

Appendix 1

Informed Consent Form



Informed Consent Form

Title of the project: Neurocognitive and Psychophysiological Changes Associated with Kumbhaka – Yogic Breath Holding

Name of Principle Investigator: Dr. N. K. Manjunath Sharma

Name of Co-investigators: Dr. Apar Avinash Saoji/Dr. Raghavendra Bhat

INFORMED CONSENT FORM FOR MALE AND FEMALE SUBJECTS WHO WISH TO PARTICIPATE IN THE RESEARCH STUDY ON YOGIC BREATH HOLDING

This Informed Consent Form has two parts:

- Information Sheet (to share information about the research with you)
- Certificate of Consent (for signatures if you agree to take part)

You will be given a copy of the full Informed Consent Form

PART I: Information Sheet

Introduction

I am Dr. N. K. Manjunath Sharma, working as Jt. Director of Research at S-VYASA Yoga University. Breath retention, also called Kumbhaka is an essential part of tradition of Yoga. We wish to understand the changes happening in our body, with special reference to brain and cardiovascular changes, when we perform Kumbhaka. I wish to give you information regarding this study and invite you to participate in the same, to help us understand the effects of Kumbhaka. You may talk to anyone you feel before giving your consent to participate in the study. There may be some words in the description that you may not understand. Please ask me as we go through the information and I shall clarify the doubts. In case you have any questions later, you could get them cleared anytime by asking me or Dr. Apar Saoji.

Purpose of the research

Kumbhaka or breath retention an essential part of Yogic tradition. The practice of Pranayama (regulation of breathing) is considered synonymous to Kumbhaka by ancient Yogic texts. We have understood health benefits of various Yoga practices, but lack understanding about what happens to human body functions when we perform practice of Kumbhaka. Brain and heart are two of the most important organs of the body, and therefore we are trying to understand what happens to the function of these two organs while and following the practice of Kumbhaka.

Type of Research Intervention

The intervention will include practice of modified breathing inclusive of 4 phases- *Puraka* (inhalation): *Antarkumbhaka* (internal retention): *Recaka* (exhalation): *Bahyakumbhaka* (external retention) performed at 1:1:1:1 (6:6:6:6 seconds) for 20 minutes. We shall train you in performing the same through a training of 20 minutes/day, 6 days a week for 8 weeks before we perform the assessments. You will have to attend all the training sessions, so that you are comfortable in performing the practice of Kumbhaka.

Participant selection

We are inviting male and female healthy adults to participate in this study, who have prior experience of Yoga but no experience of practice of Kumbhaka.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. You may change your mind later and stop participating even if you agreed earlier.

Procedures and Protocol

After completion of the training for 8 weeks, we would be assessing you in the laboratory. Various assessments that we will be performing are described below-

To assess if the changes in the body functions are due to Kumbhaka, you will require to be assessed in 2 sessions, one session would be with practice of Kumbhaka as described earlier, for 20 minutes. Another session would be of normal breathing, so that we are able to compare the changes. You will be assessed in the laboratory for 4 times, each lasting for almost 1 hour, including the time for preparation and practice of the Kumbhaka or normal breathing. During the recordings in the laboratory, you would be seated comfortably, keeping your spine erect.

We will be checking the blood pressure using a finger cuff of non-invasive blood pressure monitor and way brain interacts with the heart by using Heart Rate variability. We will also be looking how effective is the practice of Kumbhaka in enhancing the brain activity through a computer based task called stop signal task (SST). The details of the procedures of the assessments are described in detail as below-

- **Functional Near Infrared Spectroscopy (fNIRS):** The areas of the brain activated are assessed by passing Infrared rays and receiving the reflections through detectors. The source of IR light and detectors are placed on the scalp using a head cap. The signals received through the detectors are analysed through a computer to understand what areas of brain are activated.
- **Stop Signal Task (SST):** This is a computer based task, where you will be presented to types of symbols as stimuli, for which you have to respond using computer keys. You will be asked to start and stop the task using a beep. We will be assessing this for accuracy of performance.

We do not anticipate any untoward effect of any of the assessments. You will not feel any sensation during the recordings.

Duration

The study involves your participation in the training, which will be for 8 weeks (2 months), 6 days a week, 20 minutes every day. The recordings will be for 4 days, 1 hour on each day.

Side Effects

As already mentioned, we do not anticipate any untoward effects due to practice of Kumbhaka or due to the assessment methods. You may feel uncomfortable due to placing of electrodes, or the head probes or head cap while the recordings are conducted. We will stop the recordings in case you feel discomfort.

Risks

We do not anticipate any risk due to either intervention or the assessment methods. While the possibility is very low, you may have allergy to the electrode. In any such case, you can report us so that we will provide care at our University Hospital.

Benefits

You may not be benefitted directly or may have improved lung capacity due to the practice, but the findings from the study will help us to establish the way in which Kumbhaka alters functioning of the body, which could possibly be used as part of Yoga therapy.

Reimbursements

You will not be provided any compensation for participating in this study in the form of money or any gifts.

Confidentiality

Your identity will not be disclosed to anyone. The information that we collect from this research will be kept confidential. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone.

Sharing the Results

The information that we collect during will be shared with you and reported to relevant research journals or conference. Your name and identity will be kept confidential during any such reporting.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

Who to Contact

If you have any questions you may ask them now or later, even after the study has started. If you wish to ask questions later, you may contact any of the following:

- Dr. N. K. Manjunath Sharma – Phone: 080 2263 9983, nkmsharma@svyasa.org,
- Dr. Apar Saoji – Phone: 8970345905, aparsaoji@svyasa.org
- Dr. Raghavendra Bhat: Phone:8147226351, raghavendrabort@svyasa.org

This proposal has been reviewed and approved by Institutional Ethics Committee (IEC), which is a committee whose task it is to make sure that research participants are protected from harm. If you wish to find about more about the IEC, contact Mr. Basavaraj, coordinator, IEC, Phone: 8050591294.

You can ask me any more questions about any part of the research study, if you wish to. Do you have any questions?

PART II: Certificate of Consent

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research.

Print Name of Participant _____

Signature of Participant _____

Date _____

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands the project protocol.

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this ICF has been provided to the participant.

