CHAPTER III

METHODOLOGY

In this chapter selection of subjects, selection of variables, experimental design, reliability of data, training schedule, training program, collection of data and statistical technique have explained.

3.1 SELECTION OF SUBJECTS

For the present investigation forty five (45) Traffic police men were selected randomly from Chennai. Totally Twelve weeks training were given of Suryanamaskar Asanas with Meditation practices & Suryanamaskar, Asanas with kriyas practices to the subjects.

All the subjects were assigned to two experimental group ‘I’ and ‘II’, One control group ‘III’ each group consists of 15 subjects. Following Suryanamaskar Asanas with Meditation practices and Suryanamaskar, Asanas with kriyas practices were given to Group ‘I’ and ‘II’. No training was provided to group ‘III’

Experimental Group ‘I’ - (Suryanamaskar, Asanas with meditation practices)

Experimental Group ‘II’ - (Suryanamaskar, Asanas with kriyas practices)

Group ‘III’ - (Control group, not exposed to any experimental training)

3.2 SELECTION OF VARIABLES

The investigator were review the available scientific literature pertaining to the study from books, journals, periodicals, magazines, research papers and available sources Tamilnadu physical education and sports university libraries and also with help of experts.
3.2.1. SELECTION OF THE DEPENDENT VARIABLES

Motor fitness components

a. Cardio vascular endurance

b. Strength

c. Flexibility

Physiological variables

a. Resting Pulse Rate

b. Systolic blood pressure

c. Diastolic blood pressure

Psychological variables

a. Anxiety

b. Stress

c. Self confidence

3.2.2 SELECTION OF THE INDEPENDENT VARIABLES

a. Experimental Group I – Suryanamaskar, Asanas with meditation practices.

b. Experimental Group II – Suryanamaskar, Asanas with kriyas practices.

c. Group ‘III’ - (Control group, not exposed to any experimental training).

3.3 EXPERIMENTAL DESIGN

The subject chosen for this study were divided into three groups at random. The pre and post test random group design was used for analysis of the data.
3.4 PILOT STUDY

The Pilot study was conducted with fifteen (3 x 3 = 9) Traffic police men and their difficulties were noted and rectified. The calculated intra-class correlation of the pilot there was significant improvement in health related motor fitness components, physiological and psychological variables. This enabled the investigator to adopt suitable training schedule for the study.

3.5 CRITERION MEASURES

Motor fitness components

a. Cardio vascular endurance - 12 minutes run/walk. (Hardayal Singh (1984)

b. Strength - Push ups. (Mathews, Donald K (1981)

b. Flexibility - Sit and reach test. (Mathew, 1988).

Physiological variables

a. Resting Pulse Rate - Citizen make digital B.P monitor.

b. Blood pressure (Systolic & Diastolic) - Citizen make digital B.P monitor.

Psychological variables

a. Anxiety was measured using Tayler.(1952).questionaire.

b. Stress was measured using Dr.Latha Satish (1997) questionnaire.

c. Self confidence was measured (Rekha Agnihortry) (1987) questionnaire.

3.6 RELIABILITY OF DATA

The reliability of data was ensured by using standard instruments and by establishing tester competency reliability of the test.
3.7 RELIABILITY OF INSTRUMENT

All the equipments which were used in the study all that equipments had been obtained from standard firms which cater to need of various research laboratory in India and abroad. All instrument where available in Kumar Diagnostic Center Chennai and their calibrations were accepted as enough for the purpose of the study. The questionnaires used for measuring Anxiety, Stress and Self confidence are standardized ones. As such the reliability is well established.

3.8 TESTERS RELIABILITY

The reliability of the data together with reliability of the tester was ensured by appointing unauthorized personnel from a recognised laboratory. Before conducting the tests, took all the precautions and discussed about the testing procedures with concerned staff members and obtained experience to administer the test. Reliability was established by the test-re-test process. The pre test and post test were done on same subjects under similar circumstances to determine reliability.

3.9 INSTRUMENT RELIABILITY

Motor fitness components

a. Cardiovascular endurance - Stop watch.

b. Strength - Stop watch.

b. Flexibility - Measuring tape and stop watch.

