METHODOLOGY
3.01 Rationale of the study

There is a pressing need to study college students who are bubbling with energy and are eager to explore the world, and examine their resources of inner strength and abilities. Most of the times they tend to suffer from stress and anxieties. They tend to develop an inadequate Self-concept and they face many hurdles in achieving Subjective well-being.

Holmes (1978) refers to college students who have noted and ranked their subjective stressors in meeting their compulsory and diverse educational requirements. In a study of college students' personal choices and attitudes about stress management, Page (1987) reported that 60.1% of the 300 students when he surveyed indicated that they did not relax enough. And, 33.0% believed that the way they handled stress was a serious problem. Lustman, Sowa, & O'Hara (1984) have noted that stress, anxiety, depression and somatic distress are among the most common symptoms for which college students seek clinical care. Nuernberger (1990) notes that individual responses to stress can be controlled when one begins to meditate. Maslow (1968) opined that yoga practice is useful in the improvement of psycho-physiological health.

The practice of yoga enhances positive Self-concept. It decreases the State - Trait anxiety levels and it promotes Subjective well-being. Therefore, the present study is undertaken to find the impact of Yoga on Self-concept, State anxiety, Trait anxiety and Subjective well-being. For this purpose, Bachelor of Naturopathy and Yogic Sciences (BNYS) students and Bachelor of Medicine and Bachelor of Surgery (MBBS) students were selected.
3.02 The Problem
Impact of Yoga on Self-concept, Anxiety and Subjective Well-being.

3.03 Research Issues
Following are the main research issues implied in the problem:
1. Do the BNYS students and MBBS students differ significantly in their Self-concept, State anxiety, Trait anxiety and Subjective well-being?
2. Is there any impact of yoga on the Self-concept, State anxiety, Trait anxiety, and Subjective well-being of BNYS students before and after they practice it?
3. Is there correlation between State anxiety and Self-concept?
4. Is there correlation between State anxiety and Subjective well-being?
5. Is there correlation between Trait anxiety and Self-concept?
6. Is there correlation between Trait anxiety and Subjective well-being?
7. Is there correlation between Self-concept and Subjective well-being?

3.04 Hypotheses
Keeping in view, the above raised issues, the following hypotheses are formulated.

\( H_{a1} \)  Bachelor of Naturopathy and Yogic Sciences (Experimental group) and Bachelor of Medicine and Bachelor of Surgery (Control group) college students differ significantly from each other on Self-concept.

\( H_{a2} \)  Bachelor of Naturopathy and Yogic Sciences (Experimental group) and Bachelor of Medicine and Bachelor of Surgery (Control group) college students differ significantly from each other on State anxiety.

\( H_{a3} \)  Bachelor of Naturopathy and Yogic Sciences (Experimental group) and Bachelor of Medicine and Bachelor of Surgery (Control group) college students differ significantly from each other on Trait anxiety.

\( H_{a4} \)  Bachelor of Naturopathy and Yogic Sciences (Experimental group) and Bachelor of Medicine and Bachelor of Surgery (Control group) college students differ significantly from each other on Subjective well-being.
Ha5 There is a significant difference in the Self-concept of Bachelor of Naturopathy and Yogic Sciences college students before and after practice of yoga.

Ha6 There is a significant difference in the State anxiety of Bachelor of Naturopathy and Yogic Sciences college students before and after practice of yoga.

Ha7 There is a significant difference in the Trait anxiety of Bachelor of Naturopathy and Yogic Sciences college students before and after practice of yoga.

Ha8 There is a significant difference in the Subjective well-being of Bachelor of Naturopathy and Yogic Sciences college students before and after practice of yoga.

Ha9 There is a significant relationship between State anxiety and Self-concept of Bachelor of Naturopathy and Yogic Sciences, and Bachelor Medicine and Bachelor of Surgery college students.

Ha10 There is a significant relationship between State anxiety and Subjective well-being of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students.

Ha11 There is a significant relationship between Trait anxiety and Self-concept of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students.

Ha12 There is a significant relationship between Trait anxiety and Subjective well-being of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students.

Ha13 There is a significant association between Self-concept and Subjective well-being of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students.

Ha14 There is a significant association between Subjective well-being and Self-concept of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students.

Ha15 There is a significant joint effect of Self-concept and Subjective well-being on State anxiety of Bachelor of Naturopathy & Yogic Sciences, & Bachelor of Medicine & Bachelor of Surgery college students.
There is a significant joint effect of Self-concept and Subjective well-being on Trait anxiety of Bachelor of Naturopathy and Yogic Sciences, and Bachelor of Medicine and Bachelor of Surgery college students sample.