Name of Researcher/person taking the consent: Dr. N. K. Manjunath Sharma/ Dr. Apar Avinash Saoji/Dr. Raghavendra Bhat

Signature of Researcher /person taking the consent _____

Date _____

Appendix 2

**Clearance letter
from Institutional
Ethics Committee**



स्वामी विवेकानन्द योग-अनुसन्धान-संस्थानम्
Swami Vivekananda Yoga Anusandhāna Samsthānam

(Declared as Deemed-to-be University under Section 3 of the UGC Act, 1956)

Eknath Bhavan, # 19, Gavipuram Circle, Kempegowda Nagar, Bangalore - 560 019

Ph: 080 - 2661 2669, Telefax: 080 - 2660 8645

E-mail: svyasa@svyasa.edu.in Website: www.svyasa.edu.in

RES/IEC-SVYASA/44/2015

July 21, 2015

To,
Dr. Manjunath N K
Joint Director R & D
S-VYASA University,
Bangalore.

Reference:

"Neurocognitive and Psychophysiological Changes Associated With
Kumbhaka – Yogic Breath Holding: An Exploratory Study". -
Committee Approval of the above mentioned study.

Dear Dr. Manjunath N K,

We have received from you the following study related documents vide
your letter dated December 20, 2014

1	Project Proposal
2	Informed consent form

Ethics committee meeting was held on January 25, 2015 at 10:00 AM
to 1:00 PM at Eknath Bhavan, Bangalore. Above documents were
examined and discussed in the meeting. After due consideration, the
committee has decided to approve conducting the aforementioned
study.

APPROVED
Subramanyam
INSTITUTIONAL ETHICS COMMITTEE
SVYASA, BANGALORE



स्वामी विवेकानन्द योग-अनुसन्धान-संस्थानम्
Swami Vivekananda Yoga Anusandhāna Samsthānam

(Declared as Deemed-to-be University under Section 3 of the UGC Act, 1956)

Ekmath Bhavan, # 19, Gavipuram Circle, Kempegowda Nagar, Bangalore - 560 019

Ph: 080 - 2661 2669, Telefax: 080 - 2660 8645

E-mail: svyasa@svyasa.edu.in Website: www.svyasa.edu.in

This is to confirm that neither Dr. Manjunath N K nor any staff participating in this study were involved in the voting procedures and decision making.

The Institutional Review Board / Independent Ethics Committee (IEC) are expected to be informed about the progress of the study / any changes in the protocol and patient information / informed consent. The investigators are also expected to submit a copy of the final report to IEC for records.

This approval is valid up to the completion of the study at the site.

Please submit to the IEC, the status report of the study as per the SOPs.

The IEC is organized & operates according to the requirements of ICH-GCP, Indian Council of Medical Research Guidelines & Schedule Y.

Best Wishes,

Subramanya P.

Dr. Subramanya P,
Member Secretary,
Institutional Ethics Committee,
S-VYASA, Bangalore.

Appendix 3

**Data of
Cardiovascular and
Autonomic Variables**

Table 12: Heart rate recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	68.72	65.97	78.45	77.13
2	SJY	57.94	57.55	58.38	55.16
3	SVT	83.25	80.42	73.61	69.03
4	SRD	65.72	62.81	73.52	72.35
5	RAV	70.72	68.16	75.05	69.5
6	AMS	71.41	71.03	73.32	65.75
7	LKM	88.78	80.48	80.91	73.76
8	SBS	76.16	69.2	77.3	74.42
9	KST	74.92	76.22	72.77	70.63
10	YSD	60.95	63.86	65.53	66.22
11	BSW	57.56	56.73	68.05	71.79
12	IBO	83.57	73.5	81.83	72.64
13	SLY	81.5	79.79	74.65	69.89
14	VSL	77.28	77.6	82.44	80.38
15	PRB	63.62	60.29	64.01	62.38
16	RJN	83.6	82.52	66.64	63.54
17	STS	78.43	78.91	72.55	73.38
18	NDN	97.77	93.71	92.57	92.1
19	ANJ	83.91	76.23	70.6	87.31

20	SWM	70.6	66.07	68.59	67.72
21	ASH	71.48	65.48	64.81	62.69
22	APR	82.91	78.02	82.37	77.43
23	GYT	64.7	63.45	65.71	66.21
24	CHR	92.54	79.68	74.52	70.35
25	MDN	81.96	78.8	68.86	61.35
26	ASY	95.96	91.28	88.93	82.67
27	NST	85.01	80.8	74.89	70.9
28	NBT	76.7	74.49	60.32	58.88
29	MNS	86.38	81.59	87.6	89.09
30	KRN	79.57	78.12	87.220	90.64
31	PRM	98.98	90.2	84.68	75.51
32	SRG	81.3	83.88	84.68	85.4
33	PNM	91.95	87.54	98.27	85.62
34	SMB	69.46	65.08	72.36	69.16
35	MNK	85.47	77.07	97.35	92.08
36	ARD	75.26	69.39	79.72	76.69
37	MDU	85.64	81.33	84.69	76.26
38	RNI	73.5	71.04	77.6	76.65
39	BHU	87.76	83.44	84.73	80.92
Mean		78.54	74.92	76.67	73.94
St. deviation		10.54	9.25	9.58	9.29

Table 13: SDNN recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	112	124.1	72.5	89.92
2	SJY	87.06	94.03	88.39	78.7
3	SVT	52.84	40.89	60.27	49.37
4	SRD	75.42	67.02	85.36	88.09
5	RAV	42.46	40.4	48.15	45.94
6	AMS	55.67	72.94	92.46	79.36
7	LKM	48.01	59.86	55.07	75.56
8	SBS	38.17	37.69	30.47	35.32
9	KST	52.96	71.46	33	31.1
10	YSD	50.64	46.13	56.66	98.56
11	BSW	110.5	161.1	114.4	100.9
12	IBO	40.12	69.22	43.32	69.34
13	SLY	39.1	91.99	102.8	101.8
14	VSL	53.43	68.58	62.54	57.62
15	PRB	52.91	81.13	67.16	88.82
16	RJN	45.58	42.91	63.92	57.65
17	STS	50.83	68.48	50.04	63.73
18	NDN	51.3	88.37	55.65	73.75
19	ANJ	76.91	84.88	84.33	48.39

20	SWM	84.33	104.3	58.29	73.26
21	ASH	94.58	74.12	62.03	73.58
22	APR	49.47	61.11	58.84	61.75
23	GYT	68.03	83.8	81.77	91.64
24	CHR	84.74	117.2	123.8	152.1
25	MDN	79.73	81.45	65.71	61.54
26	ASY	30.35	42.03	25.36	27.2
27	NST	157.4	157	161.8	150.4
28	NBT	60.55	41.33	79.76	64.91
29	MNS	79.18	69.13	50.83	43.78
30	KRN	59.88	87.28	44.91	79.6
31	PRM	33.51	56.11	54.69	75.4
32	SRG	48.07	51.4	45.29	45.69
33	PNM	37.57	41.18	31.86	68.25
34	SMB	90.08	82.47	64.36	60.87
35	MNK	67.64	48.05	43.08	32.17
36	ARD	71.02	73.91	41.87	50.24
37	MDU	37.86	68.8	56.72	48.66
38	RNI	48.3	65.82	40.35	47.81
39	BHU	96.04	97.81	103.5	119.9
Mean		64.47	74.76	65.67	70.84
St. deviation		26.27	29.20	28.02	28.57

