CHAPTER-3
RESEARCH METHODOLOGY
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The third chapter, that is research methodology is a gateway to main research done by the investigator in the present investigation. It involves planning of the research study, selection of the method most appropriate method for the problem under study. The quality of a research not only depends upon the adequate research design but also on the appropriate measurement procedure employed as well as statistical treatment given. The present chapter elaborates Hypotheses, Sample, Tools, Variables as well as Statistical treatment involved in the present investigation.

Problem: Problem of the present investigation is "Some Psycho-social factors in Drug Addiction".

Hypothesis: Hypothesis is a tentative assumption made in order to test its logical empirical consequences. A hypothesis is a suggested answer to the problem. (Townsend 1935). In the words of Karlinger, "A hypothesis is a conjectural statement, a tentative proposition, about the relation between two or more phenomenon or variables." Hypothesis may be of two types, null hypothesis and experimental hypothesis. In a statistical analysis suppose we are going to compare method A and method B, with regard of their utility. We proceed on the assumption that neither A nor B is better than the others, i.e. both the methods are equally good, then this assumption is termed as null hypothesis. But if we predict a difference between the behaviour of groups since the groups are usually exposed to different levels of treatment, then it is experimental hypothesis. Many psychologists have classified, hypothesis in to non-experimental and experimental hypothesis.
Hypothesis - 1

*Personality of drug addicts is significantly different from normal subjects.*

The present hypothesis is framed on the basis of investigation and reports of many researchers. Winland & Sola (1970), Mukhopadhyay et. al. (1996) found that narcotic addicts have high level of depression. Lang (1983), Najam & Parveen (1992), Dhillion & Pawah (1981), Craig & Olson (1990) have indicated that drug addicts have high level of stress & anxiety. Support for the high level of aggression and hostility among drug addicts are also available in the findings of Stress & Hassett (1982). High level of insecurity and inferiority feeling are also found in the drug addicts Plominz Daniels (1985), Carman (1979), Lang (1983).

Hypothesis - 2

*Drug addicts group will score lower on different social approval aspects namely i.e. normative behaviour, social conformity, positive self-presentation, defensiveness, dependency, social responsiveness and social approval in comparison to normal subjects.*

The hypothesis is based on similar findings of many investigators. Lang (1983) found that personality factors of addicts are impulsive, sensation seeking behaviour, a non-conforming and of antisocial values and have a sense of heightened stress. Zuckerman et al., (1972); Platt (1975); Galigio & Stein (1983); Basu et al., (1995) have confirmed that addicts are sensation seekers. Gersick et al., (1981); New comb and Bentler (1988) found that they have social conformity problems. Schooler et al., (1972) approved of socially undesirable behaviour,
distrust, non-conformity and significant self-deception for the drug abusers.

**Hypothesis - 3**

*Drug addicts will score lower on "Self esteem" trait in comparison to normal subjects.*

Several reports have indicated that drug addicts have low self-esteem (Gersick et al., 1981; Chein, 1964). Support for the low self-esteem level among the drug addicts are also available in the findings of Blau et al., 1988; Dishion et al., 1988; Griffin et al., 1990.

**Variables covered in the present research study:**

**Independent Variable:**

Drug addiction

**Dependent Variables:**

Psychological and social aspects of drug addiction.

**Controlled Variable:**

The following relevant variables are controlled in the present investigation i.e.:

1. Age  
2. Sex  
3. Duration of Drug intake.  
4. Fatigue  
5. Monotony

Castes, Religion & SES, are assumed to have no effect or equal effect.

**Sample in the present investigation:**

For making generalization regarding population or universe, it is very difficult rather impossible to include all the members of that universe in the study. Of course when we include all the members we get perfectly accurate results. But it involves a great deal of time, energy and
money. To overcome this difficulty we take only some number from the population and these subjects are called sample of the population. "A population is the aggregate of all the cases that confirm to same designed set of specification. When we select some of the elements with the intention of finding out something about the population from which they are taken we refer to that group of element as a sample" (Insider chain). In fact sample should be a true representative of that population and the process by which we take the sample is known as sampling procedure.

The total numbers of sample in the present study was 150 male adults. The ratio of drug addicts & normal subjects (non-drug affected group) was 100:50. Only male drug addicts were taken into sample who were regularly taking narcotic drugs at least for the last six months and taking treatment at drug de addiction centers at least for last one week. As for as normal group was concerned, they were in the same age range and were not taking any sort of drug, alcohol. They were mentally and physically normal and healthy adults. The reason for taking a small number of the sample in the study is because of the use of Rorschach test. It is administered individually and requires a lot of rapport and time with each person. Selection of 50 normal adults as sample in control group will meet the need of the study. The sample was collected from the various drug de-addiction centers located at Uttar Pradesh and Uttarakhand.

