

**EFFICACY OF RATIONAL EMOTIVE
BEHAVIOR THERAPY ON SOME
PERSONALITY DISORDERS**

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Certified that this thesis entitled '**EFFICACY OF RATIONAL EMOTIVE BEHAVIOUR THERAPY ON SOME PERSONALITY DISORDERS**' submitted to the University of Calicut for the award of the Degree of Doctor of Philosophy in Psychology is a bonafide record of the research work carried out by **Mr. Pradeep Saji K.** under my supervision and guidance. No part of this has been submitted earlier for any other purpose.

Dr. C. JAYAN
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DECLARATION

I, PRADEEP SAJI K., do here by declare that this thesis entitled '**EFFICACY OF RATIONAL EMOTIVE BEHAVIOUR THERAPY ON SOME PERSONALITY DISORDERS**' is a bonafide record of the research work done by me under the guidance of Dr. C. JAYAN, Professor, Department of Psychology, University of Calicut. I further declare that this thesis has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title of recognition.

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Date:

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- iii) IPDE-ICD-10 Screening Questionnaire
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- v) Multiphasic Hostility Inventory
- vi) WHO-Quality of Life Scale (WHO-QOL)

Chapter I

INTRODUCTION

Introduction

Significance of the research

Definitions or the explanations of
the key terms

Statement of the problem

Objectives of the study

Process of the research

1.1 Introduction

The study of extreme variants of phenomena has always been a challenge for science. While the science of personality has roots in several traditions, historically numerous personality theories and constructs for the assessment and explanation of individual differences have strongly been influenced by the progress made in conceptualizing extreme states of psychological functioning. Yet, division of labor resulted in psychiatry and clinical psychology focusing on deviant or maladaptive and personality psychology specializing on the normal range of individual differences (Ostendorf and Riemann, 2005).

Since the times of Hippocrates attempts have been made to identify the basic dimensions or categories that explain the differences in personalities among individuals. He had identified four basic temperaments based on body fluids, namely yellow bile, black bile, blood and phlegm. Later Kretschmer and Sheldon identified personalities based on physique and also had suggested some probabilities of mental disorders associated with those types of personalities. Heyman and Wiersma in 1908 (Dahi and Andreoli, 1997) statistically analyzed the personality traits of a great number of ordinary people, and they found that personality could be described by three orthogonal factors. Eysenck (1947) has identified three dimensions of personality called neuroticism, extraversion, and psychoticism. Later, personality psychologists added conscientiousness and agreeableness also. Through Psychoanalytical theory Freud has introduced personalities such as oral, anal, and phallic-genital personality types. Since then research on personality and its dimensions were quite extensive.

The research on Personality Disorders also dates back to nineteenth century as Pinel in 1801, described personalities that were deviant in their emotions. Prichard, in 1835, identified patients who violated social norms as having 'moral insanity'.

Schneider (1923) proposed the view that personality traits are continuously disturbed the extreme deviations of a trait being pathological, if the individual or society suffered because of them. His 10 types of Personality

Disorders illustrate the fundamental arbitrariness of categorical classification of abnormal personalities. His classification of Personality Disorders has influenced the International Classifications of Diseases (ICD) of WHO and the Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association.

The term personality refers to enduring qualities of an individual that are shown in ways of behaving in a wide variety of situations. Some personalities are potentially abnormal and may arise some conflicts either to themselves or to the near ones. These conflicts can permanently be resolved only by bringing changes to the abnormality in his/her basic personality. For example a person when having some infidelity ideas about his spouse and in connection with that they are on the verge of either suicide or divorce, the root cause may be the inherent paranoid traits of the husband, which is part of his personality. In such cases only an in-depth psychotherapy, which focuses on to the traits of paranoid personality can save the game.

Here through this study the researcher tries to establish the utility of Rational Emotive Behavior Therapy, a kind of well-accepted cognitive therapy, developed by Albert Ellis (1958) in dealing with persons, who are all, possessed with certain Personality Disorders.

I.2 Significance of the Research

According to the definition, Personality Disorder cause significant problems for those who have them and others as well. They often have considerable difficulty in their family, academic, occupational and the other roles. Also the existence of a Personality Disorder in patients un rarely comes across the treatment of other co-morbid Axis 1 conditions, which the clinicians are often more bothered about. The presence of any Personality Disorder may affect the prognosis of Axis 1 disorder and the treatment compliance. For example, patients with Depressive Disorders (Black et al 1998; Nelson et al 1994), Bipolar Disorder (Calabrese et al 1993), Panic Disorder (Reich 1988), Obsessive Compulsive Disorder (Jenike et al 1986) and Substance Abuse (Fals Stewart 1992) often respond less well to pharmacotherapy when they have a co-morbid Personality Disorder. It is also associated with poor compliance with pharmacotherapy (Colom, et al 2000). Further more,

Personality Disorder have been shown to predict the development and relapse of Major Depression. (Alnaes and Torgersen 1997; Lewinsohn et al 2000), and individuals with a Personality Disorder are less likely to remit from Major Depression (O' Leary and Costello 2001) and Generalized Anxiety Disorder (Yonkers et al 2000).

The significance of the research is that Personality Disorders are proved to be affecting the treatment outcome of disorders in the mental health field. Tyrer and Ferguson (1987) has stated that in their research done in 357 patients attending for primary care those who were having Personality Disorder had significantly greater rates of contact with all forms of the psychiatric service than those of normal personality.

Borderline Personality Disorder and Major depressive Disorder are not closely related even though they often occurs together (Gunderson and Phillips, 1991).

Schizotypal Personality Disorder and Schizophrenia are closely linked and represent excellent evidence of a spectrum from mild expression (Personality Disorder) to severe expression (Schizophrenia) (Tyrer *et al*, 1997)

A number of reviews have established that Personality Disorders of any form has a negative effect on the outcome of neurotic disorder (Reich and Green, 1991) Follow up studies that have examined personality status have produced a remarkable degree of unanimity in respect of Personality Disorder and the outcome of schizophrenia (Langfeldt, 1937; Rennie, 1939; Holmboe and Astrup, 1957).

A study by DeJong *et al*, concluded that those who are having personality characteristic that are aggressive, impulsive and anti-authoritarian are at greater risk of developing alcohol dependence and having poor response to treatment than other types of personality(DeJong *et al*,1993).

Hardy *et al*, found that twenty-seven of 114 depressed clients, stratified for severity of depression, obtained a Diagnostic and Statistical Manual of Mental Disorders (3rd ed.; DSM-III; American Psychiatric Association, 1980) diagnosis of Cluster C Personality Disorder, that is, avoidant, obsessive-

compulsive or dependent Personality Disorder (PD clients), whereas the remaining 87 did not (non-personality-disorder [NPD] clients). All clients completed either 8 or 16 sessions of cognitive-behavioral (CB) or psychodynamic-interpersonal (PI) psychotherapy. On most measures, PD clients began with more severe symptomatology than NPD clients. Among those who received PI therapy, PD clients maintained this difference post treatment and at 1-year follow-up. Among those who received CB therapy, post treatment differences between PD and NPD groups were not significant. Treatment length did not influence outcome for PD clients. PD clients whose depression was also relatively severe showed significantly less improvement after treatment than either PD clients with less severe depression or NPD clients (Hardy *et al*, 1995)

The study by Chioqueta, *et al* (2004), was aimed to assess the suicidal risk in psychiatric outpatients with specific cluster C Personality Disorders (avoidant, dependent, and obsessive-compulsive). A sample of 142 psychiatric outpatients was used for the study. The sample was composed of 87 outpatients meeting diagnostic criteria for a Personality Disorder and 53 psychiatric outpatients meeting criteria for an axis I disorder only. The results showed that dependent, but not avoidant or obsessive-compulsive, Personality Disorders, as well as the clusters A and B Personality Disorders, were significantly associated with suicide attempts. This association remained significant after controlling for both a lifetime depressive disorder and severity of depression for the cluster A and the cluster B Personality Disorders, but not for dependent Personality Disorder. The results underline the importance of assessing suicide risk in patients with cluster A and cluster B Personality Disorders, while the assessment of suicide risk in patients with cluster C Personality Disorders seems to be irrelevant as long as assessment of a co morbid depressive disorder is appropriately conducted.

Ostrov and Houston (2008) states that Aggression subtypes were uniquely associated with indices of personality pathology. For example, proactive (i.e., planned, instrumental or goal-oriented) and reactive (i.e., impulsive, hostile or retaliatory) functions of relational aggression were uniquely associated with borderline Personality Disorder features even after controlling for functions of physical aggression and gender. The results

highlight the differential associations between forms and functions of aggression and indices of personality pathology in typically developing emerging adults.

Albert Ellis (1994) acknowledged that the rational emotive behavior therapy (REBT) theory holds that individuals with severe Personality Disorders in general, and borderline personality in particular usually are biologically different from “normal” neurotics and are born with a predisposition to be highly vulnerable to stressful environmental conditions. They tend to have cognitive, emotional, and behavioral deficits or disabilities that handicap them socially, vocationally, and in other important aspects of their lives. But they also have distinct, and sometimes exceptionally strong, neurotic tendencies to demand that they absolutely must perform well, that other people have to treat them kindly and fairly, and that frustrating conditions ought not exist. Their neurosis exacerbates their cognitive-emotive-behavioral handicaps, produces even greater life difficulties, and often interferes with their working hard at therapy.

The Therapeutic relationship will also be affected because of the character and temperament of the patients with Personality Disorders. Although individuals with Personality Disorder tend to seek for psychological/psychiatric service extensively, they are more likely to be dissatisfied with the treatment they receive (Kelstrup et al 1993 and Kent et al 1995).

Kendell (2002) offers a number of explanations for the reluctance of British psychiatrists to treat patients with Personality Disorders. He also makes it clear that, whether Personality Disorder is regarded as an illness or not, it is usually associated with a range of other diagnoses and with a poor response to treatment. This indicates that psychiatrists need to understand them, but whether lack of knowledge of the ‘underlying cerebral mechanisms’ of these patients (or of the psychiatrists whom they irritate) is the problem is dubious; the need is rather for an understanding of persons.

While it may have been true in the past that few links were made between the concept of Personality Disorder and the psychological literature on personality structure and development, the situation has changed

considerably in recent years (Livesley, 2001). One such link is offered by the model of borderline Personality Disorder developed within cognitive-analytic therapy - the 'multiple self states model' (Ryle, 1997). This model is based on an understanding of development which emphasizes the key role of the intense interactions between infants and their caretakers in shaping personality and patterns of interaction (Trevarthen, 2001). These patterns (called 'reciprocal role procedures' in cognitive-analytic therapy) determine subsequent ways of relating to others and of managing the self. In the case of people with borderline Personality Disorder, reciprocal role patterns of abusing-abused and neglecting-deprived are commonly acquired in childhood and these patients continue to expect and accept abuse from others and to inflict it on others and on themselves. Faced with perceived repetitions of abuse or neglect they commonly switch to partially dissociated, more manageable states, responding, for example, with pseudo-compliance, by seeking ideal care from idealized others or by maintaining emotional distance (with or without the use of drugs). Switching between states is often abrupt and evidently unprovoked and is confusing to the self and to others; it also disrupts what capacity patients have for self-reflection and learning from experience.

After the introduction and placement of Personality Disorder on a separate axis in DSM III (APA 1980) an explosion in the area of empirical research on Personality Disorders has occurred. Now the researchers are more focused on the different aspects of these disorders such as their descriptive features, family history, course, treatment responses and etiology, including their psychodynamic, biogenetic, neurological, and socio cultural roots.

Finally, the clinicians are still not having a univocal acceptance of the current diagnostic and characteristic features of Personality Disorders. Many of them have doubted the validity of Personality Disorders and their diagnostic reliability (Sale and Brody, 2006). Thus it is still unsure about the etiology as well as the module of therapy for Personality Disorders.

All the above researches are accenting to the magnitude of identifying and managing the Personality Disorders. The present study was also focused

on to the process of identifying and managing the above said Personality Disorders.

An area in which psychotherapy has begun to excel is in the treatment of Personality Disorders. Psychotherapy was identified as the treatment of choice for Borderline Personality Disorder in the American Psychiatric Association guidelines (Gabbard et al; 2000)

There are effective psychotherapy treatments for Personality Disorders, and they come from a variety of theoretical and practical perspectives. No single approach has proved to be superior to any other, but all those empirically examined to date are superior to no treatment. There are essentially no data available from studies that directly measure the role of the therapy relationship in determining outcome. However, many successful treatments place the therapy relationship at the center of treatment for personality-disordered individuals. Empirically informed, rational analysis of successful treatments suggests that there must be a strong alliance supported by therapist respect for and validation of the patient. Clear structure that includes reasonable limit setting also is required. Linehan (1993) aptly called the simultaneous delivery of validation and blocking maladaptive patterns, the dialectic between acceptance and change (Benjamin, Lorna Smith; Karpiak, Christie P, 2001)

Verheul and Herbrink, 2007, extensively review the increasing evidences for the efficacy of psychotherapy in the treatment of Personality Disorders. They consider the impact of psychotherapy in four different formats and settings that are available for psychotherapy delivery, i.e., group psychotherapy, outpatient individual psychotherapy, day hospital psychotherapy, and inpatient psychotherapy. The results of many researches in this area shows that various psychotherapeutic treatments are of proven benefits in reducing symptomatology and personality pathology and improving social functioning in patients with cluster A,B,C or not otherwise specified Personality Disorders.

