



Management of Insomnia with Integrated Tele-Yoga Therapy: A Case Report

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ABSTRACT

BACKGROUND: Insomnia is one of the most common psychosomatic diseases that often disturb family routine, lifestyle and lead to negative health consequences. The intensity of sleep disturbance is increased during COVID19 lockdown.

AIMS: To evaluate the effectiveness of tele-yoga therapy on functional impairment and sleep quality in patient with insomnia.

MATERIALS AND METHODS: A 30 year old female pursuing PhD along with taking care of family including a son aged 7 year, was referred by a psychiatrist for yoga therapy. Tele-yoga therapy included yogic counseling, diet modifications, herbal medicine, asana and pranayama; tele-yoga therapy session for 1 hour per day, 2 days per week for 3 months were given while 2 times per day for daily at home was advised. Insomnia severity index (ISI) was assessed as well as self-reported blood pressure by the patient before and after intervention.

RESULTS: Assessment of pre-intervention ISI score was 21, indicating clinical insomnia, with moderate severity and self-recorded blood pressure (BP) 143/84 on average of three days before intervention using digital BP apparatus. Post ISI score 14 and BP 128/80 on average of latest three days after 3 months of tele-yoga therapy. The difference of ISI score showed improvement in clinical insomnia to sub-threshold and reduced systolic BP by 15 mmHg.

CONCLUSION: Findings support the reliability of tele-yoga therapy in insomnia. The patient reported experience of calmness of mind and mental peace. This report showed good concordance with measures of daytime function, as well as improved sleep quality and duration.

Keywords: Psychosomatic diseases, Herbal medicine, Jnana yoga, Psychotherapy

INTRODUCTION

Insomnia is one of the most common psychosomatic diseases in today's fast paced world. People with insomnia have difficulty initiating or maintaining sleep, waking up often in mid-night and have trouble going back to the sleep and/or have unrefreshing sleep.¹ They experience fatigue, decreased concentration and performance, and increased mood disturbances. Insomnia may be classified into acute and chronic insomnia. Acute insomnia lasts for a short period because of temporary life circumstances and it tends to resolve without any treatment. Otherwise if sleep disturbance occurs at least three nights per week and lasts at least three months. It can have many causes such as environmental changes, unhealthy sleep habits, shift work, other clinical disorders, and certain medications.

Patients with chronic insomnia may be affected by various psychosocial factors including study stress, work load, and family responsibilities; cognitive and behavioral aspects of insomnia includes a fear of being awake at night, increased intake of medicine for sleep during the night; and lifestyle causes may include a pattern of diet routine with less intake of water, increased consumption of processed or junk food, less physical exercise or movement; and increased COVID19 pandemic stress. These factors are relatively significant in developing poor sleep and changes body's natural rhythm over a period of time.² As the duration of insomnia increases, these relative factors play a major role in producing poor sleep. Consequently patient with insomnia experiences other associated symptoms due to the short- and long-term health impacts with sleep medications.³ Hence this article discusses the evidence supporting integrated approaches to treat insomnia, including yogic counseling, tele-yoga therapy and dietary modifications.

Yoga has various tools to appease psychological issues in a way of treatment for insomnia. It improves a range of subjective factors including sleep quality, sleep latency and duration, anxiety, tension, depression, and also physical, physiological and psychological health.⁴ It can also help in insomnia related with women health such as menopausal as well as postmenopausal symptoms.⁵

MATERIALS AND METHODS

Tele-interview with the patient took place in May 2020 referred from a psychiatry clinic for yoga therapy. The interest focused on tele-interview was to gain an insight into the patient's medical history with regard to insomnia. The interview centered on obtaining experience and perception of yoga as a treatment for insomnia.

The questions included the topics of reason for her academic undertaking, daily lifestyle, family background and history concerning sleep disorder. After obtaining informed consent, medical documents of hospital stays and related files were investigated. An assessment of pre- and post- test using insomnia severity index (ISI) questionnaire was self-reported and on average three days of blood pressure was recorded by the patient. In the end of May 2020, an online yoga therapy for 3 months, 2 hours per week, as additional treatment was implemented at her home.

Case Description

The present work investigates the effect of yoga therapy on insomnia. The patient was a 30 year old female with insomnia and aggravated stress due to COVID19 lockdown. She was diagnosed with high blood pressure, high body temperature, and restlessness with no apparent reason. The latest hospital stay of the patient had been in April 2020, the patient reported that this was preceded by several more hospitalizations.