3.05 Research Design

In the present investigation, practice of yoga is taken as an independent variable.

Self-concept, State anxiety, Trait anxiety and Subjective well-being are taken as dependent variables.

Two types of comparisons were made:

1. To make comparison of two groups that is 250 BNYS students who practice yoga taken as first group and 25 MBBS students who do not practice yoga as second or Comparative group and tested them to know the effect of yoga practice. This group is technically known as 'after -- only with control design' (post -- test).

<table>
<thead>
<tr>
<th>Test area</th>
<th>Treatment</th>
<th>Level of Phenomenon</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNYS Students</td>
<td>Yoga Practice</td>
<td>Tested</td>
</tr>
<tr>
<td>( N = 250)</td>
<td>1 – 3 Years</td>
<td>( Y )</td>
</tr>
<tr>
<td>MBBS Students</td>
<td>No Yoga Practice</td>
<td>Tested</td>
</tr>
<tr>
<td>(N = 250)</td>
<td></td>
<td>( Z )</td>
</tr>
</tbody>
</table>

Yoga Practice effect = (Y) – (Z)

2. Another group of 50 students who were admitted newly in the first year of BNYS Course were tested twice i.e. in the beginning and after the practice of yoga for one year to find the effect of yoga. This is the third group technically known as 'before-and-after without control design' (pre-test—post-test).
Table No. 3.02
Before-and-after Without Control Design
(Pre-test—Post-test) is represented:

<table>
<thead>
<tr>
<th>Test area</th>
<th>Before</th>
<th>Treatment</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNYS Students (N = 50)</td>
<td>Pre-test (X)</td>
<td>Yoga Practice</td>
<td>Post-tested (Y)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>One Year</td>
<td></td>
</tr>
</tbody>
</table>

Yoga practice effect = (Y) – (Z)

3.06 Pilot Study

The present study was conducted with the permission of the heads of the institutions (BNYS and MBBS). A pilot study was conducted to verify the suitability of the all scales, to check the clarity of the instructions, and the length of time required to complete the questionnaires in all the three sample groups, before the final administration of the scales on the main sample of the study. This included the total sample of 100 subjects that is 50 students from Naturopathy and Yogic Sciences (BNYS) colleges and another 50 students from Medical (MBBS) colleges both boys and girls equally.

3.07 Sample

The present study is designed to find the impact of Yoga, on Self-concept, State anxiety, Trait anxiety and Subjective well-being. For this, Bachelor of Naturopathy and Yogic Sciences (BNYS) and Bachelor of Medicine and Bachelor of Surgery (MBBS) students are taken as samples. BNYS students practice yoga necessarily and regularly throughout their course as a part of academic curriculum. While, MBBS students none of whom practice yoga are selected as their counterpart. Another group of 50 students who are admitted newly to the first year of BNYS course are selected to find the intervention effect of yoga before and after the practice of it.

The total sample selected for this study consists of 550 students both boys and girls. The number of students selected for yoga group (Experimental
group) is 250. These students belong to second year to fourth year of BNYS Course classes, and in this study these are treated as first group. While in non-yoga group (Control group) 250 students selected from MBBS who also belong to second year to fourth year class, is the second group. Another group of 50 students who admitted newly to the first year of BNYS course are selected and tested twice before and after yoga practice for a year. This is the third group.

The age of the sample groups ranges between 19-23 years. The average age was 21 years.

For the selection of sample of both groups Purposive sample method was adopted. Care has been taken to equate all the three groups in terms of age and class.

The BNYS Students practice yoga daily in the morning 6.00 a.m. to 7.30 a.m., under the guidance of a qualified teacher who has completed BNYS degree. Attendance is compulsory except on Sundays and government holidays.

The samples of Naturopathy and Yogic Sciences students were drawn from Ujire, Moodbidre (Dakshina Kannada District of Karnataka State, India) and Ooty (Ootacamund District of Tamil Nadu state, India). And Medical students are selected from Dharwad, Hubli and Belgaum (Dharwad, and Belgaum districts of Karnataka state, India).

The Naturopathy and Yogic Sciences colleges of Dakshina Kannada district of Karnataka Ujire, Moodbidre and Medica colleges of Dharwad, Hubli and Belgaum are affiliated to Rajeev Gandhi University of Health Sciences, Bangalore. Where as, Ooty’s college of Ootacamund district of Tamil Nadu is affiliated to the Tamil Nadu Dr. M.G.R. Medica University, Chennai. It is recognized by Central Council for Research in Yoga and Naturopathy (CCRYN) Government of India, Ministry of Health and Family Welfare, New Delhi.
Karnataka has four Bachelor of Naturopathy and Yogic Sciences Colleges. As the study required a large sample, a college from the adjoining state of Tamil Nadu was also covered for the study.