The development of outpatient service offering specific evidence based treatment methods for Borderline Personality Disorder, for example Transference Focused Psychotherapy (Levy, N.K. et al, 2006) and Dialectic

Behavior Therapy (Linehan, 1993) offered the opportunity for governments and health care organizations not only to reduce cost but also to do so as grounds of evidence. Reviews suggest that Mentalization Based Therapy (Bateman & Fonagy, 2003), and Cognitive Analytic Treatment (Ryle & Golyunkina, 2000), are the two other forms of treatments, which are found effective especially in borderline Personality Disorder.

Assessing efficacy of psychotherapeutic treatment for Personality Disorder is complicated by high co-morbidity with other disorders, Requirement for a long follow-up, Lack of agreement on outcome measures, the fluctuating nature of this disorder over time and Problems of finding patients.

Rational Emotive Behavior Therapy is one among the most widely accepted therapeutic approach which is based on cognitive principles and is developed by Albert Ellis. Researches for identifying the efficacy of this approach in dealing with Personality Disorders are quite few in number. The present research is an attempt to enhance our understanding of the efficacy of Rational Emotive Behaviour Therapy in these complex disorders.

I.3 Definitions or the explanations of the key terms

I.3.1. Personality Disorder

The ICD-10 Definition of Personality Disorder refers to: “the existence of a recognizable set of symptoms and behaviors in most cases associated with distress and interference with social function” (World Health Organization, 1992).

Personality Disorders according to DSM- IV (APA, 1994), are patterns of inflexible maladaptive personality traits that cause subjective distress significant impairment in social or occupational functioning or both. These traits must also deviate markedly from the culturally expected and accepted range or norm and this deviation must be manifested in more than one of the following areas: cognition, affectivity, control over impulses and need gratification and ways of relating to others. In addition, the deviation must have been stably present and enduring since adolescence or early adult hood and it must be pervasive –that is it must manifest itself across a broad of

situations, rather than in only one specific triggering situation or in response to a particular stimulus.

a) Paranoid Personality Disorder

Paranoid Personality Disorder is characterized by long standing suspiciousness and mistrust of people in general. They refuse responsibility for their own feelings and assign responsibility to others. They are often hostile, irritable, and angry. Bigots, injustice collectors, pathologically jealous spouses, and litigious cranks often have paranoid Personality Disorder (Kaplan and Sadok 1998).

According to ICD-10 at least four of the following characteristics must be present for the diagnosis of this Personality Disorder:

- (1) Excessive sensitivity to setbacks and rebuffs
- (2) Tendency to bear grudges persistently, e.g. refusal to forgive insults, injuries or slights
- (3) Suspiciousness and a pervasive tendency to distort experience by misconstruing the neutral or friendly actions of others as hostile or contemptuous
- (4) A combative and tenacious sense of personal rights out of keeping with the actual situation
- (5) Recurrent suspicions, without justification, regarding sexual fidelity of spouse or sexual partner
- (6) Persistent self-referential attitude, associated particularly with excessive self-importance
- (7) Preoccupation with unsubstantiated "conspiratorial" explanations of events either immediate to the patient or in the world at large

b) Borderline Personality Disorder (Emotionally Unstable Personality Disorder)

People with this disorder stand on the border between neurosis and psychosis and are characterized by extraordinarily unstable affect, mood, behaviour, object relation and self image (Kaplan and Sadok 1998). According to ICD-10 at least three of the symptoms mentioned in the

impulsive type (Emotionally Unstable Personality Disorder-Impulsive Type, (F60.30), must be present:

- (1) Marked tendency to act unexpectedly and without consideration of the consequences.
- (2) Marked tendency to quarrelsome behaviour and to conflicts with others, especially when impulsive acts are thwarted or criticized.
- (3) Liability to outburst of anger or violence, with inability to control the resulting behavioral explosions.
- (4) Difficulty in maintaining any course of action that offers no immediate reward.
- (5) Unstable and capricious mood.

With at least two of the following in addition

- (1) Disturbances in and uncertainty about self-image, aims, and internal preferences (including sexual).
- (2) Liability to become involved in intense and unstable relationships, often leading to emotional crises.
- (3) Excessive efforts to avoid abandonment.
- (4) Recurrent threats or acts of self-harm.
- (5) Chronic feelings of emptiness.

c) Obsessive Compulsive Personality Disorder (Anankastic Personality Disorder)

This Personality Disorder is characterized by emotional constriction, orderliness, perseverance, stubbornness and indecisiveness. The essential feature of the disorder is a pervasive pattern of perfectionism and inflexibility (Kaplan and Sadok 1998).

This disorder is often referred to as Obsessive-compulsive Personality Disorder.

According to ICD-10 at least four of the following must be present:

- (1) Feeling of excessive doubt and caution
- (2) Preoccupation with details, rules, lists, order, organization, or schedule
- (3) Perfectionism that interferes with task completion
- (4) Excessive conscientiousness and scrupulousness
- (5) Undue preoccupation with productivity to the exclusion of pleasure and interpersonal relationships
- (6) Excessive pedantry and adherence to social conventions
- (7) Rigidity and stubbornness and unreasonable insistence by the individual that other submit to exactly his or her way of doing things, or reasonable reluctance to allow others to do things.

I.3.2. Rational Emotive Behaviour Therapy

In the mid-1950's Dr. Albert Ellis, a clinical psychologist trained in psychoanalysis, became disillusioned with the slow progress of his clients. He observed that they tended to get better when they changed their ways of thinking about themselves, their problems, and the world. Ellis reasoned that therapy would progress faster if the focus was directly on the client's beliefs, and thus was born the method now known as Rational Emotive Behaviour Therapy. Detailed description of Rational Emotive Behaviour Therapy is given in the chapter II.

I.3.3. Hostility

Hostility is a broad concept that encompasses traits such as anger (an emotion, Cynicism and mistrust (attitudes). It is also important to note the difference between the experience of hostility, a subjective process including angry feelings or cynical thoughts and the expression of hostility, a more observable component which includes acts of verbal or physical aggression (Siegman, 1994).

The components of hostility are:

- a) **Self-Criticism:** Some persons, especially ones who are restricted in their ability to do so more directly, may use Self Criticism to express hostility.

Some individuals criticize themselves because they fear that others will hold them responsible or expect or demand too much of them.

b) Guilt : Guilt is a cognitive or an emotional experience that occurs when a person realizes or believes - whether justified or not - that he or she has violated a moral standard and is responsible for that violation

c) Cynicism: Cynicism refers to believing that people are motivated in all their actions only by selfishness, denying the sincerity of people's motions and actions or values of living.

d) Acting Out of Hostility: Acting Out of Hostility is the direct expression of the negative feelings inside which, it has got a cynical background. To act out hostility people usually do some movement or perform something to express the hostility inside, implement a decision to harm others through words or deeds to express the negative feelings inside toward them.

e) Criticism of others: Criticism of others are the over judgment of others deeds, words and ideas; especially with fault finding aim and also compare worth qualities and values of others behaviour, compare literary and artistic works etc of others, especially with an aim of finding errors, mistakes etc.

f) Projection of Hostility: Projection of Hostility refers to the hostile deeds of one self are projected identified and read in others as the casual factors of ones own un-luck, the world's conditions and other negative situations.

I.3.4. Quality of Life

World Health Organization defines Quality of Life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals expectations, standards and concerns.

I.4 Statement of the problem

The study, aims at finding out the efficacy of Rational Emotive Behaviour Therapy in some Personality Disorders.

It also aims at identifying the efficacy of Rational Emotive Behaviour Therapy, on certain psychological dimensions, over Personality Disorders.

I.5 Objectives of the Study

From the problem stated the objectives of the study emerged. The objectives of the study were as follows:

i) Part I

- a) To find out the prevalence rate of various Personality Disorders.

ii) Part II

- a) To identify the efficacy of Rational Emotive Behavior Therapy in patients with Paranoid Personality Disorder.
- b) To identify the efficacy of Rational Emotive Behavior Therapy in reducing hostility in patients with Paranoid Personality Disorder.
- c) To identify the efficacy of Rational Emotive Behavior Therapy in improving the Quality of Life in patients with Paranoid Personality Disorder.
- d) To identify the efficacy of Rational Emotive Behavior Therapy in patients with Borderline Personality Disorder.
- e) To identify the efficacy of Rational Emotive Behavior Therapy in reducing hostility in patients with Borderline Personality Disorder.
- f) To identify the efficacy of Rational Emotive Behavior Therapy in improving the Quality of Life in patients with Borderline Personality Disorder.
- g) To identify the efficacy of Rational Emotive Behavior Therapy in patients with Obsessive Compulsive (Anankastic) Personality Disorder.
- h) To identify the efficacy of Rational Emotive Behavior Therapy in reducing hostility in patients with Obsessive Compulsive (Anankastic) Personality Disorder.
- i) To identify the efficacy of Rational Emotive Behavior Therapy in improving the Quality of Life in patients with Obsessive Compulsive (Anankastic) Personality Disorder.

I.6 Process of the Research

The present research aims at identifying the efficacy of Rational

Emotive Behavior Therapy in patients with some Personality Disorders like Paranoid Personality Disorder, Borderline Personality Disorder and Anankastic Personality Disorder.

The research was done in two phases (Part I and Part II). Initially the study was aimed at identifying the efficacy of REBT in dealing with available subjects of all the Personality Disorders that are explained in DSM IV and ICD-10. So in the first phase, a pilot study was conducted to evaluate the availability of all Personality Disorders in a psychiatric setting of a General Hospital setting. This analysis was retrospective. Data were collected through the case records of patients who were registered in the psychiatric unit for treatment in the hospital from where the data is collected. The results are discussed in chapter IV.

On the basis of the results of part I research and based on the reviews collected, three Personality Disorders, one from each **cluster** (*explanation given in Chapter II*) has been finalized for the research in the second phase (part II). They are Paranoid Personality Disorder, Borderline Personality Disorder, which is termed as Emotionally Unstable Personality Disorder (Borderline Type) according to ICD-10 and Obsessive –Compulsive Personality Disorder, which is termed as Anankastic Personality Disorder according to ICD-10.

Reviews suggest that these are the Personality Disorders, which causes the maximum subjective distress and significant impairment in social or occupational functioning.

Further designing of the research demanded more efforts, as it required identifying the dependent variables that has been affected due to the existence of Personality Disorders and determine the impairment in functioning.

The selected variables for the study are the symptoms of each Personality Disorder, which were measured through the International Personality Disorder examination questionnaire developed by WHO based on the symptoms classified in International Classification of Diseases (ICD-10) (IPDE-ICD-10), Level of Hostility, and Quality of Life.

The symptoms of each Personality Disorders obtained from the IPDE interview schedule is one of the major dependent variable selected so that reduction in the score shows the reduction in the severity of symptoms as a result of the implementation of the independent variable which invariably points out the efficacy of the independent variable.

Many researchers have conducted their research in the psychological variable hostility seen in subjects with Personality Disorders, especially in its sub variables such as Projection of Hostility, Self Criticism, Guilt, Cynicism, Criticizing Others and Acting Out. Here also the researcher has selected these variable and its sub variables for the study. It is a negative variable and measuring the reduction in the scores during the posttest can identify the efficacy of therapy.

Another depended variable selected is Quality of Life, which encompasses different sub-variables such as physical, psychological, level of independence, social relationship, environment and spirituality.

The next step in the research is to identify the sample. As the sample selected for the Phase I were only from the case records and as it was a retrospective study, samples were selected freshly from the hospital attending population of three different hospitals for the phase II research. The details are given in chapter III. The research is designed in an experimental method in which the randomly collected samples are grouped in to four matched groups which comprises of three Control Groups and one Experimental Group. The collection of samples was an on going process, which means that they were collected as they attend to the hospital and were randomly put into the experimental group and control groups.

All the subjects in each group were administered with the relevant tools twice i.e., both during the pre intervention and the post intervention periods through which the amount of change that the independent variables has brought to the dependent variable can be found out.

