

ASSESSMENT OF OZONE TRAINING COURSE OUTCOME AT NATIONAL INSTITUTE OF NATUROPATHY: A CROSS SECTIONAL QUESTIONNAIRE STUDY

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Abstract

Background: The field of general practice faces challenges in meeting the increasing expectations from patients and physicians. To address these challenges, offering ozone therapy training to physicians can provide additional treatment options and reduce drug dependency. This paper presents the results of a feedback survey conducted among participants of the ozone certification training at the National Institute of Naturopathy (NIN), Pune, India. The survey aimed to assess the impact of ozone therapy training on clinical practice and gather insights for program improvement. **Materials and Methods:** 100 patients undergoing elective or emergency laparotomy The training consisted of two phases: a three-day basic training program and a one-week advanced training program, focusing on practical skills and competencies. Out of 72 respondents, a majority employed ozone therapy in their practice, reporting increased treatment options, improved patient flow, and enhanced confidence. Challenges identified included the need for additional expertise, public acceptance, and integration into undergraduate medical teaching. Participants acknowledged the versatility of ozone therapy and endorsed its inclusion in the medical curriculum. Bridging the theory-practice divide in training programs, such as ozone therapy training, enhances clinical decision-making and expands treatment options. **Conclusion:** Education, awareness campaigns, and integration into medical curricula are crucial for wider acceptance and adoption of ozone therapy in healthcare. By addressing challenges and integrating ozone therapy into mainstream practice, it can play a significant role in comprehensive patient care.

INTRODUCTION

The field of general practice faces numerous challenges that require attention and resolution. One pressing challenge is the increasing expectations from both patients and physicians. Patients now demand higher care and personalized attention from their doctors, while physicians feel the pressure to meet these escalating demands. This dynamic presents a challenge that must be addressed.^[1] General practitioners are increasingly tasked with managing complex medical conditions and coordinating care across various healthcare settings. It necessitates a comprehensive approach that considers the patient's overall well-being and ensures continuity of care throughout their healthcare journey.^[2] Keeping up with the latest

advancements and incorporating them into practice requires continuous professional development and learning. Staying updated with the evolving landscape of medicine can be demanding.^[3] Continuing medical education and professional development programs ensure physicians have the latest knowledge and skills.^[4] In light of these challenges, offering ozone therapy training to physicians serves the primary intention of addressing the issue of drug dependency in healthcare. By expanding their knowledge of ozone therapy, physicians can provide patients with additional treatment options that may minimize the need for certain medications or help reduce their dosage. It aligns with reducing drug dependency in the medical field.^[5] The primary and advanced ozone certification training provided by the National Institute of Naturopathy (NIN) specifically aims to

enhance the competency of doctors across various specialities. This competency building enables them to confidently integrate ozone therapy into their practice and provide optimal patient care. By embracing the principles of natural healing and rejuvenation, physicians can support the body's innate healing processes without solely relying on symptomatic treatments. The feedback survey conducted among participants of the Ozone certification course at NIN, Pune, is part of the institute's commitment to knowledge sharing and skill development. It is a valuable tool for gathering insights and refining the training program, ensuring continuous improvement in delivering ozone therapy education to physicians.

MATERIALS AND METHODS

The ozone certification training at NIN, Pune, an autonomous institution under the Ministry of Ayush, Government of India is conducted in two phases in collaboration with the Ozone Forum of India. The first phase is a training program that spans three days and includes hands-on sessions. Participants in this phase gain a comprehensive understanding of ozone therapy, including its applications for both acute and chronic disease conditions. The training covers utility requirements, handling adverse events, and practical experience in administering ozone. The second phase is an advanced training program that extends over a week, involving invasive therapies. Participants delve deeper into the intricacies of ozone therapy, building upon the knowledge gained in the basic training. The advanced training focuses on advanced techniques, specialized applications, and further hands-on

training in ozone administration. Throughout both phases of the training, emphasis is placed on providing participants with practical skills and competencies in ozone therapy's safe and effective use. By offering a combination of theoretical knowledge and hands-on experience, the training equips physicians with the necessary expertise to integrate ozone therapy into their medical practice. Since the certification commenced in 2021, we decided to introspect the training outcome using participant feedback.

