CHAPTER 4
RESEARCH DESIGN AND METHODOLOGY
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Recent research studies in the area of mental and emotional illnesses have revealed an urgent need for effective psychotherapeutic intervention in the field of personality dysfunction (Taylor, 1996, and Wynne, 1998). On the one hand mental health professionals are increasingly regarding the concept of personality as a holistic psychosomatic phenomenon and are realizing the necessity to attribute physical as well as mental causes to personality breakdown (Cameron and Rychlak, 1989). On the other hand it was observed that the majority of psychotherapeutic interventions attempting to alleviate personality disturbances were either exclusively cognitively oriented or predominantly based on behavioural principles (Costa and McCrae, 1992).

Bioenergetic psychotherapy represents a unique combination of cognitive-rational and emotive-affective methods and attempts to utilize the 'intelligence' of the body to understand and treat psycho-somatic distress. However, there is a paucity of research attempting to evaluate the effectiveness of bioenergetic treatment as a psychotherapeutic tool for personality dysfunctions. Hence, this study was undertaken for the primary purpose of assessing the effects of Bioenergetic therapy on the holistic (mind-body) functioning of clients diagnosed as suffering from a range of personality disorders. The research study further intended to investigate the relationship between the client’s mental health status and his physical health status, both before the commencement of treatment and also after the termination of the psychotherapeutic course.
Another research concern was to ascertain the degree to which therapeutic outcome would be affected by: -

i) the client's age, sex, education, socio-economic level and pattern of family interaction

ii) chronicity of the client's illness and the amount of psychotropic medication administered.

iii) the level of empathy between the client and the therapist and the motivation level of the client.

iv) the client's particular style of defence and the ways in which he sought reinforcement from others.

Finally, it was intended to study the characteristic psychiatric symptomology of each of the nine personality disorder sub-types and to discover whether certain personality disorders were more responsive to Bioenergetic treatment than others.

OPERATIONAL DEFINITIONS:

For the purpose of this investigation the operational definitions of Bioenergetic therapy, Holistic functioning, and Personality Disorder are given as follows:-

Bioenergetic Therapy:

A method of psychotherapy developed by Lowen (1960-1970) based on the work and theories of Reich (1949). For this research purpose, it is defined as a therapeutic system that combines verbal-intellectual, physical
and psycho-emotional techniques for the treatment of psychiatric disturbances like personality disorder.

The therapeutic aim is to:
(i) facilitate the client towards awareness, understanding and acceptance of his psycho-somatic dysfunctions and
(ii) resolution of the mind-body conflicts through a combination of physical, physio-expressive and regressive procedure.

**Holistic Functioning:**

A composite of the client’s:

i) Psychological functioning as assessed on the Personality Dysfunction Scale (DSM IV, 1994).

ii) Psycho-physical functioning as assessed on the P.G.I. Health Questionnaire (1978).

iii) Self-esteem level as assessed on the Multidimensional Self-esteem Inventory (1988).

iv) Bioenergetic condition as assessed on the Lowen Bioenergetic Scale (1979)

**Personality Disorder:**

An abnormal personality pattern which occurs when:

i) The person attempts to cope with average responsibility and everyday relations with inflexibility and maladaptive behaviour.

ii) His characteristic perceptions of self and the environment are fundamentally self-defeating.
iii) The individual's overt behaviour patterns are shown to be health eroding

(Millon and Everly, 1985).

DESCRIPTION OF THE SAMPLE:

An incidental sample of 53 clients was selected from a population of patients diagnosed as suffering from a range of personality disorders by a panel of local psychiatrists. The client's demographic data were recorded. This included age, sex, education, occupation, socio-economic status and family support level which were randomly distributed. They have been illustrated in 'Demographic details of the sample' (Table 4:1).

