

EFFECT OF YOGIC CHAIR BREATHING IN LUNGS MERIDIAN ENERGY ON ASTHMA PATIENTS

Dissertation Submitted By

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Master Yoga Therapy

Under the Guidance of

DR KUNTAL GHOSH

[Ex. HONGASANDRA R. NAGENDRA M.E., Ph.D.]



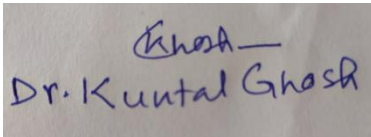
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CERTIFICATE

This is to certify that Jyoti is submitting this literature research “**Effect of Yogic Chair Breathing in Lung meridian energy on Asthma Patients**” in partial fulfillment of the requirements of Master of Science (Yoga Therapy) registered in Swami Vivekananda Yoga Anusandhana Samsthanam (SVYASA) under the division of Life Sciences and this is a record of work carried out by him in this university.

A rectangular box containing a handwritten signature in blue ink. The signature reads "Ghosh" on the top line and "Dr. Kuntal Ghosh" on the bottom line.

Dr. Kuntal Ghosh
Research guide

DECLARATION

I, hereby declare that this study was conducted by me at Swami Vivekananda *Yoga* AnusandhanaSamsthana (S-VYASA), Bangalore, under the guidance of Dr. Kuntal Ghosh ,S-VYASA University Bangalore.

I also declare that the subject matter of my dissertation entitled “**Effect of Yogic Chair Breathing in Lung meridian on Asthma Patients**” has not previously formed the basis of the award of any degree, diploma, associate-ship, fellowship or similar titles.

Place- Prashantikutiram

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Jyoti

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M.Sc. Yoga Therapist

STANDARD INTERNATIONAL TRANSLITERATION CODE USED TO
TRANSLITERATE SANSKRIT WORDS

Standard International Transliteration Code
(used to transliterate Sanskrit words in the text)

अ	=	a	ड	=	ḍa
आ	=	ā	ढ	=	ḍha
इ	=	i	ण	=	ṇa
ई	=	ī	त	=	ta
उ	=	u	थ	=	tha
ऊ	=	ū	द	=	da
ऋ	=	r	ध	=	dha
ए	=	e	न	=	na
ऐ	=	ai	प	=	pa
ओ	=	o	फ	=	pha
औ	=	au, ou	ब	=	ba
अं	=	m	भ	=	bha
अः	=	ḥ	म	=	ma
क	=	ka	य	=	ya
ख	=	kha	र	=	ra
ग	=	ga	ल	=	la
घ	=	gha	व	=	va
ङ	=	ṅa	श	=	śa
च	=	ca	ष	=	ṣa
छ	=	cha	स	=	sa
ज	=	ja	ह	=	ha
झ	=	jha	क्ष	=	kṣa
ञ	=	ña	त्र	=	tra
ट	=	ṭa	ज्ञ	=	jña
ठ	=	ṭha			

ABBREVIATION

YCB- Yogic Chair Breathing

TCM- Traditional Chinese Medicine

ISM- Indian System of Medicine

LM- Lungs Meridian

YCB-Yogic Chair Breathing

ABSTRACT

Background

Yogic Chair Breathing Practice is the set of Chanting, Asana & Breathing. It changes the energy of lung meridians of Asthma patients. Asthma is characterized by recurrent attacks of difficulty in breathing due to wide- spread reversible narrowing of airways in the lungs. There are lots of the treatments but in this study we saw that what the change in lungs energy was after the practice. And then the parameter was measured by the help of Acugraph which works on the energy.

Methods

Twenty-eight participants of Asthma or breathing related problem was taken from the Arogyadhama, in (Prashanti Kuttiram) SVYASA Bangalore, Karnataka, Indians has participated in the study. It was self as control pre post study.

One session participants were given Yogic chair breathing for a period of 25 minute and one session same period of time as simple relaxation where participant sat in chair. Pre and post reading of Lung median was taken by Acugraph.

Result

The result of within group showed significant higher energy in Lung left ($p < 0.001$) and Lung Right ($p < 0.025$) after yogic chair breathing practice. Whereas control group being with relaxation showed only lung right meridian energy increased significantly ($p < 0.47$). Between group result showed significant difference in the lung left meridian energy in chair breathing group than control group and though there was difference in the Lung Right meridian energy but it did not come significant.

Conclusion

The purpose of the study was to examine the efficacy of chair breathing to influence the lung meridian energy in patients with respiratory issues. The results show a meaningful association between practicing Yoga chair breathing and its positive impact on lung meridian energy. It can be said yogic chair breathing has potentiality to increase lung meridian energy as better function of lung people

with asthma.

Key Words

Asthma, Breathing, Chair Practices, Lung Meridian energy, Acugraph, TCM, Qi(energy), Breathing practice for lungs

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CHAPTER-1

INTRODUCTION

1.0 INTRODUCTION

1.1 DEFINATION

Asthma is the word of Greek derivation and this means ‘Panting’ or ‘Gasping’. Let of difficulty in breathing in Asthma. This is a disease characterized by airway inflammation and Bronchial hyper-responsiveness.

Bronchial Asthma is characterized by recurrent attacks of difficulty in exhalation due to wide-spread reversible narrowing of airways in the lungs, which varies in severity over a short period of either spontaneously or as a result of treatment. Remarkable hyper-reactivity of the air passages and excessive response by narrowing to various kinds of stimuli is characteristic of Asthma.