Ethical clearance was obtained from the Institutional Ethics Committee, ensuring that the survey adheres to ethical guidelines and protects the rights and well-being of the participants. Participants were sent a Google Form link to complete the survey. Reminders were sent via telephone, whatsapp, emails and text messages to encourage participation. Out of 110 participants who underwent the course, we received filled forms from 80 participants. Some of the filled forms were incomplete, so we excluded them from the final analysis. The final results were prepared based on 72 respondents. The entire study, including data collection and analysis, was completed in June 2023. The questionnaire used in the survey focused on five main areas of interest:

- Positive impacts on the trainees' practice,
- Transition to ozone as a significant practice area,
- Perceived challenges,
- The versatility of ozone therapy, and
- Ozone teaching in undergraduate curriculum

The questionnaire was semi-structured, allowing participants to provide typed answers in addition to the provided options.

RESULTS

Table 1: Distribution of participants based on their qualifications and work expertise

Workplace	Speciality	Number	Frequency
Government	Naturopathy physicians	01	1.38
	Dentists	14	19.44
	Ayurveda physicians	01	1.38
Private	Naturopathy physicians	55	76.39
	Homeopathy physicians	02	2.78
	Ayurveda physicians	01	1.38
	Dentists	01	1.38
	Total	72	100

There were more males than females in the study (graph 01).

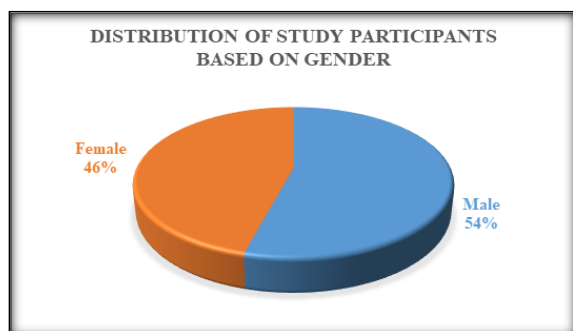


Figure 1: Distribution based on gender

Out of the 72 cases, 55 (76.39%) employed ozone as a treatment option, indicating a significant utilization of ozone therapy in the sample group.

1. Positive Impact of Ozone Training

- Among the 55 cases that employed ozone, the majority (49.10%) reported having access to more treatment options. Ozone therapy opens up new avenues for managing various health conditions, potentially offering better outcomes for patients.

- A significant proportion (40%) of the participants reported an increased patient flow after implementing ozone therapy in their practice. Patients may be more willing to seek treatment from ozone-trained practitioners, which can positively affect the clinic's revenue and reputation.
 - 12.73% of the participants expressed that undergoing ozone training led to increased confidence in their clinical practice. This boost in confidence may lead to improved patient interactions and better treatment decisions
 - 23.61% of the participants reported that ozone therapy exceeded their regular practice in effectiveness. This finding demonstrates the potential of ozone therapy to outperform conventional treatments in some instances, which can be a significant breakthrough in medical practice.
2. Transition to Ozone as the Main Clinical Practice:
 - Out of the total 72 participants, 13.8% of male and 8.33% of female participants showed readiness to shift to ozone as their primary clinical practice. It indicates a growing interest and acceptance of ozone therapy as a viable option for healthcare providers.
 3. Perceived Limitations and Challenges:
 - A small subset (6.94%) of participants felt that ozone could not be applied across all medical conditions. While ozone therapy has shown promising results in various conditions, it is essential to recognize its limitations and use it judiciously in appropriate cases.
 - 18.06% of the participants stated that additional expertise and resources are required to integrate ozone therapy into their practice fully. It highlights the importance of continued education and support in facilitating a smooth transition to ozone-based treatments.
 - 19.44% of the participants expressed concern about the lack of public acceptance of ozone therapy. It emphasizes the need for awareness campaigns and accurate information dissemination to address misconceptions and increases public confidence in the therapy.
 4. The versatility of Ozone Therapy:
 - All participants confirmed their ability to effectively treat chronic pain, metabolic disorders, and gastrointestinal disturbances with ozone therapy. It highlights the versatility of ozone as a therapeutic modality, spanning a wide range of medical conditions.
 5. Ozone in Undergraduate Curriculum:
 - All participants agreed that ozone therapy should officially be a part of the undergraduate teaching curriculum. This endorsement reflects the growing recognition of ozone therapy as a valuable addition to medical education and training.

