CHAPTER	COMPENIE	PAGE
NO.	CONTENTS	NO.
1.0	INTRODUCTION	1-12
1.1	DEFINITION OF COPD	1
1.2	BURDEN OF COPD	2
1.2.1	Global prevalence	2
1.2.2	Indian prevalence	2
1.2.3	Economic burden of COPD	2
1.2.4	COPD as social burden	3
1.3	DIAGNOSIS OF COPD	3
1.3.1	Clinical feature	3
1.3.2	Spiro metric diagnosis	3
1.3.3	Differential diagnosis	5
1.4	CLASSIFICATION OF COPD	5
1.4.1	Four stage classification	5
1.4.2	BODE Index	6
1.5	PATHOPHYSIOLOGY OF COPD	7
1.6	CONVENTIONAL MANAGEMENT OF COPD	9
1.7	YOGA AS A SOLUTION	9
1.8	YOGA FOR COPD	11
1.9	THE INTEGRATED APPROACH OF YOGA THERAPY	11
1.10	NEED OF THE STUDY	12
2.0	LITERARY RESEARCH	13-39
2.1	INTRODUCTION	14
2.2	AIM AND OBJECTIVES	15
2.3	MATERIALS AND METHODS	15
2.4	DEFFINITION OF KASAROGA	16

2.5	TYPES OF KASA	
2.6	PURVARUPA/PREMONITARY SIGNS OF KASA	
2.7	NIDANA/ETIOLOGY OF KAPHAJA KASA	
2.8	PURVARUPA/PREMONITARY SIGNS OF KAPHAJA KASA	
2.9	SAMPRAPTI OF KAPHAJA KASA	19
2.10	KAPHA VARDHAKA AHARA AND VIHARA	20
2.11	PATHOLOGICAL FACTOR INVOLED IN KAPHAJA KASA	
2.12	CHIKITSA/MANAGEMENT OF KAPHAJA KASA	22
2.12.1	Langhana	24
2.12.1.1	Diet for Kaphaja Kasa	24
2.12.1.2	Pathya and Apathya in Kaphaja Kasa	25
2.12.2	Vamana	26
2.12.3	Virechana	26
2.12.4	Anuvasana vasti	27
2.12.5	Shiro Virechana or Nasya	27
2.12.5.1	Dhumapana	27
2.12.5.2	Drugs used for Dhumapana	28
2.12.6	Churna used in Kaphaja Kasa	29
2.12.7	Kwatha used in Kaphaja Kasa	29
2.12.8	Leha used in Kaphaja Kasa	31
2.12.9	Ghrita used in Kaphaja Kasa	33
2.13	MANAGEMENT OF ASSOCIATED COMPLICATIONS	36
2.14	AYURVEDA SIDDHA YOGAFOR KAPHAJA KASA	37
2.15	DISCUSSION	37
2.16	CONCLUSION	39
3.0	LITERATURE SURVEY OF SCIENTIFIC INVESTIGATIONS	40-50

3.1	EPIDEMIOLOGY OF COPD	40	
3.2	CAUSE AND RISK FACTORS OF COPD	40	
3.3	OCCUPATION AND COPD	41	
3.4	COALMINING AND COPD	41	
3.5	LUNG FUNCTION AND COPD	42	
3.6	HEALTH STATUS IN COPD	43	
3.7	FUNTIONAL EXERCISE CAPACITY IN COPD	43	
3.8	DYSPNOEA AND FATIGUE IN COPD	43	
3.9	ANXIETY AND DEPRESSION IN COPD	44	
3.10	PSYCHOLOGICAL STRESS AND COPD	44	
3.11	SLEEP QUALITY AND COPD	45	
3.12	PAIN IN COPD	45	
3.13	PULMONARY REHABILITATION (PR) IN COPD	46	
3.14	COMPLIMENTARY ALTERNATIVE MEDICINE IN	46	
3.14	COPD	40	
3.15	YOGA STUDIES IN COPD	47	
3.15 4.0	YOGA STUDIES IN COPD AIM AND OBJECTIVES	47 51-52	
4.0	AIM AND OBJECTIVES	51-52	
4.0	AIM AND OBJECTIVES AIM OF THE RESEARCH	51-52 51	
4.0 4.1 4.2	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES	51-52 51 51	
4.0 4.1 4.2 4.3	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS	51-52 51 51 51	
4.0 4.1 4.2 4.3 4.4	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS	51-52 51 51 51 52	
4.0 4.1 4.2 4.3 4.4 4.5	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS  NULL HYPOTHESIS	51-52 51 51 51 52 52	
4.0 4.1 4.2 4.3 4.4 4.5 4.6	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS  NULL HYPOTHESIS  STUDY RATIONALE	51-52 51 51 51 52 52 52	
4.0 4.1 4.2 4.3 4.4 4.5 4.6 5.0	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS  NULL HYPOTHESIS  STUDY RATIONALE  METHODOLOGY	51-52 51 51 51 52 52 52 52 53-71	
4.0 4.1 4.2 4.3 4.4 4.5 4.6 5.0	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS  NULL HYPOTHESIS  STUDY RATIONALE  METHODOLOGY  PARTICIPANTS	51-52 51 51 51 52 52 52 52 53-71	
4.0 4.1 4.2 4.3 4.4 4.5 4.6 5.0 5.1	AIM AND OBJECTIVES  AIM OF THE RESEARCH  OBJECTIVES  RESEARCH QUESTIONS  RESEARCH HYPOTHESIS  NULL HYPOTHESIS  STUDY RATIONALE  METHODOLOGY  PARTICIPANTS  Sample Size	51-52 51 51 51 52 52 52 52 53-71 53 53	