Physiological variables

a. Resting Pulse Rate - Citizen make digital B.P monitor.

b. Blood pressure(Systolic & Diastolic) - Citizen make digital B.P monitor.
Psychological variables

a. **Anxiety** was measured using Tayler.(1952). questionnaire.

b. **Stress** was measured using Dr.Latha Satish (1997)) questionnaire.

c. **Self confidence** was measured (Rekha Agnihortry) (1987) questionnaire.

3.10 SUBJECT RELIABILITY

The test retest also indicated the subjects reliabilities the same subjects were used, under similar condition by same tester. The sample subjects were measured in endurance, strength and flexibility, Resting Pulse Rate, systolic and diastolic blood pressure, anxiety, stress and self confidence with same tests by the same investigator. So it would be considered as reliable.

3.11 TRAINING PROGRAMME

The subjects were selected at random and were divided into three groups and the experimental group I & II was given Suryanamaskar Asanas with Meditation and Kriya practices at 6.00 am to 7.30 AM am for duration of sixty to ninety minutes from Monday to Friday (5 days a week) for 12 weeks. And the group III which is control group was not given any training. Suryanamaskar Asanas with Meditation practices and Suryanamaskar, Asanas with kriyas practices for selected groups are presented in the table.
TABLE I

YOGA TRAINING PROGRAMME FOR SELECTED GROUPS

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>PROGRAMMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp Gr I</td>
<td>Suryanamaskar, Asanas with Meditation practices</td>
</tr>
<tr>
<td>Exp Gr II</td>
<td>Suryanamaskar, Asanas with kriya practices</td>
</tr>
<tr>
<td>Control Group</td>
<td>Not exposed to any experimental training</td>
</tr>
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</table>
## 3.12 YOGA TRAINING SCHEDULE

### 3.12.1 TRAINING SCHEDULE OF SURYANAMASKAR, ASANAS WITH MEDITATION PRACTICES

**TABLE II**

Suryanamaskar, Asanas with Meditation Practices for I to IV Week

<table>
<thead>
<tr>
<th>S.NO</th>
<th>NAME OF PRACTICES</th>
<th>TIMES</th>
<th>DURATION</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Prayer</td>
<td>1</td>
<td>2 min</td>
</tr>
<tr>
<td>2</td>
<td>Loosening Exercises</td>
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<td>5 min</td>
</tr>
<tr>
<td>3</td>
<td>Suryanamaskar</td>
<td>-</td>
<td>10 min</td>
</tr>
<tr>
<td>4</td>
<td>Padmasana</td>
<td>2</td>
<td>2 min</td>
</tr>
<tr>
<td>5</td>
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<td>2 min</td>
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<tr>
<td>6</td>
<td>Ushtrasana</td>
<td>2</td>
<td>2 min</td>
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<tr>
<td>7</td>
<td>Shasanakasana</td>
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<td>2 min</td>
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<tr>
<td>8</td>
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<tr>
<td>11</td>
<td>Shalabhasana</td>
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<td>2 min</td>
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<tr>
<td>12</td>
<td>Bhujangasana</td>
<td>2</td>
<td>2 min</td>
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<tr>
<td>13</td>
<td>Viparithakaran</td>
<td>2</td>
<td>2 min</td>
</tr>
<tr>
<td>14</td>
<td>Meditation (mantra meditation)</td>
<td>1</td>
<td>5 to 7 min</td>
</tr>
<tr>
<td>15</td>
<td>Relaxation</td>
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### TABLE III

**Suryanamaskar, Asanas with Meditation Practices for V to VIII Week**

<table>
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<th>NAME OF PRACTICES</th>
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<th>DURATION</th>
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<td>Loosening Exercises</td>
<td>1</td>
<td>5 min</td>
</tr>
<tr>
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<td>Suryanamaskar</td>
<td>-</td>
<td>10 min</td>
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<tr>
<td>4</td>
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<td>Shasanakasana</td>
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<tr>
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<td>Relaxation</td>
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### TABLE IV

**Suryanamaskar, Asanas with Meditation Practices for IX to XII Week**

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<td>Loosening Exercises</td>
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<td>Viparithakarani</td>
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<td>4 min</td>
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<tr>
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### 3.12.2 TRAINING SCHEDULE OF SURYANAMASKAR, ASANAS WITH KRIYA PRACTICES