There are different signs and symptoms like Breathlessness, wheezing, Cough, and Tightness in chest, Phlegm formation and Bronchi spasm. And similarly some causes of Asthma are Family history, weather and seasons, occupation, Non-specific (Stress, Smoke, dust, emotional stress etc.)(Pascual & Peters, 2011)

1.2 PREVALENCE

8.4% of persons in the United States are having Asthma as compare with 4.3% of the worldwide population. Asthma is a no reportable disease. So it is not easy to calculate its global prevalence. In a recent study happened in Russia shows that 6.9% adults reported an asthma diagnosis and 2.7% of the same populations reported asthma symptoms. (Loftus & Wise, 2016) currently approximately 300 million people worldwide are having Asthma. And its value is increases by 50% in every decade.(Braman, 2006) And the privilege of Respiratory disease in India has 18% of the global population and there were 37.9 million cases of Asthma in 2016.(Salvi et al., 2018)

1.3 CURRENT TREATMENT MODALTIES AND THEIR LIMITATIONS

The acuteness of asthma can be shorted by Mild, Moderate and severe. For *Mild* Asthmatic

controller therapy should be considered like Corticosteroids and low-dose inhaler. For *Moderate* Asthmatic daily pills, Inhaled corticosteroids, long-acting beta agonists, combination inhalers and leukotriene modifiers. And for *Severe* Asthmatic Inhaler, Steroid, Anti-inflammatory and Bronchodilator are used. (Chesnutt, 2002) Even though modern science is having various treatment but along this it has lots of side effect and having such long-term conditions that makes harder to manage. It also has lifestyle limitations on the patient's quality of life. (Braido, 2013)

1.4 ALTERNATIVE THERAPY FOR BRONCHIAL ASTHMA MANAGEMENT

There are lots of alternative therapies given but these therapies are commonly used for Asthma treatment. Some of Alternative Therapy for treating this is *Herbs & Vitamins* (Mainly Chinese herbs) (Wilkinson, Hart, Milan, & Sugumar, 2014) Diet Management (Baker & Ayres, 2000). Relaxation therapy (Huntley, R White, & Ernst, 2002) *Yoga* (Breathing exercises) (Yang et al., 2016), *Acupuncture & Acupressure* (By balance the energy in body). (Scheewe et al., 2008)

1.5 THE MOST FAVOURABLE TREATMENT

Everything in the universe is having the Energy; it is evenly present in all the places at all the time. So our Body is also having the energy and it called Bio Energy. This Bio Energy has the powerful & effective Healing techniques that work by rebalancing the life within the body. It is the Effective, Holistic technique for the Treatment of Physical illness, emotional blocks, mental obstacles and spiritual issues. (Popp, Lakner, Harangi-Rákos, & Fári, 2014) Our health is also maintained by Maintaining this Bio Energy. And we can easily restore our health by balancing this energy. So there are two treatments which are work on this energy only, those are ISM (Indian systems of medicine) & TCM (Traditional Chinese Medicine). Ethically ISM is based on the *Parana* which flows along the *Nadies* & similarly the TCM is based on theories of *qi* (vital energy) which flows along channels called *Meridians*. (Ghosh, Hankey, & Srinivasan, 2017)

1.6 BREATHING PRACTICES CAN HEPL

Breathing exercise is helpful in relaxing because they take our body and mind in deep

relaxation and balance the Nervous System. Deep breathing is one of the best ways to lower the stress in the body. (Ma et al., 2017)It sends a message to your brain to calm down and relax(Santino, Chaves, Freitas, Fregonezi, & Mendonça, 2020)Yoga strengthens the respiratory muscles due to which chest and lungs inflate and deflate to fullest possible extend and muscles are made to work to maximal(Balakrishnan, Nanjundaiah, & Manjunath, 2018)Slow and deep breathing make it easier for the lungs to function and improves the exchange of Oxygen and carbon dioxide.(tucker1996)The advantage to breathing through your nose is that it adds warmth and humidity to the air that can reduce Asthma symptoms. (Chiang, Ma, Huang, Tseng, & Hsueh, 2009)

1.7 EFFECT OF CHANTING

Chanting regulates the blood flow to the different part of the body. It helps to control blood pressure, our breathing, respiration and normalize the heartbeat. Enrich oxygen supply to the body cells that helps to get rid of toxin through breath. (Das & Anand, 2012)

1.8 THE PURPOSE OF THE STUDY

Yoga practices help in improving overall health. There is specific YCB Practices for specific Respiratory problems that are discussed. Present day researches are increasing in finding the therapeutic effects of yoga where significant results are being found. Till now most of the studies done on Respiratory disease are not pay attention how energy gets change after the yoga breathing techniques and how they help in Respiratory problems so present study is focused on finding the effect of these breathing practices helps in respiratory problem by seeing changes in (LM)Lungs Meridian energy.

CHAPTER-2

ANCIENT LITERATURE

2.0 ANCIENT LITREATURE REVIEW

We shall now explain the treatment of Asthma (Svasa)

1 Awatae ihŠñasicikiTst< VyaOyaSyam>.1.

#it h Smah ÉgvanaÇey>.2.

1 athāto hikkaçväsacikitsitaà vyākhyäsyämaù||1||

iti ha smāha bhagavānātreyaù||2||

- *Serious nature of Savasa-Roga*

vedlaekawRtTv}maÇeym&i;muÄmm!,S

Ap&CDt! s<zy< xImani¶vez> k«taÃil>.3.

y #me iÖivxa> àae' aiōdae; aiōàkaep[a>,

raega nanaTmkaSte;a< kSkae Évit ÊjRy>.4.

Ai¶vezSy tÖaKy< iuTva mitmta< vr>,

%vac prmàlt> prmawRiviniým!.5.

kam< àa[hra raega bhvae n tu te twa,

yw ñasí ihŠa c àa[anazu ink«Ntt>.6.

ANyErPyups&òSy raegEjRNtae> p&wiGvxE>,

ANte s<jayte ihŠa ñasae va tlivedn>.7.