Tools:

Following tools were selected to achieve the objectives of the study:

1. Rorschach Ink Blot Test - Hermann Rorschach
2. Approval Motive Scale - Tripathi & Tripathi
3. Self Esteem Scale - Prasad & Thakur
(1) **Rorschach Ink Blot Test - Hermann Rorschach (1921):**

Rorschach test is the most popular psychological test to assess the personality structure comprising both the intellectual and non-intellectual traits. The Rorschach test is useful for the assessment of emotional and intellectual states and the personality traits of an individual.

The test consists 10 inkblot images, printed on white card. Five cards of black & white image, two cards are of black, red and white image and three are multicoloured.

Rorschach inkblot test is not simply a technique but it can be considered as a research tool. A good research tool must have at least the following qualities; (a) it must be reliable and (b) it must be valid. Now the Rorschach test will be evaluated on these points.

(a) **Reliability:** The nature of Rorschach Score presents many difficulties. *Holtzman (1959)* summarized some of these problems. "Providing the subject with only 10 ink blots and then permitting him to give as many or as few responses to each card as he wishes characteristically results in a set of unreliable scores with sharply skewed distribution, the majority of which fail to possess the properties of even rank order measurement. One record with an R of 20 may be comprised of single responses to the first 9 cards and eleven responses to card 10, while another may consist of two responses per card. Any of the usual scores with the possible exception of form level rating will have quite different meanings in the two contrasting protocols, even though the total number of responses is constant. Add to this the difficulties arising when R varies from less than 10 to over a hundred and it is easy
to say why most quantitative studies involving the standard Rorschach, yield confusing or negative results”.

Its inter-score reliability, which is generally taken for granted as satisfactory, Hertz (1935) however, reported that a survey of relevant researches indicated that this was an unwarranted assumption. The Reliability of scoring of even major determinant category is not as high as should be expected from a predictive and psychometric point of view as indicated by many other studies also. For example, Baughman (1965) reported a study, which found that 15 Veteran’s administration examinees, disagreed significantly with respect to 16 out of 22 scoring categories on a random selection of cases. High degree of reliability is found only when there is pre-training and supervised practice with respect to specific scoring system (Zubin, Eron and Schumer, 1965).

Reliability of interpretations of protocol over a period of time is also severely criticised by a number of academicians and researchers. The low consistency in interpretation might be answered properly from the following questions: Is the inconsistency of an interpretation of the same record by the same tester an indication of changes in tester himself? Or, it arises out of vagueness and unreliability of instrument-as such? Holzberg (1960) comments; "Here of course, we are dealing again with problems of memory which would mean that the interpretations would have to occur at significant interval of time. With the recognition of the importance of the back ground and psychological sophistication of the psychologists as the factor in the interpretive process with the Rorschach, it is quite likely that self consistency or reliability of interpretation may yield low correlations principally because of the maturing process of the psychologist as a function of his experience. This by no means is a reflection on the instrument, but merely is a
recognition that the deepening of one's understanding of personality dynamics and psychopathology will be reflected in more penetrating interpretations of technique such as Rorschach.

Amongst other types of reliability that is alternate form, split half and test-retest, none of these are very satisfactory as for as Rorschach scores are concerned. For split-half reliability the test is to be split into two equal halves. Rorschach cards cannot be split into two equal halves because the cards are heterogeneous in terms "pull" both qualitatively and quantitatively. The task of categorising them into two equivalent halves becomes difficult. Many researchers, however, have tried to find out split-half reliability not in terms of material rather in terms of responses elicited on Rorschach plates. Even with this method contradictory picture is obtained. Vernon (1933) reported high split-half reliability for R but not for other indices while Hertz (1934) reported high reliability for all scores and ratios she used. Many workers are agreed that the greater the number of responses the greater is the reliability when determined by half reliability method. Those who are strictly psychometrician do not believe in such type of results.

Another traditional method of establishing reliability envolves the correlation of scores on two forms of the same test. There are difficulties is preparing exactly an equivalent alternate form of the Rorschach test. A number of studies have appeared utilizing the series of blots developed by Zulliger (1941). Holzberg (1960) has summarized some of these findings. Eichler (1951) and Swift (1944) indicated that although the Rorschach plates are the developed parallel series are similar. Yet they are not parallel. Thus, test falls short of psychometric criteria as for as this type of reliability is concerned.
The most suitable procedure for testing reliability seems to be 'Test Retest reliability'. Since the Rorschach is a very sensitive test and it is almost difficult to presume the status of testees at the two different occasions, the reliability therefore, is likely to be low. If the test is re-administered with a shorter gap, memory factors play a role in test retest reliability and if the intervening time between test and retest is so long as to prevent memory factors entering into the situation, other factors like experience of the examiner will influence the result. Thus both ways the reliability would be affected adversely.

