CHAPTER-III

METHODS & PROCEDURES

This chapter deals with the methods and procedure for conducting the present study. The study denotes the relationship between the stress proneness, personality needs and effectiveness of college principals. To be more specific, this chapter describes the population, the sample and tools which are used in the collection of data and also the technique which have been used in the analysis and interpretation of data.

METHOD OF STUDY:

The method used in this investigation was the ex-post facto or causal-comparative method. The term ex-post facto means from a thing done afterwords'. It implies some sort of subsequent action. The researcher studies the variables in retrospect, in search of possible relationships or effects. The term ex-post facto refers to the meaning that the situation has already occurred and its effect is to be evaluated in terms of causal relationship. It has characteristics of descriptive, correlational and experimental research. The causal-comparative research attempts to deduce or discover "how and why" a particular phenomenon occurs.

It is descriptive because the researcher must describe his findings as the observed them.

It is extension of correlational research in that if attempts to explain causal relationship, to the observed phenomenon.
Fred Kerlinger defines ex-post facto research "as a systematic empirical inquiry, in which the scientist does not have direct control on independent variable because their manifestations have already occurred or because they are inherently not manipulable.

He further states "Inferences about relations, among relations are made without direct intervention from concomitant variation of independent variables".

It is clear from the definition that it implies a direct control of actually manipulating independent variables. The independent variables are those variables whose effects are being examined. The dependent variables are those that are being predicted or those that are effected by independent variables. In the present study, stress-proneness of the principals has been taken as the independent variable and the other two viz., personality needs and effectiveness as dependent variables.

COLLECTION OF DATA

The collection of data is indispensable in a scientific study as all the findings depend on them. It is with the help of gathered data that the hypothesis may be tested. The investigator starts working on the problem by observing various factors, the evidence is to be produced in support of various facts and their evidence is to be searched in the data. Without any basis of such data, the study would be entirely imaginative and of little use. Hence worthwhile study must be based on hard facts, which can be done only by collecting the data. The collected data should be reliable and adequate enough for proper
generalization. By adopting systematic procedure, relevant data adequate in quantity and quality can be ensured. Hence the investigator made his best efforts to collect reliable and valid data.

(A) **The Population**

The population for the purpose of the study has been defined as the total number of principals and lecturers of all the colleges in the Bundelkhand University. Technical, agriculture, and medical colleges have been left out of the periview of the investigation.

(B) **The Sample**

As per the definition of population, the unit of sampling was the college. In drawing the sample the first task was to get a list of degree colleges in the Bundelkhand University. For this purpose the Academic Bulletin of the university was consulted, which provided the list of existing degree colleges, their locations together with the names of the principals (Appendix C1). A list of lecturers from these colleges was also procured. Having obtained the sample frame, the next task was to decide upon the best sampling techniques in order to draw a representative sample. Best suggests that:

"If a population can be accurately listed, or is infinite, type of systematic selection will provide what approximates a random sample. A systematic sample consists the selection of each n\textsuperscript{th} term from a list one would select the first name by selecting a randomly selected name from a randomly selected page. Then every n\textsuperscript{th} name would be selected until the sample of desired names is complete."
Following the above procedure, all the principals of colleges were included (leaving out technical, agricultural and medical), otherwise their number would have been very small. The lecturers were selected so as to yield about 12-15 responses from each college. In all 30 principals and 360 lecturers were selected.

**ADMINISTRATION OF THE TESTS:**

After the list of the respondents was finalised, the colleges were visited personally by the investigator. He contacted the college principals and took their permission for contacting the lecturers of the colleges in their free time. Questionnaires were given to both the principals and the lecturers. The principals had to fill up the stress proneness scale and the personality needs inventory, while the effectiveness of the principals has to be measured by the lecturers on the basis of their perception of the college principals on the Effectiveness Scale. The principals and lecturers were contacted individually and requested to supply the required information. The purpose of the test was explained to them. They were assured that their replies would be kept confidential and used for research purposes only. It was emphasised that no items should be left out and that there was nothing 'right' or 'wrong' in the responses. As the respondents were intelligent and knowledgeable persons, the investigator had no difficulty with them and they extended their full co-operation.
Finally, the data sheets were collected—some of them were received by him by past. Incomplete returns were not included in the final sample. In all 30 response sheets from principals and 360 from lecturers constituted the final sample.

