CHAPTER III
METHODOLOGY

3.1 Introduction
3.2 Problem
3.3 Aim of the Study
3.4 Operational Definition
3.5 Objectives of the Study
3.6 Hypothesis
3.7 Methodology
3.8 Tools used for Data Collection
3.9 Population, Sample Selection & Data Collection.
3.10 Statistical Analysis
3.1 Introduction

This chapter deals with the sampling details, the design, tests employed for the gathering data, procedure for conducting the study and the statistical methods to be used for analysis.

Further looking to the objective of this research the present investigation was conducted under three phases in order to make this study simpler and easily understandable, therefore each methodology detail described under two phase

3.2 Problem

“A COMPARATIVE STUDY OF IMPACT OF YOGA PRACTICE ON ADJUSTMENT AND AGGRESSION OF URBAN AND RURAL TEENAGERS.”

3.3 Aim of the Study

The aim of the present research work is to study the impact of Yoga Practice on adjustment and aggression of urban and rural teenagers.

3.4 Operational Defination

Yoga :

"Any of the methods or disciplines prescribed, especially a series of postures and breathing exercises practiced to achieve control of the body and mind, tranquility. etc"

Aggression :

"The practice of making assaults or attacks; offensive action in general"
Adjustment

"The act of adjusting - adaptation to a particular condition, position, or purpose."

Teenage

"A person between the ages of 13 and 19 and characterised by odd sleeping patterns, awkward growth spurts, bullying, acne and slobbish behavior."

Urban

"One who belongs to lives in a town of city."

Rural

"Pertaining to, or characteristic of the country, country life, or country people; rustic; rule tranquility."

3.5 Objectives of the study

The objectives of the present study are as under:

- To study the significance of yoga practices on overall adjustment as well as level of the students.
- To study the effect of gender on Students’ level of overall adjustment as well as Emotional, Social, educational adjustment.
- To compare urban and rural students on their level of overall adjustment as well as on emotional, Social, educational adjustment.
- To study the interactional effect of yoga practices, gender and inhabitance on adolescents' level of overall adjustment as well as on emotional, Social, educational adjustment."
To examine the efficacy of yoga practise on teenagers' level of aggression.

To study the effect of gender on students' aggression level.

To study the effect of inhabitance on students' level of aggression.

To study the interactional effect of yoga practices, gender and inhabitance on students' level of aggression.

3.6 Hypothesis

In relation to the above objectives of this study directional hypothesis have been formulated.

A) Overall adjustment of adolescents who are enrolled in yoga practices will be significantly virtuous than those students who are not practicing yoga.

   a) There will be no significant difference between male and female students in their level of overall adjustment.
   b) There will be no significant effect of inhabitance on adolescents' overall adjustment.
   c) There will be no following interaction effect among variables on students level of total adjustment.

  Yoga * Gender
  Yoga * Inhabitance
  Gender * Inhabitance
  Yoga * Gender * Inhabitance.

B) Emotional adjustment of adolescents who are enrolled in yoga practices will be significantly excellent than those students who are not practicing yoga.

   a) There will be no significant difference between male and female students in their level of emotional adjustment.
b) There will be no significant effect of inhabitation on adolescents emotional adjustment.

c) There will be no following interaction effect among variables on students' level of emotional adjustment-
Yoga * Gender
Yoga * Inhabitance
Gender * Inhabitance
Yoga * Gender * Inhabitance.