*vedalookārthatatvajiamātreyamāñimuttamam|
apācchat saāçayaà dhémānagniveçaù kātāijaliù||3||*

*ya ime dvividhāù proktāsniđōñāsniprakopaēāù|
rogā nānātmakāsteñāà kasko bhavati durjayaù||4||*

*agniveçasya tadvākyaà çrutvā matimatāà varaù|
uvāca paramaprētaù paramārthaviniççayam||5||*

*kāmaà prāēaharā rogā bahavo na tu te tathā|
yatha çvāsaçca hikkā ca prāēānāçu nikāntataù||6||*

*anyairapyupasāñōasya rogairjantoù pāthagvidhaiù|
ante saijāyate hikkā çvāso vā tévravedanaù||7||*

Once upon a time Aganivesha(learned disciple) asked Lord Punarvasu Atreya.

There are varieties of disease and it categorised into two categories which are produced by the imbalance or increasing of three *Dosha* as a result three problems come. Which of these are difficult to cure?

After listening to this query of Agnivesha, Lord Punarvasu made this statement “ It is true that there are several diseases that can kill the patients but none of them are not dangerous like Asthma. In this Asthma can kill the patient instantaneously. Even if the patient is suffering with different ailing disease, ultimately at the time of death he falls a victim of *Asthma* which is very painful during death time.

- **Pathogenesis of Savasa**

k)vataTmkavetaE ipÄSwansmuÑvaE,
 ùdySy rsadIna< xatUna< caepzae;[aE.8.
 tSmat! saxar[avetaE mtaE prmÊjRyaE,
 imWyaepcirtaE ³...ÿaE ht Aazliv;aiVV.9.
kaphavätätmakävetau pittasthänasamudbhavau |
hådayasya rasädénää dhätünää copaçoñaëau ||8||
tasmät sädhäraëävetau matau paramadurjayau |
mithyopacaritau kruddhau hata äçéviñäviva ||9||

Asthma originates from the site of *Pitta* and are caused by the aggravation of *Kapha* and *Vayu*. They cause problems in the cardiac area (*hrdaya*) and all of tissue elements like *Rasa* etc. *Asthma* is difficult to cure, if not treated at appropriate time. This disease can be aggravated any time and become fatal like the deadly snake-venom.

- **Varities of Savasa**

p&wkœ pÂivxavetaE inidRòaE raegs<çhe,
 tyae> z&[u smuTwan< il'œ^g< c siÉ;iGjtm!.10.
 rjsa xUmvata_ya< zltSwanaMbusevnat!,
 VyayamadçaMyxmaRXvê]aÇiv;maznat!.11.
 Aamàdae;adanahaÔaEúyadTyptpR[at!,
 daEbRLyaNmmR[ae "atdœÖNÖa½uï(ityaegt>.12.
 AtlsarJvrCDidRàitZyay]t]yat!,
 r'ipÄaÊdavtaRiÖsUCylskadip.13.

pa{furaegaiÖ;½Ev àvteRt gdaivmaE,
 in:pavma;ip{yakitltElin;ev[at!.14
 ipòzalUkivòìMÉivdaihguéÉaejnat!,
 jljanUpipiztdXyam]lrsevnat!.15.
 AiÉ:yNxupcara½ ðe:mlana< c sevnat!,
 k{Qaers> àtl"ataiÖbNxÉí p&wiGvxE>.16
pāthak paīcavidhāvetau nirdiñōau rogasaīgrahe|
tayou çāēu samutthānaà liūaà ca sabhiñagjitam||10||
rajasā dhūmavātābhyāà çétasthānāmbusevanāt|
vyāyāmādagrāmyadharmādhvarūkñātraviñamāçanāt||11||
āmapradoñādānāhādraukñyādatyapatarpaēāt|
daurbalyānmarmaēo ghātadvandvāccuddhyatīyogataù||12||
atēsārajvaracchardipratīçyāyakñātakñayāt|
raktapittādudāvartādvisūcyalasakādapi||13||
pāēdurogādviñaccaiva pravarteta gadāvīmau|
niñpāvamāñāpiēyākatilatailaniñevaēāt||14
piñōaçālūkaviñōambhividāhigurubhojanāt|
jalañnūpapiçitadadhyāmakñérasevanāt||15||
abhiñyandhupacārācca çleñmalānāà ca sevanāt|
kaēōhorasaù pratēghātādvibandhaiçca pāthagvidhaiù||16

Signs and Symptoms and treatment of the disease are being described hereafter.

1. Expose to smoke, dust and wind;
2. Residing in a cold Place and use of Cold water;
3. Exercise, long walk, Running beyond capacity;
4. Unhealthy eating lifestyle;
5. Deficient and excess in quantity of food before bed;
6. Improper Digestion and Metabolism;
7. Long time Constipation with flatulence;
8. Dryness in the body;
9. Fasting in excess;
10. Intake of animal meat and marshy animals and birds;
11. Intake of boiled milk and curd;
12. Intake of Kapha- aggravating ingredients;
13. Injury of throat and chest;
14. Obstruction to the channels of circulation.

- **Pathogenesis of Savasa**

maét> àa[vahlin ôaeta<SyaivZy k...Pyit,

%rœ >Sw> k)mul̥fy ihŠañasan! kraet s>.17.
 "aeran! àa[aepraexay àai[na< pÂ c,
 mārutaū prāēavāhēni strotāasyāviçya kupyati |
 ur ūsthaū kaphamuddhūya hikkāçvāsān karota saū ||17||
 ghorān prāēoparodhāya prāēināà paīca ca |

Vayu located in the chest after afflict the channels carrying vitae gets aggravated and stimulate *Kapha*. This leads to Asthma and may leads to death of the patient.