Overall it seems that the objectivity in terms of material (cards stimulate different individual differently and mean different things to different individual), scoring and interpretation is poor and its reliability is too difficult to establish. It therefore, does not fulfill the criteria of a good psychometric test. It is likely that because of these difficulties Rorschach is not considered as a good psychometric tool. Nevertheless there have been attempt to introduce the psychometric qualities in the ink blots and one of such attempts was by Holtzman who has constructed Holtzman Ink blot Test (1969).

(b) Validity: The most basic and important question that must be considered in the evaluation of any instrument is the test's validity. For any test to be valid there must be some sound theoretical background. The Rorschach test does not have any specific theoretical framework. Hermann Rorschach himself has admitted that he has not postulated any theory of the test but the results are based on empirical findings. The contents of the test also do not appear to measure various aspects of personality. It is, true, however; that an understanding of imaginative and creative potentials of an individual is possible through inkblots. Its diagnostic and screening value is also badly criticized. Eysenck (1957)
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says "Unfortunately, the evidence regarding its validity indicates that if the various possible diagnosis were written on the different faces of a die, and the die was than cast at random, the diagnosis arrived at by this somewhat chance method would not be considerably inferior to that arrived at by the Rorschach expert. He further quoted an experiment where prospective pilots in United States Air force were administered a whole group of projective test including Rorschach". On the basis of years of follow up two groups of adjusted and non-adjusted were formed. Test records of these subjects were given to recognized expert in the field with the instruction to identify which records would predict good adjustment and which would predict poor adjustment. The results suggested that none of the experts succeeded in predicting with better than chance success the future performance of these airman. Willett (1968) says, "Rorschach has been accredited with the twin virtues of being a test and thus seemingly objective, while in interpretation it is said to require those puissant faculties of clinical insight and intuition so dear to many clinicians. In spite of these qualities the validity of the Rorschach as a diagnostic tool has often been questioned, and in the absence of any final answer to this question we cannot give too much credence to personality assessment based on it".

2. Approval Motive Scale (AMS) - Tripathi & Tripathi (1988):

In most of the studies, scores on social desirability scale have been accepted as measures of the strength of approval motive. It is self evident that social desirability scales constructed and standardized abroad cannot be considered adequate for measuring the phenomenon of social desirability in the kind of social conditions that prevail in this country.
On the other hand it appears reasonable to re-emphasize the distinction between two terms, i.e. social desirability and approval motive, in spite of the fact that they have been more often than not, used interchangeable in the relevant literature.

Social desirability refers to the extent to which a person or respondent acquiescence to statements that depict some behaviours, attitudes or dispositions that are in conformity with the norms, values and aspiration of the social spectrum of which the respondent is a member. Approval motive has been assumed that one agrees or disagrees with socially desirable or undesirable statements because of motivational disposition, which has been designated as approval motive. It is further assumed that one having high degree of approval motive would agree to greater number and varities of socially desirable statements. But it is also assumed that approval motive reflects in other types of behaviours also which may, at times, be quite different from social desirability.

A close review of literature on approval motive indicated seven tentative areas along which behaviours indicative of approval motive occur. These areas are i.e. (1) Normative behaviour (2) Social conformity (3) Positive self-presentation (4) Defensiveness (5) Dependency (6) Social responsiveness (7) Social approval. But they are not mutually exclusive, since all of them deal with some aspect of social approval. Therefore, they may overlap each other. For the sake of clarity in the coverage of AMS each of these areas, as used in present context are also shown in table 1.
TABLE -1

Distribution of items of AMS in the areas of approval motive.

