



**ORIGINAL RESEARCH PAPER**

**Education**

**TO STUDY THE IMPACT OF PHYSICAL EDUCATION TEACHERS' TRAINING PROGRAMME IN MANAGEMENT OF STATE AND TRAIT ANXIETY**

**KEY WORDS:** State and Trait Anxiety, Psychological Wellbeing, Quasi-Experimental Research Design.

**Subrata Bhattacharya\***

SACT-II, Sankrail Anil Biswas Smriti Mahavidyalaya, Kultikri, Jhargram, and Research Scholar, Department of Education, Swami Vivekananda University, Barrackpore. \*Corresponding Author

**Somnath Nandi**

Assistant Teacher of Physical Education, Chandernagore Banga Vidyalaya, Chandernagore, Hooghly.

**Biswajit Saha**

Assistant Professor, Sponsored Teachers' Training College, Purulia, West Bengal.

**Samirranjan Adhikari**

Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal.

**ABSTRACT**

Anxiety may be defined as a feeling of fear, tenseness or uneasiness about something with an indefinite outcome. There are many experimental proofs to establish the relationship among physical activity, psychological wellbeing and anxiety reduction. The main aim of the present study was to explore the impact of this training in the reduction of state and trait anxiety. The study was conducted through the method of quasi-experimental research with a single-variable one-group pre-test – post-test design. The State-Trait Anxiety Inventory (STAI) was administered on a sample of 200 B.P.Ed. students – at the beginning, in the middle and at the end of the session. From the result, it was observed that physical education teacher training programme (B.P.Ed.) may have a positive impact on the reduction of state and trait anxiety.

**1. Perspective of the Study**

Anxiety is an uneasy and fearful feeling. It is the symbol of many psychological and behavioural disorders. Anxiety is often a scattered, terrible and uncomfortable feeling of apprehension, accompanied by one or more bodily sensations that characteristically recurs in the same manner in the person. It is an alarming sign that warns an individual of approaching danger and enable him to take measure to cope with. According to Hallam (1992), the word anxiety is used in everyday discussion and it denotes a complex relationship between a person and his situation. Anxiety is the mind or body's usual response to a threat. Actually at the time of threat body triggers several physical and mental reactions.

**1.1 Physical Activities in Anxiety Management**

Physical activities, more specifically physical exercises, have a positive impact on decreasing anxiety and depression. Participating in physical activities initiates a feeling of well-being and good mental health. Many psychologists state that physical energy has an impact on mental energy (Garachidagi & Fotohi, 1993).

Anderson et al (1997) conducted a study to determine the effect of physical exercise on depressed patients. The experimental group joined in a 24-week programme of exercise. The result indicates that the experimental group had a "decreased or low level of depression" in comparison with the controlled group. Wyshak (2001) also opined that physical exercises reduce depression and other mental complications of university women students.

Norris et al (1999) in their experiment showed that two times respiratory exercises in a week, (each time for 25 to 30 minutes), for 10 weeks caused fitness of body and decrease depression and anxiety of depressed, nervous and aggressive persons.

**1.2 Physical Education**

Physical education is a significant educational process. It aims at improving human performance and enhancing human development through the help of physical activities. It is a key element in a comprehensive well-balanced curriculum and can be a major contributing factor in the development of an individual in all aspects of life. Teachers' training course in

physical education i.e. B.P.Ed is a rigorous training course in physical education. Both physical activities and pedagogical aspects are contained within the curriculum of B.P.Ed. course. The impact of this course on the improvement of some psychological and physical characteristics has been studied earlier by many researchers (Adhikari, 2008; 2010 and 2010a).

**1.3 Objective of the study**

It is well known to us that B.P.Ed. Course has an incredible impact on physical and psychological improvement of the teachers of Physical Education. However, related literatures reveal that there are only a few studies to investigate the effect of B.P.Ed. Course on psychosomatic development. The present study was designed to probe into the impact of B. P. Ed. course on the management of state and trait anxiety.

**2. Method**

The present study was conducted through the method of quasi-experimental research with a single-variable one-group pre-test – post-test design. The details regarding research design, sample, tools, the procedure of data collection and statistical technique are reported herewith.

**2.1 Participants**

Colleges and University Departments imparting B.P.Ed. Course in West Bengal were the source of the sample. The number of samples of the present study was 200 B.P.Ed. trainee teachers.

**2.2 Research Tool**

**The State-Trait Anxiety Inventory (STAI):** This inventory was designed by Spielberger, Gorsuch, Lushane, Vagg and Jacobs (1983).

**State Anxiety** is conceptualised as a momentary level of anxiety, which is often temporarily determined. It changes with time and circumstances. Whereas **Trait Anxiety** is regarded as a latent tendency, which is relatively stable and which can be prompted by appropriate stimuli – this is considered as a basic anxiety level.

STAI is a self-evaluation questionnaire. Each part of the inventory contains 20 items. Instructions are given to the

participants to put their choice on a 4-point "Likert type scale".

**2.3 Procedure**

The inventory was applied to the subjects in three different stages of an academic session and the responses were counted as per the scoring procedure, prescribed in the manual of the inventory.

**The tool was used in three phases –**

- a) In the first phase, the test was applied at the very beginning of the B.P.Ed. course (during the 1<sup>st</sup> week of July);
- b) In the second phase the same test was taken in the middle of the course; and
- c) In the final phase, the same test was applied after the end of the course (i.e. before study leave).