- **Signs of Asthma (Premonitory)**

%Éyae> puvRêpai[z&[u vūyaMyt> prm!.18.
 k{QaersaeguRéTv< c vdnSy k;ayta,
 ihŠana< puvRêpai[k...]erqaep @v c.19.
 Aanah> pañRzUl< c plfn< ūdySy c,
 àa[Sy c ivlaemTv< ñasana< puvRl][m!.20.
 ubhayou purvarūpāēi çāēu vakñyāmyataū param ||18||
 kaēōhorasorgurutvaà ca vadanasya kañāyatā |
 hikkānāà purvarūpāēi kukñeraōopa eva ca ||19||
 ānāhaū pārçvaçūlaà ca péðanaà hādayasya ca |
 prāēasya ca vilomatvaà çvāsānāà purvalakñāēam ||20||

The premonitory signs and symptoms of Asthma are follows:

1. Heaviness of the chest and throat;
2. Pain in the side of the chest;
3. Pain in the cardiac region;
4. Reversion of the respiratory function;

- **Pathogenesis of Savasa (Asthma)**

yda ôaeta<is s<éXy maét> k)pUvRk>,
 iv:vGìjit s<éİStda ñasaNkraeit s>.45.
 yadā strotāsi saàrudhya mārutaū kaphapūrvakaū |
 viñvagvrajati saàruddhastadā çvāsānkaroti saū ||45||

If *Vata* is predominantly mixed with *Kapha*, it obstructs the Channel of circulation all over the body and then aggravated *Vayu* causes *savasa (Asthma)*.

- **Maha Savasa**

%İfymanvatae y> zBdvî,>iotae nr>,
 %½E> ñisit s<éİae mÄ;RÉ #vainzm!.46.
 ànò}aniv}anStwa ivæaNtlaecn>,
 ivk«taúyannae bĭmuÇvcaR ivzl[Rvakœ.47.
 dIn> àñist< caSy ĘraiÖjayte É&zm!,
 mhañasaeps&ò> s i]àmev ivpxte.48.

#it mhañas>

*uddhūyamānavāto yaù çabdavadduùkhito naraù |
 uccaiù çvasiti saàruddho mattarñabha ivāniçam ||46||
 pranañöajjānavijjānastathā vibhrāntalocanaù |
 vikātākñyānāno baddhamutravarçā viçérëaväk ||47||
 dénaù praçvasitaà cāsya dūrādvijjāyate bhāçam |
 mahāçvāsopasāññaù sa kñiprameva vipadhate ||48||
 iti mahāçvāsau*

Because of the upward movement the Vayu gets aggravated, loud sound came while taking deep breath. This shows the obstruction to the respiratory channel. Patient might loses his Physical and Mental senses; eyes become blur and face become distorted, suffer from anaemia and constipation, loose Mental stamina, deep inspiration audible from far distance also. This problem is called Maha Savasa.

- **Line of Treatment**

kar[SwanmUIEKyadekmev icikiTstm!,
 Öyaerip yw†òm&i;İÉStiÇbaext.70.
 ihŠñasaidRt< iōGxaEradaE SvedEépacret!,
 Aa´< lv[tElen naflàStrs<krE>.71.
 tErSy çiw> ðe:ma ôaet>SviÉivllyte,
 oain madRvmayaiNt ttae vatanulaemta.72.
 ywa=iÔk...Ăe:vkajzutÝ< iv:yNdte ihmm!,
 ðe:ma tÝ> iSwrae dehe SvedEivR:yNdte twa.73.
 iSvÇ< }aTva ttStU[i Éaejyet! iōGxmaednm!,
 mTSyana< zUkra[a< va rsEdRXyuĂre[! va.74.
 tt> ðe:mi[s<v&İe vmn< payyeĂu tm!,

ipPpIIsENxv]aEÔEyuR' < vataivraeix yt!.75.

inýRte suomaßaeits k)e Êòivçhe,

ôaet>su c ivzuïe;u crTyivhtae=inl>.76.

*kāraēasthānamūlaikyādekameva cikitsitam |
dvayorapi yathadāññōamāñibhistatribodhata ||70||
hikkaçvāsārditaà snigdhaurādau svedairupācaret |
āktaà lavaēatailena nāòéprastarasaikaraiù ||71||
tairasya grathitaù çleñmä strotaùsvabhiviléyate |
khāni mārđavamāyānti tato vātānulomatā ||72||
yathā'drikuijeñvarkāàçutaptaà viñyandate himam |
çleñmä taptaù sthiro dehe svedairviñyandate tathā ||73||
svitraà jīātvā tatastūrēāà bhojayet snigdhamodanam |
matsyānāà çūkarāēāà vā rasairdadhyyuttareē vā ||74||
tataù çleñmaēi saāvāddhe vamañāà pāyayettu tam |
pippalēsaindhavakñaudrairyuktaà vātāvirodhi yat ||75||
nirhyate sukhamāpnotisa kaphe duññāvigrāhe |
strotaùsu ca viçuddheñu caratyavihato'nilaù ||76||*

Detail of their line of Treatment

In beginning stage, the physician should treat the patients of Asthma. The location and dosas involved in their pathogenesis. The fomentation therapy render the knotted and Kapha dissolved in the channel of circulation and softend.

These therapy also cause downwaed movement of *Vayu*. And the stable *Kapha* in the body gets melt because of heat generate by the fomentation therapy.

Patient must given rice with ghee or the soup of pork and fish, followed by the cream of curd to eat. This cause aggeavation of *Kapha*.

Patient should given emetic therapy which is pippali, saindhava and honey.

Vata aggravating ingredient should not added to thr recipe.

The patient gets relief after the aggrivated *Kapha* is eliminated. When the channels of the circulation are made clear then the *Vayu* moves at ease without any obstruction.