**SCORING**

Scoring was done as per the instructions given in the scale/inventory. The Principals' Stress proneness Scale yielded scores for each principal on the total test. This is a composite score. Meenakshi's Personality inventory, which was scored according to the instructions given in the manual, yielded scores on each of the 10 needs. The administrative effectiveness of each principal was rated by lecturers. The scores of the lecturers in each college were averaged to get a single score for a principal. In order to facility comprehension and have a global view of the total data, a master sheet was prepared in which individual scores for all the three variables have been recorded.

**TOOLS USED:**

The selection of tools for a particular study depends upon various considerations such as objectives of the study, their availability, techniques of scoring and the like. Taking all these factors into consideration, a review of measuring tools needed for the study was made. After a comprehensive review the following tools were used.

(i) For measuring stress proneness of principals—"Principals' Stress Proneness Scale" by Vidya Agarwal was used.
(ii) For measuring personality needs of principals M. Bhatnagar's "Meenakshi Personality Inventory" was used.

(iii) For measuring principals 'Administrative Effectiveness'. Amita Bhatnagar's "Administrative Effectiveness Scale" was used. On the basis of their preception the effectiveness of college principal's was determined.

A description of each test follows.

1- Principals' Stress Proneness Scale:

Principals' stress proneness has been defined for the purpose of this study as his inner capacity to withstand the stress caused by some external condition, a state of his organism where he perceives that his well-being (or integrity) is endangered that he must divert all his energies to its protection. It is reflected in the feelings and behaviour manifested in the items of the tool constructed to measure it. It is the psychological power of the principal to bear with the stressful situation, the extent to which the principal can tolerate the stress flowing from the environmental situation.

The final form of the stress-proneness scale consists of 30 items which measured principals stress-proneness in 6 areas. Five items of similar nature are assigned to each dimension. All the items are negatively worded.

Table-4 shows the dimensions of stress-proneness along with the item numbers measuring stress-proneness in each area.
Table-1
Item Numbers in Different Dimensions

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimensions</th>
<th>Item No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Teacher</td>
<td>1,7,13,19,25</td>
</tr>
<tr>
<td>2.</td>
<td>Student</td>
<td>2,8,14,20,26</td>
</tr>
<tr>
<td>3.</td>
<td>Community</td>
<td>3,9,15,21,27</td>
</tr>
<tr>
<td>4.</td>
<td>Ministeril Staff</td>
<td>4,10,16,22,28</td>
</tr>
<tr>
<td>5.</td>
<td>Management</td>
<td>5,11,17,23,29</td>
</tr>
<tr>
<td>6.</td>
<td>Higher Authorities</td>
<td>6,12,18,24,30</td>
</tr>
</tbody>
</table>

ADMINISTRATION OF THE SCALE:

The "Principals Administrative stress-proneness scale" is a self-administering instrument. The subjects are requested to read the instructions carefully and to ask the administrator if there is any difficulty in understanding the instructions. It was emphasized that no item should be omitted and there was nothing 'right' or 'wrong' about these items. The subjects were assured that their replies will be kept confidential and will be kept confidential and will be used only for research purpose. These was no limit for the instrument.
RESPONSE MODE:

Five response categories have been provided for each item: Strongly agree.

(A) Agree

(B) Indifferent

(C) Disagree

(D) Strongly disagree

(E) Subjects are required to answer each item by making a tick mark in one of the blocks against each item moreover, they are required to answer all the items.

SCORING:

The Scoring system was based on a five point Likert type scale designed as; strongly agree (5), agree (4) indifferent (3) disagree (2) and strongly disagree (1).

A sum of all the item scores on the scale gives the total
stress proneness scores varying from 30 to 150 showing lowest stress-proneness to the highest stress-proneness. The sum of the scores of items in different dimensions gives the dimensional score for the subject. The dimensional scores vary from 5 to 25 indicating lowest stress proneness on different dimensions. Thus, the scale provides the dimensional scores as well as overall stress-proneness score.

(2) **MEENAKSHI PERSONALITY INVENTORY**:

This inventory is based on Henry Murray's personality principle, Murray has explained personality on the basis of the psychological needs of a person. He hypothesized that a specific type of desire, need psychological demand is created within an individual due to the pressure of environment that compels a person to behave in a particular direction. The pressure of the external environment of the person is of different types. Thus in course of time, many specific needs develop and become permanent that direct his behaviour and on the basis of which, we can understand his behaviour.
According to Murray these personality needs are the characteristics that control and motivate his behaviour. Murray considers these needs a hypothetical process on the basis of which we can properly understand his behaviour and activities. Thus Murray's psychological need is a theoretical construct that helps in understanding the personality of a person or in interpreting it.

