Current Approaches of Research in Naturopathy: How Far is its Evidence Base?

Rajiv Rastogi*

Central Council for Research in Yoga & Naturopathy (CCRYN) 61-65, Institutional Area, Janakpuri, New Delhi-110058, India

Abstract

Naturopathy is a system of health care comprises a traditional system of healing based on philosophical principles vogue to ancient India. It has its own concepts of health and disease and also principles of treatment. Ancient scriptures like Vedas give a comprehensive detail about these practices. This system laid more importance on the preventive health rather than curative one. This is one of the reasons that Naturopathy system is gaining popularity day by day.

Naturopathy is a science of health and healthy living. It teaches us how to live healthy? What to eat? And how our daily routine should be? And help a person in attaining freedom from disease and with the help of their regular use, positive and vigorous health can be acquired. The main objectives of Naturopathy are to change the unhealthy living habits of people and to teach them the healthy and positive lifestyle in accordance with the laws of Nature with the effective help of different Naturopathy modalities.

Naturopathy system is found very effective in the management of various disorders where there is no cure. However, in depth clinical studies are required to be conducted to establish its efficacy in prevention and management of diseases especially in Naturopathy. Some efforts have been made but not adequate.

The present paper states the current approaches of research in Naturopathy highlighting its basic principles. It also throws light on the reasons behind and explores new areas of research indicating the need of evidence base.

Keywords: Naturopathy; Naturopathy research; Evidence base

Introduction

Naturopathy comprises a traditional system of healing based on philosophical principles vogue to ancient India. Many techniques of Naturopathy system like ushapanam and upvas (fasting) were part of routine living practices peculiar to early days. Ancient scriptures like Vedas give us a comprehensive detail about these practices [1].

Naturopathy is a system of health care. It is called as science of healthy living. It is a drugless system of healing based on well founded philosophy. Naturopathy has its own concepts of health and disease and also principles of treatment. It lays more importance on the preventive aspect of health care rather than curative one. This is one of the reasons that Naturopathy system is gaining popularity day by day.

Naturopathy is a system of man building in harmony with constructive principles of nature on physical, mental, moral and spiritual planes of living. It has great health promotive, diseases preventive and curative as well as restorative potential [2] (Figure 1).

Naturopathy is also defined as a system of medicine for cure of diseases by encouraging natural curative reactions inherent in every diseased cell through methods and treatments based upon the fundamental laws which govern health.

Naturopathy is basically a preventive system of treatment. It believes that man is a complete health unit and treat the body physically, mentally, socially (morally) and spiritually for all round health [3]. If one follows the laws of nature he may prevent himself from various diseases (Figure 2).

According to Naturopathy as defined by Lindlahr [4], “The primary cause of disease, barring accidental or surgical injury to the human organism and surroundings hostile to human life, is violation of Nature’s laws. The effects of violation of Nature’s laws on the physical human organism are:

- Lowered Vitality
- Abnormal composition of blood and lymph
- Accumulation of waste matter, morbid materials and poisons”

To prevent the diseases one has to obey the universal laws of nature in life by adopting the natural methods of living and of treatment. These methods which are applicable in the prevention and management of most of the disorders have been described by Lindlahr [4], as under:

- **Return to Nature** by the regulation of eating, drinking, breathing, bathing, dressing, working, resting, thinking, the moral life, sexual and social activities, etc. establishing them on a normal and natural basis.
- **Elementary remedies**, such as water, air, light, earth cures, magnetism, electricity, etc.
- **Chemical remedies**, such as scientific food selection and combination, homeopathic medicines, simple herb extracts and the vito chemical remedies.

![Figure 1: Naturopathy potentials.](image)

*Corresponding author: Rajiv Rastogi, Central Council for Research in Yoga & Naturopathy (CCRYN) 61-65, Institutional Area, Janakpuri, New Delhi-110058, India, Tel: 011-28520430/31/32; Fax: 011-28520435; E-mail: rastogi2009@gmail.com

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Naturopathy is a science of health and healthy living. It teaches us how to live healthy? What to eat? And how our daily routine should be? The methods of Naturopathy helps a person in attaining freedom from disease and with the help of their regular use, positive and vigorous health can be acquired. Hence, Naturopathy is also called as Natural life. Its main objective is to change the unhealthy living habits of people and to teach them the healthy lifestyle in accordance with the laws of Nature. Different modalities of Naturopathy are very effective in the fulfillment of this pursuit.

