

Knowledge, Attitude and Practice of Therapeutic Fasting Among Naturopathy Physicians: A Cross Sectional National Survey

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ABSTRACT

Introduction: Fasting is a common ingredient of naturopathic prescription in India. However no studies have been conducted to establish the use, approach of naturopathy physicians towards fasting. The present study, a cross sectional survey was conducted to assess the attitude, use, belief and understanding about therapeutic fasting among the naturopathy physicians in India.

Methods: A 12 item e-mail based questionnaire was sent among 334 naturopathy physicians, which were designed to obtain demographic data, practice characteristics and multiple choice and multiple response close-ended questions along with an open-response final question. Survey questionnaire data was analyzed using descriptive statistics via frequency distribution and cross tabulations.

Results: A convenient sample of total 257 participants was collected. Majority of the respondents were private practitioners with an average experience of 5 years. 50% of the total population confirms the use of fasting in their daily prescription which is mostly for 1-5 days (54%) and for all diseases (38.5%). Physicians mostly prescribe short term mono fasting with fruits or juices (42.8%) along with all other modalities (61.5%) to get desired effect. The end results of fasting therapy was quoted as satisfactory (51.7%) whereas the misconceptions of the patients was a challenge for 1/3rd and most of them find it easy to administer in adults (85%).

Conclusion: Naturopathy physicians use fasting as a first line management in almost all chronic and acute diseases. However there is a need for strengthening the evidence based practice to bestow better care.

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Introduction

Therapeutic fasting is a safe practice in the medical community since a century, and in some religions for millennia. Human race, until recently has exposed to large fluctuations in the availability of its food, alternating periods of overfeeding and starvation (1). Fasting was offered as a treatment modality for acute and chronic diseases since the time of Hippocrates, owing to the fact that infection was frequently accompanied by an anorexic response. Evidences suggests that food restriction is one of the important behavioral strategies that organisms have evolved for the fight against

pathogenic invasion (2,3). Periods of deliberate fasting with restriction of solid food intake are practiced worldwide, mostly based on traditional, cultural or religious reasons (4). Fasting as a medical treatment is claimed to be a valuable therapeutic method in most of the traditional medical systems (5). There are large empirical and observational evidence that medically supervised modified fasting is efficacious in the treatment of rheumatic diseases, chronic pain syndromes, hypertension, and metabolic syndrome (4). India is having a long history of use of fasting in various

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paradigms. Fasting is widely preached and practiced in India not only as a treatment option but also as a discipline. Fasting as reported in a earlier review opines that it is the first treatment of choice in naturopathic medicine (6). Fasting as defined by Indian naturopaths is "Total Rest; Physical, Physiological, Sensory and Mental rest, which includes voluntary total abstinence from intake of any kind of food, solid or liquid, that demands digestion, except water, for a definite purpose and period of time." (7)

Naturopathy is a system of medicine uses bodys' innate power to heal diseases based on the theory of Panchamahaboothas (Five great elements) (6). In India there are approximately 2500 practicing institutionally qualified naturopathy and yoga physicians as per data provided by different medical schools offering naturopathy graduation (BNYS) (8) and the Indian Naturopathy and Yoga Graduate medical Association (INYGMA), a professional body representing naturopathy and yoga physicians. However, there is no clear source for validating the actual number of practitioners. In spite of noteworthy therapeutic approaches there are no reports till date explicating the attitude, use, belief and understanding about therapeutic fasting practices among the naturopathy physicians in India. This survey is an attempt to fill this existing gap in the ideology of therapeutic fasting.

Material and Methods

Study Design

A cross sectional survey.

Study Participants

Naturopathy and yoga physicians across India. The data of the physicians were retrieved from the data banks of National Institute of Naturopathy (NIN), an apex government body for naturopathy in India and INYGMA. At the time of survey (second half of 2014) total number of practicing naturopathy and yoga physicians were approximately around 2500 as per data provided by different medical schools offering naturopathy graduation (BNYS) in India.

Sampling Procedure

A convenient sampling method has been used to collect the data.

Inclusion criteria

Institutionally qualified naturopathy and yoga physicians were included in the survey.

Exclusion criteria

House-surgeons, certificate and Diploma holders in naturopathy and yoga were excluded.

Survey Instrument

The survey instrument, a 12- item questionnaire was developed in conjunction with the inputs given by the Physicians panel of NIN, which was further standardized by pilot testing among 20 physicians representing 8 leading naturopathy medical schools in India. The questionnaire contained questions related to naturopathy and yoga physicians demographic data (age, gender), practice characteristics (years of experience, nature of work) and consisted of multiple choice and multiple response close-ended questions with an open-response final question (Appendix A). The survey questionnaire was also meant to extract the use, knowledge, popularity and attitude of physicians towards fasting as a therapeutic tool. The open ended question provided intending at obtaining qualitative response about fasting.