CHAPTRE-3
REVIEW OF
LITERATURE
SCIENTIFIC REASEARCH

3.0 REVIEW OF SCIENTIFIC LITERATURE

S.No	Author	Title	Sample Size	Intervention/Duration	Result/Discussion
1	(Rabe et al., 2004)	Worldwide severity and control of Asthma in Children & Adults	Asthmatic patients- 10,939 Children- 3153 Adults- 7786	surveys were conducted in 29 countries in Western Europe	The prevalence of asthmatic adult patients who were current smokers goes up to 20%.
2	(Lemanske & Busse, 2003)	Asthma (Allergic Disorder)	Not Mentions	Treatment will be depending after seeing the severity and the age of the participant. Mild may be treated at Home.	As a result the treatment needs to be individualized and the modification is to be obtained or maintain the symptom and disease control time.
3	(Baiardini, Braido, Brandi, & Canonica, 2006)	Allergic diseases and their impact on quality of life	Review Article Study that used valid questionnaire was selected for the study	Jan 1990 and May 2006, literature published was taken	Allergic disease can deeply resist with patients. And HRQL effects on the physical, social and psychological dimension of the life.
4	(Juniper,	Measuring	39	The Asthma Quality	For the

	Guyatt, Ferrie, & Griffith, 1993)	Quality of life in Asthma	participant between the age 16 to 60 having Asthma	of Life Questionnaire	individual domain and for the instrument as a whole, measurement properties are satisfied. The result tells that the instrument will be used for confidence in clinical research.
5	(Hossny, Caraballo, Casale, El-Gamal, & Rosenwasser, 2017)	Severe asthma and quality of life	Review Article	This article reviews the severity of Asthma	QOL improved by the help of the therapies. And also improves the levels of disease control.
6	(Myers & Tomasio, 2011)	Asthma: 2015 and Beyond	34 million people diagnosed as Asthmatic	Review is given briefly. It is evidence base intervention.	Provide an over review, for diagnosis and how to make proper strategy for Asthma, Newer Revenant therapy management for Future.
7	(Sidebotham & Roche, 2003)	Asthma Deaths; persistent and	Review Article	1272 death occurs in year 2000 due to Asthma in England. In which, 478 were	True cause of death is Unrevealed

		preventable mortality		men and 794 were women.	
8	(Urrutia et al., 2012)	Impact of Anxiety and Depression on Disease Control and Quality of Life in	Sample Size-354 Asthmatic patients	Anxiety and Depression also had a great effect on Asthmatic patient.	Patients with Asthma, Anxiety and Depression have adversely effect on Asthma control and the quality of life
9	(Robertson, 2007)	Development and psychometric assessment of the COPD and Asthma Sleep impact scale (CASIS)	Qualitative Data = 162 Participants Observation Study Include =311 from COPD and 324 with Asthma	Psychometric Characteristics of the measure conducted to Assess.	It might be helpful to see the impact that COPD and Asthma have on the sleep.
10	(Zhou et al., 2016)	Who are the users of a traditional chines snafu acupoint herbal patching therapy in China?	(n=592; 62.4%)	EpiData version was use and an electronic database was made.	They found that the demographics of the users conditions for its use and the experience of SAHP users' Possibilities.
11	(Su et al., 2016)	Acupoint Application for Asthma Therapy in Adults: A	6 electronic databases were searched up to May 2014	Six electronic databases were searched up to May 2014 to identify relevant studies	The result shows that acupoint improved the forced expiratory volume in 1 sec

		systematic review and meta- analysis of Randomized controlled Trial	to identify relevant studies. Randomised Control Trials		
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3.1SUMMARY OF SCIENTIFIC RESEARCH

Continual Practice of Yoga asana gives significant improvement in increasing the Lung capacity or Energy level. Even the breathing practice also helps in Respiratory related problems. TCM is also found to give improvement in the breathing condition. Chanting is also found to decrease the level of Anxiety and Depression in the Asthma patients which they are having because of their health. So as a whole approach of Yoga, Breathing Practices and TCM result in increase in the condition of the Patients.

CHAPTER-4
AIM AND OBJECTIVES
OF THE STUDY

4.0 AIM AND OBJECTIVES

4.1 AIMS OF THE STUDY

- Effect of Chair Breathing Practice in Lung Meridian energy on Asthma Patients

4.2 OBJECTIVES OF THE STUDY

- To evaluate the effect of Chair Breathing Practice in Meridian Activity.
- To evaluate the effect of Chair Breathing Practice in Lung Energy.

4.3 RESEARCH QUESTIONS

- How the Chair Breathing Practice effects in Lung Meridian energy on Asthma Patients?

4.4 HYPOTHESIS

- To see the effect of Chair Breathing Practice in Meridian Activity.
- To see the effect of Chair Breathing Practice in Lung Energy.

4.5 NULLHYPOTHESIS

- To see there is no effect of Chair Breathing Practice in Meridian Activity.
- To see there is no effect of Chair Breathing Practice in Lung Energy.

CHAPTER-5

METHODOLOGY

5.0 METHODS

The subjects were recruited from the outpatient section of Arogyadhama, VYASA Bengaluru. Subjects who met the inclusion criteria were selected for the study. At the first visit to the section, participants were asked to perform the Chair Breathing Practice as guided by the Therapist. During the course of the intervention, there was strict follow-up attendance taken by the Section parameter. The section has three special techniques which basically undergo dynamic practices, and remain class, was follow based on the Arogyadhama schedule the participants had to attain all the class starting from Om meditation to happy assembly. These scheduled has covered with IAYT module and his subjects, which is basically designed by S-VYASA Yoga University They are following some IAYT practices also. All the participants was taken from Section of Pulmonary. Firstly they undergo YCB practice Demonstration and the next two days morning intervention given and Data was collected followed by proper Relaxation.