It believes that the human body has remarkable recuperative power. It is composed of five great elements i.e. Panchamahabootas, imbalance of these creates disease. Treatment of the diseases by these elements i.e. Air, Water, Earth, Fire and Ether is known as Naturopathy (Figure 4).

Modalities of Naturopathy

The main modalities of Naturopathy are comprised of:

Diet therapy

It is the main modality under Naturopathy which stresses that the food must be taken in natural or maximum natural form only. Fresh seasonal fruits, fresh green leafy vegetables and sprouts are excellent form of natural foods. These diets are further broadly classified into following three types:

- Physically
- Spiritually
- All Round

Figure 2: Parts of health unit in Naturopathy.

The main principles of Naturopathy are as under [2]:

1. All disease, their cause and their treatment are one.
2. The primary cause of disease is not bacteria. Bacteria develop only after the accumulation of morbid matter when a favorable atmosphere for their growth develops in the body. Hence, the primary cause of disease is morbid matter not the bacteria.
3. Acute diseases are self healing efforts of the body. Hence they are our friends, not the enemy. Chronic diseases are the outcome of wrong treatment and suppression of the acute diseases.
4. Nature is the greatest healer. Body has a capacity to prevent itself from disease and regain health, if unhealthy.
5. Patient is treated not the disease.
6. Treats physical, mental, social (moral) and spiritual all the four aspects together.
7. Treats body as a whole instead of giving treatment to each organ separately.
8. Naturopathy does not use medicines. According to Naturopathy, ‘Food is Medicine.’
9. According to Gandhiji "Ramanama is the best natural treatment", means doing prayer according to one’s spiritual faith is an important part of treatment.
contrast to the impairment of glucose tolerance seen in lean or obese
improves in obese diabetic (NIDDM) women after 3 days of fasting, in
after 3 days of fasting. The study revealed that Carbohydrate tolerance
mellitus (NIDDM) were studied with meal tolerance tests before and
tolerance, 10 obese women with noninsulin-dependent diabetes
engaged in the process of elimination during fasting.

These diets are alkaline in nature and purify the body, improve
health and render it immune to disease. Naturopathy believes that for
preserving health the diet should consist of at least 20% acidic (cooked)
and 80% alkaline (uncooked) food. Considering the importance of
food in Naturopathy it is regarded as Basic Medicine [5].

Stange R [6] stated that when applied to functional disorders, dietary treatment- the most important measure in natural medicine - has its greatest effect when these disorders affect the gastrointestinal tract, in particular epigastric dyspepsia and irritable bowel syndrome. On the basis of a comprehensive dietary anamnesis, it is often possible to identify foodstuffs and eating behavior capable of aggravating the patient’s symptoms. The underlying basic principle of treatment is that the gastrointestinal tract first undergoes a temporary period of rest before being gradually re-acustomed to a biologically high-quality diet. A central approach includes various forms of fasting therapy, in particular in the case of severe conditions, which can usefully be supported by additional relaxation techniques, psychotherapy, hydrotherapy, massage and special manual techniques.

In a study responses to cooked and uncooked food in 32 outpatients with essential hypertension was examined; 28 were also overweight. By varying cooked and uncooked food percentages and salt intake, patients acted as their own control subjects in this unblinded study. After a mean duration of 6.7 months, average intake of uncooked food comprised 62% of calories ingested. Mean weight loss was 3.8 kg and mean diastolic pressure reduction 17.8 mm Hg, both statistically significant (P less than 0.00001). Eighty percent of those who smoked or drank alcohol abstained spontaneously [7].

Fasting therapy
It is an important modality comes under Naturopathy. Mental preparedness is essential to yield effective results in fasting. According to Naturopathy there is only one cause of disease i.e. accumulation of morbid matter and only one cure i.e. elimination of morbid (toxic) matter from the body. Fasting is an effective treatment for removing the disorders of mind and body and is a process of providing rest to digestive system. The vital energy which digests the food is wholly preparedness is essential to yield effective results in fasting. According to Naturopathy there is only one cause of disease i.e. accumulation of morbid matter and only one cure i.e. elimination of morbid (toxic) matter from the body. Fasting is an effective treatment for removing the disorders of mind and body and is a process of providing rest to digestive system. The vital energy which digests the food is wholly engaged in the process of elimination during fasting.