Table v

Suryanamaskar, Asanas with Kriya Practices for I to IV Week

<table>
<thead>
<tr>
<th>S.NO</th>
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<td>2 min</td>
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<td>13</td>
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<td>2 min</td>
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<td>16</td>
<td>Relaxation</td>
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## TABLE VI

Suryanamaskar, Asanas with Kriya Practices for V to VIII Week

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<th>NAME OF PRACTICES</th>
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### TABLE VII

**Suryanamaskar, Asanas with Kriya Practices for IX to XII Week**

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<th>S.NO</th>
<th>NAME OF PRACTICES</th>
<th>TIMES</th>
<th>DURATION</th>
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<td>Prayer</td>
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<td>2 min</td>
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<td>Loosening Exercises</td>
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<tr>
<td>16</td>
<td>Relaxation</td>
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</table>
3.13 YOGA PRACTICES AND PROCEDURES

3.13.1 TRAINING PROCEDURES OF SURYANAMASKAR, ASANAS WITH MEDITATION AND KRIYA PRACTICES (EXPERIMENTAL GROUP I & II)

3.13.1.1 YOGA PRAYER

SHANTHI MANTHRA (At the time of starting)

Om......................Om....................Om.................

Sahana Vavathu, Sahanou Bhunaktu

Sahaveeryam-Karvavahai

Tejaswinaa Vadhitamastu, Ma...Vidvishavahai

Om.... Shanthi........ Shanthi........ Shanthi hi......
LOOSENING EXERCISES – SITHILKARANA VYAYAMA

3.13.1.2. NECK MOVEMENTS – KANTHASANChALANA

Step 1  Sit in the Vajrasana Position;

Step 2  Keep your neck straight, then slowly but without jerk.

Step 3  Start rotating neck clockwise from left shoulder to backwards then to the right shoulder and to front.

Step 4  Repeat this in anticlockwise direction starting from right shoulder.
3.13.1.3. SHOULDER MOVEMENTS - SKANDHASANCHALANA

Figure 3

Step 1  Sit in the Vajrasana Position,
Step 2  Keep the body straight, with arms by side.
Step 3  Then slowly but without jerk lift both shoulders upwards as much as possible near to ears,
Step 4  Back to normal position.
Step 5  Fold the hands and place left fist on left shoulder and right fist on right shoulder, bring both elbows together near chest, then slowly but without jerk.
3.13.1.4. HAND MOVEMENTS - HASTASANCHALANA

Step 1  Relax in Shavasana position,

Step 2  Keep the hands 6 inches away from the body,

Step 3  Legs separated with 12 inch distance between them,

Step 3  Lift the hands 1 to 1.5 inch above ground and slowly rotate them towards head without bending elbows,

Step 5  Keep the hands parallel to the ground till both the palms meet, place left palm on right palm and stretch hands upwards and legs downwards for 5 to 10 seconds, then slowly but without jerk rotate both the hands back to the normal position via the same path.
3.13.1.5 LEG MOVEMENTS - PADASANCHALAN

Step 1  Relax in Supine position,
Step 2  Keep your hands around head rotating them side ways,
Step 3  Then lift your left leg and bring it near to the hip,
Step 4  Repeat this procedure for the right leg.
Step 5  Then slowly bring both the hands back to the normal position.

Figure 5
3.13.1.6 KNEE: MOVEMENT 1 JANUSANCHALAN

Step 1   Relax in Supine position,
Step 2   Move the hands around head
Step 3  Then bend left leg in knee and rest foot near to hips,
Step 4  Then turn the knee to the right side as far as possible.
Step 5   Repeat this procedure for the right leg.
Step 6   Then slowly bring both the hands back to the normal position.
3.13.1.7 JOGGING

Step 1  Come to sthiti tadasana.

Step 2  Make loose fists of your hands and place them on the chest.

Step 3  Collapse and relax your shoulders.

Step 4  Start jogging on your toes slowly.