A need is a construct which stands for a force (the physicochemical nature of which is unknown) in the brain region, a force which organizes perception, apperception, intellect, cognition and action in such a way as to transform in a certain direction in existing unsatisfying situation.

Murray on the basis of comprehensive experiments discovered such needs as are at the back of a person's behaviour. He calls these 'manifest needs' because these needs are experienced in the behaviour of a person and we comprehend them through behaviour. Several methods have been devised to measure them. The main needs can be measured through TAT, sentence completion and other types of projective tests. Prof. Edwards of the
Washington University prepared his Personal Preference Schedule in 1954, which measured 15 needs, out of these Bhatnagar prepared the Hindi adoption of the above test in 1966. 'Meenakshi Personality Inventory' is a step ahead in the same direction. It's theoretical basis is the same as that of the above tests is the same as that of the above tests and it measures the main psychological needs of personality. The psychological needs have been defined in the same way as Murray did not which have been adopted by check 'Edwards' & 'Bhatnagar' in the constructions of the test. But no statement has been taken from the above tests in the present inventory. All the statement are original and each need has been defined on their basis.

The present inventory measures ten psychological needs. These are given below along with their abbreviations used in the IV Chapter.
<table>
<thead>
<tr>
<th></th>
<th>Need</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Need Achievement</td>
<td>(n-Ach.)</td>
</tr>
<tr>
<td>2</td>
<td>Need Exhibition</td>
<td>(n-Exhi.)</td>
</tr>
<tr>
<td>3</td>
<td>Need Autonomy</td>
<td>(n-Aut.)</td>
</tr>
<tr>
<td>4</td>
<td>Need Affiliation</td>
<td>(n-Aff.)</td>
</tr>
<tr>
<td>5</td>
<td>Need Succourance</td>
<td>(n-Suc.)</td>
</tr>
<tr>
<td>6</td>
<td>Need Dominance</td>
<td>(n-Dom.)</td>
</tr>
<tr>
<td>7</td>
<td>Need Abasement</td>
<td>(n-Aba.)</td>
</tr>
<tr>
<td>8</td>
<td>Need Nurturance</td>
<td>(n-Nurt.)</td>
</tr>
<tr>
<td>9</td>
<td>Need Endurance</td>
<td>(n-End.)</td>
</tr>
<tr>
<td>10</td>
<td>Need Aggression</td>
<td>(n-Agg.)</td>
</tr>
</tbody>
</table>

Each of the above needs has been measured by a scale that consists of a 20 statements. Each statement e.g., "what does a person like ?" is based on it i.e., each statement is a verbal behaviour, which indicates, which psychological need is dominant in the individual. Thus each need has been defined only on the basis of these statements that can be included in the concerned scale and which are only a congregation of the verbal behaviour of the individual. The inventory measures the ten main needs of personality. Thus there are 10 scales in the Inventory. Each need has been defined in the Inventory as follows:
1. **n-Achievement**: Need for doing one's best to succeed, to write a good book, to surpass others, to do something requiring more labour and ability, to get fame, to do a difficult job, to be a scholar, to be an high official, to do something great in life, to be great, to realise one's ambition, to lead a good life, to gain social prestige, to be a successful political leader.

2. **n-Exhibition**: to say something that others may think witty and clever, to wear guady clothes, to attract attention of others, to use difficult words, to be considered important by others, to live in a grand manner, asking questions that others cannot reply, the desire to get appreciation from others, boasting, the desire to talk about one's success, to spend money so that others may think him rich, to discuss with a view to make a scholarly impression on others, to work so that others may appreciate him.

3. **n-Autonomy**: the desire to act according to one's own will, willingness to act under someone, being of free nature, not liking the interference of others, not taking obligations from others, engaging in acts that confer full freedom, the desire to do unconventional work
not hesitating in opposing others in right matters, not accepting the bondoge of others, doing according to one's own will without caring for others. Not accepting the wrong policies of the government, not being able to act according to the will of others, calling a spade a spade, not liking to say only 'yes' to what others say.

4. **n-affiliation**: The desire to make friends, desire to keep company with friends for maximum time, to desire to write letters to friends, to have the desire that others may consider one a true friend, to have the desire to have close friendship with others, to have a dislike for loneliness, to desire too much affinity with others, the desire to have good relations with others, to have the desire for collective living of family members, to consult friends in all matters, not to be able to bear the anger of companions, to have the desire for love and affection from others, to desire company.