The Experimental Group was administered solely with Rational Emotive Behavior Therapy as the treatment method. The Control Group II is administered with REBT along with conventional psychopharmacological treatment. The Control Group III is administered with psychopharmacological

agents alone. To pursue the ethical constraints that no subjects should be deliberately left unmanaged, the control Group I was kept as a wait list control group.

Finally the scores obtained for each variable during the pre test and posttest were analyzed between the groups and compared within the groups for results.

Chapter II

REVIEW OF LITERATURE

History of the concept of Personality Disorder

Conceptual Framework

Personality Disorder

Rational Emotive Behaviour Therapy

Researches on Personality Disorder

Studies on the etiology of Personality Disorder

Diagnosis of Personality Disorders

Studies on impairment, due to Personality Disorders

Epidemiology of DSM-III Personality Disorders in the Community

Studies showing therapeutic outcome in Personality Disorder Patients

Personality Disorder and Hostility

Quality of Life and Personality Disorders

Review of literature related with the main subject matter of the research study in order to conceptualize the state of the art knowledge regarding the need and significance of the research, are presented below.

The chapter covers the conceptual frame work, theoretically oriented qualitative studies, literature on empirical evidences and foundations of Rational Emotive Behaviour Therapy.

II.1 History of the concept of Personality Disorder

Aristotle's Pupil Theophrastus (Adlington 1925) appears to have been the first to set out to describe personality in a systematic way.

Charaka, an Indian physician who is believed to have lived some times during the first and second centuries AD in what is now Peshwar in Pakistan (Rao, 1975), provided detailed description of the features he considered to be characteristics of 16 personality types.

In the early 1800s psychiatrists such as Pinel, Esquirol, Rush, and Pritchard described socially, maladaptive personality types seen in clinical setting (Tyrrer, 2000). More specific personality types were then described at the turn of the century, when, for example. Janet (1901) and Freud (Brier and Freud 1893 -1895/1957) described the psychological traits associated with hysteria, the forerunner of Histrionic Personality Disorder.

Before that a French psychiatrist Morel in 1852 gave one of the best early definition of Personality Disorder. He describes such patients who in consequence of their hereditary traits display their insanity in actions rather than words in eccentricities incoherence, irregularity and often extreme immorality of conduct.

In the 1920s the German phenomenologist Kraepelin (1921) and Kretschmer (1925) described personality types in terms of the spectrum concept. The theory that Personality Disorders are biogenetically related variants of the paranoid and affective psychosis. These early spectrum personality types were forerunners of the current paranoid, schizotypal, cyclothymic and depressive Personality Disorder.

In contrast Schneider (1958), another German phenomenologist did not subscribe to the spectrum concept but considered Personality Disorder to represent socially deviant and extreme variants of normally occurring personality traits. He developed the first comprehensive system of Personality Disorder categories, which provided the template for many of those contained in the ICD 10; world health organization and DSM IV.

II.2 Conceptual Framework

II.2.1. Personality Disorder

Personality Disorders according to DSM-IV –TR (1994) are patterns of inflexible maladaptive personality traits that cause subjective distress significant impairment in social or occupational functioning or both. These traits must also deviate markedly from the culturally expected and accepted range, or norm and this deviation must be manifested in more than one of the following areas: Cognition, affectivity, control over impulses and need gratification and ways of relating to others. In addition, the deviation must have been stably present and enduring since adolescence or early adulthood, and it must be pervasive - that is it must manifest itself across a broad of situations, rather than in only one specific triggering situation or in response to a particular stimulus.

a) The classification of Personality Disorder

DSM IV has grouped Personality Disorders into three clusters (APA 1994)

Cluster A : Paranoid, Schizoid & Schizotypal

Cluster B : Histrionic, Borderline, Narcissistic & Antisocial

Cluster C : Avoidant, Dependent & Obsessive Compulsive Personality.

i) Paranoid Personality Disorder

A. A pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent, beginning by early adulthood and present in a variety of contexts, as indicated by four (as more) of the following:

1. Suspects, without sufficient basis that, others are exploiting, harming, or deceiving him or her.
2. Is preoccupied with unjustified doubts about the loyalty or trustworthiness of friends or associates.
3. Is reluctant to confide in others because of unwarranted fear that the information will be used maliciously against him or her.
4. Reads hidden demeaning or threatening meanings into benign remarks or events.
5. Persistently bears grudges, i.e., is unforgiving of insults, injuries or slights.
6. Perceives attacks on his or her character or reputation that are not apparent to others and is quick to react angrily or to counter attack.
7. Has recurrent suspicious, without justification regarding fidelity of spouse or sexual partner.

B. Does not occur exclusively during the course of schizophrenia, mood disorder with psychotic features or another psychotic disorder and is not due to the direct physiological effects of a general medical condition.

ii) Schizotypal Personality Disorder

A. A pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behaviour, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following.

1. Ideas of reference (excluding delusions of reference).
2. Odd beliefs or magical thinking that influences behaviour and is inconsistent with sub cultural norms.
3. Unusual illusions perceptual experiences including bodily.

4. Odd thinking and speech (e.g. vague, circumstantial metaphorical, over elaborate, or stereotyped)
5. Suspiciousness or paranoid ideation.
6. Inappropriate or constricted affect.
7. Behaviour or appearance that is odd, eccentric or peculiar.
8. Lack of close friends or confidants other than first degree relatives.
9. Excessive social anxiety that does not diminish with familiarity and tends to be associated with paranoid fears rather than negative judgments about self.

B. Does not occur exclusively during the course of schizophrenia, a mood disorder with psychotic disorder, or Pervasive development disorder.

iii) Schizoid Personality Disorder

A. A pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following.

1. Neither desires nor enjoys close relationship including being part of a family.
2. Almost always chooses solitary activities.
3. Has little, if any, interest in having sexual experience with other person.
4. Appears indifferent to the praise or criticism of others.
5. Shows emotional coldness, detachment, or flattened affectivity.

B. Does not occur exclusively during the course of schizophrenia, a mood disorder with psychotic disorder and is not due to the direct physiological effects of a general medical condition.

iv) Antisocial Personality Disorder

A. There is Pervasive pattern of disregard for and violation of the rights of others occurring since age 15 years, as indicated by three (or more) of the following;

1. Failure to conform to social norms with respect to lawful behaviour as indicated by repeatedly performing acts that are grounds for arrest.
2. Deceitfulness, as indicated by repeated lying use of aliases or conning others for personal profit or pleasure.
3. Impulsivity or failure to plan ahead.
4. Irritability and aggressiveness, as indicated by repeated physical fights or assaults.
5. Reckless disregard for safety of self or others.
6. Consistent irresponsibility as indicated by repeated failure to sustain obligations.
7. Lack of remorse, as. Indicated by being indifferent to or rationalizing having hurt, mistreated or stolen from another.

B. The individual is at least age 18 years.

C. There is evidence of conduct disorder with on set before age 15 years.

D. The occurrence of antisocial behaviour is not exclusively during the course of schizophrenia or a manic episode.

v) Borderline Personality Disorder

A. A pervasive pattern of instability of interpersonal relationships, self-image, and affects. And marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Frantic efforts to avoid real or imagined abandonment. Note: Do not include suicidal or self mutilating behaviour covered in Criterion 5.
2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and

devaluation

3. Identity disturbance: markedly and unstable self-image or sense of self persistently
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). Note: Do not include suicidal or self-mutilating behaviour covered in Criteria 1 and 2.
5. Recurrent suicidal behaviour, gestures, or threats, or self-mutilating behaviour
6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)
7. Chronic feelings of emptiness
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

vi) Histrionic Personality Disorder

A. A pervasive pattern of excessive emotionality and attention seeking, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Is uncomfortable in situations in which he or she is not the center of attention.
2. Interaction with others is often characterized by inappropriate sexually seductive or provocative behaviour
3. Displays rapidly shifting and shallow expression of emotions
4. Consistently uses attention to self physical appearance to draw
5. Has a style of speech that is impressionistic and lacking in detail

excessively

6. Shows self-dramatization, theatricality, exaggerated expression of emotion.
7. Suggestible, i.e., easily influenced by others or circumstances
8. Considers relationships to be more intimate than they actually are

vii) Narcissistic Personality Disorder

A. A pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration, and lack of empathy, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Has a grandiose sense of self-importance (e.g., exaggerates achievements and talents, expects to be recognized as superior without commensurate achievements)
2. Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love.
3. Believes that he or she is "special" and unique and can only be understood by, or should associated with, other institutions) special or high-status people.
4. Requires excessive admiration.
5. Has a sense of entitlement, i.e., unreasonable expectations of especially favorable treatment or automatic compliance with his or her expectations.
6. Interpersonally exploitative, i.e., takes advantage of others to achieve his or her, own ends.
7. Lacks empathy: is unwilling to recognize or identify with the feelings and needs of others
8. Often envious of others or believes that others are envious of him or her.
9. Shows arrogant, haughty behaviors or attitudes.

viii) Avoidant Personality Disorder

A. A pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

1. Avoids occupational activities that involve significant interpersonal contact, because of fears of criticism, disapproval, or rejection
2. Unwilling to get involved with people unless certain of being liked.
3. Shows restraint within intimate relationships because of the fear of being shamed or ridiculed
4. Is preoccupied with being criticized or rejected in social situations
5. Is inhibited in new interpersonal situations because of feelings of inadequacy
6. Views self as socially inept, personally unappealing, or inferior to others
7. is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing

ix) Dependent Personality Disorder

A. A pervasive and excessive need to be taken care of that leads to submissive and clinging behaviour and fears of separation, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Has difficulty making everyday decisions without an excessive amount of advice and reassurance from others
2. Needs others to assume responsibility for most major areas of his or her life
3. Has difficulty expressing disagreement with others because of fear of fear of loss of support or approval. Note: Do not include realistic fears of retribution.

4. Has difficulty initiating projects or doing things on his or her own (because of a lack of self-confidence in judgment or abilities rather than a lack of motivation or energy)
5. Goes to excessive lengths to obtain nurturance and support from others, to the point of volunteering to do things that are unpleasant
6. Feels uncomfortable or helpless when alone because of exaggerated fears of being unable to care for himself or herself
7. Urgently seeks another relationship as a source of care and support when a close relationship ends
8. Is unrealistically preoccupied with fears of being left to take care of him or her.

x) Obsessive-Compulsive Personality Disorder

A. A pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

1. Is preoccupied with details, rules, lists, order, organization, or schedules to the extent that the major point of the activity is lost
2. Shows perfectionism that interferes with task completion (e.g., is unable to complete a project because his or her, own overly strict standards are not met)
3. Is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity)
4. Is over conscientious, scrupulous, and inflexible about matters of morality, ethics, or values (not accounted for by cultural or religious identification)
5. Is unable to discard worn-out or worthless objects even when they have not sentimental value.
6. Is reluctant to delegate tasks or to work with others unless they submit to exactly his or her way of doing things.
7. Adopts a miserly spending style toward both self and others; money is

viewed as something to be hoarded for future catastrophes.

8. Shows rigidity and stubbornness.

xi) Depressive Personality Disorder

A. A pervasive pattern of depressive cognitions and behaviors beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Usual mood is dominated by dejection, gloominess, cheerlessness, joylessness, unhappiness.
2. Self-concept center around beliefs of inadequacy, worthlessness, and low self-esteem.
3. Is critical, blaming, and derogatory toward self.
4. Is brooding and given to worry.
5. Is negativistic, critical, others and judgmental toward.
6. Is pessimistic.
7. Is prone to feeling Guilty or remorseful.

B. Does not occur exclusively during major depressive episodes and is not better accounted for by dysthymic disorder.

xii) Passive-Aggressive Personality Disorder

A. A pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

1. Passively resists fulfilling occupational tasks social and routine
2. Complains of being unappreciated by others and misunderstood
3. Is sullen and argumentative
4. Unreasonably criticizes and scorns authority
5. Expresses envy and resentment apparently more fortunate
6. Voices exaggerated and persistent complaints of personal misfortune toward those
7. Alternates between hostile defiance and contrition

b) Different names used to describe similar Personality Disorders

1. The use in ICD-10 of the term Dissocial to describe the Personality Disorder referred to as Antisocial in DSM-IV.
2. The use in ICD-10 of Anankastic as the preferred term for the Personality Disorder called Obsessive Compulsive in DSM-IV.
3. The use in ICD-10 of Anxious as the preferred term for the Personality Disorder called Avoidant in DSM-IV.

II.2.2. Rational Emotive Behaviour Therapy

In the mid-1950's Dr. Albert Ellis, a clinical psychologist trained in psychoanalysis, became disillusioned with the slow progress of his clients. He observed that they tended to get better when they changed their ways of thinking about themselves, their problems, and the world. Ellis reasoned that therapy would progress faster if the focus was directly on the client's beliefs, and thus was born the method now known as Rational Emotive Behaviour Therapy.