In the first week she attended tele-yogic counseling and dietary modification sessions. In the second week, she attended tele-yoga therapy sessions and in the consecutive third week she said that she could not continue yoga practice. She attended church and asked the priest about the solution for her insomnia, but did not receive it and her mother suggested continuing yoga practice. She specifically had had an unfavourable experience at the age of 24 with regard to yoga, that is, it had not brought about any positive

result, following similar pattern of complaint and had stopped yoga practice. The author had observed her fear and anxiety in relation to family members along with her mental work load and lifestyle.

This perspective of the patient caused the author to retrace his approach, in other words spiritual terms would be avoided during yogic counseling. Clarity with regard to the instructions to be given by excluding the spiritual aspects of yoga, especially in case of disorders which are rooted in the emotional and psychological domain, was not clear cut in an objective manner, and observed the impact on her psychophysiological change.

- i) The patient in this case perceived her relations or near ones with a sense of over attachment. When affection or fear is excess, a balanced or a healthy bearing of affection for one's loved ones is lost, then this kind of affection or fear transforms to hurting others. Her perception took a negative turn such that it was unnaturally magnified or excessively attached. Imperfections of the other person, which in this case was her sister-in-law, which may be negligible or easily manageable, became a thing of major concern for her. Correcting this perceived imperfection became her immediate and intense goal. She may not have been clearly aware of it but her effort of correcting resulted in her sister-in-law feeling hurt. Violent correction of magnified imperfections or bearing down upon the other person, to her, seemed just as a normal and right thing to do.
- ii) Fear was another factor present along with over attachment since she had taken up the mental task of pursuing doctorate in philosophy in a subject which was not in her line of specialization. In addition to managing her family this challenging academic pressure leads to excessive mental stress. As a result, fear of the inability to complete this task disturbed her mental peace which caused her continuous sleep disturbances. She could sleep only with medication which lasted for two or three hours. After a short period of sleep in one night, at around midnight she would again need additional medication for more sleep but this also proved to be ineffective after some time. Fear entails several psychological complexes which are suppressed but eventually erupt most often in a way of causing disturbances or hurt to others.
- iii) The attitude of speaking truth to others as well as to oneself is one of the ways by which relationships are protected and healthy. Simulative influence exists in day to day interactions with others, be it with family or friends. It is often a usual part of one's nature to have such tendencies. With respect to one's relations any kind of negative thinking should be methodically avoided with awareness. Simulative influence should be channelized in a way that it becomes another step towards one's mental and emotional development or freedom. In this case the patient was unaware or only vaguely aware that she had lost her peace of mind to the extent that it had taken a physiological form of loss of sleep. Yet her conscious effort was directed only towards regaining sleep.
- iv) Her stress developed largely due to the stance of complete independence which is immediately followed by the taking of complete responsibility for marked progress or maintenance of one's status. In this approach to life, the quality of having acceptance for what is there at present is absent. As this decreased, it is obvious her worries and stress increase. Acceptability of the situation or what one possesses as a gift of almighty such attitude is necessary to have peace of mind.
- v) Psychic longingness ever tends towards greediness because of the imbalance of mind. It can only be avoided by self awareness and awareness towards the volatile yet all consuming nature of material pleasures. Internal cleanliness or purity matters which may be achieved by service to family and performing one's part in society. These can also be used as dipsticks to check one's actions and correct if it seems to be moving towards a directions away from this basic track. The patient had come to a point of disintegrated lifestyle and her insomnia had taken a toll on the family. She was unable to take consistent care of her child or perform everyday activities.

- vi) Education about the subtler realms that prevail over our actions is essential to gain self satisfaction. If the wisdom body is not contented with what one possesses, its continuing influence over mind will not stop. So, mental work must be limited within a healthy boundary to sustain self-contentment otherwise it develops distress.
- vii) When one takes up a task with seriousness and is eager to complete it, this does not denote that the task should be allowed to take control over one's life itself. Right determination should promote health and total concentration such that any smaller obstacle that may appear in any form goes unnoticed or can be easily ignored. In this case the task the patient had taken up, in a way, engulfed her everyday life. Although the goal may be seen as determination but the manner was not correct for her achievement. The patient was not able to view and conduct this task under the order of eustress such that it turned into major distress. True determination should not be deterred by any obstacle; it should be an inherently healthy process. In this case the patient complained of fear and misgivings towards certain relations. A big part of the reason behind distress is centered on the perspective of the individual.