5. **n-Succurance**: To expect from friends that they will talk about his gentlemanliness, to expect support from friends in failure,
to hope for sympathy from friends in despair, to hope for help from friends in all circumstances, to hope for help from relatives on incurring loss, to hope for help from companions in difficult circumstances, to desire much from others, to expect from friends that they may work for others, to expect everybody that he may do something for him, to desire that friends may own somebody's responsibilities, to desire the help of friends in rising up, desiring praise from friends.

6. **n-Dominance**: The desire be the convener of some committee, to desire setting quarrels of others, the desire to command rather than to obey, not being able to tolerate disobedience, the desire to get the thing done as directed, the desire to be accepted leader by others, the desire to keep superior to others, the desire not to be under someone's pressure.

7. **n-Abasement**: Considering oneself inferior to others, considering oneself guilty, considering oneself unfortunate, depending on fate, considering oneself shelterless atoning for one's mistake, feeling oneself deficient, feeling resourceless, to be frustrated,
to desire for punishment, for one's considering oneself underserving after failure, feeling oneself deficient in courage, to accept defeat rather than facing the circumstances, to feel lack of self-confidence among able persons.

8. **n-Nurturance**: Sympathising with others, having a desire to contribute to progress of others, the desire to do the work of friends, the desire to serve old people, the desire to help each others, the desire to comfort others according to one's capacity, the desire to help others in difficulties, the desire not to disappoint others, the desire for social service, the desire to do something for resourceless people, the desire to open a good school.

9. **n-Endurance**: The desire not to leave work in face of failure, the desire not to do anything else till the work is finished, not being disappointed after failure, not giving up the desirable act in misfortune, a desire to forget everything while doing something, the desire to persevere in doing something, the desire to being another act after finishing the first, not to give up industry for achieving the objective, not to feel tired even after hours of constant work.
10. **n-Aggression**: To desire to beat others on being abused, to adopt the policies of 'tit for tat', not to hesitate in insulting others, enjoying in harming others, to have a desire to slander others, to have a desire to threaten others, not being able to tolerate unpleasant things of others, to have a desire to criticise the evil doers, to be frequently angry, to have a feeling of revolt, to reprim and companions on doing the wrong thing, to enjoy hunting and killing, to have a desire to make people quarrel, to have a desire to quarrel with others, if they disagree.

**THE USE OF THE INVENTORY**:

The inventory has been constructed for students of High School to post-graduate classes. It can be used by all literate, thirteen year old, Hindi knowing normal persons. It is unsuitable for use in clinical conditions.

The inventory consists of ten sub-sections, each containing 20 statements, Each sub-section makes an assessment of a specific need. The inventory items have been organised in such a way that their 'Social desirability' is controlled to some extent.
Thus two hundred items have been organised in hundred pairs, so that two items having equal 'Social desirability' can be put in one pair. Thus each item consists of two statements having nearly equal social desirability.

CONSTRUCTION OF THE INVENTORY:

First three hundred (300) items were written under ten heads. It was administered to two hundred (200) students and the preference value of paired items was determined. The items were again egrouped in pairs on the basis of percent preference of the items. The difference should not be more than five percent (5%). The item for administering the inventory is not fixed. But it takes about thirty to forty minutes (30-40 min.) for answering it.

SCORING OF RESPONSE SHEETS:

The scoring procedure is as follows: (1) Draw a diagonal line from item IAB to 100AB from top left corner to bottom (2) Draw another diagonal passing through 71, 75, 79, the third through 22, 26, 30 and the fourth through 10, 14, 18. (3) Draw a horizontal line passing through 18 and 21(4) compare items 1-71,
5-75, 9-79, 10-43, 14-48, 18-53, 21-58, 22-92, 26-96, 30-100 and check whether the testees have encircled similar items or not e.g., whether they have encircled IA & 71A or IB and 7 IB or they have encircled similar items viz., A or B, put a tick mark under the through all the columns in a similar manner.

Count the tick marks. If the number is less than 7 (Seven) the response sheet cannot be considered reliable. Destroy it. It is more than seven accept the response sheet (5) Now leaving out the paired items that fall on the diagonal line in the first line, count all others in which A has been encircled. Write their number on the right side of the line under column R.

This number cannot exceed 9 under any conditions. Similarly, count the encircled Bs (leaving out the paired items falling on the diagonals).

In the first column, write their number under column 'C' in the first line after the previous number. Write the total in Column 'T'. This will be the score of the first need.
Similarly, in line two and column two, the sum of the encircled As & Bs will be the score of the second need.

In this way the score for all the needs can be obtained.