Table 14: RMSSD recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	88.81	102.4	40.23	48.38
2	SJY	82.95	91.39	87.95	84.63
3	SVT	32.96	26.18	46.69	41.63
4	SRD	69.99	64.12	69.84	84.26
5	RAV	32.22	32	35.01	45.86
6	AMS	37.19	45.46	36.84	52.14
7	LKM	24.57	33.52	36.12	51.42
8	SBS	28.79	31.27	24.57	32.46
9	KST	36.06	37.29	26.59	23.69
10	YSD	47.74	32.71	43.89	45.67
11	BSW	123.2	137.9	94.45	73.67
12	IBO	33.96	52.56	37.34	63.12
13	SLY	29.11	52.83	89.82	104.5
14	VSL	30.62	40.33	34.92	34.85
15	PRB	38.22	45.86	41.74	52.02
16	RJN	28.2	27.93	49.89	51.14
17	STS	31.82	36.13	48.23	59.29
18	NDN	27.44	62.1	33.95	50.3
19	ANJ	45.32	60.92	67.1	31.89

20	SWM	67.1	80.84	65.94	76.57
21	ASH	63.41	72.27	50.55	55.69
22	APR	30.55	38.11	38.65	39.93
23	GYT	75.59	85.69	97.89	100.4
24	CHR	42.94	69.27	76.32	116
25	MDN	46.54	51	54.15	63.01
26	ASY	15.95	28.43	22.95	20.98
27	NST	96.1	81.96	113.9	109.5
28	NBT	49.22	30.1	61.92	61.44
29	MNS	46.68	39.11	33.56	28.65
30	KRN	47.04	49.3	30.25	35.93
31	PRM	19.3	29.84	33.33	43.89
32	SRG	46.05	33.25	39.83	38.65
33	PNM	21.94	24.4	19.61	36.12
34	SMB	63.76	78.96	62.99	59.47
35	MNK	34.87	33.59	21	19.3
36	ARD	38.02	44.33	31.96	60.59
37	MDU	33.63	41.83	35.32	48.69
38	RNI	37.94	43.12	32.51	35.5
39	BHU	47.27	74.8	52.26	56.22
Mean		45.98	52.39	49.23	54.81
St. deviation		22.90	24.96	23.22	23.93

Table 15: pNN50 recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	46.75	55.63	19.12	23.5
2	SJY	45.96	46.1	52.78	60.54
3	SVT	11.17	6.045	26.85	25.95
4	SRD	43.52	47.42	44.48	55.06
5	RAV	10.26	11.83	12.37	27.03
6	AMS	16.95	24.63	16.11	35.08
7	LKM	4.773	10.28	16.67	27.47
8	SBS	5.82	10.47	2.083	11.89
9	KST	15.7	17.07	5.687	2.564
10	YSD	29.47	11.32	16.56	22.77
11	BSW	71.73	62.55	59.39	46.88
12	IBO	15.46	36.09	17.51	45.68
13	SLY	7.519	25.51	39.83	44.61
14	VSL	9.094	18.28	15.48	15.08
15	PRB	17.25	27.61	19.94	29.64
16	RJN	7.005	4.902	37.69	40.63
17	STS	11.05	14.87	32.78	47.24
18	NDN	6.405	19	10.72	21.6
19	ANJ	15.25	24.27	38.26	6.697

20	SWM	38.26	47.84	53.24	54.49
21	ASH	46.44	54.18	29.91	40.32
22	APR	9.976	18.91	17.44	23.76
23	GYT	51.56	51.92	60.8	64.26
24	CHR	19.21	35.4	39.5	52.21
25	MDN	22.52	30.57	43.49	50.66
26	ASY	1.05	3.54	3.846	2.433
27	NST	41.13	43.26	55.77	50.88
28	NBT	15.59	9.164	43.29	51.38
29	MNS	12.24	14.68	4.839	3.846
30	KRN	25.38	29.43	10.16	14.16
31	PRM	3.158	8.52	9.524	21.77
32	SRG	28.47	13.49	19	19.81
33	PNM	2.412	3.448	0.617	17.97
34	SMB	43.7	47.04	44.97	42.4
35	MNK	10.9	12.99	3.527	1.092
36	ARD	11.59	20.18	9.669	18.16
37	MDU	12.47	19.9	15.99	35.71
38	RNI	20	21.43	9.091	12.63
39	BHU	21.86	14.67	23.91	28.24
Mean		21.26	24.99	25.20	30.67
St. deviation		16.65	16.49	17.78	17.75

Table 16: LFn_u recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	51.45	67.8	78.17	83.74
2	SJY	38.65	58.88	57.18	17.89
3	SVT	70.29	84.41	53.81	64.21
4	SRD	31.96	46.72	58.84	40.27
5	RAV	65.03	50.57	45.55	60.17
6	AMS	67.98	74.69	48.83	70.93
7	LKM	74.23	78.31	76.41	70.56
8	SBS	51.83	47.28	50.37	39.06
9	KST	71.9	92.44	50.6	54.59
10	YSD	48.07	69.21	61.17	81.52
11	BSW	41.35	68.12	48.84	60.93
12	IBO	27.15	57.1	20.9	47.02
13	SLY	39.99	90.96	62.76	28.48
14	VSL	75.56	77	65.99	69.44
15	PRB	60.48	80.39	81.55	75.07
16	RJN	55.99	45.64	43.13	41.17
17	STS	57.27	81.47	33.17	38.22
18	NDN	70.08	66.43	55.28	57.39
19	ANJ	74.57	67.04	59.97	55.35