In brief authored observed the objectives of patient with insomnia: i) poor sleep quality and reduced sleep duration; ii) cannot sleep without any sleeping pills; iii) before therapy, regularly 2 sleeping pills were taken on before bedtime and one after waking up in the middle of the night; iv) poor diet and hectic lifestyle.

Tele-Yoga Therapy session

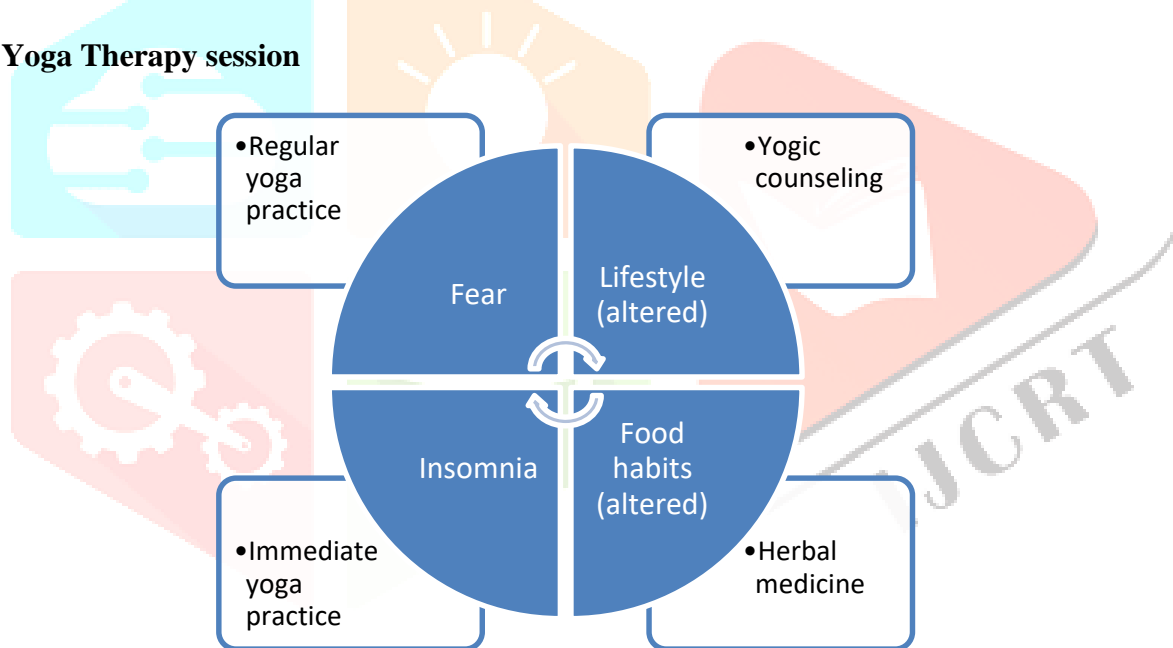


Figure 1: Tele-yoga therapy protocol designed for sleep disturbances.

Tele-yoga therapy sessions include yogic counseling, regular yoga practice, immediate yoga practice and herbal medicines, given in Figure 1.

Yogic counseling

- i. Lifestyle modifications: changed time and pattern of meals; and advised not to skip breakfast.
- ii. Dietary changes: increase intake of water from 0.5 to 3 litre; increase intake of green leaves and vegetables; avoid acidic food; increase intake of alkaline food; and increase intake of vitamin c fruits.

Regular yoga practice

The recommended yoga practice schedule is 1 hour per session, 2 sessions per day for 3 months.

Table 1: Tele-yoga therapy schedule

Sno.	Techniques	Repetition (round)	Duration (min)
1	Prayer: AUM chanting	3	5
2	Yogic Sukshma Vyayama (loosening practices):	1	5
3	Bhujangasana	2	3
4	Ustrasana	2	3
5	Pawanamuktasana	2	3
6	Shashahasana	2	3
7	Ardha matsyendrasana	2	3
8	Pranava Pranayama	3	10
9	Shavasana	1	10
10	Prayer: AUM chanting	3	5
11	Yogic counselling	1	10
Total			60

Immediate yoga practice

Immediate yoga practice is an optional (20 min before sleep, at least 2 hr after dinner) and it is required for whenever early awakening problem of insomnia as given in Table 2.