The clients were assured of complete confidentiality and readily accepted to participate in the research project. The therapeutic treatment programme was designed to span a period of six months (approximately 48 sessions). However, within the first 10 sessions, 9 patients dropped out in the following manner: 1 moved out of town; 1 had a major psychotic breakdown; 1 was refused parental permission to continue treatment; 4 were unable to cope with the therapeutic insights; and 1 was found unsuitable for treatment when it was discovered that the patient's aunt was personally known to the therapist.
### Table 4:1 Demographic Details of the Sample (n=53)

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>EDUCATIONAL CATEGORY</th>
<th>OCCUPATIONAL CATEGORY</th>
<th>SOCIO-ECONOMIC STATUS</th>
<th>FAMILY SUPPORT LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Post graduates and professional qualifications</td>
<td>Professional and private business 43%</td>
<td>Upper middle class 35%</td>
<td>Very high 19%</td>
</tr>
<tr>
<td>63% males</td>
<td>63% males</td>
<td>Graduates 29%</td>
<td>Skilled and semi skilled 30%</td>
<td>High 29%</td>
<td></td>
</tr>
<tr>
<td>Mean age</td>
<td>36 years</td>
<td>37% females</td>
<td>Unskilled 12%</td>
<td>Average 25%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-graduates 26%</td>
<td>Unemployed 15%</td>
<td>Below average 27%</td>
<td></td>
</tr>
</tbody>
</table>
53 CLIENTS WITH PERSONALITY DISORDER

9 clients dropout

3rd session  6th session  7th session  8th session  9th session

1 client  client  4 clients  1 client  2 clients

Unacceptable by therapist  Psychotic break down  Unable to accept therapeutic insights  Refused parental permission  Moved out of town

44 clients selected for 48 sessions of Bioenergetic Psychotherapy

Fig 4:1 Therapeutic plan for the selected sample along with dropouts
The forty-four clients who finally underwent therapy were classified as suffering from one of the ten personality disorder sub-types and were grouped under the different diagnostic criteria laid down in the DSM IV manual for personality disorders as shown in the table below:

Table 4:2 **Classification of ten personality disorder sub-types**

<table>
<thead>
<tr>
<th>Personality Disorder Sub-types</th>
<th>Number of clients</th>
<th>Characteristic Personality Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoid</td>
<td>6</td>
<td>Odd</td>
</tr>
<tr>
<td>Schizoid</td>
<td>6</td>
<td>Eccentric</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>0</td>
<td>And Suspicious</td>
</tr>
<tr>
<td>Anti-social</td>
<td>4</td>
<td>Dramatic</td>
</tr>
<tr>
<td>Border line</td>
<td>3</td>
<td>Emotional</td>
</tr>
<tr>
<td>Histrionic</td>
<td>4</td>
<td>Erratic</td>
</tr>
<tr>
<td>Narcissistic</td>
<td>5</td>
<td>Impulsive</td>
</tr>
<tr>
<td>Avoidant</td>
<td>5</td>
<td>Anxious</td>
</tr>
<tr>
<td>Dependent</td>
<td>5</td>
<td>Fearful</td>
</tr>
<tr>
<td>Obsessive-Compulsive</td>
<td>6</td>
<td>And Perfectionistic</td>
</tr>
</tbody>
</table>

Note: The schizotypal personality disorder was not represented in the sample as no patient was found with this relatively rare dysfunction.
Each client was also assigned to one of the five bioenergetic patterns, according to Lowen's typology of bioenergetic structures as shown in table below:

Table 4:3  Assignation of clients to five bioenergetic groups

<table>
<thead>
<tr>
<th>Bioenergetic pattern</th>
<th>Number of clients</th>
<th>Characteristic Bioenergetic style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizoid</td>
<td>12</td>
<td>Energy withheld from periphery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inner charge frozen in core area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Body split energetically at waist</td>
</tr>
<tr>
<td>Oral</td>
<td>8</td>
<td>Energy flows weakly to periphery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of strength/energy in lower parts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Muscles underdeveloped and weak</td>
</tr>
<tr>
<td>Psychopathic</td>
<td>9</td>
<td>Displacement of energy towards head</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upper half of body disproportionately larger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy constricted at diaphragm and waist</td>
</tr>
<tr>
<td>Masochistic</td>
<td>5</td>
<td>Energetic charge tightly held in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Energy choked off in neck and waist</td>
</tr>
<tr>
<td>Rigid</td>
<td>10</td>
<td>Moderate charge at all peripheral points of contact</td>
</tr>
</tbody>
</table>

Note: The masochistic structure was relatively under represented as only five clients presented this disorder.
RESEARCH DESIGN AND PROCEDURE

A repeated measures, two levels, before and after (pre and post) research design was employed for the study (Fig 4:2)

**Stage I:**

The first stage was the pre-treatment assessment stage where each of the forty-four patients was administered four sets of assessment measures before the commencement of the psychotherapeutic treatment.