REBT was originally called 'Rational Therapy', soon changed to 'Rational-Emotive Therapy' and again in the early 1990's to 'Rational Emotive Behaviour Therapy'. REBT is one of a number of 'cognitive-behavioural' therapies, which, although developed separately, have many similarities - such as Cognitive Therapy (CT), developed by Psychiatrist Aaron Beck in the 1960's. REBT and CT together form the basis of the family of psychotherapies known as 'Cognitive-Behaviour Therapy'. Over the past half-century, REBT has developed significantly, and continues to change.

Theory of causation REBT is not just a set of techniques - it is also a comprehensive theory of human behaviour. REBT proposes a 'bio-psychosocial' explanation of causation i.e. that a combination of biological, psychological, and social factors are involved in the way humans feel and behave. The most basic premise of REBT, which it shares with other cognitive-behavioural theories, is that almost all human emotions and behaviours are the result of what people think, assume or believe (about themselves, other people, and the world in general). It is what people believe about situations they face – not the situations themselves-that determines

how they feel and behave.

REBT, however, also argues that a person's biology also affects their feelings and behaviours - an important point, as it is a reminder to the therapist that there are limitations to how far a human being can change. A person's belief system is seen to be a product of both biological inheritance and learning throughout life.

A useful way to illustrate the role of cognition is by using Ellis' 'ABC' model. In this framework 'A' represents an actual event or experience, and the person's 'inferences' or interpretations as to what is happening. 'B' represents the 'evaluative' beliefs that follow from these inferences. 'C' represents the emotions and behaviours that follow from those evaluative beliefs.

Here is an example of an 'emotional episode', experienced by a person prone to depression who tends to misinterpret the actions of other people:

A1. Activating event what happened:

Friend passed me in the street without acknowledging me.

A2. Inferences about what happened:

He's ignoring me. He doesn't like me.

B. Beliefs about A:

I'm unacceptable as a friend-so I must be worthless as a person.
(Evaluation)

C. Reaction:

Emotions: depressed.

Behaviors: avoiding people generally.

Note that 'A' alone does not cause 'C' - 'A' triggers off 'B', and 'B' then causes 'C'. Also, ABC episodes do not stand alone: they run in chains, with a 'C' often becoming the 'A' of another episode - we observe our own emotions and behaviors, and react to them. For instance, the person in the example above could observe their avoidance of other people, interpret this as weak, and engage in self-downing.

Note, too, that most beliefs are outside conscious awareness. They are habitual or automatic, often consisting of underlying 'rules' about how the world and life should be. With practice, though, people can learn to uncover such subconscious 'core' beliefs (Ellis A and Dryden W,1998)

a) Theory of change

According to REBT, change can occur at different levels. At a superficial level a person can feel better by altering his body chemistry (e.g. via exercise, dietary change or medication); by changing the situation (e.g. by avoiding contact with the other person); or by changing his inferences about the situation (for example, he make himself feel less anxious by convincing himself that the disapproval isn't going to happen).

For a person to go beyond feeling better to actually get better - that is, to achieve fundamental and lasting change – involves modifying the underlying core beliefs that create difficulties for them in a range of situations.

REBT therapists accept that superficial change may sometimes be the more realistic option for some clients, but aim for fundamental change wherever possible. To achieve such change, REBT uses a range of cognitive, emotive and behavioural strategies (more about these later).

b) What is irrational thinking?

From the above explanations it can be seen that what we think determines what we feel. But what types of thinking are problematical for human beings?

A definition

To describe a belief as 'irrational' is to say that:

1. It blocks a person from achieving their goals, creates extreme emotions that persist and which distress and immobilize, and leads to behaviours that harm oneself, others, and one's life in general.
2. It distorts reality (it is a misinterpretation of what is happening and is not supported by the available evidence);
3. It contains illogical ways of evaluating oneself, others, and the world: demanding ness, awfulising, discomfort-intolerance and people rating;

When talking with clients, we often refer to beliefs as 'self-defeating' rather than 'irrational', to emphasize that the main reason for replacing a belief is because it negatively affects their lives.

c) Two Types of Disturbance

REBT suggests that human beings defeat or 'disturb' themselves in two main ways: (1) by holding irrational beliefs about their 'self (ego disturbance) or (2) by holding irrational beliefs about their emotional or physical comfort (discomfort disturbance). Frequently, the two go together - people may think irrationally about both their 'selves' and their circumstances though one or the other will usually be predominant.

Ego disturbance represents an upset to the self-image. It results from holding demands about one's 'self, e.g. i must ... do well / not fail / get approval from others'; followed by negative self- evaluations such as: 'When I fail/get disapproval / etc. this proves I am no good' and so on. These beliefs create 'ego anxiety' - emotional tension resulting from the perception that one's 'self or personal worth is threatened - and lead to other problems such as avoidance of situations where failure, disapproval, etc. might occur; looking to other people for acceptance; and unassertive behaviour through fear of what others may think.

Discomfort disturbance results from demands about others (e.g. 'People must treat me right') and about the world (e.g. 'the circumstances under which I live must be the way I want'). Discomfort disturbance comes in two slightly different but related flavors:

Low frustration-tolerance (LFT) results from demands that frustration not happen, followed by catastrophising when it does. It is based on beliefs like: 'The world owes me contentment and happiness;' or: 'Things should be as I want them to be, and I can't stand it when they are not.'

Low discomfort-tolerance (LDT) arises from demands that one not experience emotional or physical discomfort, with catastrophising when discomfort does occur. It is based on beliefs like: 'I should be able to feel happy all the time;' 'I must be able to feel comfortable all of the time;' 'Discomfort and pain are awful and intolerable, and I must avoid them at all

costs;' I must not feel bad;' and so on.

- ❖ The two types - LFT and LDT - are similar and closely related (often one expression is used to refer to both). Discomfort disturbance leads to problems like:
- ❖ 'Discomfort anxiety' (emotional tension resulting from the perception that one's comfort (or life) is threatened).
- ❖ Worrying ('because ... would be awful, and I couldn't stand it, I must worry about it in case it happens').
- ❖ Avoidance of events and circumstances that are seen as 'too hard' to bear or 'too difficult' to overcome.
- ❖ Secondary disturbance (upsetting oneself about having a problem, e.g. becoming anxious about being anxious, depressed about being depressed, and so on).
- ❖ Short-range enjoyment - the seeking of immediate pleasure or avoidance of pain at the cost of long-term stress - for example alcohol, drug and food abuse; watching television rather than exercising; practicing unsafe sex; or overspending to feel better.
- ❖ Procrastination-putting off difficult tasks or unpleasant situations.
- ❖ Negativity and complaining – becoming distressed over small hindrances and setbacks, over concerned with unfairness, and prone to making comparisons between one's own and others' circumstances.

d) The rules people live by

Underlying what we think in specific situations are what is known as 'core beliefs', which are underlying rules that guide how people react to the events and circumstances in their lives in general. Ellis proposes that a small number of core beliefs underlie most unhelpful emotions and behaviours. Here is a sample list of such 'rules for living':

1. I need love and approval from those significant to me - and I must avoid disapproval from any source.

2. To be worthwhile as a person I must achieve, succeed at whatever I do, and make no mistakes.
3. People should always do the right thing. When they behave obnoxiously, unfairly or selfishly, they must be blamed and punished.
4. Things must be the way I want them to be, otherwise life will be intolerable.
5. My unhappiness is caused by things that are out-side my control - so there is little I can do to feel any better.
6. I must worry about things that could be dangerous, unpleasant or frightening - otherwise they might happen.
7. Because they are too much to bear, I must avoid life's difficulties, unpleasantness, and responsibilities.
8. Everyone needs to depend on someone stronger than themselves.
9. Events in my past are the cause of my problems - and they continue to influence my feelings and behaviors now.
10. I should become upset when other people have problems, and feel unhappy when they're sad.
11. I shouldn't have to feel discomfort and pain - I can't stand them and must avoid them at all costs.
12. Every problem should have an ideal solution - and it's intolerable when one can't be found.

e) Four types of evaluative belief

The entire core beliefs listed above has a germ of truth in them. Are not love and approval good things to get? Is it not better to succeed, be treated well by others, and find ideal solutions? Note, though, the way most of the core beliefs are worded: all except a few are stated as demands - characterized by words like 'should', 'must', 'need'. Some also contain several other types of belief we shall address shortly. REBT proposes that there are four types of evaluative thinking that are dysfunctional for human beings:

Demanding ness Referred to colorfully by Ellis as 'musturbation', demandingness refers to the way people hold unconditional shoulds and absolutistic musts - believing that certain things must or must not happen, and that certain conditions (for example success, love, or approval) are absolute necessities. Demanding ness implies certain 'Laws of the Universe' that must be adhered to. Demands can be directed both internally and outwardly. REBT suggests that there are three basic musts:

1. Demands about the self;
2. Demands about others;
3. Demands about the world.

Demands about the self will lead to ego disturbance; demands about others and the world will lead primarily to discomfort disturbance. Also, as well as being involved with core beliefs demands also occur with belief about specific situations. For example, a general core belief like: 'People should always behave in a correct and right fashion' may lead to the specific belief: 'He should not have done what he did'.

Arising out of the demands people place on themselves, others, and the world are three further types of evaluative thinking: awfulising, discomfort-intolerance, and self/other-rating.

Awfulising occurs when we exaggerate the consequences of past, present or future events; seeing them as the worst that could happen. Awfulising is characterized by words like

'awful', 'terrible', 'horrible'.

Discomfort intolerance, often referred to as 'can't-stand-it' it is based on the idea that one cannot bear some circumstance or event. It often follows awfulising, and can fuel demands that certain things not happen.

People-rating refers to the process of evaluating one's entire self (or someone else's); in other words, judging the total value or worth of a person. It represents an overgeneralization whereby a person evaluates a specific trait, behaviour or action according to some standard of desirability or worth. They then apply the evaluation to their total person - e.g. 'I did a bad thing, therefore I am a bad person.' People-rating can lead to self-downing,

depression, defensive-ness, grandiosity, hostility, or over concern with approval and disapproval, and is a key factor in ego disturbance.

Note that in REBT, demanding ness has traditionally been seen as the main type of irrational thinking, with the other three types deriving from it. For example, you are only likely to rate yourself as 'worthless' for failing at something if you believe that you 'must' always succeed; or you would only be prone to regarding discomfort as unbearable because you believe that you 'must' not be uncomfortable. In my experience, it seems that there is almost always a demand at the root of a person's emotional or behavioural problems; but some flexibility is appropriate for the few occasions when no demand can be identified by the client or therapist.

f) The Three Levels of Thinking

Human beings appear to think at three levels: (1) Inferences; (2) Evaluations; and (3) Core beliefs. As previously described, every individual has a set of general 'rules' – usually subconscious - that determines how they react to life. When an event triggers off a train of thought, what you consciously think depends on the general rules you subconsciously apply to the event.

Let's say that a person holds the rule: 'for me to be happy, my life must be safe and predictable'. Such a core belief will lead them to be hypersensitive to any possibility of danger and 'overestimate the likelihood of things going wrong. Suppose they hear a noise in the night. Their hypersensitivity to danger leads them to infer that there is an intruder in the house. They then evaluate this possibility as catastrophic and unbearable, which creates feelings of panic.

REBT is mainly concerned with helping people identify their underlying general rules ('core beliefs'). This involves going beyond a person's surface inferences to their evaluations, and from there deducing the core belief(s) on which they are likely to be operating.

i) Inferences: in everyday life, events and circumstances trigger off inferences about what is 'going on' -that is, we make guesses about what we think has happened, is happening, or will be happening. Inferences are statements of 'fact' (or at least what we think are the facts – they can be true

or false). In REBT, little time is spent on a client's inferences - they are regarded as significant only in the sense that they provide a window to the evaluative thinking.

ii) Evaluations: More significantly from the REBT perspective, as well as making inferences about things that happen, we go beyond the 'facts' to evaluate them in terms of what they mean to us. Evaluations are sometimes conscious, sometimes beneath awareness. Irrational evaluations consist of one or more of the four types of beliefs listed earlier: demandingness, awfulising, discomfort-intolerance, and self/other-rating. An evaluation following on from the inference described in the previous section could be: 'I need her to love me - because if she didn't, this would prove, I am worthless.'

iii) Core beliefs: Guiding a person's inferences and evaluations are their underlying, general core beliefs. An example of a general core belief that would apply to the inference and evaluation we are using as our example could be: 'for me to be worthwhile as a person I must have someone who loves me unreservedly'.

g) Putting It All Together

Here is an example (using the ABC model) to show how it all works:

- A. Your neighbor phones and asks if you will baby-sit for the rest of the day. You had already planned to catch up with some gardening. You infer that: 'If I say no, she will think badly of me'.
- B. You evaluate your inference: 'I couldn't stand to have her see me as selfish.' Your inference and the evaluation that follows are the result of holding the core belief: 'To feel OK about myself, I need to be liked, so I must avoid disapproval from any source.' an example of ego disturbance.
- C. You feel anxious and say yes.