Table No. 3.03
Breakdown of the Sample based on Group, Sex, Year of course / Class and Average Age of Respondents

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>First / Study Group (BNYS students)</th>
<th>Second / Control Group (MBBS students)</th>
<th>Avg. age in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Total</td>
</tr>
<tr>
<td>II Year</td>
<td></td>
<td>25</td>
<td>40</td>
<td>65</td>
</tr>
<tr>
<td>III Year</td>
<td></td>
<td>35</td>
<td>70</td>
<td>105</td>
</tr>
<tr>
<td>IV Year</td>
<td></td>
<td>35</td>
<td>45</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>95</td>
<td>155</td>
<td>250</td>
</tr>
</tbody>
</table>

Table No. 3.04
Breakdown of the Sample based on Sex and Year of course along with their Age

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>Third / Study Group (BNYS students)</th>
<th>Age in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>I &amp; II Year</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

Inclusion Criteria: The subjects in BNYS groups included those who were studying in 1st, 2nd, 3rd, & 4th year. While in MBBS group those who are studying in 2nd, 3rd, & 4th year. The measuring tests were administered on them in the beginning of the academic year. The selected subjects were regular candidates and they were residing in hostels.

Exclusion Criteria: The subjects those who are repeaters / odd batch students in all the three groups are not included. In the MBBS group subjects those who have mentioned that they are practicing yoga in the personal information, and those who are not staying in hostels, such subjects are not included.
On the basis of the above mentioned criteria 300 students from Naturopathy and Yogic Sciences Colleges (studying in first year to fourth year) and 250 students from Medical Colleges (studying in second year to fourth year) were selected for the study and are assigned to three groups by matching age and class.

3.08 Limitations of the Sample

The number of Bachelor of Naturopathy and Yogic Sciences Colleges in Karnataka being limited; and the number of male students being smaller compared to that of female students; researcher could not include equal number of boys and girls in each class. Girl students are included more when compared to boys because of availability. The selected students belong to different states of India; perhaps from different sub-cultures, languages, and socio-economic-backgrounds.

3.09 A Brief Description of Bachelor of Naturopathy and Yogic Sciences Course

Naturopathy is a combination of different methods of natural healing. It is a drugless system of curing diseases, which relies upon only the natural remedies rather than on drugs. Methods of Naturopathy and Yogic Sciences play a fundamental role in the prevention of diseases. In fact, Naturopathy is much more than a method of healing; it is a way of life.

In Naturopathy, Yoga is recommended and employed as a major therapeutic procedure, which helps mainly to combat psychosomatic illnesses such as hypertension, diabetes, insomnia etc with its various techniques namely, Asanas, Meditation, Relaxation techniques, and spiritual healing etc.

Academic Programme An overview: Bachelor of Naturopathy and Yogic Sciences (BNYS) is a four and half year’s degree programme with an additional year of compulsory Internship / Housemanship. After completion of the course, the student becomes eligible to practice as a Doctor in Natural Medicine and Yogic Sciences.
The course comprises scientific curriculum involving modern Anatomy, Physiology, Pathology, Microbiology, Forensic Preventive and Social Medicine, Drugless Therapies and Philosophy of Yoga (theory) and Yoga practice. Following are the subjects of yogic sciences:

I Year BNYS – Philosophy of Nature cure, and

Philosophy of Yoga (theory), and Yoga practices.

II Year BNYS – Yoga and Physical Culture – I and

Diagnostic methods in Yoga and Naturopathy – I

- And Yoga practice.

III Year BNYS – Yoga and Physical Culture – II.

- And Yoga practice.

IV Year BNYS – Yoga Therapy.

- And Yoga practice.

The course is based on the practices of simple life, daily yogic practices and prayers. Natural vegetarian sathvik diet is compulsory and part and parcel of the course as well as of the profession. All the students have to stay in hostels. They have to follow the procedure and principles of yogic way of life. The course has a judicious mix of lectures, practical sessions, clinical demonstrations, seminars and workshops. Regularity is one of the preconditions to attend the final examination. Thus, regular yoga practice is ensured. The degree of BNYS is recognized in India as equivalent to the degree of any other system of Medicine.