C) Social adjustment of adolescents who are enrolled in yoga practices will be significantly higher than those students who are not practicing yoga.

a) There will be no significant difference between male and female students in their level of social adjustment.

b) There will be no significant effect of inhabitation on adolescents' social adjustment.

c) There will be no following interaction effect among variables on students' level of social adjustment-
Yoga * Gender
Yoga * Inhabitance
Gender * Inhabitance
Yoga * Gender * Inhabitance.
D) Educational adjustment of adolescents who are enrolled in yoga practices will be significantly good than those students who are not practicing yoga.

a) There will be no significant difference between male and female students in their level of overall adjustment.

b) There will be no significant effect of inhabitance on adolescents' educational adjustment.

c) There will be no following interaction effect among variables on students' level of educational adjustment:

- Yoga * Gender
- Yoga * Inhabitance
- Gender * Inhabitance
- Yoga * Gender * Inhabitance

E) Yoga practices will be significant to decline aggression level of adolescents.

a) There will be no significant effect of gender on students' aggression,

b) Student belongs to urban and rural community will not be differ significantly on their level of aggression.

c) There will be no following interaction effect among variables on students' level of aggression.

- Yoga * Gender
- Yoga * Inhabitance
- Gender * Inhabitance
- Yoga * Gender * Inhabitance
3.7 Methodology

Sample

Sample of the present investigation 400 teenagers were selected from urban and rural areas of Aurangabad District. The stratified randomize sample taken into consideration for the study. In which 200 subjects were taken from doing with Yoga practice daily since last three years and 200 were taken without yoga practice or any kind of exercise. Both groups were made with equal number of students belong to urban (N=200) and rural (N=200) community. All four sub groups were made with equal number of male (N=100) and female (N=100) students. The distribution of total sample is depicted as follows:

Sample Distribution

<table>
<thead>
<tr>
<th>Yoga Practices</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>With Yoga Practices</td>
<td>n=50</td>
<td>n=50</td>
<td>n=50</td>
</tr>
<tr>
<td>Without Yoga Practices</td>
<td>n=50</td>
<td>n=50</td>
<td>n=50</td>
</tr>
<tr>
<td>Total</td>
<td>n=100</td>
<td>n=100</td>
<td>n=100</td>
</tr>
</tbody>
</table>

Variables

The variables in this part will be treated as follows:

Independent variable
Yoga Practices (A)

With Yoga practices (A1)
Without Yoga practices (A2)

Gender (B)

Male (B1)
Female (B2)

Inhabitance (C)

Urban (C1)
Rural (C2)

Dependent variable

Adjustment (Overall)

Emotional adjustment
Social adjustment
Educational adjustment

Aggression

Research Design

To reach out the objectives of present investigation 2x2x2 factorial design was used as depicted below.

2 x 2 x 2 Factorial Design

<table>
<thead>
<tr>
<th></th>
<th>A₁</th>
<th>A₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₁</td>
<td>B₁</td>
<td>A₁B₁C₁</td>
</tr>
<tr>
<td></td>
<td>B₂</td>
<td>A₁B₂C₁</td>
</tr>
<tr>
<td>C₂</td>
<td>B₁</td>
<td>A₁B₁C₂</td>
</tr>
<tr>
<td></td>
<td>B₂</td>
<td>A₁B₂C₂</td>
</tr>
</tbody>
</table>
A1 - Subjects with Yoga Practices
A2 - Subjects without Yoga Practices
B1 - Male Subjects
B2 - Female Subjects
C1 - Subjects belongs to Urban Community
C2 - Subjects belongs to Rural Community.

A1B1C1 - Male Students belong to urban community and underwent yoga practices.
A1B2C1 - Female Students belong to urban community and undergone yoga practices.
A1B1C2 - Female Students belong to rural community and undergone yoga practices.
A2B1C1 - Male students belong to urban community and not underwent Yoga practices.
A2B1C2 - Male Students belong to rural community and not underwent yoga practices.
A1B1C2 - Female Students belong to rural community and not underwent yoga practices.
### 3.8 Tools used for Data Collection

<table>
<thead>
<tr>
<th>Aspects Measured</th>
<th>Name of the Test</th>
<th>Author</th>
<th>Reliability</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustment</td>
<td>Adjustment Inventory for School students (AISS)</td>
<td>A.K.P. Sinha and R.P. Singh (1971)</td>
<td>.90-.96</td>
<td>.51</td>
</tr>
<tr>
<td>Aggression</td>
<td>Aggression Questionnaire</td>
<td>G.C. Pati (1976)</td>
<td>.71</td>
<td>.83</td>
</tr>
</tbody>
</table>