Step 5  Jog about 20 times
3.13.1.8 SURYA NAMASKAR-SUN SALUTATION

Figure 8
Step 1 Hastauthanasana
    Chant Manthra: Aum Hram Mitraya Namah
    Breathing: Inhale

Step 2 Padahasthasana
    Chant Manthra: Aum Hrim Ravaye Namah
    Breathing: Exhale

Step 3 Asvasanchala
    Chant Manthra: Aum Hrum Suryaya Namah
    Breathing: Inhale

Step 4 Danadal
    Chant Manthra: Aum Hraim Bhanave Namah
    Breathing: Exhale

Step 5 Sasangasana
    Chant Manthra: Aum Hroum Khagaya Namah
    Breathing: Inhale and Exhale

Step 6 Astanaganamaskar
    Chant Manthra: Aum Hrah Pushne Namah
    Breathing: Bahyakumbhaka

Step 7 Bhujanagasana
    Chant Manthra: Aum Hram Hiranyagarbhaya Namah
    Breathing: Inhale

Step 8 Parvatasana
    Chant Manthra: Aum Hrim Maricaye Namah
    Breathing: Exhale
Step 9 Sasangasana

Chant Manthra: Aum Hrum Adityaya Namah
Breathing: Inhale and Exhale

Step 10 Asvasanchalasana

Chant Manthra: Aum Hraim Savitre Namah
Breathing: Inhale

Step 11 Padahasthasana

Chant Manthra: Aum Hroum Arkaya Namah
Breathing: Exhale

Step 12 Hastautthanasana

Chant Manthra: Aum Hrah Bhaskaraya Namah
Breathing: Inhale.
3.13.1.9. ASANAS - PADMASANA –LOTUS POSTURE

Step 1  Sit on the floor with the legs stretched out straight in front.

Step 2  Bend the right knee and grasp the right foot with both hands and place it on top of the left thigh bringing the heel as close to the navel as possible.

Step 3  Bend the left knee and grasp the left foot with both hands and place it on top of the right thigh bringing the heel as close to the navel as possible.

Step 4  Both knees should be on the ground and the soles of the feet are pointed upward. The spine is held straight but not rigid.
3.13.1.10 VAJRASANA - DIAMOND POSTURE

![Diagram of VAJRASANA posture](image)

Figure 10

Step 1  Sit back on the heels, keeping them apart and well tucked in under the buttocks.

Step 2  Keep the head, shoulders and buttocks in a straight line.

Step 3  Place your palms on the respective thighs.

Step 4  Breathe normally.

Step 5  It may be practiced for maximum feasible duration, especially after meals for 5- minutes at least.
SHASHANKASANA - HARE POSTURE

Step 1  Sit in Vajrasana.
Step 2  Inhale and raise you hands slowly above your shoulder.
Step 3  Exhale and slowly bend forward and try to place the head on the floor and resting the hands from elbow onwards on the floor.
Step 4  Stay for 20 to 30 breath counts and then come back to original position slowly with exhalation.
3.13.1.12 USHTRASANA - CAMEL POSTURE

Figure 12

Step 1   Sit with knees bend.
Step 2   Hold the ankles with hands.
Step 3   Raise the buttocks from the seated position and bend head back.
Step 4   Inhale deeply 4 or 5 times and hold for 5 seconds.
3.13.1.13. MATSYASANA - FISH POSTURE

Figure 13

Step 1  Lie on back in Padma Asana: Plant hands under lower back, raise the chest and bend the head.

Step 2  Hold big toes with hands and breathe deeply. Stay in this position for 5-15 counts and come to normal position.
3.13.1.14 VRIKSHASANA - TREE POSTURE

Figure 14

Step 1  Stand with the feet together and the arms by your sides (see the tad-asana
Step 2  Bend the right leg at the knee, raise the right thigh and bring the sole of the right foot as high up the inside of the left thigh as possible.
Step 3  Balancing on the left foot, raise both arms over the head keeping the elbows unbent and joining the palms together. Hold the posture while breathing gently through the nostrils for about 10 complete breaths.
Step 4  Lower the arms and right leg and return to the tad-asana, standing position with feet together and arms at the sides. Pause for a few moments and repeat on the opposite leg.
3.13.1.15. PADAHASANASANA - HAND- TO- FOOT POSTURE

Figure 15

Step 1  Stand erect. Keep the arms by the sides. Keep the heels close together. Keep some gap between the feet.

Step 2  Raise both the arms. Slowly bend forward at the waist. Keep the knees stiff and firm. The legs should not bend at the knees.

Step 3  Keep the palms under the feet.