5.1.5	Setting	54
5.1.6	Signed Informed Consent	54
5.1.7	<b>Ethical Considerations</b>	54
5.2	STUDY DESIGN	54
5.3	STUDY PROTOCOL	55
5.4	RANDOMIZATION	55
5.5	BLINDING AND MASKING	55
5.6	INTERVENTION	56
5.7	ASSESSMENTS	65
5.7.1	PRIMARY VARIABLES	65
5.7.1.1	Pulmonary Function Test (PFT)	65
5.7.1.2	COPD Assessment Test (CAT)	67
5.7.1.3	Peak Expiratory Flow Rate (PEFR)	67
5.7.1.4	Six Minute Walk Test (6MWT)	67
5.7.1.5	Dyspnoea	68
5.7.1.6	Fatigue	68
5.7.1.7	Pulse oximetry	69
5.7.2	SECONDARY VARIABLES	69
5.7.2.1	Beck Depression Inventory II (BDI-II)	69
5.7.2.2	State Trait Anxiety Inventory (STAI)	69
5.7.2.3	Pittsburgh Sleep Quality Index (PSQI)	70
5.7.2.4	Numerical Rating Scale (NRS)	71
5.7.2.5	Autonomic variables	71
6.0	DATA EXTRACTION AND ANALYSIS	72
6.1	DATA COLLECTION	72
6.2	DATA EXTRACTION	72
6.3	DATA ANALYSIS	72
7.0	RESULTS	73-98
7.1	STUDY PROFILE	73

7.2	DEMOGRAPHIC CHARACTERISTICS	75
7.3	PULMONARY ASSESSMENTS	77
7.3.1	Spirometric Variables	77
7.3.2	CAT	80
7.3.3	PEFR	81
7.4.	AUTONOMIC ASSESSMENTS	83
7.5.	PHYSICAL ASSESSMENTS	86
7.5.1	6MWT	86
7.5.2	Dyspnoea	87
7.5.3	Fatigue	88
7.5.4	Peripheral Capillary Oxygen Saturation	89
7.5.5	NRS	90
7.6	PSYCHOLOGICAL ASSESSMENTS	92
7.6.1	BDI	92
7.6.2	STAI	93
7.6.2	PSQI	96
8.0	DISCUSSIONS	99-107
8.1	SUMMARY	99
8.2	COMPARISION WITH OTHER STUDIES	99
8.2.1	Similarities	99
8.2.2	Differences	101
8.3	MECHANISM	102
9.0	APPRAISAL	108-111
9.1	CONCLUSION	108
9.2	UNIQUENESS OF THE STUDY	108
9.3	THE STRENGTHS OF THE STUDY	109
9.4	LIMITATIONS OF THE STUDY	109
9.5	IMPLICATIONS OF THE STUDY	110
9.6	SUGGESTIONS FOR FUTURE RESEARCH	111

	REFERENCES		112 -128
	APPENDIX		129 -149
I	INSTITUTIONAL ETHICS COMMITTEE A	INSTITUTIONAL ETHICS COMMITTEE APPROVAL	
II			131
Ш	SOCIO-DEMOGRAPHIC DATA FORM		133
IV	SIX MINUTE WALK TEST		134
V	MODIFIED BORG SCALE		135
VI	COPD ASSESSMENT TEST		136
VII	BECK DEPRESSION INVENTORY		137
VIII	STATE TRAIT ANXIETY INVENTORY		139
IX	DETAILS OF IAYT PRACTICES FOR COP	PD	140
X	PLATES		145
XI	XI PUBLICATIONS FROM THIS THESIS		149
	LIST OF TABLES		
Table No	Name	Chapter No	Page No
1	Four-stage classification of COPD	1	5
2	Description of pathological factors	2	21
3	List of pathya and apathya	2	25
4	List of drugs used in kaphaja kasa	2	28
5	List of churnas used in kaphaja kasa	2	29
6	Yoga studies in COPD	3	49
7	IAYT for COPD used in the study	5	57
8	Demographic characteristics of the population	7	76
9	Comparison of pulmonary variables in yoga and control	7	79
10	Comparison of health status and PEFR in yoga and control	7	82
11	Comparison of autonomic variables in yoga and	7	85

	control		
12	Comparison of physical variables in yoga and control	7	91
13	Comparison of psychological variables in yoga and control	7	95
14	Comparison of sleep quality in yoga and control	7	98
	LIST OF FIGURES		
Figure No	Name	Chapter No	Page No
1	Flow chart of pathogenesis of COPD	1	8
2	Role of Yoga in the amelioration of COPD	1	10
3	Flow of participants in the study	7	74
4	Comparison of absolute values of PFT	7	78
5	Comparison of percentage predicted values of PFT	7	78
6	Comparison of CAT scores between the groups	7	80
7	Comparison of PEFR scores between the groups	7	81
8	Comparison SBP between the groups	7	83
9	Comparison DBP between the groups	7	83
10	Comparison of RR between the groups	7	84
11	Comparison of HR between the groups	7	84
12	Comparison of 6MWT between the groups	7	86
13	Comparison of dyspnoea score between the groups	7	87
14	Comparison of fatigue score between the groups	7	88
15	Comparison of SPO2 between the groups	7	89
16	Comparison of pain score between the groups	7	90
17	Comparison of depression score between the groups	7	92
18	Comparison of STAI-S between the groups	7	93
19	Comparison of STAI-S between the groups	7	94
20	Comparison of STAI-Total between the groups	7	94
21	Comparison of global PSQI	7	97
22	Comparison of components of sleep score	7	97