**Adjustment Inventory for school students**

The present adjustment inventory was developed by A. K.P. Sinha and R.P. Singh in 1971. The adjustment inventory has been designed for use with Hindi knowing school students of India. The inventory seeks to segregate well adjusted school students (age group 14 to 18 years) from poorly adjusted students in the three area of adjustment; Emotional, Social and Educational as well as total adjustment. This inventory consists of total 60 items, 20 items in each area of adjustment. Each item was to be answered in yes or no and scored 0 and 1 so the score ranged was 0 to 60 for overall inventory and 0 to 20 for each area of adjustment. Higher score is indicative of low adjustment.

Reliability of this inventory is determined by split half, test retet and K- R formula-20. The reliability coefficient was varied from 0.90 to 0.96. The validity of the inventory was determined by item analysis. The inventory was also validated by correlating inventory score with ratings by the hostel superintended and correlation was obtained to be .51. Percentile norms were computed both male and female of all the three area of adjustment separately as also for whole inventory. All three area were described as follows-
Emotional adjustment - High scores indicate unstable emotion. Students with low score tend to be emotionally stable.

Social Adjustment - High score indicate submissive and retiring. Low score indicate aggressive behaviour.

Educational Adjustment - Individual scoring high are poorly adjusted with their curricular and curricular programme. Person with low score are interested in school programs.

Aggression Questionnaire-

The present aggression questionnaire was developed by G.C. Pati in 1976. This questionnaire consists of 16 questions. Each question describes a situation where some form of aggression or deviant behaviour has occurred and also some persons who have responded to that in low to mildly aggressive, moderate and highly aggressive manners. The subject is requested to indicate the best appropriate response out of the given three responses elicited by situation from persons to describe in the question. In this way the questionnaire describes 16 different situations relating to family, peers, certain outside persons, antisocial characters, police and court. Majority of psychologist opined that all 16 questions were good enough as aggression questions. To score for each question scoring schedule is prepared to score individual performance through "sigma deviate weighting method". The reliability of the questionnaire was determined by split half method and found to be 0.55. The questionnaire was also having high validity criteria.
Yoga

The yoga module integrated set of yoga practices. The module was based on ancient Yoga texts and qualified yoga teachers to bring about a total development at the physical, mental, emotional, social, and spiritual levels. The techniques included

- Physical practices (Kriyas, asanas, healthy yoga diet)
- Breathing practices with body movements and Pranayama
- Meditation
- Lectures on yoga
- Stress management based on yogic philosophy, and lifestyle change through notional corrections for blissful awareness under all circumstances (Action in relaxation)

3.9 Population, Sample selection and data Collection

Sample of the present investigation 400 teenagers were selected from urban and rural area Yoga Classes of Aurangabad District. The written permission was sought out from the respective Yoga Classes Teachers after decussing the purpose of the present study. In order to finalize initial sample students of each class were requested to fill the personal information schedule. On the basis of their information on personal schedule they were randomly assigned into each experimental group. To obtain the data selected students were administrated on the Adjustment inventory for school students (AISS) by K.P. Sinha and R.P. Singh (1971) and Aggression Questionnaire by G.C. Patil (1976). The tests were administrated one test at a time in order to reduce fatigue and boredom effect. To fill the test subjects are given general
Instructions belong to each test. Data were obtained by using particular scoring pattern standardized for each test.

3.10 Statistical Analysis
The data were analyzed as follows:

The data were analyzed with descriptive statistics the mean with graphical representation for yoga (with and without Yoga practices) gender (Male & Female), Inhabitance (urban & Rural) on subjects adjustment and on aggression was analyzed.

Further to reach out the objective inferential statistic (three way Analysis of variance; (ANOVA) was used in order to examine the role of main variables as well as their interaction effects subsequently on subjects’ adjustment and on aggression level.