


BMJ Open Quality Adverse events reporting at naturopathy clinical settings: importance of accreditation systems in improving quality of care and patient safety

Gulab Rai Tewani,¹ Hemanshu Sharma,² Varsha Vijay Nathani,¹ Karishma Silwal,¹ Pradeep MK Nair ³

To cite: Tewani GR, Sharma H, Nathani VV, *et al.* Adverse events reporting at naturopathy clinical settings: importance of accreditation systems in improving quality of care and patient safety. *BMJ Open Quality* 2022;**11**:e002088. doi:10.1136/bmjopen-2022-002088

► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2022-002088>).

Received 8 August 2022
Accepted 9 December 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Department of Yoga & Naturopathy, Sant Hirdaram Yoga & Nature Cure Hospital, Bhopal, Madhya Pradesh, India

²Community Medicine, Sant Hirdaram Medical College of Naturopathy & Yogic Sciences for Women, Bhopal, India

³Research, Sant Hirdaram Medical College of Naturopathy & Yogic Sciences for Women, Bhopal, India

Correspondence to

Professor Pradeep MK Nair; drpradeep18bnys@gmail.com

INTRODUCTION

The popularity of complementary and alternative medicine (CAM) is growing across the globe, with a growing number of patients using these services as adjuvant care for their ailments. Unlike conventional medicine, reports on adverse events during or after CAM interventions are scarce. This may be due to limited awareness or under-reporting of adverse events by CAM practitioners and/or patients.¹ Yoga and naturopathy is one among the CAM systems which use non-invasive techniques (except acupuncture and enema) such as hydrotherapy, fasting, sun exposure, mud therapy, etc to manage various diseases.²

Yoga and naturopathy physicians promote this system of medicine as a system without any potential side effects. At the same time, due to the nature of therapies used in naturopathy settings such as heat therapies, acupuncture, water therapies (packs and baths), sun exposure etc, there is always a likelihood of developing potential adverse events like burns, infections, needle stick injuries, etc. Reporting these events can help in improving quality and ensuring patient safety while implementing CAM protocols. However, there were no exclusive safety/quality systems developed in India until 2009 for yoga and naturopathy, after which the National Accreditation Board for Hospitals & Healthcare Providers (NABH) started accrediting yoga and naturopathy hospitals after evaluating their quality and patient safety measure standards.³

METHODS

In April 2020, Sant Hirdaram Yoga and Nature Cure Hospital (Madhya Pradesh, India) became the first yoga and naturopathy medical college and teaching hospital to be accredited

by NABH in India. We implemented an incidence monitoring mechanism as a part of our quality improvement protocol as per the standards of NABH accreditation.³ All the medical and non-medical staff involved in patient care were instructed to report all the events under the categories adverse events, treatment errors, near-miss events and sentinel events. The quality control committee examined the reported events, and appropriate quality improvement steps were introduced after analysing the root cause. The present report summarises the adverse events, treatment errors, and near-miss events identified and the quality improvement achieved as a result of adherence to NABH protocols. **Figure 1** depicts the flow of events in incidence reporting and the quality improvement process.

RESULTS

There were a total of 22 adverse events, 5 treatment errors and 5 near-miss events identified from April 2020 through August 2022 from a total population of 27237 patients who underwent yoga and naturopathy therapies. Burn injuries were the most frequently reported adverse event, followed by allergic reactions to massage therapy oils, syncope, giddiness and vomiting. Online supplemental table 1 outlines the detailed adverse events, treatment errors and near-miss events reported during the year, April 2020 to August 2022. On investigation, problem areas like lack of adherence—to treatment protocols, Standard Operating procedures, lack of patient education about protocols, etc—were identified as the root cause (online supplemental table 1).

DISCUSSION

This is the first-ever report on adverse events and prospective quality improvement