Step 4  Slowly exhale - while bending low and contract the stomach. Put forehead between the knees. Hold this position for two to ten seconds.
3.13.1.16.BHUJANGASANA - COBRA POSTURE

Figure 16

Step 1  Lie on the stomach with the head turned to one side and the arms alongside the body with palms facing upward.

Step 2  Turn the head and place the chin on the floor. Inhale then exhale slowly through the nostrils and swing the arms around until the hands are placed just below the chin with the palms down and the finger tips of each hand almost touching and the elbows on the floor.

Step 3  Inhale slowly through the nostrils, press down on the hands and lift the torso from the waist up off the floor, arching the spine backwards and straightening the arms. Keep the hips on the floor.

Step 4  Tilt the head as far back as possible and hold the posture for the duration of the inhaled breath.

Step 5  Exhale and reverse the process to return to position 1.
3.13.1.17. SHALABHASANA - LOCUST POSTURE

Figure 17

Step 1  Lie on the floor with the abdomen touching the mat.

Step 2  Rest the chin on the floor with arms at the sides. The heels and toes must be held together.

Step 3  Inhale and lift both the legs above the floor. While lifting the legs, pressure must be applied on the fists.

Step 4  Maintain this position for a few seconds and come back to the original position.

Step 5  Relax and feel the stretch on the muscle of the back.
Step 1  Lie on back and relax the whole body.
Step 2  Fold the legs over the stomach and lift it high up.
Step 3  with help of hands; Support the buttocks and the chest as lift them.
Step 4  then rest the elbows on the floor and strengthen the legs.
Step 5  Focus the eyes on the big toes and hold
3.13.1.19 SHAVASANA - CORPSE POSTURE

Figure 19

Step 1  Lie on the back with the feet comfortably apart.
Step 2  The spinal column is straight but not rigid and the arms rest.
Step 3  The head is in line with the spine eyes and mouth is closed gently.
Step 4  Relax body completely.
SHATKRIYA

3.13.1.20. KAPALABHATI- STIMULATING THE BRAIN CELLS.

Figure 20

Step 1  Sit in comfortable crossed leg position with back straight. Face to be relaxed.

Step 2  Exhale forcibly using abdominal muscles.

Step 3  Inhale deeply through nostril, expanding abdomen and exhale with the forceful contraction of abdominal muscles. (Pull the abdomen in by quickly contracting the abdominal muscles and exhale through the nose). The air is pushed out of lungs by contraction of the diaphragm.

Step 4  After exhalation again inhalation but inhalation should not involve any effort. To inhale just relax and the lungs will automatically expand and filled with air.
3.13.1.21. JALANETI – CLEANING THE NASAL PASSAGES

Figure 21

Step 1  Place the nose cone of the neti pot into the right nostril, sealing it to the nostril with a few twists and slight pressure.

Step 2  Try to point the spout straight up in line with the nasal passage so as not to block the tip of the nozzle by the inside of the nose.

Step 3  Slowly bend forward from the waist so that the tip of the nose is the lowest point of the head; and then tilt/roll the head, so that the left nostril is now the lowest point of the nose.

Step 4  Allow the water to flow.

Step 5  Open the mouth and breathe gently through the mouth.
3.13.1.22. DHARANA DHYANA-CONCENTRATION ON ALL THE CHAKRAS

Chakras and their Seed Mantras

One - Lam  Two – VAM  Three – Ram  Four – Yam  Five – Ham  Six – Om  Seven – Silence

Step 1  Sit in any meditative posture. Eyes closed and relax entire body. Inhale slowly and steadily.

Step 2  Slightly contract throat to produce a soft hissing sound as inhale.

Step 3  Allow the awareness to wind along each chakra one at a time across the sushumna as inhale.

Step 4  Begin from the Muladhara. Mentally chant the bija mantra for each chakra. Yam is the mantra mentally chanted at Muladhara.

