CHAPTER-III
RESEARCH METHODOLOGY
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3.0 INTRODUCTION

This chapter describes the procedures adopted to conduct the research study. The entire chapter has been discussed under various sub-headings such as the statement of the problem, operational definitions, assumptions, delimitation, objectives formulated, hypotheses framed, research strategy, description of tools, selection of sample, data collection and scheme of analysis.

3.1 STATEMENT OF THE PROBLEM

Anxiety and neuroticism in college teachers are caused due to various personal and occupational factors. Aspects of anxiety and neuroticism tend to show higher for college teachers if they are women. They suffer the stressful occupational life as teachers as well as the difficulties experienced by women due to their constitutional processes and as being women in the Indian society with multiple role responsibilities and socio-cultural pressures. Anxiety in one situation becomes displaced to other situations and
it is also evident that problems in a person can make a person suffer from anxiety and anxiety can itself lead to further problems in a person. Demographic factors are also associated with the levels of anxiety, neuroticism and personality traits among women college teachers. It is also evident that anxiety, neuroticism and personality traits are related among each other. Therefore, an attempt was made to study on anxiety, neuroticism and some personality characteristics of women teachers in higher education. It is also envisaged to identify the relationship between the variables in addition to the association of demographic factors. Hence, the title of the study is stated as "CORRELATES OF ANXIETY AND NEUROTICISM AMONG WOMEN TEACHERS".

3.2 TITLE OF THE STUDY

The problem under investigation was “CORRELATES OF ANXIETY AND NEUROTICISM AMONG WOMEN TEACHERS".
3.3 OPERATIONAL DEFINITIONS

Anxiety

In this study, anxiety is measured in terms of four levels namely, normal anxiety, significant anxiety, high anxiety and high & uncontrollable anxiety.

Neuroticism

In this study, neuroticism is measured in terms of three levels namely, high neuroticism, average neuroticism and balanced emotionality.

Personality Traits

In this study, the type of personality is measured in terms of three traits namely, extraversion, ambiversion and introversion.

3.4 ASSUMPTIONS FOR THE STUDY

1. There are various personal and occupational factors adversely affecting women college teachers and due to them they suffer from anxiety and neuroticism.
2. There are various factors (correlates) associated with the level of anxiety and neuroticism among women college teachers.

3. The level of anxiety and neuroticism among women college teachers varies according to their personality traits.

3.5 DELIMITATION OF THE STUDY

1. The study was delimited to the teachers of women's colleges of Arts and Sciences in the Madras (Chennai) city alone and women teachers working in professional colleges, university departments and other institutions of higher education in the city were excluded from the study. Women teachers working in coeducational colleges were exempted and principals of colleges were also not included though they too carry the teaching role.

2. Among the various psychological problems faced by women college teachers, anxiety and neuroticism were only taken into consideration for studying the correlates. The effects of anxiety and neuroticism on women college teachers and the coping strategies adopted by them for reduction of stress were also not studied.
3. Eight variables were only selected for the study to investigate the correlates of anxiety and neuroticism among women teachers though there may be some other variables, which could also be considered as correlates.

4. Personality traits other than extraversion, introversion and ambiversion were not considered for the investigation.

### 3.6 OBJECTIVES OF THE STUDY

The main objectives of the study were:

1. To find out the level of anxiety among the women college teachers.

2. To find out the level of neuroticism among the women college teachers.

3. To identify the personality traits among women college teachers.

4. To find out the association of anxiety, neuroticism and personality traits of women college teachers with the demographic variables like age, qualification, experience, subject specialisation, marital status, family type, type of management and status of the college.
5. To find out the relationship among the anxiety, neuroticism and personality traits of the women college teachers.

3.7 RESEARCH HYPOTHESES

1. There is significant association between the anxiety of women college teachers and their age.

2. There is significant association between the anxiety of women college teachers and their educational qualification.

3. There is significant association between the anxiety of women college teachers and their subject specialisation.

4. There is significant association between the anxiety of women college teachers and teaching experience.

5. There is significant association between the anxiety of women college teachers and their marital status.

6. There is significant association between the anxiety of women college teachers and the type of family they belong to.
7. There is significant association between the anxiety of women college teachers and the management of the college.

8. There is significant association between the anxiety of women college teachers and the status of the college.

9. There is significant association between the neuroticism of women college teachers and their age.

10. There is significant association between the neuroticism of women college teachers and their educational qualification.

11. There is significant association between the neuroticism of women college teachers and their subject specialisation.

12. There is significant association between the neuroticism of women college teachers and teaching experience.

13. There is significant association between the neuroticism of women college teachers and their marital status.

14. There is significant association between the neuroticism of women college teachers and the type of family they belong to.
There is significant association between the neuroticism of women college teachers and the management of the college.

There is significant association between the neuroticism of women college teachers and the status of the college.

There is significant association between the personality traits of women college teachers and their age.

There is significant association between the personality traits of women college teachers and their educational qualification.

There is significant association between the personality traits of women college teachers and their subject specialisation.