The approach of this Medical education course encompasses Yoga and Naturopathy Philosophy and it emphasizes the clinical tools and modalities necessary to establish a successful practice. These colleges are endowed with theoretical, practical, clinical facilities, which help to train the students multi-dimensionally. In this course, the students are offered to study diverse holistic treatment modalities, which are drugless ones along with the basic sciences (Website: www.ccryn.org).
### 3.10 Naturopathy, and Yogic Sciences Colleges in India

**Table No. 3.05**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the College and Address</th>
<th>University Affiliation &amp; State</th>
<th>Year of Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>S.D.M. College of Naturopathy and Yogic Sciences, Ujire – 574 240 (D.K.) Karnataka</td>
<td>Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka</td>
<td>1989</td>
</tr>
<tr>
<td>3</td>
<td>J.S.S. Institute of Naturopathy and Yogic Sciences, Mysore Road, Ootakamund – 643 001, Tamil Nadu.</td>
<td>M.G.R. Medical University, Chennai Tamil Nadu</td>
<td>1997</td>
</tr>
<tr>
<td>4</td>
<td>Shivaraj Naturopathy and Yoga Medical College, Siddhar Kovil Road, Thumbathulipatty, Salem – 07</td>
<td>M.G.R. Medical University, Chennai Tamil Nadu</td>
<td>1997</td>
</tr>
<tr>
<td>5</td>
<td>Govt. Naturopathy and Medical College, and Hospital, Anna Govt. Hospital of Indian Medicine, Anna Nagar, Chennai – 600016 T.N</td>
<td>M.G.R. Medical University, Chennai Tamil Nadu</td>
<td>2001</td>
</tr>
<tr>
<td>6</td>
<td>S.R.K. Medical College of Naturopathy and Yogic Sciences, Kulasekhram, Kanyakumari Dist. T.N.</td>
<td>M.G.R. Medical University, Chennai Tamil Nadu</td>
<td>2002</td>
</tr>
<tr>
<td>7</td>
<td>Mahaveer College of Naturopathy and Yogic Sciences, Nagpura Dist. Durg – 491001 Chattisgarh</td>
<td>Pt. Ravishankar University, Raipur Chattisgarh</td>
<td>2002</td>
</tr>
<tr>
<td>8</td>
<td>Alvas College of Naturopathy and Yogic Sciences, Moodbidri – 574 227 (D.K.) Karnataka</td>
<td>Rajiv Gandhi University of Health Sciences, Eangalore Karnataka</td>
<td>2003</td>
</tr>
<tr>
<td>9</td>
<td>K.L.E. College of Naturopathy and Yogic Sciences, Shahapur, Belgaum – 590003 Karnataka</td>
<td>Rajiv Gandhi University of Health Sciences, Eangalore Karnataka</td>
<td>2004</td>
</tr>
<tr>
<td>10</td>
<td>Morarji Desai Institute of Naturopathy and Yoga, Karelibaug, Vadodara – 390022 Gujarat</td>
<td>Gujarat Ayurveda University, Ammavagur, Gujarat</td>
<td>2005</td>
</tr>
<tr>
<td>11</td>
<td>Govt. Nature cure and Yoga College, PKTR Hospital, KRS Road, Mysore – 570 002 Karnataka</td>
<td>Rajiv Gandhi University of Health Sciences, Eangalore Karnataka</td>
<td>2006</td>
</tr>
</tbody>
</table>
At present there are eleven such colleges in India: four in Karnataka, four in Tamil Nadu, and one each college in Andhra Pradesh, Chattisgarh, and in Gujarat (www.ccryn.org)

3.11 Measures

The following four measures were used to collect the data from BNYS Students and MBBS students:

1. Personal Information
2. Self-concept Scale (Mukta Rani Rastogi, 1979)
4. Subjective Well-being Inventory (Nagpal, R. & Sell, H. L. 1985)

3.11.1 Personal Information

Age :
Class :
Sex :
Religion :
Order of Birth :
Early Home Background :
Type of Family :
Are you practicing Yoga? :
If practicing, since how many years?:
Are you staying in hostel?:

3.11.2 Self-concept Scale.

The Self-concept scale formulated and standardized by Mukta Rani Rastogi (1979) was used to know the Self-concept of the students in the present investigation.

This scale consists of fifty-one (51) Statements and measures: three components of Self-concept namely -- Perceptual, Conceptual and Attitudinal and their Constructs. These three components have altogether ten constructs of Self-concept namely - Health and sex appropriateness (Perceptual

\[ t=7556 \quad S \quad P^2 \]
component); Ability, Sociability and Emotional (Conceptual component); and Self-confidence, Self-acceptance, Worthiness, Present, past and future, Belief and convictions, Feeling of shame and guilt (Attitudinal component). There are both positive and negative statements. Each statement is measured on five points namely -- strongly agree, agree, undecided, disagree and strongly disagree. Positive items are scored five to one for responses and negative items are scored one to five. The total score on test ranges from 51-255.