Step 6  Continue on until reach Ajna. Visualize a light, flower or lotus at each corresponding chakra point to aid meditations.
3.13.1.23. Mantra Meditation (OM or AMMEN or ALLAH) CHANTING (At the time of starting)

Figure 23

Step 1   Sit in Sukhasana
Step 2   Exhale: "OMmmmmmmmm..." or AMMEEN or ALLAH.
Step 3   Inhale: “(silence)"
Step 4   Exhale: "OMmmmmmmmm..."
Step 5   Inhale: “(silence)”
3.13.1.24. MANTRA (After Yogasanas)

Oom........ Asathoma Sadgamaya
Tamasoma Jyothirgamaya
Mrutyorma Amrutangamaya

Om.... Shanthi.......... Shanthi.......... Shanthi hi......

Whereas the control group followed the normal daily routine without any training programme.

3.14 SUBJECTS ORIENTATION

The suryanamaskar asanas with kriyas and meditation practices are selected only after consulting an expert of yoga and yoga therapy with the co-operation of the subjects. The method of each loosening exercises, Suryanamaskar, asanas Kriyas, meditation and
relaxation explained the value of it and performed first by the investigator. The subjects were made to assemble in a convenient place. If any mistakes committed, then ensured so as to obtain reliable data from the tests.

3.15 TEST ADMINISTRATION

The administration of the test and the method of collecting data are explained at this time.

3.16. MOTOR FITNESS COMPONENTS

3.16.1 CARDIO VASCULAR ENDURANCE

Purpose

To measure the cardio vascular endurance

Equipments

A stop watch, whistle and distance markers were used.

Procedure

The subjects were positioned behind the line and upon the starting ran/ walked as many laps as possible around the track in 12 minutes. The tester and tester assistants maintained the distance covered by the subjects and when the stop signal was given by the investigator by blowing a whistle, the tester assistants ran immediately to the spot where the subject is stopped at the moment the whistle was blown. The scores were recorded in meters. (Hardayal Singh (1984)

Scores

Score was the distance covered by each subject in 12 minutes.
3.16.2 FLEXIBILITY (SIT AND REACH)

Purpose

To estimate the trunk flexibility

Equipments

Yardstick and measuring steel tape

Procedure

Place the yardstick on the floor and put an 18 inch piece of tape across the 15 inch mark on the yard stick. The tape should secure the yardstick to the floor. The subject sits with the O end of the yardstick between the legs. The subject heel should almost touch the tape at the 15 inch mark and be about 12 inch apart with the legs held straight. The subject bends forward slowly and reaches with parallel hand as far as possible and touches the yardstick. The subject should hold this reach long enough for the distance to be recorded. (Mathews, Donald K (1981)

Scoring

Perform three trials. The best score recorded in inch.
3.16.3. STRENGTH (PUSH UPS)

Purpose

To measure the strength of the subjects.

Apparatus used

Gymnastic Mats

Procedure

The subject being tested took prone lying position on the ground with the hands under the shoulders and fingers stretched, legs straight and parallel with comfortably apart and the toes tucked under the feet. On the command ‘go’ the subject performed push ups with the arms and extended it completely. The legs and the back were kept straight through out the test. Then the subject lowered her body using the arm until it came to 90 degree angle and upper arms were parallel to the ground. The action was repeated as many time as possible. (Mathew, 1988).

Scoring

Total number of correct push ups was recorded as the score of the test.
3.17. PHYSIOLOGICAL VARIABLES

3.17.1. RESTING PULSE RATE

**Purpose**: The purpose of this test is to measure the resting pulse rate at rest.

**Equipment**: Citizens make digital portable blood Pressure monitor.

**Procedure**: The resting pulse rate was recorded at the beginning and end of the training periods using the equipment in a sitting relaxation position, since the equipment was fully automatic, the value were recorded accordingly. (Kamrul, 2007)

**Scoring**: The resting pulse rate is indicated in the digital monitor.

3.17.2. BLOOD PRESSUE

**Purpose**: The purpose of this test is to measure the systolic and diastolic blood pressure at rest.

**Equipment**: Citizens make digital portable blood Pressure monitor.

**Procedure**: The blood pressure was recorded at the beginning and end of the training periods using the equipment in a sitting relaxation position, since the equipment was fully automatic, the value were recorded accordingly. (Ambika Shanmugam 2001).

**Scoring**: The blood pressure is indicated on the digital monitor.

3.18. PSYCHOLOGICAL VARIABLES

3.18.1 ANXIETY

**Purpose**: The purpose of this test is to measure the Anxiety level of the subjects

**Equipment**: Anxiety Questionnaire developed by Tayler.(1952).
**Procedure** :-The questionnaire administered in group setting and the subjects were seated comfortably. The researcher has explained about the questionnaire and made them to fill up the questionnaire.