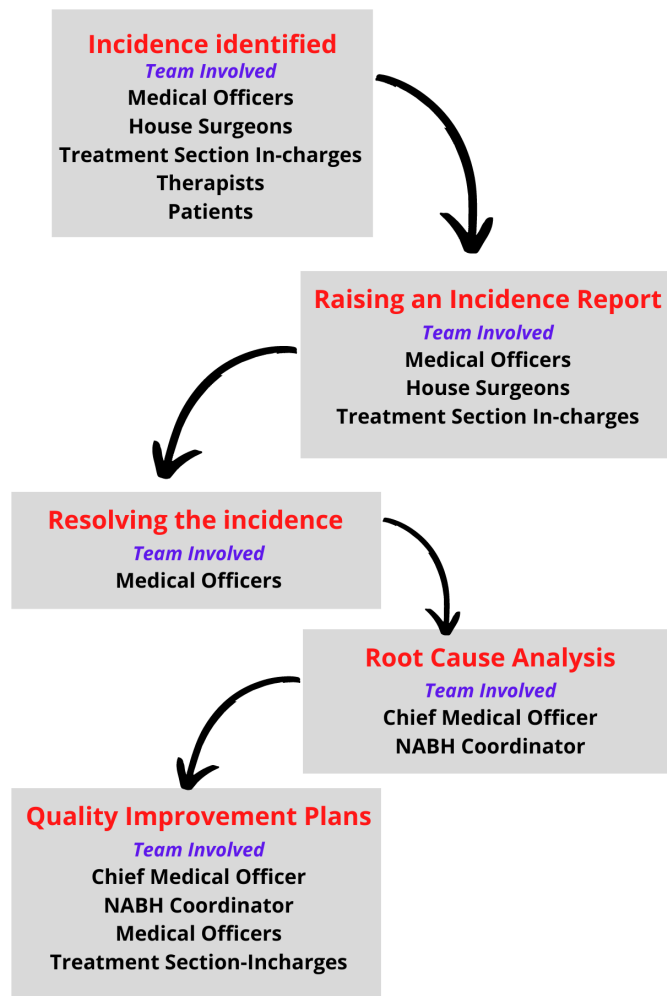


Figure 1 Flow of events in incidence reporting and quality improvement process. National Accreditation Board for Hospitals & Healthcare Providers (NABH).

achieved by a yoga and naturopathy medical college and its teaching hospital accredited with NABH. These incidence reports collected over a period of time helped us in developing newer insights on quality improvement, identifying the vulnerable areas and improving clinical governance, which was never the case before NABH accreditation. Additionally, due to the improvement in quality metrics, our hospital was also empanelled to treat central government employees under central government health schemes as of September 2020. This indicates that adhering to quality can improve the acceptability of its service among various stakeholders. Moreover, quality improvement and patient safety should be the primary goals of any hospital, as millions of patients succumb to disabilities, life-threatening events or death every year due to unwarranted medical practice.⁴

There are approximately 5000 yoga and naturopathy hospitals/medical colleges/clinics in India, however, as

per the NABH database as of August 2022, only 9 yoga and naturopathy hospitals are accredited by NABH.⁵ This indicates a large scope for improvement in the quality and patient safety goals among yoga and naturopathy hospitals. Further, the observations from this report are very encouraging to incorporate NABH accreditation as a quality improvement goal for all yoga and naturopathy settings, as NABH accreditation is a public endorsement of quality healthcare service in India.⁶ Nevertheless, this may also help in identifying new avenues of quality improvement in less explored CAM systems like yoga and naturopathy.

Contributors PMKN, KS, VVN, HS and GRT: conceptualisation, methodology, software PMKN, KS and VVN: data curation, writing-original draft preparation. PMKN: visualisation, investigation. PMKN, KS, HS and GRT: supervision: HS, GRT: writing-reviewing and editing, PMKN, KS, VVN, HS and GRT.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Pradeep MK Nair <http://orcid.org/0000-0002-5163-8309>

REFERENCES

- 1 Bello N, Winit-Watjana W, Baqir W, *et al.* Disclosure and adverse effects of complementary and alternative medicine used by hospitalized patients in the North East of England. *Pharm Pract* 2012;10:125–35.
- 2 Nair PMK, Nanda A. Naturopathic medicine in India. *Focus Altern Complement Ther* 2014;19:140–7.
- 3 Accreditation of Yoga and Naturopathy Centres. National Accreditation Board for Hospitals & Healthcare Providers. Available: https://nabh.co/documents_Yoga_Naturopathy.aspx [Accessed 05 Aug 2022].
- 4 Nieva VF, Sorra J. Safety culture assessment: a tool for improving patient safety in healthcare organizations. *Qual Saf Health Care* 2003;12 Suppl 2:17ii–23.
- 5 National Accreditation Board for Hospitals & Healthcare Providers (NABH). NABH accredited AYUSH hospitals. Available: <https://www.nabh.co/firmViewAccreditedAyushHosp.aspx> [Accessed 06 Aug 2022].
- 6 David SJ, Valas S. National accreditation board for hospitals and healthcare providers (NABH) standards: a review. *Curr Med Issues* 2017;15:231.