There is no time limit but all the items can be responded within the time limit of 30 minutes.

Reliability - The Split half reliability of the scale s computed on the present study sample by following Spearman Brown formula and the reliability coefficient is 0.87

Description:

The three major components are:
1. **Perceptual component** -- is similar to 'Physical Self-Concept', which includes the image of one's appearance, attractiveness and sex appropriateness of body and the importance of different parts of the body.
2. **Conceptual Component** -- is similar to 'Psychological Self-Concept', which relates to the origin of the individual, his abilities and disabilities, his social adjustment and traits of personality.
3. **Attitudinal component** -- refers to attitude of a person about his present status, and future prospectus, his feelings about his
worthiness, his attitudes of Self-esteem, Pride and Shame. It includes his Beliefs, Convictions and Values also.

Administration:

The self-concept scale is self-administering. It can be administered individually as well as to a group. There is no time limit but all the items can be responded within the time limit of 30 minutes. The respondent is given following instruction to give his response:

Here are given fifty one statements. Below each statement are given five responses, (Strongly agree, Agree, Undecided, Disagree and Strongly disagree). Please read each statement carefully and respond to it by marking a tick on any of the five responses given. If you really strongly agree with the statement mark (✓) on 'strongly agree' if you only agree with the statement mark (✓) on 'Agree' and so on.

Example—I feel shy before others.

'Strongly agree' 'Agree' 'Undecided' 'Disagree' 'Strongly disagree'

Here the individual 'X' agrees with the statement and therefore has marked (✓) response 'Agree'. There is no right or wrong response. Try to give your response according to what you feel about yourself in reference to that statement. Your responses will be kept confidential.

Scoring:

This scale consists of 51 statements (both positive and negative). For each statement there are five response alternatives. Positive items are scored five to one for responses (Strongly agree, Agree, Undecided, Disagree, and Strongly disagree) and negative are scored one to five for the same response alternatives. The sum of the 51 items gives the overall Self-concept score. A minimum score of 51 and a maximum score of 255 is possible. Higher the score better the Self-concept.
Table No. 3.06
Self-concept with three Sub-components & 11 Constructs and Item numbers included in Ten Constructs.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Components / Constructs</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Perceptual Component</td>
<td>6, 20, 29, 32, 34 &amp; 46</td>
</tr>
<tr>
<td></td>
<td>Health and Sex Appropriateness</td>
<td>P P N N P P</td>
</tr>
<tr>
<td>2</td>
<td>Conceptual Component</td>
<td>4, 8, 12, 23, 36, 38, 39 &amp; 42</td>
</tr>
<tr>
<td></td>
<td>Abilities</td>
<td>P P N N P N N P</td>
</tr>
<tr>
<td>3</td>
<td>Sociability</td>
<td>33, 37, 43, &amp; 45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N F P N</td>
</tr>
<tr>
<td>4</td>
<td>Emotional</td>
<td>11, 15, 21 &amp; 51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N N</td>
</tr>
<tr>
<td>5</td>
<td>Attitudinal Component</td>
<td>7, 9, 14, 16 &amp; 44</td>
</tr>
<tr>
<td></td>
<td>Self – Confidence</td>
<td>P P N N P</td>
</tr>
<tr>
<td>6</td>
<td>Self – Acceptance</td>
<td>2, 10, 17 &amp; 35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P N N N</td>
</tr>
<tr>
<td>7</td>
<td>Worthiness</td>
<td>1, 3, 19, 25, 27, 41, &amp; 48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P N N P P N P</td>
</tr>
<tr>
<td>8</td>
<td>Present, Past and Future</td>
<td>18, 21, 26, 31, &amp; 40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P F N N P</td>
</tr>
<tr>
<td>9</td>
<td>Beliefs and Convictions</td>
<td>24, 47, &amp; 49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N P</td>
</tr>
<tr>
<td>10</td>
<td>Feeling of Shame and Guilt</td>
<td>5, 13, 28, 30 &amp; 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N N N</td>
</tr>
</tbody>
</table>

The letters 'P' or 'N' below each item shows the positive or negative items

3.11.3 State and Trait Anxiety Scale (Spieberger, C. D., Gorsuch, R. L., & Lushene, R. D., 1970)

Spieberger’s et al. State and Trait Anxiety Inventory consists of 40 statements, 20 of which measure the individual’s level of State anxiety and the other 20 statement measure Trait anxiety. In the present study, it is used to measure the individual’s level of State and Trait anxieties.
I. State Anxiety

It consists of 20 statements, which is intended to measure "How a person feels at that particular moment?" There are both positive and negative statements. Each statement is measured on four points. The options on the 4 points' scale are-'Almost never' 'Sometimes' 'Often' and 'Almost always'. Positive items are scored one to four and Negative items are scored four to one. The total score ranges between 20-80.