The following instructions were given to the subjects. Questionnaire has 50 statements, each statement describe some personal experience. Each statement was evaluated on either true or false. The researcher requested them to read each statement carefully and decide to what extent each statement was true asked them to put tick mark at the appropriate option.

**Scoring** :-Scoring procedure for the positive statement:

If the answer is true for the positive statements, it gets ‘0’ mark.

If the answer is false for the positive statements, it gets ‘1’ mark.

Scoring procedure for the negative statement, marks are rewarded in the reverse. If the answer is true for the negative statements, it gets ‘1’ mark.

If the answer is false for the negative statements, it gets ‘0’ mark.

The maximum possible score is 50. Scores. (Benavides S, Caballero J (2009).

**Norms** :-Anxiety level

0-8 Normal anxiety

9-18 significantly anxious

19-30 highly anxious

31 and above Anxiety level in very high and uncontrollable.
3.18.2 STRESS

**Purpose**
- To assess the stress level of the subjects

**Equipment**
- Latha Sathis’ s (1997) stress questionnaire was used to assess the stress

**Procedure**
- Questionnaire describing 52 events which causes mental stress was given to the subjects and they were asked to fill yes or no along with the level of control exercised by them over event. Level of control of is assessed in three groups. Complete control, Partial control and no control.

**Scoring**
- If the answer is Yes a score of one, two and three is assigned for complete control, partial control and no control respectively. If answer is NO then no score is assigned as the event does not bring any stress to the subject. The level is stress is arrived taking into account of the score obtained by the subject. Lower the score is considered as less stress and vice versa. (Brown RP, Gerbarg PL (2005))

**Norms**
- Level of Stress
  
  .0 -17 Mild Stress
  
  18 – 35 Moderate stress
  
  36 – 52 Severe stress

**Control Index**

  0- 51 complete control over stress
  
  52-105 Partial control over stress
  
  106- 156 No control over stress.
3.18.3 SELF CONFIDENCE

**Purpose**
- To assess the self confidence level of the subjects

**Equipment**
- Rekha Agnihortry self confidence questionnaire developed by Rekha Agnihortry (1987) consisting of 52 questions.

**Procedure**
- The subjects were asked to fill the questionnaire with two response alternatives viz., ‘true’ or ‘false’. The questionnaire translated from English to Tamil so that subjects can understand.

**Scoring**
- The questionnaire contains 56 statements. For each item, a score of one is assigned for a response indicative of lack self confidence. Hence, lower the score, higher would be the level self confidence and vice versa. (Mendelson T, et.al, (2010))

**Description**
- The inventory could be scored by hand. A score of one is awarded for a response indicative of lack of self confidence, that is for making cross(X) to wrong response to item numbers, 2,7,23,31,40,41,43,45,53,54,55, and for making cross (X) to right response to the rest of the items. The lower of the score the higher would be the level of confidence and vice versa.

3.19. COLLECTION OF DATA

To achieve this purpose three groups consisting of 15 subjects each were selected at random the first and second experimental groups were treated with Suryanamaskar Asanas with Meditation practices and Suryanamaskar, Asanas with kriyas practices for about twelve weeks (5 days a week). After the training period all subjects were tested on selected criterion variables at different levels as pre and post training.
3.20. STATISTICAL TECHNIQUE

The data obtained were analyzed by Analysis of Covariance (ANCOVA) to assess the significant difference among the groups between the pre test and post test on motor fitness components, physiological and psychological variables to find out the effects of Suryanamaskar Asanas with Meditation practices and Suryanamaskar, Asanas with kriyas practices among Traffic police men. The normality of the data collected was tested through F test (ANCOVA). The data and the regression were plotted and found to be in the standing straight line and thus tested for normality of data and found the data are normal. The adjusted post test mean differences among the experimental groups were tested and if the adjusted post test result was significant the Scheffe’s post hoc test was used to determine the significance of the paired means differences.

The investigator has analyzed scientific results obtained by application of various methodologies discussed above and the results are analyzed and presented in form of detailed discussion graphs and various tables in the next chapter.