In summary, people view themselves and the world around them at three levels: (1) inferences, (2) evaluations, and (3) core beliefs. The therapist's main objective is to deal with the underlying, semi-permanent, general 'core beliefs' that are the continuing cause of the client's unwanted reactions.

REBT places greater emphasis on dealing with evaluative-type thinking than do other cognitive- behavioural approaches, which focus rather more on inferential thinking. (In fact, in REBT, the client's inferences are regarded as part of the 'A' rather than the 'B', whereas in general CBT inferences are seen as part of the 'B'). REBT especially underscores the centrality of demandingness over other types of thinking. However, both REBT and general CBT are ultimately concerned with the underlying core beliefs.

h) Secondary disturbance

Another unique feature of REBT is its recognition of the importance of working with secondary disturbances', that is, problems about problems (e.g. feeling Guilty about being angry or anxious about becoming anxious).

i) Helping people change.

The steps involved in helping clients change can be broadly summarized as follows:

1. Help the client understand that emotions and behaviours are caused by beliefs and thinking. This may consist of a brief explanation followed by assignment of some reading.
2. Show how the relevant beliefs may be uncovered. The ABC format is invaluable here. Using an episode from the client's own recent experience, the therapist notes the 'C', then the 'A'. The client is asked to consider (at 'B'): 'What was I telling myself about 'A', to feel and behave the way I did at 'C'? As the client develops understanding of the nature of irrational thinking, this process of 'filling in the gap' will become easier. Such education may be achieved by reading, direct explanation, and by self- analysis with the therapist's help and as homework between sessions.
3. Teach the client how to dispute and change the irrational beliefs, replacing them with more rational alternatives. Again, education will aid this. The ABC format is extended to include 'D' (Disputing irrational beliefs), 'E' (the new Effect the client wishes to achieve, i.e. new ways of feeling and behaving), and 'F' (Further Action for the client to take).

4. Help the client get into action. Acting against irrational beliefs - for example, disputing the belief that disapproval is intolerable by deliberately doing something to attract it, then discovering that one survives - is an essential component of REBT. Its emphasis on both rethinking and action makes it a powerful tool for change. Such activities are usually referred to as 'homework'.

j) The Process of Therapy

What follows is a summary of the main components of an REBT intervention.

Engage client.

1. The first step is to build a relationship with the client. This can be achieved using the core conditions of empathy, warmth and respect.
2. Watch for 'secondary disturbances' about coming for help: self-downing over having the problem or needing assistance; and anxiety about coming to the interview.
3. Finally, possibly the best way to engage a client for REBT is to demonstrate to them at an early stage that change is possible and that REBT is able to assist them to achieve this goal.

Assess the problem, person, and situation Assessment will vary from person to person, but following are some of the most common areas that will be assessed as part of an REBT intervention.

1. Start with the client's view of what is wrong for them.
2. Check for any secondary disturbance: how does the client feel about having this problem?
3. Carry out a general assessment: determine the presence of any related clinical disorders, obtain a personal and social history, assess the severity of the problem, note any relevant personality factors, and check for any non- psychological causative factors: physical conditions; medications; substance abuse; lifestyle/environmental factors.

k) Prepare the client for therapy

1. Clarify the treatment goals, ensuring these are concrete, specific and agreed to by both client and therapist; and assess the client's motivation to change.
2. Introduce discussion about the basics of REBT, including the bio-psychosocial model of causation.
3. Discuss the approaches to be used and implications of treatment, and then develop a contract.

Implement the treatment programme Most of the sessions will occur in the implementation phase, using activities like the following:

- ❖ Analyzing specific episodes where the target problem(s) occur, ascertaining the beliefs involved, changing them, and developing homework.
- ❖ Developing behavioural assignments to educe fears or modify ways of behaving.
- ❖ Supplementary strategies & techniques as appropriate, e.g. relaxation training, interpersonal skills training, etc.

l) Evaluate progress

Toward the end of the intervention it will usually be desirable to check whether improvements are due to significant changes in the client's thinking, or simply to a fortuitous improvement in their external circumstances.

m) Prepare the client for termination

It is usually wise to prepare the client to cope with setbacks. Many people, after a period of wellness, think they are 'cured' for life. Consequently, when they slip back and discover their old problems are still present to some degree, they are likely to despair and give up working on themselves altogether. Warn that relapse is likely for many emotional and behavioural problems and ensure they know what to do when their symptoms return. Discuss their views on asking for help if needed in the future. Deal with any irrational beliefs about coming back, like: 'I should be cured for ever', or: 'The

therapist would think I was a failure if I came back for more help'.

n) A typical REBT interview

What happens in a typical REBT interview? Here is how an interview based on the ABC model would usually progress:

1. Review the previous session's homework. Reinforce gains and learning. If the homework was not completed, help the client identify and deal with the blocks involved.
2. Establish the target problem to work on in this session.
3. Assess the 'A': what happened, when did it last occur? What did the client infer was happening or would result from what happened?
4. Assess the 'C': specifically what unwanted emotion did the client experience, and how strong was it?
5. Identify and assess any secondary emotional problems (inappropriate negative emotions about having the problem, for example shame about feeling grief).
6. Identify the beliefs ('B') causing the unwanted reactions, especially demandingness, awfulising, discomfort-intolerance, and people-rating.
7. Connect 'B' & 'C' (ensure the client sees that their unwanted reaction resulted from their thoughts).
8. Clarify and agree on the goal ('E'): how does the client wish to feel (and behave) when next confronted with a similar 'A'?
9. Help the client dispute their beliefs, using a range of techniques. Replace beliefs that are agreed to be irrational.
10. Plan next homework assignments ('F') to enable the client to put their new rational beliefs into practice. Identify and deal with any potential blocks to completion of the homework.

o) Techniques Used In REBT

Ellis recommends a 'selectively eclectic' approach to therapy, using

strategies from REBT and other approaches, but ensuring the strategy is compatible with REBT theory. Following are some examples of procedures in common use.

i) Cognitive techniques

- *Rational analysis*: analyses of specific episodes to teach the client how to uncover and dispute irrational beliefs (as described earlier) are usually done in-session at first; then, as the client gets the idea, they can be carried out as homework.
- *Double-standard dispute*: If the client is holding a 'should' or is self-downing about their behaviour, ask whether they would globally rate another person (e.g. best friend, therapist, etc.) for doing the same thing, or recommend that person hold their demanding core belief. When they say 'No', help them see that they are holding a double-standard. This is especially useful with resistant beliefs which the client finds hard to give up.
- *Catastrophic scale*: this is a useful technique to get awfulising into perspective. On a whiteboard or sheet of paper, draw a line down one side. Put 100% at the top, 0% at the bottom, and 10% intervals in between. Ask the client to rate whatever it is they are catastrophising about, and insert that item into the chart in the appropriate place. Then, fill in the other levels with items the client thinks apply to those levels. You might, for example, put 0%: 'Having a quiet cup of coffee at home', 20%: 'Having to mow the lawns when the rugby is on television', 70%: being burgled, 90%: being diagnosed with cancer, 100%: being burned alive, and so on. Finally, have the client progressively alter the position of their feared item on the scale, until it is in perspective in relation to the other items.
- *Devil's advocate*: this useful and effective technique (also known as reverse role playing) is designed to get the client arguing against their own dysfunctional belief. The therapist role-plays adopting the client's belief and vigorously argues for it; while the client tries to 'convince' the therapist that the belief is dysfunctional. It is especially useful when the client sees that a belief is irrational, but needs help to consolidate that understanding. (NB: as with all techniques, be sure to explain it to the client before using it).
- *Reframing*: another strategy for getting bad events into perspective is

to re evaluate them as 'disappointing', 'concerning', or 'uncomfortable' rather than as 'awful' or 'unbearable'. A variation of reframing is to help the client see that even negative events almost always have a positive side to them, listing all the positives the client can think of (NB: this needs care so that it does not come across as suggesting that a bad experience is really a 'good' one).

ii) **Imagery techniques**

- *Time projection*: this technique is designed to show that one's life, and the world in general, continue after a feared or unwanted event has come and gone. Ask the client to visualize the unwanted event occurring, then imagine going forward in time a week, then a month, then six months, then a year, two years, and so on, considering how they will be feeling at each of these points in time. They will thus be able to see that life will go on, even though they may need to make some adjustments.
- *The 'blow-up' technique*: this is a variation of 'worst-case' imagery, coupled with the use of humor to provide a vivid and memorable experience for the client. It involves asking the client to imagine whatever it is they fear happening, then blow it up out of all proportion till they cannot help but be amused by it. Laughing at fears will help get control of them. Again, the use of this technique requires sensitivity and appropriate timing.

iii) **Behavioral techniques**

One of the best ways to check out and modify a belief is to act. Clients can be encouraged, for instance, to check out the evidence for their fears and to act in ways that disprove them.

- *Exposure*: possibly the most common behavioural strategy used in REBT involves clients entering feared situations they would normally avoid. Such 'exposure' is deliberate, planned and carried out using cognitive and other coping skills. The purposes are to (1) test the validity of one's fears (e.g. that rejection could not be survived); (2) de-awfulise them (by seeing that catastrophe does not ensue); (3) develop confidence in one's ability to cope

(by successfully managing one's reactions); and (4) increase tolerance for discomfort (by progressively discovering that it is bearable).

- *Shame attacking*: this type of exposure involves confronting the fear of shame by deliberately acting in ways the client anticipates may attract disapproval (while, at the same time, using cognitive and emotive techniques to feel only concerned or disappointed). For example, you could suggest that the client switch their shoes to the wrong feet then walk round the office building with you for ten minutes or so, at the same time disputing their shame-inducing thinking.
- *Risk-taking*: the purpose is to challenge beliefs that certain behaviours are too dangerous to risk, when reason says that while the outcome is not guaranteed they are worth the chance. For example, if the client has trouble with perfectionism or fear of failure, they might start tasks where there is a reasonable chance of failing or not matching their expectations. Or someone with a fear of rejection might talk to an attractive person at a party or ask someone for a date.
- *Paradoxical behaviour*: when a client wishes to change a dysfunctional tendency, encourage them to deliberately behave in a way contradictory to the tendency. Emphasizes the importance of not waiting until they 'feel like' doing it: practicing the new behaviour – even though it is not spontaneous will gradually internalise the new habit.
- *Stepping out of character* is one common type of paradoxical behaviour. For example, a perfectionist person could deliberately do some things to less than their usual standard; or someone who believes that to care for one is 'selfish' could indulge in a personal treat each day for a week.
- *Postponing gratification* is commonly used to combat low frustration-tolerance by deliberately delaying smoking, eating sweets, using alcohol, sexual activity, etc.

p) Homework

Probably the most important REBT strategy is homework. This can include such activities as reading, self-help exercises, and experiential activities. Therapy sessions are really 'training sessions', between which the

client tries out and uses what they have learned. At the end of this article there is an example of a homework format which clients can use to analyse specific episodes where they feel or behave in the ways they are trying to change.

q) Applications of REBT

REBT has been successfully used to help people with a range of clinical and non-clinical problems, using a variety of modalities.

Typical clinical applications include

- ❖ Anxiety disorders, including obsessive-compulsive disorder, agoraphobia, specific phobias, generalized anxiety, posttraumatic stress disorder, etc.
- ❖ Depression
- ❖ Eating disorders, addictions, impulse control disorders
- ❖ Anger management, antisocial behaviour, Sexual abuse recovery
- ❖ Adjustment to chronic health problem, physical disability, or mental disorder
- ❖ Pain management
- ❖ General stress management
- ❖ Child or adolescent behaviour disorders
- ❖ Relationship and family problems
- ❖ And Personality Disorders

r) Practice Principles of REBT

The basic aim of REBT is to leave clients at the completion of therapy with freedom to choose their emotions, behaviours and lifestyle (within physical, social and economic restraints); and with a method of self-observation and personal change that will help them maintain their gains.

Not all unpleasant emotions are seen as dysfunctional. Nor are all

pleasant emotions functional. REBT aims not at 'positive thinking'; but rather at realistic thoughts, emotions, and behaviours that are in proportion to the events and circumstances an individual experience.

There is no 'one way' to practice REBT. It is 'selectively eclectic'. Though it has techniques of its own, it also borrows from other approaches and allows practitioners to use their imagination. There are some basic assumptions and principles, but otherwise it can be varied to suit one's own style and client group.