Table 2: Immediate yoga practice schedule

Sno.	Techniques	Repetition (round)	Duration (min)
1	Half-bath	1	5
2	Pillayar thoppu karnam (Super brain yoga)	15	3
3	Shashankasana	5	5
4	Shavasana	1	7
Total			20

Herbal medicine

Haritaki (*terminalia chebula*) powder is a herbal medicine and shall consume 2 gram with warm water after 30 minutes of morning and evening meal, 2 times a day for 1 week.

Table 3: Comparison of Insomnia Severity Index

Criterion measure		Pre-test	Post-test	Delta
Systolic BP		143	128	-15
Diastolic BP		84	80	-4
Insomnia Severity Index		21 [#]	14 [*]	-7
1	Falling asleep	4	2	-2
2	Staying asleep	3	2	-1
3	Early awakening	3	3	0
4	Satisfaction	4	3	-1
5	Interference	3	1	-2
6	Noticeable	2	2	0
7	Worry	2	1	-1

Stages

[#] > 22: severe insomnia; 15 – 21: moderate insomnia; ^{*} 8 – 14: sub-threshold insomnia;
< 7: absence of insomnia.

RESULTS

The patient was asked to send a self-reported ISI scale and self-recorded blood pressure before and after tele-yoga therapy. The assessment of pre-intervention ISI score was 21, indicating clinical insomnia, with severity and self-recorded BP 143/84 on average of three days before intervention using digital BP apparatus. Post data received ISI score 14 and BP 128/80 on average of latest three days after 3 months of tele-yoga therapy. The difference of ISI score showed improvement in clinical insomnia from moderate severity to sub-threshold and reduced blood pressure by 15 mmHg, given in Table 3.