<table>
<thead>
<tr>
<th>Areas of Approval Motive</th>
<th>No. of items</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Normative behaviour</td>
<td>6,10,25,28,34,35,38,39,62</td>
<td>9</td>
</tr>
<tr>
<td>2. Social conformity</td>
<td>2,8,14,16,20,29,41,50,54,64</td>
<td>10</td>
</tr>
<tr>
<td>3. Positive self</td>
<td>15,44,45,46,47,53,55,57,69</td>
<td>9</td>
</tr>
<tr>
<td>presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Defensiveness</td>
<td>5,7,17,24,31,32,52,58,70,71</td>
<td>10</td>
</tr>
<tr>
<td>5. Dependency</td>
<td>9,11,19,33,48,49,65,66</td>
<td>8</td>
</tr>
<tr>
<td>6. Social responsiveness</td>
<td>4,18,27,36,37,42,60</td>
<td>7</td>
</tr>
<tr>
<td>7. Social approval</td>
<td>1,3,12,13,21,22,23,26,30,40,43,51,56,59,61,63,67,68,72</td>
<td>19</td>
</tr>
</tbody>
</table>

Item Construction:

Specific behaviours referring to these areas were collected from a variety of sources including the literature from which these areas had been called. These areas were also discussed with the colleagues in the department and behavioural examples of each area were collected. On the basis of these behaviours descriptions one hundred statements in first person singular number were written out. Of these 100 statements 50 were positively cued statements while the rest of these were negatively cued. Against each item two response choices, i.e. True, False, were written. Each respondent was required to select either of the response to indicate the applicability of the statement for him or her.

How many of these statements, and which ones, would be included in the first draft was empirically determined.
In the first draft of the scale, each item in order to be acceptable for inclusion had to meet two criteria, i.e. agreement or disagreement with statement indicated presence or absence of approval motive, and each item had minimal pathological or abnormal implication. To empirically determine the extent to which these items met these criteria the entire list of statements were submitted to a number of judges with the written instruction.

Persons who served as judges were university teachers belonging to all cadre and faculties. Some of these judges were Psychology teachers selected from other universities for the reason of their expert knowledge of the subject. Those items about which there was 90 percent or more agreement regarding the approval content of the items were accepted as items to be included in the try-out form of the AMS and items receiving less than 90 percent agreement were out right discarded. On forty items there was unanimous agreement and 37 items were with 90 percent or more but less than cent-percent agreement. Thus in the try-out form of the AMS 77 items were found to meet the criteria and therefore, were included in the try-out form of the AMS.

**Item Analysis:**

The next step in the course of development of the AMS concerned with determination of item validity. This was necessary since it was not known whether the items were able to discriminate properly or not. It is well established in theory of psychological measurement that item validity has important bearing on objectivity of test (Freeman, 1962). For these purpose item total correlations were worked out since, the scale was dichotomous and score on each item was either 0 or 1. It has one more advantage because it required use of all the data collected
while extreme group strategy does not take into consideration the middle group. In computation of correlations point-biserial correlations (Ferguson, 1959) were computed. The values of item total correlations are presented in Table. The required correlation value to be significant at .01 level of confidence is .12 and a value of .09 is significant at .05 level (Garrett, 1979).

The item which was not even significant at .05 level was rejected. It is evident from the table, that only 72 items proved to be discriminating at the .05 level or better and the remaining 5 items failed to reach the significance level at .05 level.

**The Final Form:**

The final form of AMS constituted those 72 items, which were found suitable in the process of item analysis. It comprised 72 items out of which 37 were true and remaining 35 items have false option as indicative of approval orientation.

**TABLE**

**Responses indicative of the activation of Approval motive.**

A score of 1 is given to each response if it is approval indicative irrespective of its being true of false. Thus, scores can range between 0 and 72. Larger scores are indicative of stronger approval motive.
<table>
<thead>
<tr>
<th>Items</th>
<th>Approval Responses</th>
<th>Items</th>
<th>Approval Responses</th>
<th>Items</th>
<th>Approval Responses</th>
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<tr>
<td>1</td>
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<td>25</td>
<td>F</td>
<td>49</td>
<td>F</td>
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<tr>
<td>2</td>
<td>F</td>
<td>26</td>
<td>F</td>
<td>50</td>
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<td>51</td>
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<td>48</td>
<td>F</td>
<td>72</td>
<td>F</td>
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</table>

\( T = \text{True}, \) responses indicate approval orientation of the items against them \( F = \text{False} \)

**Determination of Reliability:**

The two essential characteristics of a sound test are its reliability and its validity. Reliability means that a test gives dependable and consistent scores. It refers to the consistency of measured performance. A test with high reliability is one that will yield very much the same relative magnitude of scores for a group of people under similar but separate conditions or situations.
**Test-retest Reliability:** Temporal stability of scores on AMS.

It was defined as the correlation between scores obtained by a subject at two occasions reported by a period of 2 to 3 months. In the present work 120 Ss were retested. The correlation coefficient obtained from the two sets of scores was .80 with an index of reliability of .89.