REBT is educative and collaborative. Clients learn the therapy and how to use it on themselves (rather than have it 'done to them'). The therapist provides the training - the client carries it out. There are no hidden agendas – all procedures are clearly explained to the client. Therapist and client together design homework assignments.

The relationship between therapist- and client is very important, but is seen as existing to facilitate therapeutic work - rather than being the therapy itself. The therapist shows empathy, unconditional acceptance, and encouragement; but is careful to avoid activities that create dependency or strengthen any 'needs' for approval.

While REBT is active-directive, the therapist almost always works within the client's value system. New ways of thinking are developed collaboratively.

An individual's past is seen as relevant in that this is where much irrational thinking originates; but because uncovering the past is not usually helpful in changing how a person reacts in the present, REBT therapists do not engage in very much 'archaeological' exploration.

REBT is brief and time-limited. It commonly involves five to thirty sessions over one to eighteen months. The pace of therapy is brisk. A minimum of time is spent on acquiring background and historical information: it is task - oriented and focuses on problem solving in the present.

REBT is a method of psychotherapy, so the emphasis is on helping people change how they feel and behave in reaction to life events. However, such personal change may be a prelude to enabling a person to more

effectively seek environmental change. Consequently, REBT helps people change themselves and their unwanted circumstances.

A common criticism of psychotherapy is that it may encourage people to become self-centered. REBT avoids this by teaching several principles, for example 'enlightened self-interest' that encourage individuals to attend to both their own interests and those of other people. REBT tends to be humanistic, anti-moralistic, and scientific. Human beings are seen as the arbiters of what is right or wrong for them. Behaviour is viewed as functional or dysfunctional, rather than as good or evil. REBT is based on research and the principles of logic and empiricism, and encourages scientific rather than 'magical' ways of thinking.

Finally, the emphasis is on profound and lasting change in the underlying belief system of the client, rather than simply eliminating the presenting symptoms. The client is left with self-help techniques that enable coping in the long-term future.

s) Unique features of REBT

REBT has a number of characteristics that are original to the approach - here is a selection:

t) Absence of Self-Evaluation

REBT has a unique approach to the common therapeutic problem of 'low self-esteem'.

Many therapists would try to help people with low self-esteem by encouraging them to regard themselves as 'worthy' human beings. REBT therapist takes a radically different approach - encouraging the client to throw out the idea of self-esteem entirely? This involves giving up the practice of trying to judge human beings as 'worthy' (a notion, incidentally, that implies it is possible for them to be 'unworthy!'); and getting rid of the idea that people somehow need 'value' or 'esteem'.

The client is, instead, urged to (1) aim for unconditional self-acceptance - irrespective of their traits and behaviours or how other people see them; (2) acknowledge that they simply exist - and choose to stay alive,

seek joy, and avoid pain; and (3) instead of rating their self, to concentrate on rating their actions or traits (and the effects of these) in terms of how they help achieve the client's goals.

u) Secondary Disturbances

As mentioned earlier, REBT points out that human beings frequently develop problems about their problems. By creating these 'secondary' problems, they complicate their emotional and behavioural difficulties.

Guilt is a common secondary disturbance: for instance, people with anger problems may down themselves because they have trouble controlling their rage. Sufferers of chronic anxiety frequently get anxious about getting anxious (the 'fear of fear'). Clients in therapy may become despondent because they are not overcoming their problems as quickly as they think they 'should' be able to. Sometimes, for therapy to be effective, the secondary disturbance needs to be addressed before the primary problem becomes accessible to change.

Discomfort Disturbance v. Ego Disturbance As noted above, REBT suggests that global evaluation of the 'self will often lead to emotional disturbance. This is referred to as 'ego disturbance' - a concept that exists (in various forms) in probably most other therapeutic orientations, under such terms as low self- esteem', 'poor self-image' and the like.

REBT, however, uniquely argues that there is another type of disturbance of equal or even greater significance: 'discomfort disturbance', usually referred to as low discomfort-tolerance' (LDT), or low frustration-tolerance' (LFT). This concept explains why people may overreact to unpleasant life experiences, to frustration, and to their own bad feelings (thus developing 'secondary' problems); or will sabotage their therapy because they consciously or subconsciously perceive it as 'too hard'.

v) Learning to use Rational Emotive Behaviour Therapy

To practice REBT it is important to have a good understanding of irrational thinking. This can be gained by a critical reading of the substantial literature available.

The use of REBT in the interview situation is best learned by attending

a training course (the Primary Certificate in REBT program is the usual starting point). It can also be observed by reading verbatim records of interviews or from audio or videotapes of interviews conducted by REBT practitioners.

The most effective way to learn how to help clients uncover and dispute irrational beliefs is to practice REBT on oneself, for example by using written 'self-analysis' exercises.

w) Rational Self – Analysis

REBT emphasizes teaching clients to be their own therapist; A useful technique to aid this is Rational Self-Analysis which involves writing down an emotional episode in a structured fashion. Here is an example of such an analysis using the example described at the beginning.

A. Activating Event.

The event: Friend passed me in the street without acknowledging me.

My inferences about this event: He's ignoring me and doesn't like me. I could end up without friends forever. I'm not acceptable as a friend.

C. Consequence (how i reacted):

Feelings: worthless, depressed.

Behaviour: avoiding people generally.

B. Beliefs (My evaluative thinking about the 'A'):

1. It would be terrible to end up without friends for ever.
2. Because I'm not acceptable as a friend I must be worthless as a person.
3. To feel worthwhile and be happy, I must be liked and approved by everyone significant to me. (Core belief)

E. New Effect (how i would prefer to feel/behave):

Disappointed but not depressed.

D. Disputing (new rational beliefs to help me achieve this new reaction):

1. There's nothing to prove I'll never have friends again - but, even if this did happen, it would be unpleasant rather than a source of 'terror'.
2. There's no proof I'm not acceptable as a friend - but even if I were, this proves nothing about the total 'me', or my 'worthwhile ness'. (And, anyway, what does 'worthwhile' mean?).
3. Love and approval are highly desirable. But, they are not absolute necessities. Making them so is not only illogical, but actually screws me up when I think they may not be forthcoming.

Better I keep them as preferences rather than demands.

- F. Further Action (what I'll do to avoid repeating the same irrational/thoughts reactions):
 1. Go and see my friend, check out how things really are.
 2. If he doesn't want me as a friend, I'll start looking elsewhere.
 3. Re-read the handout on catastrophising and self-rating.
 4. Challenge my irrational demand for approval by doing one thing each day (for the next week) that I would normally avoid doing because of fear it may lead to disapproval.

II.3 Researches on Personality Disorder

Curran and Mallinson (1944) formalized the description of vulnerable personalities who shown a relatively mild degree or abnormality but who were liable to develop normal mental illness 'when pinched by circumstances.' This stage was set for the final description of personality accentuation as abnormalities of personality that are intermediate between normal personality and Personality Disorder.

Leonhard (1968) first used the term 'accentuated personality. He differentiated between normal, accentuated and abnormal personalities by reference to both personality and setting. Normal personalities are able to adapt to all kinds of environmental situations. Those with accentuation show no problem in adapting to a positive setting but are maladaptive in a demanding or stressful environment. Abnormal personalities (equivalent to

Personality Disorder) are maladaptive in all situations. Personality accentuation shows more links to normal personality than Personality Disorder.

Livesley and Jang (2005) Interest in the interface between normality and psychopathology was renewed with the publication of DSM-III more than 20 years ago. The use of a separate axis to classify disorders of personality brought increased attention to these conditions. At the same time, the definition of Personality Disorder as inflexible and maladaptive traits stimulated interest in the relationship between normal and disordered personality structure and functioning. The evidence suggests that the traits delineating Personality Disorder are continuous with normal variation and that the structural relationships among these traits resemble the structures described by normative trait theories. Recognition that Personality Disorder represents the extremes of trait dimensions emphasizes the importance of differentiating normal, abnormal, and disordered personality. It is argued that while abnormal personality may be considered extreme variation, Personality Disorder is more than statistical variation. A definition of Personality Disorder is suggested based on accounts of the adaptive functions of personality.

II.3.1. Studies on the etiology of Personality Disorder

a) Genetic and Neurological Involvement in the etiology of Personality Disorder

Twin studies (Shields and Slater, 1960) have demonstrated significantly higher concordance rates for monozygotic (MZ: $r = 0.8$) compared with dizygotic (Dz: $r=0.3$) twins for temperamental and personality features.

Family studies in USA showed that the flamboyant cluster of Personality Disorders, particularly the antisocial, histrionic and borderline categories probably have a hereditary component in their etiology (Robins 1966, Guze, et al.1967, Cloninger and Guze, 1971, Loranger, et al. (1982).

Sen (1970) found that monozygotic twins had a concordance rate of 36% for antisocial Personality Disorder and dizygotic twins only a 12% concordance.

A Meta-analysis by Slater and Cowie (1971), Schulsinger, 1972 shows that by comparison with other mental disorders. The genetic contribution appears to be relatively low in Personality Disorders.

A neuro-biological correlational study of diagnosis and underlying traits in patients with Borderline Personality Disorder compared with normal controls by Paris J, et al. (2003) in women with BPD and 22 normal controls shows that impulsive traits in borderline patients are associated with abnormalities in serotonergic system.

Vollm, et al. (2003) conducted a study aimed to investigate which neuronal networks are involved in response inhibition in Cluster B Personality Disorders and whether these are different from healthy subjects. In the control group the main focus of activation during response inhibition was in the prefrontal cortex, specifically the right dorsolateral and the left orbitofrontal cortex. Active regions in the patient group showed a more bilateral and extended pattern of activation across the medial, superior and inferior frontal gyri extending to the anterior cingulate.

Strober M et al (2007), conducted a study to investigate the association of anorexia nervosa with anxiety disorders through use of a case-control

family study design and find out that adjusting for co morbidity of the same illness in the proband, relatives of probands with anorexia nervosa, had a significantly higher prevalence of generalized anxiety, obsessive compulsive disorder, separation anxiety disorder, social phobia, panic disorder, and obsessive compulsive Personality Disorder compared to relatives of never-ill control probands.

b) Psychological factors in the etiology of Personality Disorder

Robbins (1966) in her classic study demonstrated that conduct disorder a precursor of Antisocial Personality Disorder in adult life; has all the ingredients of antisocial behaviour in bud and it is only in adult life that these are seen in full flower.

Buss and Plomin (1975) most forcefully make the argument that temperament is a genetically determined characteristic that shows marked stability over time and which subsequently affects personality development.

Rutter (1987) pointed out the spectrum of personality from temperament to Personality Disorder. His studies are more on developmental factors.

Cloninger (1987) postulated a bio-social theory of personality that incorporates clinical, pharmacological and biological data. He hypothesizes that there are three dimensions of personality called novelty seeking, harm avoidance and reward dependence and has developed an instrument, the Tri-dimensional Personality Questionnaire (TPQ) for recording these dimensions, He cites pharmacological evidence that novelty seeking is principally concerned with dopamine modulation, harm avoidance with serotonin and reward dependence with noradrenalin.

Joyce, et al. 2003 conducted a study to evaluate childhood experiences (neglect and abuse), temperament and childhood and adolescent psychopathology as risk factors for Avoidant and Borderline Personality Disorders in depressed outpatients. 180 depressed outpatients were evaluated for Personality Disorder and other psychological variables. The results were, Avoidant Personality Disorder can be conceptualized as arising from a combination of high harm avoidance (shy, anxious), childhood and

adolescent anxiety disorders and parental neglect. Borderline Personality Disorders can be formulated as arising from a combination of childhood abuse and or neglect, a borderline temperament (high novelty seeking and high harm avoidance), and childhood and adolescent depression, hypomania, conduct disorder and alcohol and drug dependence.

Ruocco (2005) has found that the division between Axis I clinical syndromes and Axis II Personality Disorders is a long-standing distinction based primarily on three guiding principles: phenomenology, cause, and course. Clinical syndromes were generally thought to be characterized by transient symptoms with biological causes and an unstable course; Personality Disorders were supposed by many to be characterized by long-standing personality traits, whose roots were primarily psychological, and a stable and unremitting course. Borderline Personality Disorder (BPD), however, is a condition characterized by distinct clinical symptoms, varied causes, and a relatively unstable course. Past theorizing about the distinction between Axis I and Axis II disorders is presented in light of recent empirical evidence refuting the rationalization for the separation of Personality Disorders and clinical syndromes using BPD as a means for comparison.

