

Dr. V. DURAISAMI

Assistant Professor,

Department of Yoga,

Tamilnadu Physical Education and Sports University,

Chennai – 127.

Tamilnadu

India.

CERTIFICATE BY THE SUPERVISOR

This is to certify that the Dissertation entitled “**EFFECT OF YOGIC PRACTICES WITH AND WITHOUT DIET MODIFICATIONS ON SELECTED RISK FACTORS AMONG MEN WITH ANDROPAUSE**” is a bonafide record of research work done by **S.ANANTHAN PILLAI**, Ph.D. Research Scholar, Department of Yoga, Tamil Nadu Physical Education and Sports University, Chennai, 2017-2020. Under my guidance for the award of Degree of Doctor of Philosophy and that, this Dissertation has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or any other similar title to the candidate.

This is also to certify that the Dissertation represents the independent work of the scholar

Date :

Dr. V. DURAISAMI

Place :

S.ANANTHAN PILLAI ,03

Ph.D..., Scholar (Part Time)

(Reg. No: **A1701Y0PM124**).

Department of Yoga,

Tamil Nadu Physical Education and Sports University

Chennai – 127.

DECLARATION BY THE SCHOLAR

I **S.ANANTHAN PILLAI**, Research Scholar, Department of Yoga, Tamil Nadu Physical Education and sports university 2017-2020 batch, hereby declare that the Dissertation entitled “**EFFECT OF YOGIC PRACTICES WITH AND WITHOUT DIET MODIFICATIONS ON SELECTED RISK FACTORS AMONG MEN WITH ANDROPAUSE**” submitted to Tamil Nadu Physical Education and Sports University for the award of the degree of Doctor of Philosophy in Yoga is my original work and it has not previously formed the basis for the award of any degree, diploma, associate ship, fellowship or any other similar titles to any candidate of any University.

Date :

(S.ANANTHAN PILLAI)

Station: Chennai

Research scholar

ACKNOWLEDGEMENT

First and foremost I would like to extend my sincere gratitude to my research guide **Dr. V. DURAISAMI**, Assistant Professor, Department of Yoga, Tamil Nadu Physical Education and Sports University, Chennai for his expert and efficient guidance and continuous encouragement for the successful completion of this Dissertation .

The investigator expresses a deep sense of gratitude to **Prof.Dr. SHEILA STEPHEN**, Vice Chancellor, Tamil Nadu Physical Education and Sports University, Chennai for his expert guidance, and tamily suggestions of my studies all of which led the successful completion of this study.

The investigator expresses a deep sense of gratitude to **Dr.V. GOPINATH**, Registrar, Tamil Nadu Physical Education and Sports University, Chennai for his expert guidance, and tamily suggestions of my studies all of which led the successful completion of this study.

The investigator highly thanks to **Dr. R. RAMAKRISHNAN**, Controller of Examinations, i/c, Tamil Nadu Physical Education and Sports University, Chennai for his valuable guidance and suggestions.

The investigator acknowledges with deep sense of gratitude to **Dr. S. SELVA LAKSHMI**, Assistant Professor and Head i/c, of the Department in Yoga, Tamil Nadu Physical Education and Sport University, Chennai for his direct and indirect help for the successful completion of this Dissertation.

The investigator expresses a deep sense of gratitude to **Dr. J. ANITHA**, Assistant Professor, Tamil Nadu Physical Education and Sports University, Chennai.

The investigator expresses a deep sense of gratitude to **Dr. N. ASHOKKUMAR**, Assistant Librarian, Tamil Nadu Physical Education and Sports University, Chennai.

The investigator highly thanks to **Dr. Uma Maheswari & Mrs. Karthika**, Guest Lecturers, Department of Yoga, Tamil Nadu Physical Education and Sports University, Chennai for his valuable guidance and suggestions.

The investigator highly thanks to **other staff members** of Tamil Nadu Physical Education and Sports University, Chennai for her valuable guidance and suggestions.

I express my humble gratitude and heartfelt thanks to my grandparents **Mr / Mrs Rangaih Naidu, Mr/Mrs Ananthiah Naidu**, my parents **S.R. Muthukrishnan & M. Kanagavalli**, brothers **M. Vijaya Kumar & M. Udhaya Kumar** and sisters **M. Suryakumari & M. Shakila**, for helping me to study and provide an support and timely help throughout the study and life.

I express my humble gratitude and heartfelt thanks to **Mr. A. Seetharaman, Mrs. S. Ambujam & Mr. A. Balaraman, Mrs. B. Saroja, Mr. Virudhagiri & Mrs. Suguna** for helping me to study and provide an support and timely help throughout the study and life.

I express my humble gratitude and heartfelt thanks to **Mr. S.M. Deekaram & Mrs. Padmini** for helping me to start my Yoga journey.

I express my humble gratitude and heartfelt thanks to **Mrs. Hema Umopathy, Mrs. Amudha Ramesh, Mrs. Kayalvizhi Sakthivel, Mrs. Jaganya. E** for helping me to complete my research.

I express my humble gratitude and heartfelt thanks to **Mr. P. Ganesan, Mrs. G. Malliga&Mr.G.Suryakumar**for helping me to complete my research.