**Split half Reliability:** Internal consistency of AMS.

It is used to find out internal consistency of the measure. The items in the whole AMS have been divided into two odd and even categories. In order to determine split-half reliability, AMS was administered on large sample of 500 Ss the obtained correlation between scores on add and even items was .82. Following Spearman Brown prophecy formula a reliability index of .93 was obtained.

**Determination of Validity:**

It refers to a test's ability to measure what it purposes to measure. Validity is the most important single attribute. The study of a test's validity may be either primarily logical (face or content) or empirical/statistical (criterion related or construct). The AMS scale has satisfactory content validity, construct validity, intrinsic validity and predictive validity.

**Content Validity:** The AMS has content validity is evidenced by the selection of items and the agreement of the expert opinions on the content of items as true measure of approval motive. The selection of items with very high discriminating values, further assumes better selection of contents. Content validity is more systematic and more sophisticated, it is known as logical validity, course validity and curricular validity. Content validity is nonstatistical. It is obviously
important in achievement tests, but it can be also important with approval motive test. The content validity of AMS insures that its content covers a representative sample of the domain of phenomenon under consideration. The coverage of items of AMS deals with almost each and every important domain of approval-motivated behaviour. AMS areas related to regulative behaviour, defensiveness, social responsiveness, dependency, self-esteem, social attraction, social conformity positive self-presentation and social approval a culturally sanctioned behaviours are included in this scale. The opinion of the experts was taken into consideration in acceptance of which items increased its content validity.

**Intrinsic Validity:** This type of validity shows the extent to which the obtained scores measure the true component of the test. It is indicated in terms of the index of reliability. The high value of test retest as well as split-half reliability co-efficient of the AMS has considerable degree of intrinsic validity.

**Predictive Validity:** Evidence for this validity comes from several studies of the authors. The obtained results have shown that there is negative relationship between cognitive complexity and approval motive (*Tripathi, 1980*). It has been found that Ss having high degree of approval motive show more susceptibility to verbal conditioning under positive as well as negative reinforcement conditions with verbal and gestural cues (*Tripathi & Tripathi, 1980*). Differentials in social perception have also been noticed as a function of approval motive (*Tripathi, 1978*). High approval motivated Ss were found to have high degree of religiosity as compared to low approval motivated Ss (*Tripathi & Srivastava, 1980*). On 16 PF test of Cattell HAG Ss displayed the characteristics of higher ego, super ego strength, affection, parmia,
premsia and high strength of self-sentiment. In contrast, LAG Ss were found to show the characteristics of autia, shrewdness, radicalism, self-sufficiency and high ergic tension (Tripathi, 1980). On Sinha Anxiety scale HAG Ss manifest low level of anxiety and LAG Ss show high degree of anxiety (Tripathi, 1980). HAG Ss were found to be more adjusted as compared to LAG Ss (Tripathi, 1980). HAG Ss were found more externally controlled while LAG Ss were relatively more internally controlled (Tripathi 1980). Tripathi and Tiwari (1980) reported that Low status Ss are more internally controlled whereas high status Ss are more externally controlled. Further, Tripathi and Misra (1980) found that LAG Ss are more internally controlled and HAG Ss are externally controlled. On perceptual and social dependence it has been pointed out that HAG Ss were more dependent as compared to LAG Ss (Tripathi, 1980). On prolonged deprivation Scale HAG Ss were found less deprived while LAG Ss were more deprived (Tripathi 1980). High approval group showed more conforming behaviour as compared to low approval group (Tripathi 1978). It has been reported that high approval group show more perceptual defence in contrast to low approval group (Tripathi, 1979). High approval subjects are more dependence prone as compared to low approval subjects (Tripathi, 1980).

**Construct Validity:** The construct validity of AMS denotes to the extent that this scale measures the psychological construct as it is conceptualized in theoretical scheme of related psychological concepts and constructs. The construct of approval motive implies that Ss high on the AMS shall be low on hostility measure. Hetherington and Wray (1964) suggest that HAG Ss may be an inhibiting factor in the expression of aggression. Lavoie and Krandal (1975) reported a very high negative correlation ($r = -.76$) between approval and hostility. In
Indian condition the relationship of approval motive and hostility has been to be negative \( (r=-.361, N=250, \text{Tripathi and Saxena, 1978}) \). This correlation is significant at .01 level.

**Norms:**

Since scores on psychological tests are not absolute, their meaning is largely governed by the reference group against which score of an individual is interpreted. In psychological testing a variety of procedures are followed. For determination of norms the percentile norms of AMS are prepared on a randomly selected (1090 boys and 960 girls) sample of two thousand and fifty university and college students belonging to Arts, Commerce, Law and Science courses at undergraduate and postgraduate classes. The norms of AMS are reported in Table. Specific norms are also given for boys and girls separately the pattern of scores is quite similar. Therefore, norms for the general sample may be used for males as well as females.