i) The severity level of the patient's psychiatric disorder was measured on the DSM IV Personality Dysfunction Scale (1994) (Appendix III).

ii) The patient's psycho-physical health status was measured on the P.G.I. Health Questionnaire–N2 (1978)– (Appendix IV)

iii) The patient's level of self-esteem was measured on the Multidimensional Self-esteem Inventory (1988) (Appendix V)

iv) The patient's bioenergetic pattern was measured on the Lowen Bioenergetic Scale (1979) (Appendix VI)

**Stage II:**

During the second phase of the research study the clients participated in a six months (approximately forty-eight sessions) course of bioenergetic psychotherapy.

**Stage III:**

The final stage consisted of the re-administration of the four sets of measures to the same group of clients after the termination of the psychotherapeutic programme. Changes and differences between pre and post-treatment conditions were observed, recorded and statistically analyzed using the appropriate statistical tests.
RESEARCH PROCEDURE

Incidental sample of 44 clients with 9 types of personality disorder

PRE-TREATMENT CONDITION → BIOENERGETIC PSYCHOTHERAPY → POST-TREATMENT CONDITION

6 Months - 48 Sessions

Assessment

DSM IV Personality Dysfunction Scale
PGI Q. naire
MSEI Inventory
Lowen Bioenergetic Scale

Re-assessment

DSM IV Personality Dysfunction Scale
PGI Q. naire
MSEI Inventory
Lowen Bioenergetic Scale

Psychiatric Health Status
Psychophysical Health Status
Self-esteem Level
Bioenergetic Condition

Psychiatric Health Status
Psychophysical Health Status
Self-esteem Level
Bioenergetic Condition

Differences and changes between pre and post - conditions analysed by

t-test
Scheffe’s multiple range test
ANOVA
Co-efficient of correlation
Discriminant analysis

Fig 4.2 Illustration of the Research Procedure
TOOLS AND MEASURES:

The following measures were employed in the present study for the purpose of recording clinical diagnostic and demographic data; evaluating the effectiveness of Bioenergetic psychotherapy; and examining the mind-body relationship.

I. **Socio-demographic and Diagnostic Schedule:** To record the client's diagnostic and demographic case-history which noted age, sex, education, occupation, socio-economic status, family support level, psychiatric history and prognosis (Appendix I).

II. **Diagnostic Evaluation of Personality disorder:** An inventory designed by Millon and Everly (1985) to confirm the diagnostic category consigned to the client and to assess the extent to which the client functions within that category (Appendix II). This inventory showed split-half reliability of .92 and was validated with MCMI (Millon Clinical Multi axial Inventory) and MAPI Scale (Millon, Green and Meager).

The five diagnostic criteria were:

i) Behavioural appearance (how the individual appears to others)
ii) Inter personal conduct (how the individual interacts with others)
iii) Cognitive style (the characteristic nature of the individuals thought processes)
iv) Affective expression (how the individual displays emotion)
v) Self-perception (the manner in which the individual sees himself)
In order to qualify as a particular type of personality disorder four out of five criteria must be exhibited.

III) **Personality Dysfunction Rating Scale (DSM IV, 1994):** To assess severity of personality disorder. This is a five-point rating scale based on seven parameters as laid down in the DSM IV diagnostic and statistical manual of mental disorders (Appendix III).

IV) **P.G.I. Health Questionnaire - N2:** For measuring psychophysical health status. This questionnaire was designed and standardized by Wig and Verma (1978). It consists of fifty items with Yes/No answers and a lie score of ten items. The scoring is easy, simple and objective. It has the added advantage of having a validated Hindi version suitable for vernacular speaking Indian clients (Appendix IV). The test re-test reliability measure was .83 and it was validated with P.T.I., Hamilton's Anxiety Scale and P.E.N.

V) **Multidimensional Self-esteem Inventory (M.S.E.I.):** It is an objective self-report inventory, which provides measures of the components of self-esteem. It is based on Epstein's (1980) model of self-concept and self-esteem and has undergone extensive conceptual and psychometric development over a period of ten years (Epstein, 1986; O'Brien, 1980) (Appendix V). The test re-test score for this inventory was .88 and validation was with the Baron Ego-strength Scale and Eysenck's Neuroticism and Extroversion Scale.