20	SWM	59.97	55.87	40.75	35.42
21	ASH	41.94	33.97	49.9	41.34
22	APR	60.98	66.47	53.99	61.08
23	GYT	48.11	42.73	20.15	34.05
24	CHR	88	87.83	88.95	75.44
25	MDN	75.41	76.9	29.53	33.89
26	ASY	88.23	58.8	52.2	74.87
27	NST	86.11	90.33	85.2	80.99
28	NBT	45.82	57.9	50.01	26.82
29	MNS	83.89	86.58	75.26	74.71
30	KRN	46.88	77.36	56.19	80.79
31	PRM	81.33	83.58	84.1	82.45
32	SRG	38.88	66.39	28.04	39.65
33	PNM	66.3	65.03	75.01	45.49
34	SMB	46.62	34.04	24.8	32.14
35	MNK	71.59	58.5	84.58	80.72
36	ARD	93.51	83.94	70.67	39.46
37	MDU	57.82	54.61	68.69	18.85
38	RNI	59.34	67.68	58.68	58.7
39	BHU	92.46	79.97	88.47	94.07
Mean		61.72	67.51	57.38	55.56
St. deviation		17.55	15.77	18.96	20.55

Table 17: HFnu recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	47.68	32.36	23.41	16.72
2	SJY	61.23	41.04	43.48	78.7
3	SVT	29.53	15.57	44.74	35.14
4	SRD	68.33	53.23	41.33	59.3
5	RAV	35.75	47.95	53.89	40.25
6	AMS	31.67	24.89	51.36	28.9
7	LKM	27.95	23.28	24.8	29.22
8	SBS	48.38	52.66	48.9	60.56
9	KST	31.83	7.689	45.25	47.09
10	YSD	52.16	31.27	39.22	19.72
11	BSW	57.68	30.21	50.88	39.59
12	IBO	71.86	42.54	78.23	53.14
13	SLY	59.72	9.093	36.22	67.84
14	VSL	27.51	23.2	34.95	31.24
15	PRB	39.74	30.88	20.64	26.08
16	RJN	44.44	55.61	58.17	59.23
17	STS	42.08	22.02	66.24	59.61
18	NDN	30.65	33.23	45.19	43.2
19	ANJ	25.84	32.69	40.42	43.75

20	SWM	40.42	43.82	58.73	62.17
21	ASH	59.05	65.21	49.64	57.57
22	APR	38.88	33.46	45.5	38.81
23	GYT	48.51	54.9	78.4	64.36
24	CHR	11.86	12.39	10.96	23.8
25	MDN	25.06	23	70.2	65.65
26	ASY	11.68	37.58	46.03	24.5
27	NST	13.58	9.759	14.43	18.58
28	NBT	54.03	43.28	50.04	71.3
29	MNS	15.95	13.21	24.26	24.54
30	KRN	52.19	22.26	43.99	20.04
31	PRM	19.05	16.73	15.88	17.86
32	SRG	61.98	34.11	71.16	60.82
33	PNM	35.26	35.54	26.29	53.49
34	SMB	53.13	64.05	75.19	67.49
35	MNK	28.43	42.21	15.59	19.26
36	ARD	8.881	16.46	28.8	49.36
37	MDU	42.93	44.97	31.68	78.61
38	RNI	40.24	32.01	40.87	41.03
39	BHU	7.727	18.9	11.7	6.118
Mean		38.53	32.65	42.48	43.71
St. deviation		17.16	15.27	18.57	19.65

Table 18: LF:HF ratio recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	1.079	2.095	3.339	5.008
2	SJY	0.631	1.435	1.315	0.227
3	SVT	2.380	5.421	1.203	1.827
4	SRD	0.468	0.878	1.424	0.679
5	RAV	1.819	1.055	0.845	1.495
6	AMS	2.147	3.001	0.951	2.454
7	LKM	2.656	3.364	3.081	2.415
8	SBS	1.071	0.898	1.030	0.645
9	KST	2.259	12.022	1.118	1.159
10	YSD	0.922	2.213	1.560	4.134
11	BSW	0.717	2.255	0.960	1.539
12	IBO	0.378	1.342	0.267	0.885
13	SLY	0.670	10.003	1.733	0.420
14	VSL	2.747	3.319	1.888	2.223
15	PRB	1.522	2.603	3.951	2.878
16	RJN	1.260	0.821	0.741	0.695
17	STS	1.361	3.700	0.501	0.641
18	NDN	2.286	1.999	1.223	1.328

19	ANJ	2.886	2.051	1.484	1.265
20	SWM	1.484	1.275	0.694	0.570
21	ASH	0.710	0.521	1.005	0.718
22	APR	1.568	1.987	1.187	1.574
23	GYT	0.992	0.778	0.257	0.529
24	CHR	7.420	7.089	8.116	3.170
25	MDN	3.009	3.343	0.421	0.516
26	ASY	7.554	1.565	1.134	3.056
27	NST	6.341	9.256	5.904	4.359
28	NBT	0.848	1.338	0.999	0.376
29	MNS	5.260	6.554	3.102	3.044
30	KRN	0.898	3.475	1.277	4.031
31	PRM	4.269	4.996	5.296	4.616
32	SRG	0.627	1.946	0.394	0.652
33	PNM	1.880	1.830	2.853	0.850
34	SMB	0.877	0.531	0.330	0.476
35	MNK	2.518	1.386	5.425	4.191
36	ARD	10.529	5.100	2.454	0.799
37	MDU	1.347	1.214	2.168	0.240
38	RNI	1.475	2.114	1.436	1.431
39	BHU	11.966	4.231	7.562	15.376
Mean		2.58	3.10	2.07	2.11
St. deviation		2.72	2.70	1.96	2.59

Table 19: Respiratory Rate recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	15.4	14.9	17.5	18.2
2	SJY	16.3	15.2	16.1	15.4
3	SVT	17.4	16.9	13	14.2
4	SRD	14.3	14.7	16.3	15.3
5	RAV	12.1	13.2	13.3	16.2
6	AMS	18.9	20.7	20.8	14.5
7	LKM	19.9	18.6	21.1	20.9
8	SBS	17.4	18	19	19.7
9	KST	14.2	14.2	21.2	17.5
10	YSD	14.8	13.2	14.2	12.9
11	BSW	15.6	19	16.4	17.3
12	IBO	14.2	12	13.9	12.6
13	SLY	12.4	11	11.7	10.9
14	VSL	11.9	10.3	14.3	12.4
15	PRB	14.3	13.3	22.7	21
16	RJN	13.9	14.3	14.2	12.1
17	STS	14.7	18.3	13.9	12.9
18	NDN	22.9	24.2	21	22.4
19	ANJ	23.2	18.3	20.7	22