Statistical Analysis

Survey data was analyzed using descriptive statistics via frequency distribution and cross tabulations. All the analysis was done using Statistical software SPSS version 20.

Ethical consideration

A written informed consent was obtained from all the respondents. The survey was approved by the Institutional ethics committee of NIN.

Results

Out of 2500 participants identified a total of 257 participants responded to the survey. The results of the survey are tabulated in Table 1 & Table 2. 51.3% were practicing in commercial clinics (51.3%) and have an average experience of 5 years in practice. The results suggest that only 12% of respondents were practicing in Government sector where as others were self employed. Though there are 12 colleges in India who have passed out

aluminous, only aluminous of 8 colleges responded to the survey. The post graduates among the respondents were 21% which is 1/5th of the total sample (n=257). The 12th item of the questionnaire was an open ended question to derive additional ideas of fasting among the practitioners. Most of the physicians expressed positive opinion about fasting and stated that it is a vital component in their clinical practice.

One practitioner with 9 years of clinical experience quoted, "It is one of the best therapeutic tools which I came across, if administered in a proper environment fetch amazing results". The vast majority said they had increased their prescribing, as their knowledge of their patients increased. Almost all clinicians acknowledged that they prescribe fasting for almost all non communicable diseases. However on contradictory they also stated the evidence available to state the efficacy of fasting is not 'completely established'. Another expert expressed that "fasting should be administered not only on patients but also should be practiced by healthy individuals, which in turn will rejuvenate the system and thereby prevent lots of non communicable diseases. Some of the practitioner have remarked about the failure to report their clinical experiences with fasting, because of their poor reporting skills and command over research.

However, most of the practitioners stated that the success of therapeutic fasting highly depends upon the effort they take in convincing the patients, abolishing their misconceptions and thereby establishing a sound doctor-patient relationship.

Discussion

Naturopathic medicine is a system of medicine which treats the human body as a whole(6). It is the only drugless system of medicine practiced in India under the banner of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy) systems of medicine. Naturopathy physicians use hydrotherapy, fasting, diet therapy, mud therapy, acupuncture etc as their main treatment tools (6). According to the latest report by NIN, there are around 20 medical schools providing a 5 and half years BNYS

course and two offering post-graduate education (MD) of naturopathy in India (8).

The present survey among naturopathy physicians in India found that fasting is an integral component of naturopathy prescription. Medical schools are recited by most of the respondents as the source of their knowledge about fasting. Less than one fifth of the sample cited medical peers as the source of information on fasting. This point finger at the need of evidence based practice. Most of the physicians (94.9%) opined that they use fasting as the first line of management in their clinical practice. Nearly about 92 % of the total sample expressed that fasting was mostly their prescription options for all diseases. According to most of them fasting can compliment almost with every naturopathy modalities. More than half of the practitioners have reported that short fasting (1-5 days) were commonly prescribed and the results were highly satisfactory. Fasting on

Table 1. Demographic description of the survey participants

Factors	Domains	Frequency
Demographic details		
Age		27.7 ± 5.0
Gender	Male	154(59.9%)
	Female	103(40.0%)
Work Nature	Government Hospitals	31(12.0%)
	Commercial clinic	132(51.3%)
	Mobile – home visits	23(8.9%)
	Mobile – corporate seated	14(5.4%)
	Home-based clinic	31(12.0%)
	Other (spa, gym)	26(10.1%)
Years of Practice		5.28 ± 4.86
Professional education	BNYS	203(78.9%)
	BNYS + PG	54(21.01%)
	GNMC	20(7.78%)
	GNMC HYD	27(10.5%)
	JSSINYS	56(21.7%)
Medical school of the Respondents	MDINYS	10(3.89%)
	S-VYASA (TSYNM)	9(3.50%)
	SDM	93(36.1%)
	SIMS	18(7.0%)
	SRKMCYN	24(9.33%)

Table 2. Practice characteristics of therapeutic fasting among Indian Naturopathy physicians