Reliability -The Split half reliability of the inventory is calculated on the present study sample by adopting Spearman Brown formula and the reliability coefficient is 0.73.

Description:

I. State Anxiety — A transitory emotional response involving unpleasant feelings of tension and apprehensive thoughts. State anxiety has a transient nature of an emotional arousal in reaction to the immediate environment.

Administration:

A number of statements which people have used to describe themselves are given here. Read each statement carefully and then select your answer by putting marking a tick (✓) mark to indicate how you feel right now, that is, at this moment. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

For example: I feel calm.

Alternatives are: 'Almost never' 'Sometimes' 'Often' and 'Almost always'

Here the individual 'X' agrees with 'Almost always' alternative therefore has marked (✓) response 'Almost always'.

Scoring

The scoring procedure is described in the manual of State Trait Anxiety Inventory.
Table No. 3.07
State Anxiety, Item number and its Positive or Negative Direction

<table>
<thead>
<tr>
<th>State Anxiety</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Item</td>
<td>3, 4, 6, 7, 9, 12, 13, 14, 17, &amp; 18</td>
</tr>
<tr>
<td>Negative Item</td>
<td>1, 2, 5, 8, 10, 11, 15, 16, 19, &amp; 20</td>
</tr>
</tbody>
</table>

Positive items scored as—Almost never—1, Sometimes—2, Often—3, and Almost-always—4.
Negative items scored in the reverse order as—4, 3, 2, & 1, for the same alternatives.

The sum of the 20 items gives the State anxiety score. A minimum score of 20 and maximum score of 80 is possible. The higher the score indicated a higher level of State anxiety and vice versa.

II. Trait Anxiety

This Inventory also consisted of 20 statements, which is intended to measure “How a person generally feels”. There are both positive and negative statements. Each statement is measured on four points. The options on the 4 points scale are—Almost never ‘Sometimes’ ‘Often’ and ‘Almost always’. Positive items are scored one to four and Negative items are scored four to one. The total score ranges between 20-80

Reliability - The Split half reliability of inventory is computed on the present study sample by following Spearman Brown formula and the reliability coefficient is 0.77.

Description:

Trait Anxiety — is a personality trait referring to individual differences in the likelihood that a person will experience State anxiety in stressful situations. Trait anxiety is characterized by a more prevailing condition affecting the person’s every day-life. It is a personality characteristic reflecting the noticeable differences among the frequencies and it intensifies the people’s emotional reaction to a situation, which varies from one situation to another.
Administration:

A number of statements which people have used to describe themselves are given here. Read each statement carefully and then select your answer by putting marking a tick (✓) mark to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

For example: I try to avoid facing a crisis or difficulty.
Alternatives are: ‘Almost never’ ‘Sometimes’ ‘Often’ and ‘Almost always’.

Here the individual ‘Y’ agrees with ‘Almost never’ alternative therefore has marked (✓) response ‘Almost never’.

Scoring

Table No. 3.08

<table>
<thead>
<tr>
<th>Trait Anxiety Item number and its Positive or Negative Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trait Anxiety</strong></td>
</tr>
<tr>
<td>Positive Item</td>
</tr>
<tr>
<td>Negative Item</td>
</tr>
</tbody>
</table>

The same scoring procedure is used for scoring the Trait anxiety was adopted in this inventory.

Positive items scored as- 1, 2, 3, & 4. While negative items scored in the reverse order i.e., 4, 3, 2, & 1.

The sum of the 20 items gives the Trait anxiety score. The score ranges from minimum of 20 to a maximum of 80. The higher the score indicated higher level of Trait anxiety and vice versa.

3.11.4 The Subjective Well-being Inventory (Nagpal, R. & Sell, H. L., 1985)

The Subjective well-being inventory is formulated and standardized by Rup Nagpal and Helmut Sell (1985). It is a Self-report questionnaire consisting of 40 items designed to measure feelings of Well-being or the lack

Reliability - The Split half reliability of inventory is calculated on the present study sample by adopting Spearman Brown formula and the reliability coefficient is 0.82.

Description:
1. General Well-being Positive Affect - The referents of this dimension reflect feelings of well-being arising from an overall perception of life as functioning smoothly and joyfully as at present as compared with the past. Examples are, a happy feelings about one's accomplishments, finding life enjoyable and interesting.

2. Expectation-achievement congruence - Most of the items on this dimension refer to feelings of Well-being generated by achieving the standard of living, social status, success and freedom as per one's expectations or what may be called satisfaction.