20	SWM	14	12	13.4	14.3
21	ASH	14.2	11.3	15.3	12.5
22	APR	13.1	14.5	12.4	14.2
23	GYT	19.4	19.9	17.9	15.4
24	CHR	13.1	12.3	15.2	15.2
25	MDN	11.9	11.3	11.7	12.1
26	ASY	14.2	12.1	13.5	14.1
27	NST	12.7	11.3	15.4	14.5
28	NBT	13.2	12.2	14.9	17
29	MNS	22	20	21.6	19.1
30	KRN	12.2	11.6	14.3	11.4
31	PRM	13.8	12.3	17.3	15.3
32	SRG	12.8	15.2	11.4	13.2
33	PNM	11.8	11.2	17.3	12.5
34	SMB	13.4	13.2	14.1	17.2
35	MNK	20.7	18.9	17.4	15.1
36	ARD	20.2	19.3	18.9	14.4
37	MDU	17.3	13.7	16.8	12.5
38	RNI	13.4	14.1	13.4	14.5
39	BHU	15.4	10.1	15.6	17
Mean		15.45	14.78	16.13	15.38
St. deviation		3.21	3.46	3.09	2.98

Table 20: Systolic Blood Pressure recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	102.003	102.954	102.954	127.6216
2	SJY	110.843	98.524	98.524	93.3574
3	SVT	88.688	83.823	83.823	108.573
4	SRD	97.969	102.443	102.443	108.8904
5	RAV	116.909	113.898	113.898	104.2395
6	AMS	108.983	105.202	105.202	92.61944
7	LKM	106.590	106.095	106.095	107.6077
8	SBS	108.050	110.6225	110.6225	110.7358
9	KST	113.7674	98.95801	98.95801	99.79581
10	YSD	100.5222	111.2699	111.2699	103.146
11	BSW	93.34965	93.33935	93.33935	109.1642
12	IBO	99.58072	99.36957	99.36957	114.7573
13	SLY	102.100	101.039	101.039	97.81501
14	VSL	89.32468	86.23256	86.23256	94.40342
15	PRB	99.59248	106.9667	106.9667	108.4174
16	RJN	99.94563	89.01695	89.01695	93.63253
17	STS	98.16154	101.5166	101.5166	106.3075
18	NDN	124.014	122.94	122.94	121.2495
19	ANJ	94.36538	98.25594	98.25594	103.2512

20	SWM	82.29915	85.53823	85.53823	85.60588
21	ASH	105.4409	111.1138	111.1138	123.4037
22	APR	99.90291	101.1554	101.1554	92.1198
23	GYT	100.6832	96.26899	96.26899	125.2128
24	CHR	113.6333	111.4818	111.4818	100.8132
25	MDN	111.1941	111.3274	111.3274	112.7522
26	ASY	97.0894	90.38462	90.38462	100.93
27	NST	78.63659	79.57584	79.57584	87.13774
28	NBT	92.58005	90.52674	90.52674	107.9433
29	MNS	92.49299	89.08395	89.08395	81.10321
30	KRN	101.303	106.9096	106.9096	106.7402
31	PRM	103.5887	105.8263	105.8263	92.47518
32	SRG	124.861	112.7799	112.7799	111.7583
33	PNM	103.7037	90.05734	90.05734	101.998
34	SMB	123.1009	124.1944	124.1944	108.0333
35	MNK	127.9904	123.4041	123.4041	116.8433
36	ARD	86.46649	92.8	92.8	95.22055
37	MDU	89.58824	88.94828	88.94828	111.981
38	RNI	88.80435	91.9661	91.9661	90.45103
39	BHU	86.8037	92.92512	92.92512	106.0771
Mean		102.10	101.04	104.44	106.83
St. deviation		12.21	11.39	10.91	11.86

Table 21: Diastolic Blood Pressure recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	56.791	59.765	86.84054	86.00809
2	SJY	66.920	59.332	45.36823	43.43426
3	SVT	52.804	50.801	64.97245	61.36232
4	SRD	51.829	56.793	69.41644	67.22006
5	RAV	69.989	68.090	57.96578	57.096
6	AMS	63.919	63.522	47.98056	51.31579
7	LKM	62.800	59.623	67.26392	67.64228
8	SBS	64.244	66.48415	67.6114	69.97059
9	KST	70.46791	63.75066	53.40576	47.30312
10	YSD	53.1963	62.41104	47.0127	49.53538
11	BSW	52.48252	51.88087	63.64179	68.55932
12	IBO	64.24819	62.76902	68.09951	66.07438
13	SLY	59.333	58.494	62.84987	64.4269
14	VSL	51.41299	47.99483	54.5868	57.075
15	PRB	56.54545	61.03667	62.47352	63.2508
16	RJN	55.3948	49.7046	58.01506	60.62461
17	STS	57.12564	57.88235	61.12465	67.71662
18	NDN	69.696	73.35647	67.00651	63.84683
19	ANJ	56.5	57.88918	65.29954	62.51724

20	SWM	47.97436	49.6208	49.01765	52.91988
21	ASH	56.91643	58.69538	59.29814	61.78964
22	APR	64.93689	64.90155	56.60391	57.84935
23	GYT	51.46584	46.58861	69.1723	68.5474
24	CHR	64.80889	64.34635	57.91484	58.39474
25	MDN	62.50369	59.78772	65.5656	59.1129
26	ASY	60.66528	56.55165	64.41761	65.60386
27	NST	40.36829	40.47044	48.39118	48.34985
28	NBT	48.4252	47.36898	58.70667	57.67687
29	MNS	52.64252	51.93333	51.38073	51.6809
30	KRN	57.41919	58.57623	64.76782	63.87973
31	PRM	58.23992	57.60356	50.56501	53.74667
32	SRG	76.84367	68.54067	68.46682	69.7723
33	PNM	55.0719	47.96101	58.70552	57.83441
34	SMB	82.63112	80.55864	67.24444	66.49855
35	MNK	70.69712	67.3601	70.58351	72.71281
36	ARD	49.4504	52.11884	54.4787	58.25
37	MDU	55.51765	51.41872	67.90736	53.99474
38	RNI	52.8913	55.43785	49.6366	48.49347
39	BHU	55.47806	56.48551	65.1494	59.78228
Mean		59.33	58.49	60.88	60.61
St. deviation		8.76	8.30	8.46	8.23