**Uses:**

The present scale aims at providing the strength of an individual's motive to seek social approval. As such it can be used to obtain quantitative value of the personality disposition and motive of approval. It constitutes a useful research tool. It is both self and nonself administering test and does not require a very trained tester. The instructions are clearly printed on the first page. It can be easily used in-group setting. Some important aspects related with the administration of the scale are given below:

1. The test is untimed. However, most of the groups finish it in 40 minutes.
2. Prior to administration of scale, it is useful to emphasize while instructing that responses should be given as quickly as possible, and frankness and cooperation are required.

3. It is also needed to emphasize that there is no correct or incorrect replies to the items. Also, items have to be answered.

4. It should be made clear that the responses have to be given in either true or false form and that no statement is to be left out.

5. Although the test is self-administering it has been found useful to read out the instructions loudly and ask the respondents to read them silently.

6. The AMS can be used in individual testing or in-group testing conditions.

**Scoring:**

Scoring is accomplished by scoring stencil. The answers encircled appear through stencil are considered. Transparent paper scoring stencil is used. Fitting the stencil over the answers will make possible to count the scores will provide total score of a person. The scores can be interpreted in the light of norms given in Table.

**Percentile Norms for Approval Motive Scale (AMS)**

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>Scores on AMS</th>
<th>Sample interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Boys</strong></td>
<td><strong>Girls</strong></td>
</tr>
<tr>
<td>99</td>
<td>65.68</td>
<td>65.57</td>
</tr>
<tr>
<td>95</td>
<td>60.55</td>
<td>60.79</td>
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<tr>
<td>90</td>
<td>57.57</td>
<td>57.92</td>
</tr>
<tr>
<td>80</td>
<td>54.76</td>
<td>55.18</td>
</tr>
<tr>
<td>75 Q₃</td>
<td>52.84</td>
<td>53.81</td>
</tr>
<tr>
<td>70</td>
<td>51.87</td>
<td>52.76</td>
</tr>
<tr>
<td>60</td>
<td>49.92</td>
<td>50.85</td>
</tr>
<tr>
<td>50 Md</td>
<td>48.01</td>
<td>48.93</td>
</tr>
<tr>
<td>40</td>
<td>46.18</td>
<td>46.97</td>
</tr>
<tr>
<td>30</td>
<td>44.35</td>
<td>44.98</td>
</tr>
<tr>
<td>25 Q₁</td>
<td>43.40</td>
<td>43.99</td>
</tr>
<tr>
<td>20</td>
<td>41.87</td>
<td>42.75</td>
</tr>
<tr>
<td>10</td>
<td><strong>38.80</strong></td>
<td><strong>39.79</strong></td>
</tr>
<tr>
<td>1</td>
<td>31.28</td>
<td>32.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=1090</td>
<td>N=960</td>
<td>N=2050</td>
</tr>
<tr>
<td>M=48.064</td>
<td>M=48.927</td>
<td>M=48.25</td>
</tr>
<tr>
<td>SD =7.15</td>
<td>SD 6.54</td>
<td>SD 7.11</td>
</tr>
</tbody>
</table>
3. Self Esteem Inventory- (Dr. M.S. Prasad & Dr. G.P. Thakur)

Self-esteem or self-concept is a concept that a person has regarding his own self, which consists of any evaluation that he makes of himself or-whatever feelings he has about himself. In fact, what a person thinks about himself comprises the attitudes and feelings that he has about himself. "The self-concept is a particular kind of attitudinal structure". (McDavid and Harari, 1968). Ramkumar (1971) has defined self-concept as the cluster of the most personal meaning a person contributes to the self. He developed a self-concept inventory using Q-sort method. Some attempts have been made in the past to measure self-concept with the help of some kinds of questionnaires and inventories using Q-sort measure, semantic differential technique etc. For example, Gill and D, Oyley (1972) developed a theoretically oriented and objective instrument purporting to measure the self-concept of high school student in an academic setting. The retest reliability coefficients for the perceived self were .69 and .60 and ideal self .60 and .67 for boys and girls respectively. Internal consistency reliability ranged from .89 to .92. Some other attempts have also been made to develop self-esteem inventory (e.g. Harrison and Budoff, 1972; Mohsin, 1976; Piers and Harris, 1965; Singh, 1965). The entire instrument developed to measure self-esteem or self-concept have, perhaps, not taken into account personally - perceived self and socially - perceived of the individual. The self-evaluation of the individual is heavily dependent upon the way in which he thinks other view him. In fact, these two aspects of self esteem (personally - perceived self of socially-perceived self) constitute the whole self of the individual. A few inventories or questionnaires have attempted to measure these two aspects but the tools developed for the purpose have not been very satisfactory. The
present attempt therefore, has been made to develop an inventory of self-esteem, which would take into account personally perceived self and socially perceived self, adopting suitable statistical procedures.