3. Confidence in coping - Items on this dimension relate to positive personality strengths one's ability to manage situations when they don't turn out as expected, ability to remain calm in critical situations, confidence in coping with crisis, ability to concentrate well on things one is doing.

4. Transcendence - All items with high loading on this dimension are related to life experiences that are beyond the ordinary day-to-day material and rational existence. They relate to feelings of subjective well-being derived from values of a spiritual quality such as being part
of mankind or belonging to a common force, having moments of intense happiness such as ecstasy or bliss and having a deep religious fulfillment in life. The theoretical constructions of rootedness and belongingness are included in this dimension.

5. **Family Group Support** - Items on this dimension reflect positive feelings derived from the perception of the wider family as supportive, cohesive and emotionally attached. This dimension reflects cohesive aspects of family life.

6. **Social Support** - This dimension contains items relating to the perception of social environment beyond the realm of the family as supportive in general and also in times of crisis, e.g., the feeling of being part of a friendly and mutually supportive group or finding company of a friend if desired.

7. **Primary Group Concern** - The items on this dimension relate to feelings of happiness or worry about one's relationship with the primary family, namely—parents and siblings.

8. **Inadequate Mental Mastery** - Items with significant loading on this dimension imply a sense of insufficient control over or inability to deal efficiently with certain aspects of everyday life that are capable of disturbing the mental equilibrium.

9. **Perceived ill health** — The items on this dimension are complaints of getting tired too easily, concern over palpitation, giddiness, pain in various parts of the body and worries over health and physical fitness in general.

10. **Deficiency in Social Contacts** - The items have the common feature of missing friends or worrying about being disliked. These negative items concern deficiency of social network.

11. **General Well-being Negative Affect** - Items with high loading on this dimension are disruption of life in a broad and general prospective—whether one considers life as useless or miserable, boring or uninteresting, lack of confidence in what one is doing, worry about mental well-being and being disturbed by anxiety and tension. This dimension would, therefore, appear to denote a generally depressed outlook on life.
Administration:

People are different. They live in a variety of situations and they do not feel the same way about life and the world around them. From a practical viewpoint, it is important to know how different persons feel with regard to their day-to-day concerns like health or family. Such knowledge is necessary if an improvement in the quality of life of people is to be brought about.

This is a questionnaire on how you feel about some aspects of your life. Each question may be answered by stating any one of the given response categories. For example, Do you feel that your life is very interesting? Alternatives are 'Very Much', 'To some extent', 'Not so much' please state your response and place a tick mark in the appropriate box (√). At times you may find that your feeling is not represented perfectly by any of the given response categories. In such cases, just choose the one closest to what you think.

Scoring:

The Subjective well-being inventory consists of 40 items.
The positive items are scored as : 3, 2, 1.
Where as, negative items scored in the reverse order i.e. 1, 2, & 3.

The sum of the 40 items gives the overall Subjective Well-being score. The possible score ranges from a minimum of 40 to a maximum of 120. Higher the score better the Well-being.
Table No. 3.09
Subjective Well-being with Eleven Sub-dimensions

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Sub-dimension</th>
<th>Item Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General well-being negative affect</td>
<td>1, 5 &amp; 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P P P</td>
</tr>
<tr>
<td>2</td>
<td>Expectation - achievement congruence</td>
<td>2, 3, &amp; 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P P P</td>
</tr>
<tr>
<td>3</td>
<td>Confidence in coping</td>
<td>7, 8, &amp; 9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P P P</td>
</tr>
<tr>
<td>4</td>
<td>Transcendence</td>
<td>10, 11, &amp; 12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P &gt; P</td>
</tr>
<tr>
<td>5</td>
<td>Family group support</td>
<td>21, 22, &amp; 23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P P P</td>
</tr>
<tr>
<td>6</td>
<td>Social support</td>
<td>13, 15, &amp; 28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P P P</td>
</tr>
<tr>
<td>7</td>
<td>Primary group concern</td>
<td>14, 17 &amp; 29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P N N</td>
</tr>
<tr>
<td>8</td>
<td>Inadequate mental mastery</td>
<td>16, 18, 19, 20, 30 &amp; 31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N N N N N N N</td>
</tr>
<tr>
<td>9</td>
<td>Perceived ill health</td>
<td>34, 35, 36, 37, 38 &amp; 39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N N N N N N N</td>
</tr>
<tr>
<td>10</td>
<td>Deficiency in social contacts</td>
<td>32, 33 &amp; 40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N</td>
</tr>
<tr>
<td>11</td>
<td>General well-being negative affect</td>
<td>24, 25 &amp; 26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N N N</td>
</tr>
</tbody>
</table>

The letters 'P' or 'N' below each item show the positive or negative items

3.12 Data Collection

In the beginning of the academic year, respondents were contacted personally class-wise, in the classroom situation of the selected colleges by the investigator himself on two different sessions. In the first session, Information about personal data collected and responses were obtained for
the Self-concept scale. In the second session, State-Trait Anxiety Inventory, and Subjective Well-being Inventory were distributed to the students in the class and responses were obtained for both the inventories. After one year gap, once again second year BNYS students (who were in the first year students in the last year of BNYS) were contacted in the beginning of academic year and were administered all the four above mentioned questionnaires in two sittings to study the intervention effect of yoga and followed the same procedure.