VI) **Lowen Bioenergetic Scale (1979):** To assess bioenergetic condition. This scale was developed by Lowen and his colleagues
during their work with patients suffering from personality dysfunctions. Clients were classified into five basic types of "character" structure. Each type of structure had specific ways of accumulating and distributing energy through the mind-body system; specific personality characteristics; and bodily features. (Appendix VI) The internal consistency reliability for this measure was .78 and it was validated with Body Cathexis Scale and the Zimmerman-Guildford Scale.

VII) **Motivation Level Check List**: To assess the motivation level of the client during the Bioenergetic treatment (Appendix VII). It was formulated with the objective of measuring the client's level of confidence, self-responsibility, perseverance, inner directedness, optimism, determination to succeed under adverse circumstances and his faith and involvement in the therapeutic process.

A set of twenty question were formulated based on these parameters. These questions were distributed to five experts in the field of psychology to evaluate the appropriateness and predictive ability of these items in assessing the motivational level of the clients. The ten items that had 100% consensus from the experts were retained and incorporated in the Motivation Level Check List.

VIII) **Family Support Level Check List**: To assess the family support level of the client during the course of the therapeutic programme (Appendix VIII). This check list attempted to assess the understanding, acceptance and cohesion in the client's family structure and the extent to which they collectively reinforced positive attitude towards psychiatric recovery.
A group of three Mumbai based family therapists were initially requested to evaluate the appropriateness and predictive value of a series of twelve questions but were unable to arrive at 100% consensus on more than eight items. Hence, eight more items were formulated and ultimately ten questions were unanimously selected and incorporated in the Family Support Level Check List.

IX) **Diagnostic Study**: To substantiate the quantitative analysis and to demonstrate the process and effectiveness of Bioenergetic Psychotherapy.

**HYPOTHESES:**

In keeping with the overall research aim of assessing the effectiveness of Bioenergetic psychotherapy six sets of hypotheses were made:

_Hypothesis 1:_

The majority of clients would benefit significantly from undergoing the course of bioenergetic treatment in terms of holistic mind-body functioning. It was anticipated that there would be:

- a significant decrease in severity levels of psychiatric symptoms.
- a significant increase in psycho-physical well being.
- a sharp rise in levels of self-esteem.
- a noticeable reduction in bioenergetic dysfunctions as a result of the six month therapeutic course.
It was hypothesized that there would be significant differences between pre and post treatment scores on all four parameters — mental health status; psychophysical health status; self-esteem levels, and bioenergetic condition.

**Hypothesis 2:**

The clients would show a differential rate of therapeutic progress depending on the particular type of personality disorder that they were suffering from and the specific type of bioenergetic pattern which was structured in the body. The differential effect was expected to take place in the following manner:

<table>
<thead>
<tr>
<th>Table 4:4  Anticipated level of therapeutic progress for different personality groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level of Therapeutic Progress expected</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Moderately good</td>
</tr>
<tr>
<td>Fair</td>
</tr>
<tr>
<td>Poor</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
</tbody>
</table>
The above set of predictions were based on the personality theory of Millon and Everly (1985) and the bioenergetic principles laid down by Lowen and his colleagues (1979).

**Hypothesis 3:**

There would be a significant correlation between the level of change in mental health status and the level of change in psycho-physical health status. Thus, clients who showed a significant reduction in psychiatric symptoms (mental health measures) would simultaneously record a substantial increase in psycho-physical well-being. Conversely, clients experiencing a minimum change in mental health dysfunctions would also experience a minimum level of relief in psycho-physical discomfort. This hypothesis was based upon the concept of the holistic functioning of the mind-body system as expressed and practiced by the Primal therapists (Janov, 1996), the Humanistic traditions in psychology (Gestalt and Transactional Analysis); Neuropsychologists like Joseph (1992) and Miller (1990); and most of the body-oriented models of healing.

**Hypothesis 4:**

Therapeutic outcome would be significantly affected by the client’s demographic characteristics like:

4a **Level of education:** Well-educated clients would be more successful in drawing insight into their problem than clients who were relatively un-educated.
4b Socio-economic status: Clients of high socio-economic status would show a more significant level of therapeutic change than clients who were from poorer socio-economic backgrounds. It was anticipated that clients with affluent family backgrounds would be more involved in combating their psychiatric problems and becoming functional again.