**Methods**

(i) **Selection of items:** 65 items representing self of the individual in Hindi Language were framed on the basis of literature on the subject and consulting teachers of Psychology and other disciplines. These items were written in univocal sentences. The statements were submitted to ten judges-six male and four female teachers of Psychology of Bihar. They were requested to be very critical while assessing statements representing the self of individual. Ten sets of statements were prepared and submitted to the judges separately for their opinion. Finally 30 items were selected for inclusion in the final list on which six or more judges had agreed. With a view to assessing personally perceived self and socially perceived self it was decided to have two identical sets of statements having different instructions for the two sets. Personally-perceived self was to be assessed on the basis of the following instructions, "There are some statements in this inventory. You please read these statements one by one carefully. Each statement has seven-point answer scale, from completely true to completely false. You are requested to encircle the point of the scale related to the particular statement, which in your personal opinion is most suitable in your case. Kindly go through all the statements one by one and see that none is left over".

Socially-perceived self was to be determined on the basis of the following instructions - "Again you are given the same set of statements. On the last occasion you rated yourself on the basis of your personal
opinion, related to the statements but this time you have to rate yourself on the basis of your idea about what others think of you on those statements. Other things remaining the same you have to reply to the items of the inventory."

(ii) **Sample:** 400 male and female students of Bihar University constituted sample of the study.

(iii) **Reliability of the Inventory:** The two set of the inventory were administered to a sample of 400 students. Split-half reliability coefficients were calculated for both the sets of the inventory, which came out to be .82 and .78 for personally perceived self and socially perceived self respectively. Of the 400 students, 150 students were administered the two sets of the inventory again after a gap of six weeks for evaluating re-test reliability co-efficients. Re-test reliability co-efficients were found for both the tests were .69 and .66 respectively for personally-perceived self and socially-perceived self.

(iv) **Scoring and Interpretation:** Of the thirty items, seventeen are socially desirable and thirteen are socially undesirable. The item which are socially desirable would get 7 scores if answered completely true and 1 if answered completed false. Other intermediate answer would get scores accordingly. The socially undesirable items would be scored in the opposite manner, i.e., the completely false point would get 7 scores and completely true would get 1 score. An individual who has taken both the sets of the inventory will have two scores one for the personally perceived self and the other for the socially perceived self. Therefore, these are, three possibilities personally perceived score may be higher than the socially perceived score; personally perceived score may be lower than the socially perceived score and; there may not be difference between the
two. One who falls in the first category, i.e. personally-perceived score higher than the socially-perceived score may be termed a person having positive self, others who fall in the second category, i.e., socially-perceived score/higher than the personally-perceived score may be known as persons having negative self and persons falling in the third category may be supposed to have a balanced self-esteem.

Test Administration

For the administration of psychological tools on drug addicts at De-addiction centers at Kanpur, Lucknow and Haldwani were chosen. Sufficient number of cases were found on these centers. Directors of these centers were contacted and purpose of the study was explained to them. They were assured that the identity of the patients and findings will be kept secret and will be used only for research purpose. On this assurance they were kind enough to permit me to carry out the present investigation on these respective centers.

The first step was identification of drug addicts for the sample. From the record of the centers, registered and clearly diagnosed drug addicts who were taking drugs at least for the last six months were selected. They were taking treatment at least since last seven days. Only male adults were selected. They were from different communities caste, SES as well as of education level.

It was further planned that test administration will be done in two session on each individual. Rorschach test will be given on first day and rest of two tests on second day. A detailed information relating to Age, family, parental occupation, religion, cast, duration of treatment, duration of use of drug, type of therapy etc. was recorded with the help of records of the drug de addiction center as well as from the subject.
After observing all the formalities day, date and time with each subject was fixed with the permission of Directors of centers as well as convenience of the subjects. All the tests were administered in a separate room at drug de addiction center.

The first step was to establish rapport with each subject. He was told how his cooperation could be beneficial for him. After getting convinced for cooperation the testing session followed.