DISCUSSION

Clinical decision-making processes can be complex, and healthcare professionals often face challenges applying theoretical knowledge to real-life practice.^[6] To address this gap, training programs should prioritize strong practicability, integrating practical components to develop essential skills and competencies. Hands-on training, case studies, simulations, and real-world scenarios effectively bridge the theory-practice divide. By emphasizing the practical relevance of training, healthcare professionals better understand how to apply their knowledge effectively, leading to improved clinical decision-making and better patient outcomes.^[7] The positive impact of ozone training on clinical practice is evident from the study findings. Participants reported increased treatment options, improved patient flow, and enhanced practitioner confidence. These outcomes highlight the importance of ozone therapy education in expanding healthcare professionals' capabilities and providing additional therapeutic choices.^[7] However, the study also identified potential challenges, such as public acceptance and resource requirements. Proper education and advocacy efforts can help address these challenges by raising awareness about ozone therapy and its benefits. Educating healthcare professionals and the public is essential to foster acceptance and understanding of this treatment modality. Furthermore, the study's participants unanimously agreed to incorporate ozone therapy into undergraduate medical teaching. This consensus underscores the significance of integrating ozone therapy education early in medical training to shape the future of the medical practice. By including ozone therapy in the curriculum, healthcare students can develop a comprehensive understanding of different treatment approaches and be better prepared to provide holistic patient care. In summary, prioritizing practicality in training programs, such as ozone therapy training, can bridge the gap between theory and practice. This approach enhances clinical decision-making, expands treatment options, and improves patient outcomes. Addressing challenges through education and advocacy ensures proper acceptance of ozone therapy. Additionally, integrating ozone therapy into education fosters recognition as a valuable component of comprehensive patient care.

CONCLUSION

Ozone therapy training programs offered by institutions like the National Institute of Naturopathy (NIN) in Pune address the challenges general practice faces, such as increasing patient expectations and the need for continuous professional development. The feedback survey conducted among participants of the ozone certification training at NIN provides valuable

insights into the program's impact. The survey results demonstrate that ozone therapy training positively impacts clinical practice. Participants reported increased access to treatment options, increased patient flow, and enhanced clinical knowledge. Furthermore, ozone therapy was found to surpass the effectiveness of regular practice in many cases, showcasing its potential as a breakthrough treatment modality. While participants acknowledged the versatility of ozone therapy in treating various medical conditions, they also recognized specific challenges. These challenges include the requirement for additional expertise and resources, public acceptance of ozone therapy, and the inclusion of ozone therapy in undergraduate curriculum. To address these challenges, continued education, awareness campaigns, and integration into medical curricula are crucial in fostering wider acceptance and adoption of ozone therapy in healthcare. Ozone therapy can play a significant role in comprehensive patient care by expanding treatment options, improving patient outcomes, and addressing challenges through education and advocacy. Integrating ozone therapy into undergraduate medical teaching further solidifies its recognition as a valuable component of medical practice, equipping future healthcare professionals with the knowledge and skills to provide holistic care to their patients. In conclusion, the feedback survey highlights the positive impact and potential of ozone therapy training. Continued education, awareness efforts, and integration into medical curricula are vital to ensuring ozone therapy's wider

acceptance and integration into mainstream healthcare practice.

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