5.1 PARTICIPANTS

The subjects was taken from Arogyadhama, an Integrative Medicine Centre located at SVYASA University, Bangalore

5.1.1 Sample size- 28

5.1.2 Selection and source of participants

- Participants who Diagnosis any Lungs Related Problem like Rhinitis, Asthma or any Breathing related Problem.
- Source was taking from Arogyadhama from SVYASA University

5.1.3 Inclusion criteria

- Diagnosed with Respiratory related Problem and who are agree

5.1.4 Exclusion criteria

- Hypertension
- Serious mental problem

- Figure and toe missing
- Implant electronic device
- Heart related disease

5.1.5 Ethical consideration

All Participants were informed about the current research and an informed consent will be obtained from each subject. They agree to give their detail information like patient's name, age, gender, address, contact number and information on whether the patient agreed to participate in the research. After signing the inform consent form and, the patients trained in YCB. The present study was approved by ethical committee of SVYASA University, Bangalore, India.

5.2 DESIGN OF THE STUDY

Self-Control group (pre and post) Design

5.3 INTERVENTIONS (Yogic Chair Breathing)

S.No.	INTERVENTION
1.	Relaxation using chair as an arm support a)IRT with the help of Chair support
2.	Neck Muscles relaxation with chair support a)Neck movement backward and forward (5times) b)Neck movement with breathing (5times) c)Neck movement with 'AA' kare(5times)
3.	Neck movements in VAJRASANA a)Neck movement in Vajrasana, backward and forward(5times) b)Neck movement in Vajrasana with breathing(5times) c)Neck movement in Vajrasana with 'AAA' Kara(5times)
4.	Sasankasana a)Bend backward and forward from waist while sitting in Sasankasana(5times) b) Bending with breathing(5times) c)Chant 'MMM' kara while bending(5times)
5.	Tadasana (Relax for a while)
6.	Neck movements in Tadasana a)Forward and backward(5times)

	b)With breathing(5times) c)With Bhramari(5times)
7.	Ardha Chakrasana – Pada Hastasana a)Bend forward and backward(5times) b)Bend with breathing(5times) c)Movement with breathing Bhramari(5times)
8.	Savasana Final relaxation (QRT)

- **Procedure**

The procedure of the study was explained to the participants. All participants had given their verbal consent prior to participation in the study. Participants also told that their data will be confidential.

CHAPTER-6

DATA EXTRACTION

AND ANALYSIS

6.0 DATA EXTRACTION AND ANALYSIS

- **Data Extraction**

. Data was obtained from the patients according to the Design and then collected data was entered in Excel sheet and further analysis in JASP 0.10.2.

. Data was entered in Excel Sheet to calculate Mean and Standard deviation.

- **Analysis**

Data was tabulated in Microsoft Excel sheet to calculate mean and standard deviation and further statistical analysis was performed through the **JASP 0.10.2.0** to check the difference from pre to post.

CHAPTER-7

RESULTS

RESULT

Within the group comparisons

Chair breathing group

Within-group comparison showed significant improvement in lung left and right meridian in the Chair breathing group and lung right meridian energy in the control group.

Table 1: Within-group comparisons on lung meridian energy

S.NO	Variables	GROUP	Pre (Mean ± SD)	Post (Mean ± SD)	p value	Cohen 's d
1	LU_L	Yoga Group(YG)	35.30 ± 17.25	54.83 ± 31.11	.001	0.77
2	LU_R		45.73 ± 23.90	56.66 ± 26.14	0.025	0.43
3	LU_L	Control Group(CG)	41.33 ± 25.18	47.13 ± 29.43	0.154	0.31
4	LU_R		38.40 ± 26.50	44.00 ± 28.13	0.047	0.44

YG - Student's t-test, CG –Wilcoxon signed-rank test; LU_L – lung left meridian, LU_R- lung right meridian; P value is less than and equal to 0.05 was considered to be significant

❖ *Graphical presentation of prepost mean of lung left and right meridian energy in YG and CG .YOGA GROUP(YG) & CONTROL GROUP(CG)*

	MEAN(YG)	MEAN(CG)
LU_L_PRE	35.30	41.33
LU_L_POST	54.83	47.13
LU_R_PRE	45.73	38.40
LU_R_POST	56.66	44.00
MEAN	48.13	42.71

❖ Graph of Mean of YG & CG

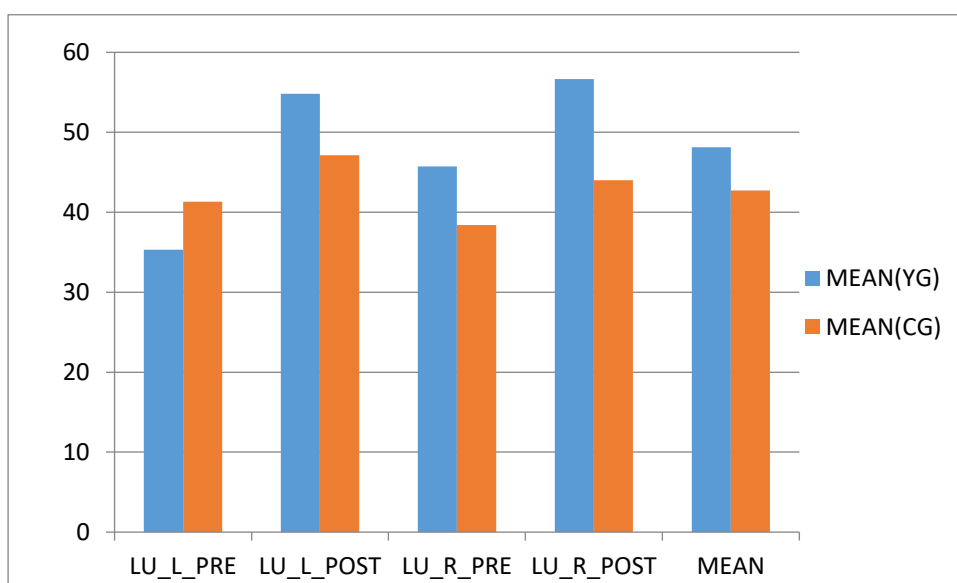


Table 2: Between-group comparisons on

	t/w value	df	P value	Cohen's d
LU_L	1.993	58	0.051	0.51
LU_R	413.5	..	0.594	0.08

LU_L parametric student's test and LU_R non parametric Mann Whitney test; LU_L – lung left meridian, LU_R- lung right meridian.