To determine the effects of short-term fasting on carbohydrate tolerance, 10 obese women with noninsulin-dependent diabetes mellitus (NIDDM) were studied with meal tolerance tests before and after 3 days of fasting. The study revealed that Carbohydrate tolerance improves in obese diabetic (NIDDM) women after 3 days of fasting, in contrast to the impairment of glucose tolerance seen in lean or obese nondiabetic subjects after fasting [8].

Mud therapy
It is one of the important modality, which is very simple but highly effective. The mud used for therapeutic purpose is neat and clean and free from contamination of stone pieces or chemicals, manure etc., and is taken from 5 to 6 ft. depth from the surface of the ground. Mud therapy gives coolness to the body. It dilutes and absorbs the toxic substances of body and ultimately eliminates them from body. Mud packs and Mud baths are the main forms of treatment. Mud is used effectively in constipation, headache due to tension, high blood pressure and skin diseases etc. Mud pack is applied on forehead also in headache and high blood pressure. Gandhiji also used to take mud packs for getting rid of his constipation.

A study was conducted to evaluate the short-term effects of mud-pack therapy on pain relief and functional improvement in knee osteoarthritis in comparison with intra-articular hyaluronic acid injections.

The study included 23 patients who were diagnosed as having knee osteoarthritis according to the ACR (American College of Rheumatology) criteria, and had complaints lasting for more than three months. All the patients had stage 2 or 3 osteoarthritis radiographically according to the Kellgren-Lawrence criteria. Twelve patients (3 males, 9 females; mean age 54±6 years; range 46 to 67 years) received mud therapy bilaterally. Mud packs were heated to 45°C and applied on both knees for 30 minutes daily for a total of 12 weekdays. Eleven patients (2 males, 9 females; mean age 53±9 years; range 40 to 66 years) received a total of three bilateral intra-articular hyaluronic acid injections, each interspersed by weekly intervals. The study revealed that Mud-pack therapy is a noninvasive, complication-free, and cost-effective alternative modality for the conservative treatment of knee osteoarthritis [9].

Hydrotherapy
Water is a main component of Naturopathy. It is an ancient method of treatment used mainly for preserving health, relieving the inner congestion [10] and curing different types of diseases. Taking bath in clean and fresh water is very effective as it opens up the pores of skin, imparts lightness and alertness to the body, all systems and muscles of body are activated and the blood circulation improves. It is believed that the old tradition of taking bath in rivers, ponds or water falls on specific occasions in India is virtually a form of Hydrotherapy only. Hip bath, Enema, Hot and Cold fomentation, Hot foot bath, Sinatal bath, Steam bath, Immersion bath, Hot and Cold packs on Abdomen, Chest and other parts of the body are the recent developments in Hydrotherapy.

In naturopathy, application of a cold chest pack for 30 min daily over a period of time is believed to improve lung functions in bronchial asthmatics. For scientific evaluation of this treatment, a study was carried out on 15 medication-free bronchial asthma patients (2 males) with ages from 19 to 42 years. The peak expiratory flow rate (PEFR, in l/min) was recorded before, during and after a 30 min application of a cold chest pack. This treatment was carried on for 21 days, during which the patients received other naturopathy treatments such as fasting, diet changes, hydro therapy, massage, magneto therapy, color therapy and application of mud packs, along with yoga therapy. The results suggest that (i) an application of a cold chest pack increase the PEFR as an immediate effect and (ii) this effect is augmented following 21 days of other naturopathy treatments along with yoga [11].

Massage therapy
It plays an important role in Naturopathy treatment procedure. It is a scientific and systemic manipulation of the tissues and organs of the body, aims at improving the blood circulation and also at strengthening muscles and bodily organs. Taking Sun bath after massaging the whole body is a well known health practice in India during winters. It bestows combined benefits of massage and Sun rays therapy. To overcome
different disease symptoms, specific techniques of massage are used and necessary therapeutic effects are obtained through it. Mustard oil, sesame oil and coconut oil are generally used in massage for lubrication as well as for creating therapeutic effects.

A randomized controlled trial including 60 participants was conducted in Sweden between 2005 and 2007 to evaluate change in health-related quality of life for people with constipation receiving abdominal massage. The control group continued using laxatives as before and the intervention group received additional abdominal massage. Health-related quality of life was assessed using the EQ-5D and analyzed with linear regression. The study revealed that abdominal massage may be cost-effective in the long-term and it is relevant to consider it when managing constipation [12].