I express my humble gratitude and heartfelt thanks to my beloved shishyaas**Selvi. Ayisha,Mr.J. Sugumar, Mr. S. Kotteswaran,Mr.S.Sathiyantham,Mr&MRS Deepak Ranganath, Mrs.AsmithaSampath,Shri Dhanvanthri Yoga Shishyas,**. for helping me throughout my research.

The investigator expresses a deep sense of gratitude **Dr.T.EKAMBARAM**, Director, Mahatma Gandhi Institute of Yoga and Research Centre, Chennai -116.

Iexpress my humble gratitude and heartfelt thanks to my beloved**Mr.S.Gunasekar&Selvi. M. Shanthi** for helping me complete my research.

I express my humble gratitude and heartfelt thanks to my beloved **Mr. Prithviraj&Mr. Vengatesan** for helping me complete my research.

LIST OF TABLES

Table No.	Title	Page No
1	CRITERIAN MEASURES	60
2	INTRA CLASS CORRELATION COEFFICIENT OF (TEST – RETEST SCORES)	62
3	TRAINING PROGRAMME FOR EXPERIMENTAL GROUPS	63
4	(TRAINING SCHEDULE) - EXPERIMENTAL GROUP I, II FOR I TO VI WEEKS	64
5	TRAINING SCHEDULE OF EXPERIMENTAL GROUP I, II for VII TO XII WEEK	65
6	TRAINING SCHEDULE OF EXPERIMENTAL GROUP I, II for XIII TO XVI WEEK	66
7	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON FLEXIBILITY	98
8	SCHEFFE’S (POST-HOC) TEST FOR FLEXIBILITY	100
9	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON SYSTOLIC BLOOD PRESSURE	102
10	SCHEFFE’S (POST-HOC) TEST FOR SYSTOLIC BLOOD PRESSURE	104
11	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON BODY MASS INDEX	106
12	SCHEFFE’S (POST-HOC) TEST FOR BODY MASS INDEX	108
13	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON RESPIRATORY RATE	110
14	SCHEFFE’S (POST-HOC) TEST FOR RESPIRATORY RATE	112

Table No.	Title	Page No
15	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON STRESS	114
16	SCHEFFE'S (POST-HOC) TEST FOR STRESS	115
17	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON SELF – CONFIDENCE	118
18	SCHEFFE'S (POST-HOC) TEST FOR SELF - CONFIDENCE	120
19	COMPUTATION OF ANALYSIS OF COVARIANCE (ANCOVA) OF BOTH EXPERIMENTAL GROUP & CONTROL GROUP ON ANXIETY	122
20	SCHEFFE'S (POST-HOC) TEST FOR ANXIETY	123

LIST OF FIGURES

Figure No.	Title	Page No
1	MORPHOLOGY OF SPERM PRODUCTION	3
2	HOW DOES THE MALE REPRODUCTIVE SYSTEM WORK	4
3	NORMAL FUNCTION OF MALE REPRODUCTIVE SYSTEM	5
4	CAUSES OF MALE INFERTILITY	5
5	WHAT ARE CHROMOSOMES INVOLVES	9
6	TESTOSTERONE PRODUCTION CONTROL MECHANISM	11
7	STANDING ALTERNATE FRONT ARM RAISE	69
8	STANDING ALTERNATE SIDE ARM RAISE	69
9	STANDING OVERHEAD FINGER LOCK	70
10	STANDING SIDE RAISE BOTH ARMS	71
11	STAND & SQUAT	71
12	TADASANA	72
13	UTTANASANA	73
14	VIRABHADR – ASANA	73
15	PARSVA UTTANASANA	74
16	TRIKONASANA PARIVRTTI	75
17	VAJRASANA VINYASA	76
18	CAKRAVAKASANA	78
19	SHAVASANA - RESTING POSTURE	78
20	JATARAPARIVRTTI	79
21	APANASANA	80
22	EKAPADA URDHVA PRASRTAPADASANA	80
23	DVIPADA PITHAM	81

Figure No.	Title	Page No
24	URDHVA PRASRTAPADASANA	82
25	BHUJANGASANA	82
26	LYING ABDOMINAL BREATHING	83
27	SEATED ABDOMINAL BREATHING	84
28	SITALI	85
29	SITKARI	86
30	ANULOMA PRANAYAMA	87
31	NADISUDDHI PRANAYAMA	88
32	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF FLEXIBILITY	101
33	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF SYSTOLIC BLOOD PRESSURE	105
34	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF BODY MASS INDEX	109
35	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND	113

Figure No.	Title	Page No
	CONTROL GROUP (NO TRAINING) OF RESPIRATORY RATE	
36	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF STRESS	117
37	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF SELF – CONFIDENCE	121
38	BAR DIAGRAM SHOWING THE MEAN DIFFERENCE AMONG EXPERIMENTAL GROUP I (YOGA PRACTICES WITH DIET), EXPERIMENTAL GROUP II (YOGA PRACTICES WITHOUT DIET) AND CONTROL GROUP (NO TRAINING) OF ANXIETY	125