Fasting as a first line treatment	Strongly agree	118(45.9%)
	Agree	126(49%)
	Disagree	13(5%)
	Strongly disagree	0(0%)
Prescription of fasting	Always	71(27.6%)
	Mostly	165(64.2%)
	Rarely	21(8.1%)
	Never	0(0%)
Purpose of fasting	Communicable disease	47(18.2%)
	Non communicable diseases	51(19.8%)
	Weight loss	60(23.3%)
	All diseases	99(38.5%)
Duration of fasting mostly practiced	1-5 days	139(54.0%)
	5-10 days	95(36.9%)
	10-20 days	14(5.4%)
	21 and above	9(3.5%)
Mode of action	Detoxification	66(25.6%)
	Metabolic Rest	48(18.6%)
	Calorie Restriction	79(30.7%)
	Homeostasis	64(24.9%)
Challenges faced during administration	Improper vigilance	66(25.6%)
	Systemic complications	59(22.9%)
	Misconceptions of the patients	84(32.6%)
Age group which is easy to administer fasting	Misconceptions of the patient's relative	48(18.6%)
	Elderly	146(56.8%)
	Adults	76(29.5%)
	Adolescents	32(12.4%)
Results of fasting	Children	3(1.16%)
	Excellent	109(42.4%)
	Satisfactory	133(51.7%)
	Non satisfactory	15(5.8%)
Source of knowledge	No results	0(0%)
	Books	59(22.9%)
	Medical Schools	109(42.4%)
	Research articles/Peers	53(20.6%)
Better complimenting treatment	Traditional knowledge	36(14.0%)
	All the Naturopathy practices	158(61.5%)
	Only enema	66(25.6%)
Modes of fasting	None of the above	33(12.8%)
	Water fasting	65(25.2%)
	Moderate fluids/liquids	5(1.9%)
	Juice fasting	77(29.9%)
	Mono diet/Fruit fasting	110(42.8%)

fruits and juices has been accounted as the common modes of fasting on the contrary dry fasting or fasting on moderate fluids/liquids was the least used technique. Mixed responses were obtained regarding the mode of action of fasting whereas most of the practitioners favored the idea of calorie restriction behind the therapeutic effectiveness of fasting. Higher compliance were exhibited by the elderly patients(86.3%), on the other end the childhood and adolescence group were identified as the most onerous group to administer the same. Misconception regarding fasting has been proclaimed as the most challenging phase in administrating fasting by more than half of the practitioners.

Most of the current major diseases such as heart disease, stroke, cancer, and osteoporosis are progressive, largely irreversible, and primarily dependent on diet and lifestyle factors, and are relatively difficult to address effectively with drug treatment (9). Fasting is been emerging as a safe and potential tool in preventing and restricting various diseases of mankind. It has empirically documented beneficial effects on metabolic syndromes, chronic inflammatory disease, chronic cardiovascular disease, chronic pain syndromes, atopic diseases and psychosomatic illnesses (10). It further prevents oxidative stress and damage, which are the causal factors in the attrition of senescence and various diseases associated with aging (11). Fasting as demonstrated in vivo enhances the cancer sensitization to radio- or chemotherapy leads to extended survival, this could enhance the efficacy of existing cancer treatments (12). However clinical studies with robust designs and high quality evidence are tenuous in literature which should be addressed efficaciously.

Conclusion

The authors conclude that, though fasting is used customarily by naturopathy physicians; there is a need of increase awareness about fasting research for shaping the clinical practice in a more scientific way. Moreover clinical research in fasting has to be encouraged along with reinforcing the reporting skills among the physicians. Large scale qualitative studies on this area can

further bring out more interesting aspects of fasting such as safety, successful cases treated, disease specific regimens, patient compliance, intersecting paradigms between therapeutic benefits and patient synergism etc.

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Appendix A

Baseline Quantitative Survey

1. Fasting is the first line management in Naturopathy:
 - a. Strongly agree
 - b. Agree
 - c. Disagree
 - d. Strongly disagree
2. How often fasting is prescribed by you.
 - a. Always
 - b. Mostly
 - c. Rarely
 - d. Never
3. Fasting is mostly prescribed by me in:
 - a. Communicable disease
 - b. Non communicable diseases
 - c. Weight loss
 - d. All diseases (*Depends on the health condition of the subject with some exceptions like Renal failure, Liver disorders, etc)
4. I find Fasting much effective when it is practiced for:
 - a. 1-5 days
 - b. 5-10 days
 - c. 10-20 days
 - d. 21 and above
5. According to me fasting works on patients by means of:
 - a. Detoxification
 - b. Metabolic Rest
 - c. Calorie Restriction
 - d. Homeostasis
6. The challenges I come across when I put my patient on fasting:
 - a. Improper vigilance
 - b. Systemic complications

- c. Misconceptions of the patients
 - d. Misconceptions of the patient's relative
7. The age group which I find easy to administer fasting:
- a. Elderly
 - b. Adults
 - c. Adolescents
 - d. Children
8. The results obtained from Fasting are:
- a. Excellent
 - b. Satisfactory
 - c. Non satisfactory
 - d. No results
9. The knowledge about Fasting I gained from:
- a. Books
 - b. Medical Schools
 - c. Research articles/Peers
 - d. Traditional knowledge
10. The other modalities I combine with Fasting are:
- a. All the accepted Naturopathy practices
 - b. Only enema
 - c. None of the above
11. Your concept about fasting:
- a. Water fasting
 - b. Moderate fluids/liquids
 - c. Juice fasting
 - d. Mono diet/Fruit fasting

Additional opinion about fasting. If any. (express within 50 words)

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