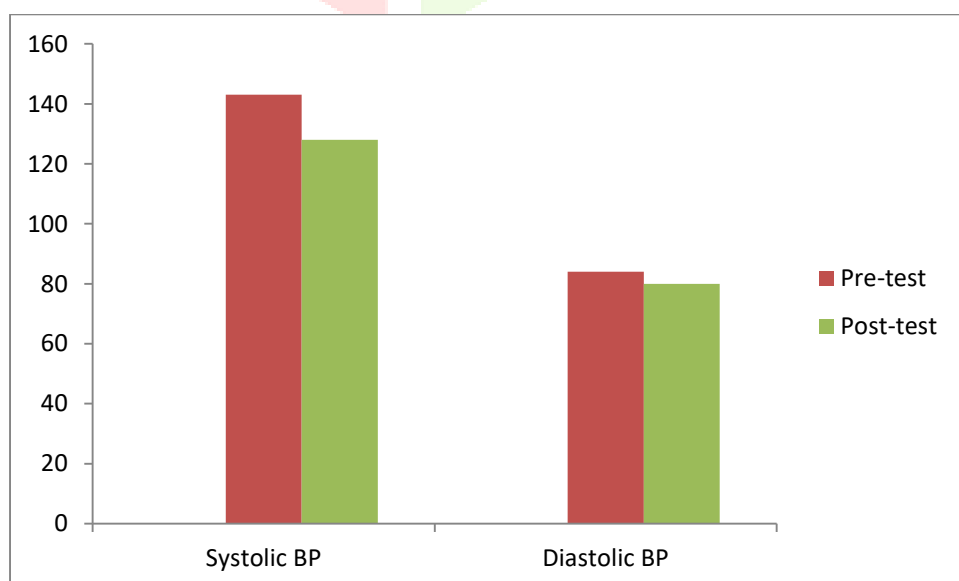


Figure 2: Comparison of pre- and post- self-reported BP

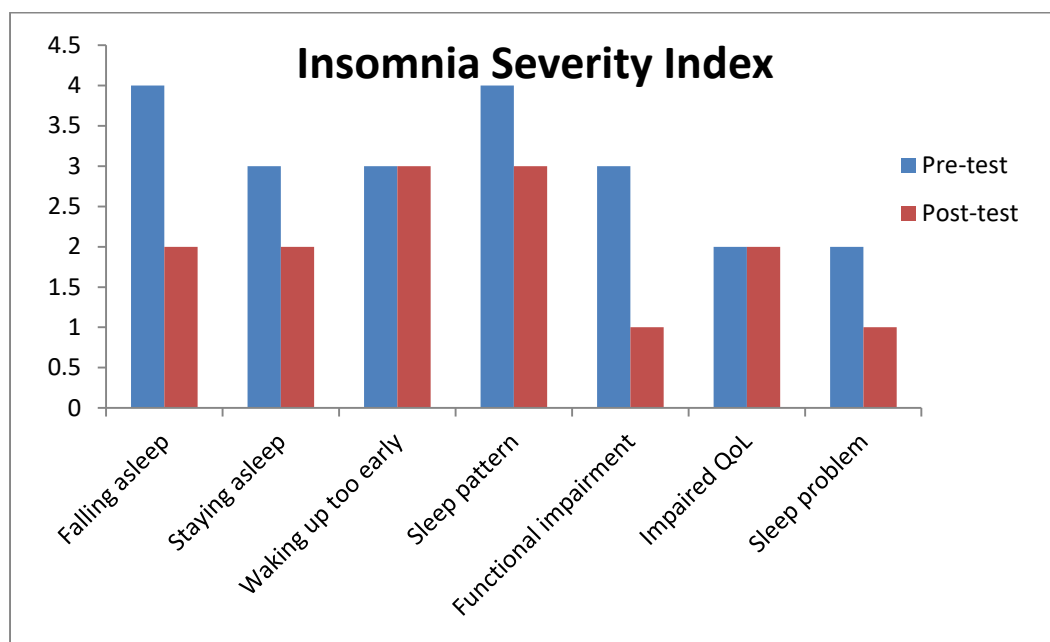


Figure 3: Comparison of pre- and post- self-reported ISI score.

DISCUSSION

The author received the following comments from patient that she noticed during tele-yoga therapy (which includes yoga practice, super brain yoga, half-bath before bedtime and dietary modifications): i) improved overall sleep duration with less disturbance time in between; ii) improved mental focus and reduced level of anxious even if sleep is disturbed; iii) improved systolic blood pressure showed an average drop of 15 mmHg measure before/after yoga practice (see Figure 2 & 3).

The patient reported that initially the immediate yoga practice and herbal medicine for emergency that she frequently resorted to along with practice performed during therapy sessions helped her sleep better albeit with reduced interruptions.^{6,7} The effect of regular practice was less when correlated with time, intensity and perfection, since practicing super brain yoga helps immediate reduction of anxiety and gradually understanding root cause of the disorder she was dealing with and at the same time discovers a more open view and faith on yoga therapy.

Regular yoga practice helps analyzing one's own capability and strength according to the situation and subject of communication is very important prior to another person, be it to one's partner or even children, and relatives. This knowledge makes way for fruitful and smooth communication or interaction. Yoga practice can help realizing the immediate goal and remembering the same at every breath which gives an appropriate solution to the mind. The patient reported that breathing practice with sound 'a', 'u', 'm' felt very relaxing and enjoyable; and regular practice obtained significant reduction of systolic pressure similar results found in previous research.⁸

The author maintained regular counseling sessions on the principles of social conduct (yama), the principles of self conduct (niyama), and dietary changes which have psychophysiological effects.

- i) With consistent tele-yogic counseling and practices, she had developed some eagerness towards performing yoga practices. One major reason for this was that she was being able to sleep now without taking pills.
- ii) After consistent tele-yogic counseling sessions, focusing on the physiological body machine and its connection to the psychological, or mental, emotional and wisdom bodies, it was evident that her mind and views, in terms of expansion and depth, benefitted as well as gained more acceptance towards the practice and towards balance as the core of plans and actions.

Consequently the decision was made that as far as possible the scientific basis or the physical, mental and emotional changes that occur as a result of practice would be used to communicate the role of tele-yoga therapy. Thus, the consideration of the case presents an overall positive result on the effectiveness of yoga on insomnia. By the end of three months of therapy, the patient reported that she was completely off the sleeping pills which she previously used on a daily basis. She now looked forward to the relaxed and energized after effect of each practice session that she also does by herself at home. She confirmed of feeling mentally more relaxed and optimistic, emotionally free and connected and felt significant reduction in general stiffness in her body along with increased stamina.

CONCLUSION

By practicing the prescribed postures and techniques and developing awareness of the mind, the patient was able to regain health and normal sleep pattern. It can be surmised that this positive result can be sustained if she continues her regular yoga practice. This should be evaluated in longer period of follow-up. There were some limitations with regard to explaining certain techniques and practices via video. Even so of this, as per the reports of the patient yoga therapy can treat insomnia and relieve related mental stress and imbalances. Hence, the effectiveness of tele-yoga therapy is evident in the presented case report. Case report is specified to the concerned individual and cannot be generalized. Series of case reports whether the same result is obtained for other patients and clinical trials are necessary to investigate the effectiveness of tele-yoga therapy on insomnia.

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