**Chromo therapy**

The seven colours of spectrum i.e. Violet, Indigo, Blue, Green, Yellow, Orange and Red are used in Naturopathy as therapy which have different therapeutic properties and effects. Chromo therapy is applied by coloured bottles filled with water or oil and exposed to Sun rays for specified hours. This colour charged water is used as an external application for skin disorders and is also ingested as a tonic for digestive disorders. Specific colours are applied on specific parts with the help of lamps with the specific coloured glasses. These devices of Chromo therapy are used effectively in prevention and treatment of different diseases. These colours are also applied in daily life in various ways like coloured light in the room, coloured clothing, colours in dining form, foods charged by specific colours, wall paints, colour of furniture etc.

**Air therapy**

Fresh air, an important part of Naturopathy is most essential for good health. The advantage of air therapy is achieved by taking air bath daily for at least 20 minutes. Walking in fresh air is a best form of air bath. It is more advantageous when combined with morning cold rub and exercises. Air bath has soothing and tonic effect upon the millions of nerve endings all over the surface of the body and enhances the elimination process. It has shown good results in nervousness, neurasthenia, rheumatism, skin, mental and various other chronic disorders.

As Lindlahr [4] says, ‘Walking is a splendid form of exercise, provided it is made vigorous enough to set in motion all the muscles of the body and to produce perspiration. There is no better form of elimination than natural perspiration’ [13].

Naturopathy provides a systemic schedule to all its patients consisting of a diet prescription followed by certain Naturopathy treatments and do’s and don’ts with a view to change their life style in a positive manner as under.

**Daily Routine and Diet Chart**

**5.00 a.m. 5.30 a.m.**

Get up from bed. Drink about half a liter of water (Ushapanam). Attend natural calls and prayer. Brisk walk/Suryanamaskara/ Yogasanas/Games/Gardening/Swimming and Pranayama or Breathing exercises followed by Shavasana or Yoga Nidra.

**6.15 a.m.**

One glass of lemon water (Half/ one lemon + one/two table spoonfull of honey or jaggery + 300 ml. of water Or tender coconut water / triphala water / amla water / Bittergourd juice / Methi water / Diabetic Herbal Juice / Herbal Tea etc.)

**6.30 a.m.**

Treatments if necessary.

- Enema if constipated during fasting.
- Cold Hip Bath – 10 mts or Cold towel pack on the abdomen for 20 to 30 minutes / Mud packs for 20 minutes. Weekly thrice / daily.
- Cold / Neutral wet spinal pack for 20 to 30 minutes. Weekly thrice / daily.
- Affusion with hot and cold water alternatively 3 minutes / 1 minute daily.
- Cold neutral wet knee pack / chest pack for 30 to 45 minutes daily.

**7.15 a.m.**

Cold / Neutral water full bath

**Breakfast 9.00 a.m.**

Seasonally available fruits / Sprouts / Salads / Butter Milk – 1 cup / Soup / Fruit or Vegetable Juice

**Lunch 1.00 p.m.**

Uncooked diet i.e. raw salads 100-200 gms (Cucumber, carrot, radish, beetroot, tomato, dhania patti / palak / pudina / cabbage etc.). Seasonal fruits i.e. papaya, apple, mosambi, orange, guava, pineapple, mango, grapes, etc. 300 gms. Vegetable chutney 2 to 4 tablespoons, Sprouts-100 gms (Wheat, moong, moth, chana, methi, ragi, alfalfa etc.) Vegetables soup or Buttermilk 200 to 300 ml. Or Cooked / steamed vegetables 300 to 400 gms; Sprouts / cooked whole soaked pulses ½ to 1 cup Whole grams Roti 1 to 2/ Wheat Dalia 1 or 2 cups / unpolished cooked rice 1 to 2 cups; Vegetable soup or Buttermilk 200 to 300 ml.

**6.00 p.m.**

- Attend natural calls.
- Bath with cold / neutral water and do prayer or meditation. If necessary drink one glass of seasonal fruit juice / tender coconut water / one glass of buttermilk / barley water or drink only water.

**Dinner 7.00 p.m.**

Salad 100 grams, 300-400 gms Steamed green vegetables, Vegetable soup or Buttermilk, vegetable chutney, Roti-1 or 2.

**Avoid**

- Coffee, tea, smoking, tobacco chewing, pan masala, jarda, alcohol, soda etc.
- Non vegetarian food, eggs.
- Frozen / processed / fast / preserved / refined / coloured / flavoured / deodorized Food / Bottled aerated drinks.
- White flour (Maida), White sugar etc.
- Saturated fats / hydrogenated oils.
- Overeating / untimely eating.
can be undertaken. These areas are - Philosophical-literary research, categorized a few potential areas where research in the field of yoga needs in reference to its limitations and expectations [14]. Bhole has research in naturopathy system is required to be decided as per the requiring a great sum of efforts and dedication. The priority of answering a particular question [21]. It is a challenging work in Naturopathy Hospitals.