4c Occupational level: Clients with high status, self-fulfilling and responsible jobs would perform at a higher rate than clients who had low status jobs and little or no job satisfaction. For example, they were considered more likely to possess the personal qualities of self-confidence, responsibility and determination which were necessary to overcome their psychiatric disturbances.

4d Family support level: Clients with highly supportive families would show a more positive therapeutic outcome than clients with destructive or disinterested families, as it had universally been noted that family cohesion was a strong positive reinforcing factor.

The client's age and sex were not expected to affect the level of therapeutic progress.

Hypothesis 5:

Therapeutic outcome would be significantly affected by:

5a Level of Motivation: Motivated clients would show a more significant level of therapeutic change compared to relatively unmotivated
clients, as they would tend to be more resilient, resourceful and optimistic of resolving their personality dysfunction.

5b Level of Empathy: Clients who engaged in an authentic empathic relationship with the therapist, would perform at considerably higher levels than clients who were unable to establish therapeutic rapport.

5c Chronicity of illness: Clients whose illness was of relatively short duration would perform significantly better than clients whose illness was more chronic.

5d Level of Medication: Clients who were not on psychiatric medication would have a more positive therapeutic outcome than clients who had been prescribed psychotropic drugs over a period of time, because such clients were less likely to be indoctrinated into the biomedical belief system.

Hypothesis 6:

The clients therapeutic progress would be differentially affected by the type of defence mechanism employed and his typical method of seeking reinforcement.

The following prognoses were made as per Millon and Everly's framework (1985)
6a Hypothesised differential effect of defence mechanism

Table 4.5 Anticipated level of therapeutic progress for different types of defence mechanisms

<table>
<thead>
<tr>
<th>Level of therapeutic progress</th>
<th>Type of defence mechanism employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>Reaction-formation, Dissociation, Interojection</td>
</tr>
<tr>
<td>Moderate</td>
<td>Rationalization, Acting out</td>
</tr>
<tr>
<td>Minimum</td>
<td>Fantasy, Regression, Intellectualization, Projection</td>
</tr>
</tbody>
</table>

6b Hypothesized differential effect of reinforcement style.

Table 4.6 Anticipated level of therapeutic progress for different reinforcement styles

<table>
<thead>
<tr>
<th>Level of therapeutic Progress expected</th>
<th>Reinforcement style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>Active, Independent</td>
</tr>
<tr>
<td>Moderate</td>
<td>Dependent, Passive</td>
</tr>
<tr>
<td>Minimum</td>
<td>Ambivalent, Detached</td>
</tr>
</tbody>
</table>
STATISTICAL ANALYSIS:

The six major hypotheses were tested by five standardized statistical procedures:-

i) Paired samples t-test for mean difference
ii) ANOVA
iii) Scheffe’s multiple range test
iv) Correlation co-efficient analysis
v) Multivariate Discriminant Analysis.

The t-test was used to measure the effects of the psychotherapeutic treatment on the client's psychiatric health status; psycho-physical health status; self-esteem level and bioenergetic condition. For this purpose pre and post treatment scores were compared as recorded on the DSM IV Personality Dysfunction scale; the P.G.I. Health Questionnaire; the Multidimensional Self-esteem Inventory; and the Lowen Bioenergetic Scale.

One way ANOVA and the Scheffe's test for significant differences between group means were employed to assess the differential therapeutic progress of the clients at the termination of the bio-energetic treatment course.

The effects of the clients demographic characteristics (education, occupation, socio-economic level and family support) on the rate of therapeutic progress were analysed by ANOVA.
The analysis of variance was also used to assess the effects of the client's motivational level, empathy level, chronicity of illness and level of medication on the degree of therapeutic progress achieved.

The correlation co-efficient analysis was made to assess the relationship between the client's psychiatric progress and psychophysical health progress, which occurred as a consequence of Bioenergetic Psychotherapy. Differences between pre and post treatment scores on the DSM IV Personality Dysfunction Rating Scale were considered to represent positive changes in psychiatric health. Differences between pre and post treatment scores on PGI Health Questionnaire were considered to represent positive changes in psycho-physical health.

Finally, the research data was analysed by Discriminant Analysis measures, in order to highlight the differences between the various personality structures and to discriminate between groups on the basis of some characteristics and functions.