CHAPTER-8

DISCUSSION

DISCUSSION

The study was aimed to see the effect of Yogic Chair Breathing in Lung meridian energy on Asthma Patients. The result shows very clearly that Yoga group having the significant change in Left and Right both the lungs. The p value statistically significant if value is less than and equal to (0.05) for all the tests. The p value of left lung meridian energy is ($0.01 \leq 0.05$) and the value of right lung meridian energy is ($0.025 \leq 0.05$) so we can say that there is a significant change in both the lungs meridian energy in Yoga group.

And in Control group as compare of right lung energy meridian not having significant changes because p value ($0.154 \geq 0.05$) as right lung meridian energy is having significant change because p value is $0.047 \leq 0.05$).

It is possible that these findings are causal because Yoga and Traditional Chinese Medicine use specific methods to enliven Prana / Qi and promote free flow of energy through the subtle channels nadis or meridians in order to restore or improve individual health. Major methods include Asana, Pranayama and Meditation in Yoga, and Acupuncture, Acupressure and Qigong in TCM (Ghosh et al., 2019).

Earlier Studies reported that between Asthma and Health group, the Asthma patients have low energy in lung meridian in left and right then healthy the parameter was taken by acugraph.(Ghosh et al., 2017) An earlier randomized study group A and group B, in which group B did yoga breathing exercises for 8 week and the questionnaire on quality of life was given. Group A subjects showed a statistically significant improvement in "symptoms", "activities" and "environmental" domains of AQLQ at 8 weeks ($p < 0.01$) and significant reduction in daily number(Sodhi, Singh, & Bery, 2014) In health and yoga there was one study which shows that after chair breathing practice the episodes of Asthma attacks get decreases. So the present result of increasing lung meridian energy after yogic breathing give confirmation that it effects on lung function of asthmatic people which reflect on lung meridian reading in Acugraph.

CHAPTRE-9
SUMMARY &
CONCLUSSION

CONCLUSION

This study provides positive effect of chair breathing on lung meridian energy in patients with asthma or breathing related people. The result shows v clearly Yoga breathing group having the significant change in Left and Right both the lungs. The p value statistically significant if value is less than and equal to (0.05) for all the tests. The p value of left lung meridian energy is ($0.01 \leq 0.05$) and the value of right lung meridian energy is ($0.025 \leq 0.05$) so we can say that there is a significant change in both the lungs meridian energy in Yoga group. And in Control group as compare of right lung meridian energy, not having significant changes because p value ($0.154 \geq 0.05$) as right lung energy meridian is having significant change because p value is $0.047 \leq 0.05$) If we increase the no of sample size then we get more highly statistically significant evidence in both the lungs meridian energy.

So we can conclude that there is the effect of yogic chair breathing practice in lung meridian energy on Asthma participants.

Strength of the study

The significant results of Yogic chair breathing shows influence of chair breathing in pranic or Qi level in patient with Asthma. It was the first attempt to see the effect of particular yoga practice on organ dysfunction problem.

Weakness of the study

It was not a randomized controlled trail. One session of yogic breathing was not a strong intervention.

Future suggestion

It will be better to see the effect of Yogic chair breathing with other pranayama practices for a long period of time with others physiological parameter related to lung function.

REFERENCES

- Baiardini, I., Braido, F., Brandi, S., & Canonica, G. W. (2006). Allergic diseases and their impact on quality of life. *Annals of Allergy, Asthma and Immunology*, 97(4), 419–429.
[https://doi.org/10.1016/s1081-1206\(10\)60928-3](https://doi.org/10.1016/s1081-1206(10)60928-3)
- Baker, J. C., & Ayres, J. G. (2000). Diet and asthma. *Respiratory Medicine*.
<https://doi.org/10.1053/rmed.2000.0873>
- Balakrishnan, R., Nanjundaiah, R. M., & Manjunath, N. K. (2018). Voluntarily induced vomiting – A yoga technique to enhance pulmonary functions in healthy humans. *Journal of Ayurveda and Integrative Medicine*. <https://doi.org/10.1016/j.jaim.2017.07.001>
- Braido, F. (2013). Failure in Asthma Control: Reasons and Consequences. *Scientifica*.
<https://doi.org/10.1155/2013/549252>
- Braman, S. S. (2006). The global burden of asthma. *Chest*.
https://doi.org/10.1378/chest.130.1_suppl.4S
- Chesnutt, M. S. (2002). Management of asthma exacerbations. *Clinical Cornerstone*, 4(6), 1–17.
[https://doi.org/10.1016/S1098-3597\(02\)90032-3](https://doi.org/10.1016/S1098-3597(02)90032-3)
- Chiang, L. C., Ma, W. F., Huang, J. L., Tseng, L. F., & Hsueh, K. C. (2009). Effect of relaxation-breathing training on anxiety and asthma signs/symptoms of children with moderate-to-severe asthma: A randomized controlled trial. *International Journal of Nursing Studies*, 46(8), 1061–1070. <https://doi.org/10.1016/j.ijnurstu.2009.01.013>
- Das, I., & Anand, H. (2012). Effect of Prayer and “OM” Meditation in Enhancing Galvanic Skin Response. *Psychological Thought*. <https://doi.org/10.5964/psyc.v5i2.18>
- Ghosh, K., Hankey, A., & Srinivasan, T. M. (2017). Electrodermal Screening of Asthmatics with AcuGraph 4. *JAMS Journal of Acupuncture and Meridian Studies*, 10(2), 125–130.
<https://doi.org/10.1016/j.jams.2016.11.003>
- Ghosh, K., Hankey, A., & Srinivasan, T. M. (2019). Subtle energy system of human body based on energy model of Yoga and Traditional Chinese Medicine. *JOURNAL OF RESEARCH IN TRADITIONAL MEDICINE*, 5(3), 51-57.
- Hossny, E., Caraballo, L., Casale, T., El-Gamal, Y., & Rosenwasser, L. (2017). Severe asthma and quality of life. *World Allergy Organization Journal*. <https://doi.org/10.1186/s40413-017-0159-y>
- Huntley, A., R White, A., & Ernst, E. (2002). Relaxation therapies for asthma: A systematic review. *Thorax*. <https://doi.org/10.1136/thorax.57.2.127>
- Juniper, E. F., Guyatt, G. H., Ferrie, P. J., & Griffith, L. E. (1993). Measuring quality of life in asthma. *American Review of Respiratory Disease*. <https://doi.org/10.1164/ajrccm/147.4.832>
- Lemanske, R. F., & Busse, W. W. (2003). 6. Asthma. *Journal of Allergy and Clinical Immunology*,