There is significant association between the personality traits of women college teachers and teaching experience.

There is significant association between the personality traits of women college teachers and their marital status.

There is significant association between the personality traits of women college teachers and the type of family they belong to.
There is significant association between the personality traits of women college teachers and the management of the college.

There is significant association between the personality traits of women college teachers and the status of the college.

There is significant relationship between the anxiety and neuroticism among the women college teachers.

There is significant relationship between the anxiety and personality traits among the women college teachers.

There is significant relationship between the neuroticism and personality traits among the women college teachers.

3.8 RESEARCH STRATEGY

Observation, interview, case study, projective technique, experiment method and normative survey are some of the methods that could be used for assessing anxiety and neuroticism. To carry out the work, the investigator had chosen normative survey method since this method helps to investigate phenomena in their natural setting. It is also feasible to collect cross-sectional data from a relatively large number of cases at a particular time.
using this method. Further, this method fits appropriately into the total research scheme in exploring a vast and intricate field of investigation. It is more realistic than the experiment method to collect the data properly and accurately. Although it involves certain inaccuracies owing to sampling errors, the result obtained is generally more reliable than that obtained from a complete count. It also gives more detailed information in less time and it is concerned with the generalised statistics that result when data are abstracted from a number of individuals. Due to these reasons, normative survey method was considered to be more appropriate for this study than other research methods.

Anxiety and neuroticism are psychological dispositions, which are revealed by the way, people look at occurrences in their lives and react to them, and hence direct measurement is not possible. They have to be inferred indirectly from the expressions of the individual on selected aspects and so, it is imperative to have standardised instruments to enhance quality and objectivity in the data. Standardised psychological instruments are proved to be more reliable and valid than other constructed tools as large samples are involved in standardisation processes and they have established their worth and efficiency through the constant use of psychologists and
psychiatrists. Hence, the investigator had chosen two standardised tools constructed and validated by eminent psychologists for measuring anxiety and neuroticism respectively.

After continuous research on anxiety theories, Taylor had constructed Taylor's Manifest Anxiety Scale. To measure the anxiety level of teachers, this Scale was used, as it is one of the widely popular and reliable tools to measure the anxiety level of adult literate. The items are easy to respond and less time consuming and hence teachers might not be disturbed much in their busy time schedule for responding to this scale.

Eysenck was a psychologist who devoted considerable time on personality research. He contributed significantly to the concept of neuroticism and his tools are widely popular among personality researchers. Eysenck's Personality Inventory, which is popularly known as EPI, is a widely used tool in assessing the neuroticism of normal individuals along with their personality traits as extraversion, introversion and ambiversion. Hence this tool was used in this study for measuring the neurotic levels of teachers and for identifying their personality traits.

Both the tools were distributed together to the sample and the purpose of the study was explained to them, and they were encouraged to give their
responses without hesitation or inhibition. The data were gathered, grouped and exposed to statistical analysis, with respect to the objectives and hypotheses of the study.

3.9 DESCRIPTION OF THE TOOLS USED

The standardised tools used for this study were:

1. Taylor’s Manifest Anxiety Scale

2. Eysenck’s Personality Inventory

1. Taylor’s Manifest Anxiety Scale (TMAS)

To measure the anxiety level of teachers, Taylor’s Manifest Anxiety Scale was used. The items are easy to respond and less time consuming and hence teachers might not be disturbed much in their busy time schedule for responding to this scale.

This tool consists of 50 statements about which adults are commonly anxious. The respondents were expected to answer either ‘true’ or ‘false’ to items like the following:
It makes me nervous to have to wait.

I am often afraid that I am going to blush.

I am happy most of the time.

I am entirely self-confident.

In the above examples, a 'true' response to the first two statements and a 'false' response to the last two statements indicate anxiety. The statements are presented in such a way that they indicate either the presence or absence of anxiety. For the statements indicating presence of anxiety, a 'true' response gets a score of 1 and a 'false' response gets a score of 0. Similarly for the statements indicating absence of anxiety, a 'false' response gets a score of 1 and a 'true' response gets a score of 0. As there are 50 statements in this Scale, the maximum score for anxiety, which could be obtained, is 50.

**Scoring**

0-8 => Normal Anxiety

9-18 => Significant Anxiety

19-30.1 => High Anxiety

31-50.1 => High and Uncontrollable Anxiety
2. *Eysenck’s Personality Inventory (EPI)*

Eysenck’s Personality Inventory was used for measuring the neurotic levels of teachers and for identifying their personality traits.

The EPI consists of two parallel forms (forms A and B), which contain 57 items, which could be answered ‘yes’, or ‘no’. The inventory includes a scale of extraversion-introversion consisting of 24 items, a scale of neuroticism consisting of 24 items and a lie scale of 9 items.

The extraversion-introversion scale consists of the following 24 statements.

1, 3, 5, 8, 10, 13, 15, 17, 20, 22, 25, 27, 29, 32, 34, 37, 39, 41, 44, 46, 49, 51, 53, 56.