Table 22: Mean Arterial Pressure recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	73.791	75.275	101.2189	100.2264
2	SJY	86.188	76.122	60.82671	62.55777
3	SVT	66.609	63.047	81.19284	78.08406
4	SRD	70.685	74.933	83.94795	82.46797
5	RAV	91.612	88.571	77.95437	76.588
6	AMS	81.494	79.494	65.99722	67.37152
7	LKM	78.565	74.581	82.40436	82.46612
8	SBS	82.966	85.02594	85.66062	88.51604
9	KST	87.59893	78.05774	71.3089	64.25496
10	YSD	72.87407	83.80982	69.80635	71.33846
11	BSW	70.76224	68.85921	80.97612	84.68927
12	IBO	79.04337	77.23098	86.77427	84.5427
13	SLY	77.878	76.349	77.92225	78.66959
14	VSL	65.84156	62.54005	69.94132	72.81
15	PRB	73.80251	79.29333	81.1838	83.28939
16	RJN	75.04255	66.9661	75.0512	79.29968
17	STS	75.99487	77.34783	82.16343	92.55858
18	NDN	92.654	94.47092	90.60087	87.70897
19	ANJ	73.00962	74.16359	82.10829	78.13793

20	SWM	64.60399	66.11009	66.77059	71.5727
21	ASH	79.83573	82.60923	89.92236	91.80906
22	APR	81.52913	81.79275	73.82641	75.55065
23	GYT	73.80435	66.95253	91.57432	91.48318
24	CHR	85.05333	83.58333	76.2967	77.03801
25	MDN	82.7543	80.37596	85.8484	79.1
26	ASY	78.85239	73.1978	82.31828	83.97101
27	NST	57.69024	57.05398	65.86777	66.65015
28	NBT	67.49606	65.6123	80.65	79.30952
29	MNS	70.24299	68.31111	64.55734	64.87191
30	KRN	78.16667	81.63307	84.37241	87.43207
31	PRM	79.23992	78.57461	70.88652	75.616
32	SRG	100.4739	88.36364	89.68957	91.0892
33	PNM	76.29412	65.78899	78.32924	79.27312
34	SMB	101.3919	100.5062	86.37778	85.3942
35	MNK	96.03606	91.16839	91.13814	94.22934
36	ARD	65.00268	69.04928	71.6416	78.1849
37	MDU	72.02353	67.94581	88.11164	73.75526
38	RNI	67.07065	69.76836	65.82216	63.78851
39	BHU	69.99307	71.65217	84.28675	77.9038
Mean		77.88	76.35	79.52	79.59
St. deviation		10.12	9.54	9.10	8.99

Table 23: Stroke Volume recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	75.008	68.646	45.59811	48.55418
2	SJY	80.468	68.167	68.69964	82.83745
3	SVT	58.926	53.371	67.2438	71.97391
4	SRD	92.662	89.306	68.38575	75.6507
5	RAV	87.704	83.633	80.76806	78.7584
6	AMS	85.430	78.117	78.96167	75.34892
7	LKM	76.780	75.817	73.48257	73.76992
8	SBS	75.265	73.72536	71.18342	72.90963
9	KST	76.13422	66.52388	84.50262	82.34164
10	YSD	89.51148	99.77853	93.36508	89.18738
11	BSW	85.01993	79.65126	77.31791	70.88107
12	IBO	72.45735	74.72337	87.66432	89.6832
13	SLY	68.347	66.202	76.31314	73.45906
14	VSL	60.95974	61.1155	65.10587	66.251
15	PRB	85.88621	88.34	90.56947	94.98039
16	RJN	32.13759	27.83462	54.73735	60.17697
17	STS	59.21897	61.24348	69.74598	79.81417
18	NDN	63.8812	56.89081	66.58677	67.73107
19	ANJ	64.06803	62.70106	64.92742	59.82529

20	SWM	48.52764	50.92538	53.86471	59.19169
21	ASH	64.87349	68.24985	86.47609	83.59061
22	APR	56.41189	57.56813	58.99267	60.49299
23	GYT	85.59596	74.88703	89.41047	93.44709
24	CHR	83.77533	78.89349	74.81813	76.37135
25	MDN	75.714	76.14527	77.72157	77.80581
26	ASY	61.65094	55.91451	61.48149	65.43454
27	NST	44.7339	42.65938	54.04215	56.10787
28	NBT	68.44803	63.24519	83.57967	81.88946
29	MNS	70.02827	64.79086	50.61995	51.05191
30	KRN	66.44141	73.16253	59.93678	74.57127
31	PRM	67.76169	68.72249	67.88747	76.22773
32	SRG	65.70471	60.63062	63.63294	63.02465
33	PNM	71.7085	59.18326	66.8135	73.50172
34	SMB	71.28444	79.23457	89.01917	88.51101
35	MNK	91.12837	87.61062	68.59732	71.57107
36	ARD	47.74692	54.37652	55.54261	68.01042
37	MDU	55.08824	55.05148	67.20998	66.99684
38	RNI	69.15951	69.77599	77.53582	73.60992
39	BHU	20.91894	21.33889	59.29831	54.38582
Mean		68.35	66.20	70.36	72.22
St. deviation		15.83	15.75	12.04	11.41

Table 24: Cardiac Output recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	5.054	4.448	3.371351	3.610243
2	SJY	4.626	3.898	3.862816	4.341833
3	SVT	4.875	4.282	4.884573	4.956812
4	SRD	6.058	5.589	4.97589	5.439276
5	RAV	6.185	5.708	4.874905	4.5564
6	AMS	6.095	5.550	5.756389	4.865325
7	LKM	6.791	6.090	5.969007	5.411924
8	SBS	5.723	5.089049	5.464508	5.418182
9	KST	5.667112	5.067454	6.446073	5.796034
10	YSD	5.528519	6.357362	5.870476	5.816308
11	BSW	4.879021	4.450542	5.214925	5.028249
12	IBO	6.006506	5.495109	7.224757	6.495868
13	SLY	5.269	4.878	5.72815	5.045029
14	VSL	4.69013	4.718088	5.340342	5.31575
15	PRB	5.46395	5.306333	5.82648	5.915434
16	RJN	2.709693	2.300726	3.64247	3.825552
17	STS	4.622308	4.802813	5.039612	5.862125
18	NDN	6.4184	6.082739	6.137093	6.208972
19	ANJ	5.314183	4.732718	5.590092	5.188046

