovery: A case report. J Ayurveda Integr Med. 2022;13(2):100516. doi: 10.1016/j.jaim.2021.08.009
13. Vaid M, Verma SK. Kapalabhathi: A physiological healer in human physiological system. Yoga Mimamsa. 2021;53(1):69. doi: 10.4103/ym.ym_28_21
14. Agnihotri S, Kant S, Verma V, Mishra S, Pandey S. Role of jalaneti and pranayama in allergic rhinitis with asthma. Int J Yoga Philos Psychol Parapsychol. 2016;4(1):3. doi: 10.4103/ijny.ijoyppp_15_15
15. Chauhan RS, Chauhan S. Effect of Shuddhi Kriya based yoga program (Skyp) for allergic rhinitis: A randomized control study. J Posit Sch Psychol. 2022;6:2616-26.
16. Swathi PS, Raghavendra BR, Saoji AA. Health and therapeutic benefits of Shatkarma: A narrative review of scientific studies. J Ayurveda Integr Med. 2021;12:206-12. doi: 10.1016/j.jaim.2020.11.008
17. Sarma P, Bhattacharyya A, Prakash A, Kaur H, Prajapat M, Borah M, Kumar S, Bansal S, Sharma S, Kaur G, Kumar H, Sharma DJ, Das KK, Avti P, Medhi B. Yogic neti-kriya using povidone iodine: Can it have a preventive role against SARS-CoV-2 infection gateway? Indian J Otolaryngol Head Neck Surg. 2021;74:3186-92. doi: 10.1007/s12070-021-02885-2
18. Rajbhoj P, Bhogal R, Bhalekar S. Neti Kriya as a therapeutic intervention for chronic allergic rhinitis. Indian J Community Family Med. 2021;7(1):63. doi: 10.4103/ijcfm.ijcfm_93_20
19. Patra S. Physiological effect of kriyas: Cleansing techniques. Int J Yoga Philosophy, Psychol Parapsychol. 2017;5(1):3. doi: 10.4103/ijny.ijoyppp_31_17
20. Malhotra V, Javed D, Wakode S, Bharshankar R, Soni N, Porter P. Study of immediate neurological and autonomic changes during kapalbhathi pranayama in yoga practitioners. J Family Med Primary Care. 2022;11(2):720. doi: 10.4103/jfmprc.jfmprc_1662_21

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