*(e.g.)*

*Do you often long for excitement?*

*When people shout at you, do you shout back?*

The neuroticism scale consists of the following 24 statements.

2, 4, 7, 9, 11, 14, 16, 19, 21, 23, 26, 28, 31, 33, 36, 38, 40, 43, 45, 47, 50, 52, 55, 57.
Do you find it very hard to take no for an answer?

Do you daydream a lot?

The lie scale consists of the following 9 statements.

6, 12, 18, 24, 30, 36, 42, 48, 54.

Once in a while do you lose your temper and get angry?

Are all your habits good and desirable ones?

Scoring

In the extraversion-introversion scale, an ‘yes’ response to the 15 statements 1, 3, 8, 10, 13, 17, 22, 25, 27, 39, 44, 46, 49, 53 and 56 and a ‘no’ response to the other 9 statements gets a score of 1. Similarly a ‘no’ response to the 15 statements and an ‘yes’ response to the 9 statements gets a score of 0.

In the neuroticism scale, an ‘yes’ response to all the 24 statements gets a score of 1 and a ‘no’ response gets a score of 0.
In the lie scale, an ‘yes’ response to the 3 statements 6, 24 and 36 gets a score of 1 and a ‘no’ response to the other 6 statements gets a score of 0.

Cut off Scores

*Extraversion-introversion Scale*

Extravert => 17 and above.

Ambivert => 8-16

Introvert => 7 and below.

*Neuroticism Scale*

High Neuroticism => 14 and above.

Average Neuroticism => 5-13

Emotionally Balanced => 4 and below.

*Lie Scale*

Data is to be rejected => 5 and above.
3.10 PILOT STUDY

As an initial tryout, the tools were administered on 50 women college teachers in Madras to find out the suitability of the tools to the sample.

Validity

Both the tools used were standardised tools. The respective authors had already established validity of both the tools, and they are culture-free tools too. So it has been concluded that the tools are valid and they measure what they are supposed to measure.

Reliability

To establish the degree of consistency that the tools demonstrate, the reliability coefficients of both the tools were calculated using split-half method. On application of Spearman-Brown formula, the coefficient of reliability for Taylor's Manifest Anxiety Scale was found to be 0.82 and for Eysenck's Personality Inventory, it was 0.89. The scores indicate that both the tools have a high degree of reliability.
3.11 SELECTION OF SAMPLE

The present investigation was carried out in the women’s colleges located in Madras only. All the teachers working in the women’s colleges in the city of Madras during the period of research formed the population for the study. Using stratified random sampling method the sample was selected based on the eight selected variables.

The variables selected for the study were:

1. Age (<40 years / 40 years and above)

2. Qualification (P.G. Degree / M.Phil. Degree / Ph.D. Degree)

3. Subject Specialisation (Science / Arts & Humanities)

4. Teaching Experience (<5 years / 5-10 years / >10 years)

5. Marital Status (Married / Unmarried / Widowed or Separated)

6. Type of Family (Joint /Unitary)

7. Type of Management of the College (Private /Government)

8. Status of the College (Autonomous / Non-autonomous)
### TABLE: 3.01

**DISTRIBUTION OF SAMPLE SELECTED FOR THE STUDY**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>NUMBER OF TEACHERS</th>
<th>TOTAL</th>
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<tbody>
<tr>
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<td>&lt;40 years</td>
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<td>525</td>
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<tr>
<td>&gt;40 years</td>
<td>289</td>
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<tr>
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<td><strong>Subject Specialisation</strong></td>
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<td>Science</td>
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<td>525</td>
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<tr>
<td>Arts &amp; Humanities</td>
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<td><strong>Status of the College</strong></td>
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<td>Non-autonomous</td>
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</table>
3.12 DATA COLLECTION

The tools were administered to the sample and proper instructions were given. Their demographic particulars were also collected in accordance with the variables selected for the study. The investigator checked the tools after they had been filled out to verify if any statement had been unanswered and to confirm that the tools were complete in all aspects.

3.13 SCHEME OF ANALYSIS

The data were subjected to

1. Descriptive Analysis
2. Differential Analysis
3. Relational Analysis

DESCRIPTIVE ANALYSIS

Calculating the mean, standard deviation and percentage of scores on anxiety and neuroticism did the descriptive analysis of data regarding correlates of anxiety and neuroticism.
DIFFERENTIAL ANALYSIS

Calculating the chi-square value to find out the significant association did the differential analysis of the data regarding the selected variables with anxiety, neuroticism and personality traits.

RELATIONAL ANALYSIS

Calculating the coefficient of correlation to find out the relationship between them did the relational analysis of the data regarding anxiety and neuroticism.

3.14 CONCLUSION

This chapter provides an outline about how the study was designed and carried out in terms of the objectives. It is also explained how the sampling was done, how valid and reliable tools were selected and how scoring procedures were adopted. A brief description about the scheme of statistical analysis in relation to the objectives and hypotheses of the study is also given. A detailed description about the analysis of the data is given in the following chapter.