**RELIABILITY, VALIDITY AND NORMS:**

The reliability of the inventory was determined using the spearman- Brown prophesy formula. The Split-half reliability coefficients have been shown in the following table:

<table>
<thead>
<tr>
<th>Table-2</th>
<th>Reliability of Need Measures (N=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEED</td>
<td>RELIABILITY COEFFICIENT</td>
</tr>
<tr>
<td>n</td>
<td>achievement</td>
</tr>
<tr>
<td>n</td>
<td>exhibition</td>
</tr>
<tr>
<td>n</td>
<td>autonomy</td>
</tr>
<tr>
<td>n</td>
<td>affiliation</td>
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<tr>
<td>n</td>
<td>succurence</td>
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<tr>
<td>n</td>
<td>dominance</td>
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<tr>
<td>n</td>
<td>abasement</td>
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<tr>
<td>n</td>
<td>nurturance</td>
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<tr>
<td>n</td>
<td>endurance</td>
</tr>
<tr>
<td>n</td>
<td>aggression</td>
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</tbody>
</table>
### Table-3

**Validities of Personality Needs**

<table>
<thead>
<tr>
<th>NEED</th>
<th>RELIABILITY COEFFICIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inter</td>
</tr>
<tr>
<td>achievement</td>
<td>.70</td>
</tr>
<tr>
<td>exhibition</td>
<td>.65</td>
</tr>
<tr>
<td>autonomy</td>
<td>.53</td>
</tr>
<tr>
<td>affiliation</td>
<td>.49</td>
</tr>
<tr>
<td>succurence</td>
<td>.42</td>
</tr>
<tr>
<td>dominance</td>
<td>.56</td>
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<tr>
<td>abasement</td>
<td>.40</td>
</tr>
<tr>
<td>nurturance</td>
<td>.61</td>
</tr>
<tr>
<td>endurance</td>
<td>.45</td>
</tr>
<tr>
<td>aggression</td>
<td>.67</td>
</tr>
</tbody>
</table>

The inventory can be used for guidance. The marks obtained by a person on the ten sub-section show which psychological needs dominant in him and which are weak. We can understand his personality on its basis. It also helps in understanding the desirable and undesirable behaviour concerning discipline. The inventory is not suitable for admission and selection.
3. ADMINISTRATIVE, EFFECTIVENESS SCALE:

The present study involved measurement of principal's administrative has not been specifically and uniquely defined in the literature. At least investigator could not lay his hands on any such piece of literature in which the concept has been discussed and defined. The process of administration may, then seems to be more feasible and objective index of administrative effectiveness. Perceptual evaluations of principals' day to day performance may constitute a resonably sound basis of measuring of their administrative effectiveness, though it may not be a very valid conceptualization of principals' administrative effectiveness.

In the present study the administrative effectiveness has been defined as a set of desirable administrative behaviours on the part of the principals as perceived by the lecturers in the institutions. These desirable administrative behaviours include various aspects of administration such as decision making, implementation of policies, planning human relations, freedom of work, ensuring good discipline, making people work hard, ensuring
required facilities for work, ensuring order, giving individual guidance to students, adopting innovations, ensuring high standards of teaching - learning etc. The definition of administrative effectiveness in the present study in the same which has been used by A. Bhatnagar in constructing the "Administrative Effectiveness" for her Ph.D. Work.

Therefore, this 'Administrative Effectiveness Scale" constructed by Amita Bhatnagar was used by the researcher for measuring principal's administrative effectiveness in his study. Further, s this scale was standardized on the Degree College Principals having, technically also the investigator felt that he was justified in using this scale.

It is a 34 item Likert type scale consisting of a series of items on which lecturers rate their principals. In its original form the scale was 6 point scale ranging from 1 to 6 which meant never true, very less true, less true, sometimes true, true, always true meaning thereby totally false, false, neither false, nor true, true and totally true. This scale is administered on the lecturers and they are
asked to read each statement is true about and say whether it is their principal and the institution. The subject has to indicate his/her response on a 6 point rating scale on separate answer sheet by encircling one of the ratings ranging from 1 to 6, having the aforesaid meaning. The ratings given by subjects would indicate as to what extent the item was true about his/her principal and institution. The rating of 6 would mean that it was totally true and the rating of 1 would mean that it was totally false about the principal and the institution, yielding in this way a specific score for administrative effectiveness on each item. These scores on 34 items of all the Lecturers subjects of one college when summed up and averaged give the total administrative effectiveness score for the individual principal. A high score on this scale indicates high administrative effectiveness and low score indicates low administrative effectiveness.

Reliability: The reliability of the scale using the test-retest method was found to be .86.

Validity: In the absence of any other criterion test, it could not be established.
REFERENCES