20	SWM	3.397436	3.33211	3.673235	3.989318
21	ASH	4.507205	4.447692	5.575155	5.193528
22	APR	4.655825	4.448446	4.836919	4.654026
23	GYT	5.520186	4.728481	5.512838	6.143425
24	CHR	7.628889	6.163542	5.487912	5.277193
25	MDN	6.174693	5.968542	5.325073	4.830968
26	ASY	5.921414	5.088352	5.459368	5.402657
27	NST	3.702683	3.362211	3.977961	3.88863
28	NBT	5.225459	4.725936	5.014333	4.802381
29	MNS	6.014019	5.254568	4.406193	4.534831
30	KRN	5.256313	5.653747	5.206897	6.702227
31	PRM	6.713306	6.161693	5.719385	5.709067
32	SRG	5.299007	5.074163	5.367299	5.368545
33	PNM	6.578649	5.147936	6.543967	6.834194
34	SMB	4.961671	5.15679	6.424167	6.111884
35	MNK	7.59399	6.756218	6.646598	6.963017
36	ARD	3.560858	3.749275	4.426316	5.210938
37	MDU	4.693882	4.465025	5.658195	5.089737
38	RNI	5.082609	4.962429	6.009021	5.634987
39	BHU	1.804388	1.774879	4.943373	4.332152
	Mean	5.27	4.88	5.32	5.26
	St. deviation	1.20	1.05	0.85	0.81

Table 25: Total Peripheral Resistance recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	1.769	1.783	4.480441	2.841555
2	SJY	1.120	1.181	3.484083	1.875052
3	SVT	0.822	0.887	1.21427	0.947626
4	SRD	0.701	0.804	1.100649	0.914487
5	RAV	0.892	0.932	1.248475	1.195908
6	AMS	0.803	0.902	0.746742	0.833037
7	LKM	0.697	0.737	0.829458	0.916756
8	SBS	0.870	1.002637	1.083026	0.98073
9	KST	0.942693	0.936268	0.66772	0.664844
10	YSD	0.793889	0.79112	0.747229	0.749975
11	BSW	0.872406	0.932231	0.943319	1.016859
12	IBO	0.79059	0.844679	0.721459	0.78132
13	SLY	0.988	1.038	0.828397	0.941649
14	VSL	0.843408	0.806961	0.7879	0.824653
15	PRB	0.864351	0.8982	0.837458	0.84617
16	RJN	1.666792	1.748785	1.240108	1.245688
17	STS	0.989685	0.972373	0.978551	0.95354
18	NDN	0.880928	0.935587	0.886297	0.852188
19	ANJ	0.824921	0.944968	0.884062	0.905664

20	SWM	1.143818	1.193254	1.095824	1.078552
21	ASH	1.062441	1.114129	0.97014	1.06511
22	APR	1.053367	1.102267	0.918345	0.974384
23	GYT	0.802075	0.850598	1.090679	0.899508
24	CHR	0.67316	0.822677	0.837396	0.881532
25	MDN	0.805106	0.810097	0.966901	0.98371
26	ASY	0.800339	0.864723	0.905957	0.932444
27	NST	0.940039	1.023694	1.000854	1.033516
28	NBT	0.776207	0.832858	0.964663	0.991561
29	MNS	0.703815	0.786338	0.88205	0.86133
30	KRN	0.905601	0.867669	0.979724	0.78422
31	PRM	0.70853	0.765486	0.743364	0.794149
32	SRG	1.139471	1.046084	1.003912	1.017847
33	PNM	0.696549	0.769174	0.721975	0.698062
34	SMB	1.232133	1.172531	0.807286	0.839165
35	MNK	0.760123	0.809837	0.825315	0.841116
36	ARD	1.099038	1.105377	0.975434	0.903477
37	MDU	0.922612	0.914202	0.936836	0.871687
38	RNI	0.79234	0.850771	0.657139	0.679467
39	BHU	2.340822	2.439357	1.025614	1.08217
Mean		0.99	1.04	1.07	0.99
St. deviation		0.37	0.39	0.70	0.36

Table 26: Baroreflex Sensitivity recorded at pre and post following Experimental and control sessions.

Sl. No.	Subject Code	Experimental Session		Control Session	
		Pre	Post	Pre	Post
1	MNH	20.62287	24.41045	22.73553	23.01624
2	SJY	9.855479	10.68143	16.23963	16.49757
3	SVT	22.56541	19.20614	16.67286	14.76368
4	SRD	10.50447	9.961667	8.654519	14.71438
5	RAV	8.158293	8.68693	11.38093	13.66857
6	AMS	11.31085	12.10693	7.765567	6.814909
7	LKM	8.865868	9.698284	17.27009	11.315
8	SBS	16.23612	14.23917	24.47789	17.88702
9	KST	28.66094	25.31363	14.46745	15.06
10	YSD	14.78985	16.81881	18.4362	21.82833
11	BSW	9.001026	10.66817	11.06869	11.31327
12	IBO	13.02353	14.74016	15.93229	14.12222
13	SLY	11.28894	11.31343	22.55688	25.408
14	VSL	11.59419	13.23416	14.108	26.65933
15	PRB	6.866872	9.116374	8.048221	8.822381
16	RJN	11.8927	13.05991	8.438029	8.022593
17	STS	15.76284	15.33481	20.77278	18.89729
18	NDN	17.67462	24.85464	16.34757	16.03704
19	ANJ	13.37216	17.81383	18.94088	18.43885

20	SWM	20.3485	20.88	12.05996	14.15074
21	ASH	18.97988	22.43557	48.75684	28.1496
22	APR	18.54638	27.64882	27.38005	31.91269
23	GYT	15.69934	18.11741	20.75692	18.40074
24	CHR	5.888021	9.042446	6.596849	6.078224
25	MDN	30.51025	30.87525	37.80215	42.43681
26	ASY	13.57057	14.18964	17.14809	18.1347
27	NST	13.26734	13.66995	8.29985	7.255164
28	NBT	12.84127	13.09168	10.41691	11.39604
29	MNS	8.970984	12.40375	12.43096	11.5575
30	KRN	15.82128	15.82128	12.71512	12.5466
31	PRM	8.693697	9.067259	8.261136	6.954554
32	SRG	20.14386	20.65643	25.36927	21.55034
33	PNM	9.104653	10.25526	5.576946	7.868025
34	SMB	17.58006	17.80564	13.62984	14.10167
35	MNK	13.48919	12.05778	8.546471	16.20545
36	ARD	17.13408	17.4048	15.14299	17.16155
37	MDU	16.15184	18.41724	15.66204	21.26284
38	RNI	9.104653	10.25526	5.576946	7.868025
39	BHU	15.69934	18.11741	20.75692	18.40074
Mean		14.56	15.81	16.24	16.50
St. deviation		5.55	5.71	8.83	7.75

Appendix 4

Data of the Performance in Stop-Signal Task

Table 27: Stop Signal Reaction Time at Baseline, Following Experimental and Control Sessions