On all subjects Rorschach test was administered in a separate room where no other person was allowed to enter. Before starting the test, I gave some instruction to subject; you will be doing an interesting test of thinking and imagination ability. It requires more than an hour time. This test would help me understand your problem and your personality. It would help me to serve you better. It would be helpful in overall management of the treatment plan also. I shall be giving you one by one a series of 10 plates made of inkblots. Some are more in black and white and others are coloured. On seeing the plate you are supposed to tell me everything what you see in the plate. You have to tell me everything that might be represented by these blots. People see all sorts of things on these inkblot pictures. Tell me what you see, what it might be for you. What it look like what it resembles with.

You are free to tell me anything, as there is no right or wrong answer. Say whatever comes into your mind on seeing the plate, without considering whether it is right or wrong or embarrassing. Usually people see many things on each plate. Thus you are supposed to tell me everything you see on each plate.

I asked him, "Is everything clear to you"? If not you can ask me. The subject saw plates and made some quarry as "how to answer" and
then, I explained them. When finally he was satisfied with instructions. I started the testing process. There was no time limit for answering the responses. All ten plates starting from No. 1 to 10 in serial were given one by one in first session. I recorded all the responses simultaneously. After the subject responded all plates, I started an inquiry about all responses and filled the location chart. After completing inquiry and recording his all responses, I told him that testing of today is over. I thanked him and asked for next day’s meeting.

In this way all the ten plates were given to all subjects. Each day Rorschach testing was done on three subjects. Nearly one and half an hour time took in testing with each subject. All those subjects, on whom Rorschach test was administered first day, were requested to come next day on fixed time, date and place. This procedure was followed on all subjects.

In second session subjects who were given Rorschach test were given test of Self-esteem and Approval motive. These two were administered on group. Separate instructions for each test were given again.

I told my subject "Thank you very much for your cooperation on Rorschach test which was administered on you yesterday. Today I will give you two very simple test one by one. Here again your cooperation is highly needed. After this I asked them to sit in the same room. Table and chair of each subject was arranged separately at a small distance. First the test of Self esteem and then of Approval motive was given. I read the instruction separately before the starting of each test.

Instruction for 'Self Esteem' test, "Here is a questionnaire which have two parts, each part has 30 statements. Statements are same in
both parts. Every statement has 7 types of answer. In the first part you express your feeling what you think about yourself but in the second part what others think about your self. Express your feelings most appropriately. All the statements are to be checked. Your answer will remain secret". After than they started answering in the test booklet. When it was over, I collected the booklet and checked if they answered all items. Then I gave them test of 'Approval motive' with following instructions. "There are 72 statements in this questionnaire to be screened in 'true' or 'false' categories. The statements are common expression of your ideas and behaviour. Judge each item and encircle the small box in the right column as it stands 'true' or 'false' for you". After this they started answering the items was in the test booklet. When it was over, I collected the booklet and checked. Finally I told my subject thank you for your cooperation in completing all tests.

The same procedure of test administration was followed for the matched normal sample except that test administration was done on some other place convenient to subjects.

**Statistical Tools Used In The Study**

Data obtained by using different measures were given statistical treatment. Following statistical devices were used for analysis the data of in the study i.e. Mean, SD and Analysis of Variance and Critical ratio.

**Mean**

The mean rather than median or mode was used as a measure of central tendency of distribution of scores.

The formula of mean is an follows:
\[ M = \frac{\sum X}{N} \]

where:

\[ M = \text{Mean} \]
\[ \Sigma = \text{Sum} \]
\[ X = \text{Scores} \]
\[ N = \text{Number of scores}. \]

**Standard Deviation**

Standard deviation as a measure of variability was used because it goes with mean as a measure of central tendency. The mean and S.D. were suitable for this kind of data obtained in the present study. The formula of standard deviation is as follows:

\[ \sigma = \sqrt{\frac{\sum X^2}{N}} \]

Where:

\[ \sigma = \text{Standard Deviation} \]
\[ \sum X^2 = \text{Sum of square of score and deviation} \]
\[ N = \text{Number of scores}. \]

**Critical Ratio**

Significance of difference between two means.

\[ Cr = \frac{M_1 - M_2}{S_{\text{ED}}} \]

where:

\[ M_1 - M_2 = \text{Difference between two means} \]
\[ S_{\text{ED}} = \text{Standard error of derived difference}. \]

**ANOVA**

In order to study a significant difference between two groups i.e. Drug addicts & Normal subjects one way analysis of variance was computed. Formulas as under:

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Degree of freedom</th>
<th>Sum of Squares</th>
<th>Sum of mean squares</th>
<th>F' ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
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</table>