- 111(2 SUPPL. 2), 502–519. <https://doi.org/10.1067/mai.2003.94>
- Loftus, P. A., & Wise, S. K. (2016). Epidemiology of asthma. *Current Opinion in Otolaryngology and Head and Neck Surgery*. <https://doi.org/10.1097/MOO.0000000000000262>
- Ma, Ox., Yue, Z. Q., Gong, Z. Q., Zhang, H., Duan, N. Y., Shi, Y. T., ... Li, Y. F. (2017). The effect of diaphragmatic breathing on attention, negative affect and stress in healthy adults. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2017.00874>
- Myers, T. R., & Tomasio, L. (2011). Asthma: 2015 and beyond. *Respiratory Care*. <https://doi.org/10.4187/respcare.01334>
- Pascual, R. M., & Peters, S. P. (2011). Asthma. *Medical Clinics of North America*, 95(6), 1115–1124. <https://doi.org/10.1016/j.mcna.2011.09.001>
- Popp, J., Lakner, Z., Harangi-Rákos, M., & Fári, M. (2014). The effect of bioenergy expansion: Food, energy, and environment. *Renewable and Sustainable Energy Reviews*. <https://doi.org/10.1016/j.rser.2014.01.056>
- Rabe, K. F., Adachi, M., Lai, C. K. W., Soriano, J. B., Vermeire, P. A., Weiss, K. B., & Weiss, S. T. (2004). Worldwide severity and control of asthma in children and adults: The global asthma insights and reality surveys. *Journal of Allergy and Clinical Immunology*, 114(1), 40–47. <https://doi.org/10.1016/j.jaci.2004.04.042>
- Robertson, M. P. (2007). Stanley Miller 1930–2007. *Nature Chemical Biology*, 3(8), 437–437. <https://doi.org/10.1038/nchembio0807-437>
- Salvi, S., Kumar, G. A., Dhaliwal, R. S., Paulson, K., Agrawal, A., Koul, P. A., ... Dandona, L. (2018). The burden of chronic respiratory diseases and their heterogeneity across the states of India: the Global Burden of Disease Study 1990–2016. *The Lancet Global Health*. [https://doi.org/10.1016/S2214-109X\(18\)30409-1](https://doi.org/10.1016/S2214-109X(18)30409-1)
- Santino, T. A., Chaves, G. S., Freitas, D. A., Fregonezi, G. A., & Mendonça, K. M. (2020). Breathing exercises for adults with asthma. *The Cochrane Database of Systematic Reviews*, 3(10), CD001277. <https://doi.org/10.1002/14651858.CD001277.pub4>
- Scheewe, S., Vogt, L., Minakawa, S., Welle, S., Stachow, R., & Banzer, W. (2008). Acupuntura para niños y adolescentes con asma bronquial: Estudio aleatorizado y controlado. *Revista Internacional de Acupuntura*, 2(4), 206–211. [https://doi.org/10.1016/S1887-8369\(08\)75609-6](https://doi.org/10.1016/S1887-8369(08)75609-6)
- Sidebotham, H. J., & Roche, W. R. (2003). Asthma deaths; persistent and preventable mortality. *Histopathology*. <https://doi.org/10.1046/j.1365-2559.2003.01664.x>
- Sodhi, C., Singh, S., & Bery, A. (2014). Assessment of the quality of life in patients with bronchial asthma, before and after yoga: A randomised trial. *Iranian Journal of Allergy, Asthma and Immunology*.
- Su, L., Meng, L., Chen, R., Wu, W., Peng, B., & Man, L. (2016). Acupoint application for asthma therapy in adults: A systematic review and meta-analysis of randomized controlled trials. *Forschende Komplementarmedizin*. <https://doi.org/10.1159/000443813>
- Urrutia, I., Aguirre, U., Pascual, S., Esteban, C., Ballaz, A., Arrizubieta, I., & Larrea, I. (2012). Impact of anxiety and depression on disease control and quality of life in asthma patients. *Journal of Asthma*, 49(2), 201–208. <https://doi.org/10.3109/02770903.2011.654022>
- Wilkinson, M., Hart, A., Milan, S. J., & Sugumar, K. (2014). Vitamins C and E for asthma and exercise-induced bronchoconstriction. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD010749.pub2>
- Yang, Z. Y., Zhong, H. Bin, Mao, C., Yuan, J. Q., Huang, Y. F., Wu, X. Y., ... Tang, J. L. (2016). Yoga for asthma. *Cochrane Database of Systematic Reviews*. <https://doi.org/10.1002/14651858.CD010346.pub2>
- Zhou, F., Wu, H. J., Zhai, J. P., Zhang, G. Y., Shao, Y., Tian, X., ... Liu, J. P. (2016). Who are the users of a traditional Chinese sanfu acupoint herbal patching therapy in China? A cross-sectional survey. *Medicine (United States)*, 95(49), e5414. <https://doi.org/10.1097/MD.00000000000005414>