**2.4 STATISTICAL ANALYSIS**

For Statistical Analysis Paired Samples "t" - test was done with the help of SPSS 20 software.

**3. RESULTS**

The result of the investigation is presented in the following tables.

**Table-1: Paired Samples Statistics**

| Pair              | Anxiety            | Mean  | N   | Std. Deviation |
|-------------------|--------------------|-------|-----|----------------|
| Pair <sub>1</sub> | State <sub>1</sub> | 76.22 | 200 | 32.66          |
|                   | State <sub>2</sub> | 39.47 | 200 | 7.28           |
| Pair <sub>2</sub> | State <sub>2</sub> | 39.47 | 200 | 7.28           |
|                   | State <sub>3</sub> | 36.59 | 200 | 6.45           |
| Pair <sub>3</sub> | Trait <sub>1</sub> | 44.45 | 200 | 8.57           |
|                   | Trait <sub>2</sub> | 43.69 | 200 | 5.72           |
| Pair <sub>4</sub> | Trait <sub>2</sub> | 43.69 | 200 | 5.72           |
|                   | Trait <sub>3</sub> | 41.57 | 200 | 5.31           |

From Table-1 it is detected that mean of the State and Trait Anxiety Scores of STAI of the B.P.Ed. students decreased as the course was advanced towards the end. The mean of the State Anxiety Scores of STAI in the 1<sup>st</sup> phase of testing was 76.22, in the 2<sup>nd</sup> phase of testing the mean was 39.47 and in the 3<sup>rd</sup> phase of testing, it was 36.59. The mean of the Trait Anxiety Scores of STAI in three stages of testing were 44.45, 43.69 and 41.57 respectively.

**Table-2: Paired Samples Correlations**

| Pair              | Anxiety                                 | N   | Correlation | Sig.  |
|-------------------|---|-----|-------------|-------|
| Pair <sub>1</sub> | State <sub>1</sub> & State <sub>2</sub> | 200 | 0.214       | 0.002 |
| Pair <sub>2</sub> | State <sub>2</sub> & State <sub>3</sub> | 200 | 0.959       | 0.000 |
| Pair <sub>3</sub> | Trait <sub>1</sub> & Trait <sub>2</sub> | 200 | 0.591       | 0.000 |
| Pair <sub>4</sub> | Trait <sub>2</sub> & Trait <sub>3</sub> | 200 | 0.914       | 0.000 |

From Table-2 it is found that the coefficients correlations between the State Anxiety Scores of STAI in the 1<sup>st</sup> & 2<sup>nd</sup> stage of testing was 0.214 and the 2<sup>nd</sup> & 3<sup>rd</sup> stage of testing was 0.959. Again, the coefficients correlations between the Trait Anxiety Scores of STAI in the 1<sup>st</sup> & 2<sup>nd</sup> stage of testing was 0.591 and the 2<sup>nd</sup> & 3<sup>rd</sup> stage of testing was 0.914. All correlations are highly significant.

**Table-3: Paired Samples Test**

| Pair              | Anxiety                                 | Paired Differences |                | t      | df  | Sig. (2tailed) |
|-------------------|---|--------------------|----------------|--------|-----|----------------|
|                   |   | Mean               | Std. Deviation |        |     |                |
| Pair <sub>1</sub> | State <sub>1</sub> – State <sub>2</sub> | 36.75              | 31.91          | 16.287 | 199 | 0.000          |
| Pair <sub>2</sub> | State <sub>2</sub> – State <sub>3</sub> | 2.88               | 2.14           | 19.097 | 199 | 0.000          |
| Pair <sub>3</sub> | Trait <sub>1</sub> – Trait <sub>2</sub> | 0.76               | 6.94           | 01.538 | 199 | 0.126          |
| Pair <sub>4</sub> | Trait <sub>2</sub> – Trait <sub>3</sub> | 2.12               | 2.32           | 12.899 | 199 | 0.000          |

Table-3 shows the mean of the State Anxiety Scores of STAI of

the B.P.Ed. students decreased significantly as the course was advanced towards the end. But, the means of the Trait Anxiety Scores of STAI remained unaffected from the 1<sup>st</sup> phase to the 2<sup>nd</sup> phase of testing. Again, there was a statistically significant decrease in the 3<sup>rd</sup> phase of testing. (M = 41.57).

**3. DISCUSSION AND CONCLUSION**

In the primary phase, the test was administered at the starting period of the B.P.Ed. Course (in the 1<sup>st</sup> week of July) the scale values on the STAI showed initial behaviour. In the middle of the course in the second phase, the same test was again administered. No statistically significant difference was found between the means of the Trait Anxiety scores obtained in the two different stages of administration. The students of this physical education course come from various backgrounds to face a new type of education. At first, they tried to accustom themselves to the curricular activities (both through rigorous physical activities in the playground and through classroom activities at the same time). So, situational anxiety may occur and this may be the cause of non-change (rather slight increase).

In the concluding phase, the same test was administered after the end of the course. The mean of the test scores was significantly (statistically) lower than the earlier means. Here, the influence of the B.P.Ed. course on management of State and Trait anxiety may be proved actually.

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