3.13 Data Processing
The data, thus collected were scrutinized, coded, scored and then raw scores were transformed into standard scores.

3.14 Scrutinizing
The responses given by the respondents were carefully scrutinized for wrong marking, omissions and commissions. Only such of those answer sheets, which were complete in all respects were retained for further study and the others were rejected from the study.

3.15 Analysis of Results
The raw scores of the subject on all the tests were converted into standard scores. Then the standard scores of Self-concept, State anxiety, Trait anxiety and Subjective well-being were compared. The relationship between Self-concept, and State anxiety; Self-concept and Trait anxiety; Subjective Well-being and State anxiety; Subjective Well-being and Trait anxiety; Self-concept and Subjective Well-being. Further the joint effect of Self-concept, and Subjective well-being on State anxiety and joint effect of Self-concept and Subjective well-being on Trait anxiety have been analyzed. For this purpose, the following are statistical techniques have been used.

Statistical Techniques:
Descriptive Statistics: Descriptive statistics name y: frequency distributions, mean and standard deviations, percentages and graphical, figures are used to present the results. That is the difference between two groups' scores on
overall Self-concept and on its 10 sub-dimensions, State anxiety, Trait anxiety, and overall Subjective well-being and on its 11 sub-dimensions.

1. **Student 't' test**: It is used when we want to compare the mean score for two different groups of subjects. In the present study this is used to find the significance of difference between yoga practitioners (BNYS students group) and non-yoga practitioners (MBBS students group) in terms Self-concept, State-anxiety, Trait Anxiety, and Subjective well-being.

2. **Paired 't' test** (also referred to as repeated measures) It is used when we have only one group of subjects and we collect data from them on two different occasions, or under two different conditions. The 't' tests assesses the significance of the difference between the means of two groups or two sets of (before and after) scores. In the present study it is used to find the Yoga intervention effect (Yoga practice for a year) on Yoga practitioners (BNYS students) Self-concept, State anxiety, Trait anxiety, and Subjective well-being.

3. **Correlation**: Correlation is a statistical technique, which can show whether, and how strong pairs of variables are related. There are several different correlation techniques. The most common type is the Pearson product-moment correlation. The Pearson product-moment correlation Coefficient (r) is a measure of the degree of linear relationship between two variables, usually labeled X and Y. It is useful to look at the relationship between two variables while removing the effect of one or two variables.

   The main result of a correlation is called the correlation coefficient (or "r"). It ranges from -1.0 to 1.0. The closer r is to +1 or -1, the more closely the two variables are related. The sign of the correlation coefficient (+, -) defines the direction of the relationship, either positive or negative. A positive correlation coefficient means that as the value of one variable increases, the value of the other variable increases and as one decreases the other decreases. A negative
correlation coefficient indicates that as one variable increases, the other decreases, and vice-versa. If \( r \) is close to 0, it means there is no relationship between the variables.

In the present study it is used to find out the relation between Self-concept and State anxiety; Subjective well-being and State anxiety; Self-concept and Trait anxiety; Subjective well-being and Trait anxiety; overall Self-concept and Overall Subjective well-being and its eleven sub-dimensions; and Overall subjective well-being and Overall Self-concept and its ten constructs.

4. **Multiple Regression Analysis**: This technique is used when there is one dependent variable which is presumed to be a function of two or more independent variables. The objective of this analysis is to make a prediction about the dependent variable based on its covariance with all the concerned independent variables. This technique is appropriate when the researcher has a single, metric criterion variable which is supposed to be a function of other explanatory variables. The main objective in using this technique is to predict the variability the dependent variable based on its covariance with all the independent variables. One can predict the level of the dependent phenomenon through multiple regression analysis model, given the levels of independent variables. In the present study it is used to find out the significant contribution of Self-concept and Subjective well-being of BNYS and MBBS students on their State anxiety. It is also used to find out the significant contribution of Self-concept and subjective well-being of BNYS and MBBS students on their Trait anxiety.