Indian research institutions of modern medicine and also by some exploration of potential of this system is approached at various premier establishing the efficacy of Naturopathy is also increasing. Currently, an psychosomatic and lifestyle disorders, the scope of research to

undulating manner representing the dominant ones at one time. Close interconnection between Body-Mind-Soul has become a widely accepted phenomenon now. Subsequently, psyche and soma thus are taken up as two expressions of one integrated body in an undulating manner representing the dominant ones at one time.

Research in Naturopathy

In view of increasing role of Naturopathy to intervene in various psychosomatic and lifestyle disorders, the scope of research to establish the efficacy of Naturopathy is also increasing. Currently, an exploration of potential of this system is approached at various premier Indian research institutions of modern medicine and also by some Naturopathy Hospitals.

Research is a determined and disciplined activity aiming at answering a particular question [21]. It is a challenging work requiring a great sum of efforts and dedication. The priority of research in naturopathy system is required to be decided as per the needs in reference to its limitations and expectations [14]. Bhole has categorized a few potential areas where research in the field of yoga can be undertaken. These areas are - Philosophical-literary research, Educational research, Experimental research, Clinical and applied research and experiential research [21]. A further exploration to these areas may be done as under-

1. Standardization of Naturopathy treatments/techniques/modalities/procedures
2. Standardization of Naturopathy Hospitals
3. Research studies related to important National Health & Family welfare Programmes /National Rural Health Mission (NRHM)
4. Preventive Role of Naturopathy
5. Research studies with reference to promotion of positive health
6. Research studies on various folk/tribal community oriented health practices
7. Research on maintenance of good physical and mental practices (GPMP)
8. Survey on specific issues relating to Naturopathy
9. Research studies on vanishing folk/tribal health/medical practices
10. Research on ways of holistic personality development
11. Research on importance of food remedies used in houses as home remedy for prevention and treatment of various diseases
12. Study on Traditional Indian lifestyle and its importance/usefulness in combating various disorders which are the outcome of modern lifestyle
13. Research on Role of Naturopathy in School Health Care, Women Health Care, Geriatric Health Care & Aging
14. Research on Fasting as a tool for the management of various disorders
15. Research on the efficacy of Naturopathy in management of lifestyle disorders
16. Research to study the mechanism behind Naturopathy procedures
17. Research on the role of Naturopathy as an add on therapy/adjuvant therapy in the management of lifestyle disorders
18. Survey study on the attitude of physicians with reference to Naturopathy
19. Survey study on the level of awareness among the people regarding Naturopathy
20. Survey study on the perception of patients visiting Naturopathy hospitals for use of Naturopathy
21. Research on nutritional aspects

Rastogi and Murthy [14] have shown an inclination of patients towards non-pharmacological and non-invasive therapies of Yoga & Naturopathy for various acute and chronic disorders of common existence [14]. Some conditions which require a mention in this category include stress related ailments, irritable bowel syndrome, bronchial asthma, diabetes, rheumatoid arthritis, coronary artery disease, computer related health problems, insomnia, epilepsy, skin disorders, ulcerative colitis, osteoarthritis, gout and cancer.
Stress related ailments like anxiety neurosis, depression and hypertension are having a high prevalence these days. Studies revealed that these can be effectively managed by the techniques of Yoga & Naturopathy i.e. relaxation, pranayama, yoga nidra and water therapy.

Conclusion

The scientific development of a system primarily depends upon the findings of scientific studies conducted through a good protocol and methodology. Selection of various parameters and intervention programme therefore required to be designed carefully in consultation of experienced investigator and subject experts. The mechanism of working of intervention programme may be demonstrated clearly by the researchers. A research oriented scientific approach to establish the system of naturopathy is therefore, required urgently. Though various trials to study the efficacy of naturopathy have been made, a lot of work is still required to explore the potentials of this system for bringing an ultimate and dependable cure from their ambit. Rigorous clinical trials are required to affirm the possible role of naturopathy in management of various disorders.

Set backs

Lack of specific guidelines, improperly designed protocols, poor research methodologies and lack of trained man power are some of the limitations which act as the main set back in developing naturopathy system as the scientific ones.

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