II.3.2 Diagnosis of Personality Disorders

Jiri et al (1997) conducted a study in which a total of 73 psychiatric inpatients, all of whom (but two) fulfilled criteria for at least one specific Personality Disorder (PD) on SCID-II PQ, were interviewed with the help of PDE. The self-report PD diagnosis was confirmed in 35 (48 per cent) patients. The diagnostic agreement between the two instruments was poor, yielding an overall weighted kappa of 0.22. Leveling off the PD base rates by increasing or decreasing the diagnostic threshold of SCID-II PQ and PDE respectively increased the overall weighted kappa to 0.38 in both instances. 70 per cent of SCID-II PQ but only 29 per cent of PDE Personality Disorders were of extensive type. Most frequent important co-occurrences occurred between individual PD types within cluster 2. On the whole, the results confirmed the relatively poor agreement between self-report and interview PD diagnoses.

Tim et al (1998) conducted a study which assessed the utility of the International Personality Disorder Examination Questionnaire (IPDEQ) as a

screener for ICD-10 Personality Disorders in a sample of 76 subjects attending treatment for an anxiety disorder. The performance of the IPDEQ at different cut-off points was compared to IPDE diagnoses of Personality Disorder using receiver operating characteristic analysis. As the majority of positive diagnoses were of ICD-10 anxious (DSM-IV avoidant) Personality Disorder the six IPDEQ items relating to anxious Personality Disorder were analyzed. Sensitivities were very high and specificities were moderate indicating that the IPDEQ items relating to anxious Personality Disorder are good at discriminating between those with and those without anxious Personality Disorder. Furthermore, a cut-off point of four or more anxious Personality Disorder items yielded the highest specificity given maximum sensitivity, a condition necessary for a screening instrument to be effective. Thus, at a cut-off point of four or more screening items the IPDEQ appears to be a valid screening instrument for the detection of anxious Personality Disorder

Sprock J, (2003) in a study examined inter rater reliability and ratings of confidence and clinical utility (professional communication, case conceptualization, treatment planning) of categorical and dimensional approaches to diagnosing prototypic and non prototypic Personality Disorder cases. Two national samples of psychologists ($n = 93$, $n = 92$) participated. Inter rater reliability was higher for prototypic cases than non prototypic cases for the categorical system, but similar for prototypic and non prototypic cases using dimensional ratings. Across cases, inter rater reliability and confidence were highest for the categorical model, hybrid models, and the five-factor model. However, ratings of clinical utility were highest for the categorical and the hybrid models, even when inter rater reliability was inadequate, suggesting clinician preference for a classification based on the existing categories. Mean ratings for the prototypic cases supported the theorized relationships between the dimensional models and the Personality Disorders. Reasons for these findings and implications for moving towards a dimensional model of Personality Disorder are discussed.

According to Walters et al (2004) The Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II Version 2.0) is becoming the most favored instrument to measure Personality Disorder but takes up to an hour to complete. The Standardized Assessment of Personality (SAP), an informant-

based measure, takes 10 to 15 minutes to complete. Both instruments have been validated independently. This study aimed to determine whether the SAP is a suitable screening instrument for Personality Disorder as measured by the SCID-II. Fifty-seven psychiatric patients were assessed for Personality Disorder using both the SAP and the SCID-II. The SAP assessments were conducted blind to the results of the SCID-II assessments. Agreement between the two instruments in this population was low ($\kappa = 0.3$). The level of agreement differed between Personality Disorder categories, ranging from $\kappa = 0.4$ (antisocial) to -0.1 (narcissistic). In this population of patients, the SAP proved to be a poor screen for the SCID-II. The study highlights the discrepancy between informant and self-report assessments for Personality Disorder.

Bagby (2005) found that the Personality Disorder classification system (Axis II) in the various versions of the Diagnostic and Statistical Manuals of Mental Disorders (DSM) has been the target of repeated criticism, with conceptual analysis and empirical evidence documenting its flaws. In response, many have proposed alternative approaches for the assessment of personality psychopathology, including the application of the Five-Factor Model of personality (FFM). Many remain skeptical, however, as to whether domain and facet traits from a model of general personality functioning can be successfully applied to clinical patients with Personality Disorders (PDs). In this study, with a sample of psychiatric patients ($n = 115$), Personality Disorder symptoms corresponding to each of the 10 PDs were successfully predicted by the facet and domain traits of the FFM, as measured by a semi-structured interview, the Structured Interview for the Five Factor Model (SIFFM) and a self-report questionnaire, the Revised NEO Personality Inventory (NEO PI-R). These results provide support for the perspective that personality psychopathology can be captured by general personality dimensions. The FFM has the potential to provide a valid and scientifically sound framework from which to assess personality psychopathology, in a way that covers most of the domains conceptualized in DSM while transcending the limitations of the current categorical approach to these disorders.

II.3.3. Studies on impairment, due to Personality Disorders

McGlashan's (1986) study elaborates the long term course and

outcome for systematically re-diagnosed patients with Borderline Personality Disorder (n=81) from the chestnut lodge follow-up study. They were assessed and are described from multiple outcome perspectives. Schizophrenic (n= 168) and Unipolar Affective Disorder (n=44) cohorts serve for comparison. Borderline patients were comparable with Uni-polar patients and scored significantly better than schizophrenic patients on most indexes of outcome. Outcome is also valid over time, with Borderline patients functioning best in the second decades after discharge. Depressive Personality Disorder appears to be a relatively stable condition with incomplete overlap in axis!

In a group of 25 patients with Major Depression, Diguero et al. (1993) investigated the relationships among those having a Co-morbid Personality Disorder, the severity of psychiatric disorder, and the outcome of dynamic psychotherapy. They found that (1) depressed patients with co-morbid diagnosis of Personality Disorder had more severe psychiatric disturbances at intake and at termination of therapy as well as at follow up and (2) although all patients improved and maintained their gains at follow-up those with a Co-morbid Personality Disorder diagnosis did not improve as much as those without a Personality Disorder.

On a study on Borderline Personality Disorder, symptoms and severity of sexual abuse, Silk et al (1995) found out that on going sexual abuse may be a strong determinant of specific aspects of the disordered inter-personal behaviour and functioning found inpatients with Borderline Personality Disorder. The expectation that the world is an empty malevolent place may have some of its roots in the repetition of sexual abuse experience in childhood. This expectation of malevolence among patients in Borderline Personality Disorder may manifest itself in psychotherapy through regressive and distancing behaviour.

Donald W et al (1997) have found the outcome in a group of 45 men with antisocial Personality Disorder followed up a mean of 29 years following hospitalization. Based on personal interviews, interviews with informants, and medical and legal records, sufficient information were available to rate the global outcome in 45 men. The Global Assessment Scale (GAS) was also used to measure functioning in 44 men at intake and follow-up. Twenty-six (57.8%) were rated as having “any improvement.” Uni-variate analysis

showed men experiencing improvement were more likely to have high GAS scores at intake, were not currently alcoholic, were older, and were followed over a longer period of time. Low GAS scores at intake and the interaction between the GAS score at intake and current alcoholism independently predicted poor outcome on regression analysis. A low GAS score at intake and shorter follow-up also independently predicted poor outcome, even though stepwise regression revealed the strongest single predictor to be the interaction between the initial GAS score and age at follow-up. In summary, long-term outcome in antisocial males is associated with an initial level of severity, alcohol consumption at follow-up, and both age at follow-up and length of follow-up. Initial severity best predicts outcome among men not currently alcoholic who have been followed over a long period of time.

A study by Myers, et al. (1998) focused on the progression from conduct disorder to Antisocial Personality Disorder following treatment for adolescent substance abuse. The results show that after four years of treatment 61 % of the study group met the DSM III R criteria for Antisocial Personality Disorder. At four years follow-up, the subjects with an Antisocial Personality Disorder diagnosis exhibited more involvement with alcohol and drug and poor functioning across important life domains than the subjects without Antisocial Personality Disorder.

A three year follow-up study of women with the sole diagnosis of Depressive Personality Disorder was conducted by Sookwon et al. (2000). At the three-year follow-up assessment, the woman with Depressive Personality Disorder had a significantly greater odds ratio for developing dysthymia than did the healthy comparison women. The difference in odds ratio for the development of Major Depression between women with and without Depressive Personality Disorder did not reach statistical significance.

Kuyken, et al (2001) conducted a study which examined whether Personality Disorder status and beliefs that characterize Personality Disorders affect response to cognitive therapy. In a naturalistic study, 162 depressed outpatients with and without a Personality Disorder were followed over the course of cognitive therapy. As would be hypothesized by cognitive theory (A. T. Beck & A. Freeman, 1990), it was not Personality Disorder status but rather maladaptive avoidant and paranoid beliefs that predicted variance in outcome.

However, pre- to post therapy comparisons suggested that although patients with or without comorbidity respond comparably to "real-world" cognitive therapy, they report more severe depressive symptomatology at intake and more residual symptoms at termination.

Skodol, et al. (2002) conducted study to compare the psycho social functioning in patients with Schizotypal, Borderline, Avoidant, or Obsessive Compulsive Personality Disorder and patients with Major Depressive Disorder and no Personality Disorder. Their results show that patients with Schizotypal Personality Disorder and Borderline Personality Disorder were found to have significantly more impairment at work, in social relationships, and at leisure than patients with Obsessive Compulsive Personality Disorder or Major Depressive Disorder; patients with Avoidant Personality Disorder were intermediate.

Flynn, et al (2002) conducted a research to investigate the prevalence of Personality Disorder in adults with learning disability who are in specialist challenging behaviour inpatient services and to examine the validity of the diagnosis of Personality Disorder in this group in terms of its association with abusive experience in early life. The Standardized Assessment of Personality (SAP) was used to diagnose Personality Disorder in 36 individuals with mild to moderate learning disability. Case notes were reviewed for details of clinical diagnosis and early psychosocial history results. 39% of the sample met the criteria for severe Personality Disorder. The diagnosis showed a significant association with early traumatic experience.

Zlotink, et al. (2002) conducted a study on outpatients with Borderline Personality Disorder without PTSD (N= 101), PTSD without Borderline Personality Disorder (N= 121), co-morbid Borderline Personality Disorder and PTSD (N=48), and Major Depression without PTSD or Borderline Personality Disorder (N=469). They were assessed with structured interviews for Psychiatric Disorders and for degree of impairment. The results show that outpatients with diagnosis of Co morbid Borderline Personality Disorder and PTSD were not significantly different from outpatients with Borderline Personality Disorders without PTSD, PTSD without Borderline Personality Disorder or Major Depression without PTSD or Borderline Personality Disorder in severity of PTSD related symptoms, Borderline related traits or

impairments.

Stevenson, et al. (2003) has conducted a study on diminished impulsivity in older patients with Borderline Personality Disorder. The result was older patients with Borderline Personality Disorder showed less impulsivity than younger patients, but there was no difference in terms of affect disturbance, identity disturbance and interpersonal problems. The view that Borderline Personality Disorder burns out with age in terms of impulsivity is supported by this study.

Golier, et al. (2003) examined the relationship of Borderline Personality Disorder to posttraumatic stress disorder (PTSD) with respect to the role of trauma and its timing. High rates of early and lifetime trauma were found for the subject group as a whole. Compared to subjects without Borderline Personality Disorder, subjects with Borderline Personality Disorder had significantly higher rates of childhood/adolescent physical abuse (52.8% versus 34.3%) and were twice as likely to develop PTSD.

Grella, et al. (2003) examined long-term outcomes following drug treatment for cocaine-dependent men (N = 453) and women (N = 254) with and without Antisocial Personality Disorder (ASP). Overall, 47.2% of the males and 34.3% of females were diagnosed with ASP using DSM-III-R criteria. At year 5 ASP was associated with an increased likelihood of heavy alcohol use and additional substance abuse treatment among men, whereas women with ASP were more likely to report psychological problems and to receive mental health treatment and other services than either women without ASP or men with ASP.

Swinkels, et al. (2003) conducted a study to investigate Personality Disorder traits in 203 patients with epilepsy and a control group of 332 subjects from the general population. The results showed that, compared with the control group, patients with epilepsy had higher dimensional Personality Disorder scores for several Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and International Classification of Diseases (ICD-10)

Hanswijck, et al. (2003) examines group differences in DSM-IV personality pathology, considering the potential utility of understanding Personality Disorders in terms of diagnosis and dimensional scores. For most

Personality Disorders, there was a dichotomy of binge eaters versus non-binge eaters. In contrast, there was a continuum of severity in Borderline Personality Disorder pathology between the groups. The dimensional system of measurement of personality pathology allowed for clearer differentiation between the groups.

Dowson, et al. (2003) investigated features of impulsivity inpatients with Borderline Personality Disorder (BPD) using the self-report Attention-Deficit Scales for Adults (ADSA) and computer administered neuro-cognitive tasks. Mean scores for seven ADSA scales were significantly higher in the patient group compared with the control group. The findings indicate that a range of aspects of impulsivity, as well as impaired co-ordination are associated with patients selected on the basis of BPD.