Sl. No.	Subject Code	Baseline	Experimental Session	Control Session
1	MNH	232.30	138.04	258.23
2	SJY	262.81	212.84	188.89
3	SVT	222.29	201.80	213.45
4	SRD	149.07	226.23	203.59
5	RAV	200.69	156.35	251.79
6	AMS	228.49	238.71	226.55
7	LKM	260.97	216.78	206.63
8	SBS	142.02	235.62	241.90
9	KST	204.37	165.12	209.18
10	YSD	262.54	251.34	195.59
11	BSW	179.19	228.82	242.68
12	IBO	250.47	280.98	288.45
13	SLY	278.78	270.02	178.83
14	VSL	253.71	342.90	330.35
15	PRB	253.47	197.37	165.12
16	RJN	230.35	208.91	130.50
17	STS	162.99	191.27	220.75
18	NDN	224.71	221.79	185.70
19	ANJ	252.74	223.84	265.51

20	SWM	224.56	249.32	231.78
21	ASH	147.17	217.87	189.34
22	APR	144.50	194.77	208.08
23	GYT	229.08	276.84	249.09
24	CHR	197.03	222.49	217.69
	MDN	216.47	227.05	188.64
26	ASY	230.09	262.18	216.63
27	NST	245.75	175.87	241.39
28	NBT	213.07	183.45	170.17
29	MNS	242.21	155.50	173.14
30	KRN	267.82	212.77	290.60
31	PRM	291.44	247.51	242.00
32	SRG	253.76	218.52	198.35
33	SMB	232.52	217.07	222.32
34	MDU	145.02	119.10	110.30
35	RNI	168.54	171.87	195.13
36	BHU	226.49	299.34	257.77
Mean		231.98	218.33	213.15
St. deviation		29.54	38.38	37.29

Table 28: Probability of Responding on Stop Signal Trials at Baseline, Following Experimental and Control Sessions

Sl. No.	Subject Code	Baseline	Experimental Session	Control Session
1	MNH	48.94	40.43	52.08
2	SJY	45.83	41.30	42.55
3	SVT	44.68	51.06	47.92
4	SRD	46.81	46.81	44.68
5	RAV	45.83	48.94	48.94
6	AMS	42.55	46.81	51.06
7	LKM	35.42	41.30	45.65
8	SBS	47.92	50.00	48.94
9	KST	35.56	45.83	51.06
10	YSD	46.81	41.67	45.83
11	BSW	50.00	50.00	52.08
12	IBO	41.30	58.33	53.19
13	SLY	46.81	47.83	43.75
14	VSL	51.06	67.39	65.96
15	PRB	44.68	52.17	50.00
16	RJN	46.81	48.94	51.06
17	STS	39.13	46.81	47.92
18	NDN	45.65	52.08	50.00
19	ANJ	52.08	38.30	38.30

20	SWM	47.92	50.00	53.19
21	ASH	39.58	48.94	51.06
22	APR	34.78	47.92	51.06
23	GYT	46.81	58.33	47.92
24	CHR	47.92	50.00	47.83
15	MDN	48.94	44.68	48.94
26	ASY	57.45	51.06	52.08
27	NST	41.67	50.00	46.81
28	NBT	47.92	47.92	45.83
29	MNS	47.92	50.00	48.94
30	KRN	61.70	47.92	53.19
31	PRM	50.00	45.83	53.19
32	SRG	46.81	51.06	44.68
33	SMB	44.68	46.81	42.55
34	MDU	50.00	52.08	52.08
35	RNI	39.13	45.83	43.75
36	BHU	51.06	43.48	50.00
Mean		47.69	48.79	48.69
St. deviation		4.12	4.71	4.71

Table 29: Go-Reaction Time at Baseline, Following Experimental and Control Sessions

Sl. No.	Subject Code	Baseline	Experimental Session	Control Session
1	MNH	402.74	499.74	478.28
2	SJY	542.45	893.47	827.70
3	SVT	668.43	393.92	430.30
4	SRD	590.00	599.36	669.19
5	RAV	409.68	494.00	521.04
6	AMS	770.80	425.64	479.92
7	LKM	691.76	717.37	630.76
8	SBS	473.43	498.43	450.39
9	KST	490.38	607.82	536.46
10	YSD	486.09	598.45	757.09
11	BSW	521.50	458.92	449.60
12	IBO	505.37	477.50	434.40
13	SLY	449.45	427.77	502.62
14	VSL	480.13	486.19	481.52
15	PRB	426.57	396.88	479.58
16	RJN	352.82	362.48	363.63
17	STS	542.22	670.14	610.65
18	NDN	424.81	592.08	490.13
19	ANJ	408.80	639.83	859.00

20	SWM	463.70	452.83	400.60
21	ASH	692.21	500.78	511.25
22	APR	550.94	534.96	458.83
23	GYT	401.50	464.36	458.48
24	CHR	403.48	398.78	422.45
25	MDN	382.91	363.95	335.57
26	ASY	437.52	340.21	371.04
27	NST	672.35	422.83	429.05
28	NBT	373.83	466.13	433.23
29	MNS	396.13	499.00	385.43
30	KRN	340.17	415.17	353.28
31	PRM	563.21	625.64	559.80
32	SRG	463.05	538.79	497.00
33	SMB	409.10	685.55	631.90
34	MDU	560.25	647.32	521.60
35	RNI	882.17	793.86	876.95
36	BHU	546.58	475.70	521.13
Mean		565.05	591.74	604.08
St. deviation		138.03	174.45	166.50

Appendix 5

**List of Publications
from the Doctoral
Work**

1. **Saoji, A. A.**, Raghavendra, B. R., & Manjunath, N. K. (2018). Immediate Effects of Yoga Breathing with Intermittent Breath Retention on the Autonomic and Cardiovascular Variables Amongst Healthy Volunteers. *Indian Journal of Physiology and Pharmacology*, 62(1), 41-50.
2. **Saoji, A. A.**, Raghavendra, B. R., Rajesh, S. K., & Manjunath, N. K. (2018). Immediate effects of yoga breathing with intermittent breath holding on response inhibition among healthy volunteers. *International Journal of Yoga*, 11(2), 99-104.
3. **Saoji, A. A.**, Raghavendra, B. R., & Manjunath, N. K. (2018). Effects of yogic breath regulation: A narrative review of scientific evidence. *Journal of Ayurveda and Integrative Medicine*. DOI: 10.1016/j.jaim.2017.07.008
4. **Saoji, A. A.**, Raghavendra, B. R., Madle, K., & Manjunath, N. K. (2018). Additional Practice of Yoga Breathing with Intermittent Breath Holding Enhances Psychological Functions in Yoga Practitioners: A Randomized Controlled Trial. *Explore: The Journal of Science and Healing*. DOI: 10.1016/j.explore.2018.02.005. IF: 1.45