A study by Klonsky, et al. (2003) on Deliberate self-harm in a non-clinical population has revealed that about one of every 15 members of a large group of relatively high-functioning non-clinical subjects reported a history of self-harm. Self-harmers had more symptoms of several Personality Disorders than non self-harmers, and their performance across measures suggested that anxiety plays a prominent role in their psychopathology. The study results show that compared with participants without a history of deliberate self-harm, self-harmers scored higher on self and peer report measures of Borderline, Schizotypal, Dependent and Avoidant Personality Disorder symptoms and reported more symptoms of anxiety and depression. Item level analysis indicated that peers viewed self-harmers as having strange and intense emotions and a heightened sensitivity to inter-personal rejection.

Grilo et al, (2005) conducted a study in which they examined prospectively the 24-month natural course of remission from major depressive disorder (MDD) as a function of Personality Disorder (PD) comorbidity. In 302 participants (196 women, 106 men), psychiatric and PDs were assessed at baseline with diagnostic interviews, and the course of MDD was assessed with the Longitudinal Interval Follow-Up Evaluation at 6-, 12-, and 24-month follow-ups. Survival analyses revealed an overall 24-month remission rate of 73.5% for MDD that differed little by gender. Participants with MDD who had certain forms of coexisting PD psychopathology (schizotypal, borderline, or avoidant) as their primary PD diagnoses had a significantly longer time to

remission from MDD than did patients with MDD without any PD. These PDs emerged as robust predictors of slowed remission from MDD even when controlling for other negative prognostic predictors.

Halmi (2005) conducted a study with an objective of Understanding the relation between Perfectionism and obsessionality which are the core features of eating disorders (ED). And found No differences across ED subtypes in the prevalence of OCPD and OCD, nor with the association between OCD and OCPD. Perfectionism scores were highest in individuals with OCPD whether alone or in combination with OCD. Perfectionism appears to be more closely associated with obsessive-compulsive personality symptoms rather than OCD. The pairing of perfectionism with OCPD may be a relevant core behavioral feature underlying vulnerability to ED.

According to James and Taylor (2007) the co-occurrence of Personality Disorders (PDs) and substance use disorders (SUDs) can be partially attributed to shared underlying personality traits. This study examined the role of negative emotionality (NEM) and impulsivity in 617 university students with self-reported substance use problems and Cluster B PD symptoms. Results indicated that NEM was significantly associated with drug and alcohol use problems, antisocial PD, borderline PD, and narcissistic PD. Impulsivity was significantly associated with drug use problems, antisocial PD, and histrionic PD. Only NEM mediated the relationship between alcohol use problems and symptoms of each of the Cluster B PDs while impulsivity mediated only the relationship between drug use problems and histrionic PD. These results suggest that NEM may be more relevant than impulsivity to our understanding of the co-occurrence between substance use problems and Cluster B PD features.

Huprich (2007) reports the results of two studies in a non clinical ($n=105$) and primary care outpatient sample ($n=110$), in which Depressive Personality Disorder (DPD), Dysthymia, and depression were assessed for their distinctive relationship with perfectionism. Results from both studies found that self-reported DPD, Dysthymia, and depressive symptoms were all inter correlated, and that DPD, Dysthymia, and depressive symptoms were correlated with three dimensions of perfectionism - Concern over Mistakes, Doubts about Actions, and Parental Criticism. In the non clinical sample,

variance in measures of DPD was predicted by measures of perfectionism after controlling for depression and Dysthymia symptoms. A similar pattern of findings was observed in the primary care sample. This relationship with perfectionism did not occur when Dysthymia or depressive symptoms were predicted. Nevertheless, much of the variance in measures of DPD, Dysthymia, and depressive symptoms is associated with each other and not perfectionism. It is concluded that a common factor or set of factors underlies these disorders, but that DPD may be more strongly related to perfectionism than Dysthymia and depression. As a common factor(s) is identified, measures of DPD and Dysthymia may be refined, thereby increasing the discriminant validity of their measures

Harned, et al (2008), in a study evaluated whether dialectical behavior therapy (DBT) was more efficacious than treatment by non-behavioral psychotherapy experts in reducing co-occurring Axis I disorders among suicidal individuals with borderline Personality Disorder (BPD). Women with BPD and recent and repeated suicidal and/or self-injurious behavior (n = 101) were randomly assigned to 1 year of DBT or community treatment by experts (CTBE), plus 1 year of follow-up assessment. For substance dependence disorders (SDD), DBT patients were more likely to achieve full remission, spent more time in partial remission, spent less time meeting full criteria, and reported more drug- and alcohol-abstinent days than did CTBE patients. These findings suggest that improvements in co-occurring SDD among suicidal BPD patients are specific to DBT and cannot be attributed to general factors associated with non-behavioral expert psychotherapy. Further, group differences in SDD remission were not explained by either psychotropic medication usage or changes in BPD criterion behaviors. DBT and CTBE did not significantly differ in the reduction of anxiety disorders, eating disorders, or major depressive disorder.

II.3.4. Epidemiology of DSM-III Personality Disorders in the Community

In a random sample of 200 people selected by Casey and Tyrer (1986) from urban and rural communities, are assessed with the Personality Assessment Schedule (PAS) and a Personality Disorder was found in 26 subjects (13%). Explosive Personality Disorder was the most common type.

There were no differences between urban and rural samples, or between men and women among the 16 (8%) identified as psychiatric cases on the Present State Examination (PSE), more than half of whom also had a Personality Disorder. Social functioning was worse in those with Personality Disorder than in those with a normal personality, with no significant differences among the different categories of Personality Disorder.

Maier, et al. (1992) surveyed an unscreened sample of 109 families for life-time diagnosis of both Axis I Disorders and Personality Disorder. Among 447 subjects who were personally interviewed with the Schedule for Affective Disorders and Schizophrenia-Lifetime Version (SADS-L) and the Structured Clinical Interview for DSM-III-R (SCID-II), they found rates of Personality Disorder comparable to the other studies. The rate among males was 9.9% and among females 10.5%, and it was higher in younger than in older subjects. Significant associations between current Axis I Disorders and Personality Disorder were observed, in particular Anxiety Disorders with Avoidant Personality Disorder, and Affective Disorders with Borderline Personality Disorder.

In a community sample of 235 adults surveyed by Reich, et al. (1989a) with a self-administered instrument, the Personality Diagnostic Questionnaire (PDQ), 26 were diagnosed as having a Personality Disorder, yielding an age-adjusted prevalence of 11.10%. A history of alcohol abuse, poor employment, and marital problems was more common in the group with Personality Disorders. The age and sex distribution of the DSM-III personality cluster traits was also assessed. Traits in the schizoid cluster were not associated with age, while those in the dramatic and the anxious clusters were. Women aged 31 to 40 and men aged 18 to 30 had the highest rate of Personality Disorders. Women aged 31 to 40 had a higher mean number of traits than their male counterparts, and also a corresponding increase in impairment.

In a study by Zimmerman and Coryell (1990), 697 relatives of psychiatric patients and healthy controls who were interviewed with the Structured Interview for Personality Disorders (SIPD) also took the PDQ. More had a Personality Disorder according to the interview than the questionnaire (13.5% vs. 10.33%). Schizotypal, Histrionic, Antisocial and Passive-Aggressive were the most frequent diagnoses from the SIPD, while

Dependent Personality Disorder and multiple diagnoses were more frequent using the PDQ. One conclusion from this study that is especially relevant to the present review is that questionnaire and interview assessments of Personality Disorder generally show a poor concordance. Therefore, the type of assessment can strongly affect the rate of a disorder.

Geraghty, et al. (2003) in a study examined records between 1996 and 2000 to ascertain whether ethnic minorities show a different pattern of exit from the process than people from other backgrounds. Just over 9% of referrals to Henderson Hospital were from ethnic minorities. Ethnic minority referrals were less likely to be invited to a selection interview. However, there was no difference in length of stay in treatment. There was a trend towards ethnic minority referrals having more severe symptomatology and histories than those from White backgrounds.

a) Community epidemiological studies of specified Personality Disorders

i) Paranoid

Reich, et al. (1989b) and Zimmerman and Coryell (1990) have found comparable rates, ranging from 0.4% to 0.8%, while Maier, et al. (1992) found slightly higher rates, 1.8%. Baron, et al. (1985) found a significantly higher rate of Paranoid Personality Disorder among relatives I of Schizophrenic pro bands (7.3 %) than among realities of control pro bands (2.7%). This disorder seems to be more frequent among the members of the lower social classes.

ii) Schizoid

Maier, et al. (1992) Reich, et al (1989b) and Zimmerman and Coryell (1990) reported rates ranging from 0.4% to 0.9%. Baron, et al. (1985) reported a rate of 1.6% among relatives of Schizophrenic probands and to no cases among relatives of control probands.

iii) Schizotypal

Reich, et al. (1989b) and Zimmerman and Coryell (1990) reported rates of 30% and 5.6% respectively while Maier, et al. (1992) found a substantially

lower rate (0.6%). The rates obtained with similar instruments such as the PDQ are strikingly similar despite differences in sample size, characteristics, and response rates. In the study by Baron, et al. (1985) Schizotypal Personality Disorder was remarkably more common among relatives of Schizophrenic probands (14.6%) than among relatives of control pro bands (2.1 %). This result provides additional support for the specific relationship between Schizophrenia and Schizotypal Personality Disorder.

iv) Histrionic

A study by Nestadt, et al. (1990) carried out at the Baltimore (USA) site of the Epidemiological Catchments Area Program (ECA), ascertained the prevalence of histrionic Personality Disorder in the community. The authors found a prevalence of 2.1 % in the general population, with virtually identical rates in men and women. No significant differences were found in terms of race and education, but the prevalence was significantly higher among separated and divorced persons. Moreover, 17% of the women with histrionic Personality Disorder also had a Depressive Disorder, an increased rate of suicide attempts, and a fourfold increase in utilization of medical services. It should be noted that the study derived the diagnosis from instruments not originally intended to diagnose Personality Disorders.

v) Narcissistic

Reich, et al. (1989) and Zimmerman and Coryell (1990), using the PDQ, found identical rates (0.4%) of narcissistic disorder.

vi) Borderline

In 1975 Weissman and Myers (1980), in a survey carried out in New Haven (USA) among a sample of 511 subjects using the SADS-L and ROC, reported a rate of only 0.2%. However, this rate was derived from an instrument not designed to measure DSM-III Borderline Personality Disorder. Reich, et al. (1989) reported a rate of 1.3% of Borderline Personality Disorder

Reich, et al. (1989) reported a rate of 1.3% of Borderline Personality Disorder with the PDQ. Zimmerman and Coryell (1990): obtained rates of 1.7% with the SIPO and 4.6% with the PDQ, The rate of 1.7% was similar to that (1.1%) reported by Maier (1992), et al. Borderlines, compared to those

with other Personality Disorders, exhibited higher rates of alcohol, tobacco use, phobic disorders, suicide attempts and Schizophrenia. The borderlines were also younger and less likely to be married. Those who did marry were likely to be divorced or separated.

Swartz, et al (1990), carried out a study among 1541 community subjects (19-55 years of age) at the North Carolina site of the ECA, using a diagnostic algorithm derived from the Diagnostic Interview Schedule (DIS). They found a rate of 1.8%, and the disorder was significantly more common among females, the widowed, and the unmarried. There was a trend towards an increase in the diagnosis in younger, non-white, urban and poorer respondents. The highest rates were found in the 19 to 34 age range, with the rates declining with age. All borderline respondents had also a DIS DSM-III, Axis I lifetime diagnosis. The Borderline group included high users of such services, with 50% having had contact with outpatient mental health services in the previous six months. However, the borderlines did not use general medical services more than the total population, and they had similar rates of utilizations of outpatient general health services. Borderline Personality Disorder was significantly related to a poor marital relationship, a higher rate of physical disability, job difficulties, alcohol abuse, and psychosexual problems.

vii) Antisocial (Dissocial)

In the ECA study by Robins et al (1991), antisocial Personality Disorder was investigated, and one month, six month, and lifetime prevalence rates of 0.5%, 1.2%, and 2.6% were found. The lifetime prevalence rate for males was significantly higher (4.5%) than for females (0.8%), and the disorder was found predominantly in those under the age of 45, urban residents, and those who did not complete high school.

Lee, et al (1990), performed a replication of the ECA study in the city of Seoul, Korea. They found a prevalence rate of antisocial Personality Disorder of 2.08% in a community sample of 3134. As in other studies there was a higher prevalence in males than females (3.54% vs 0.78%).

Both Reich, et al. (1989), and Zimmerman and Coryell (1990), using the PDQ, found considerably lower rates, 0.4% and 0.9% respectively.

However, the rates increased to 3.0% when interviews were used, suggesting that self-reports may underestimate antisocial personality. Maier, et al. (1992) however using a structured interview, also found a low rate of 0.2% in Germany.

vii) Avoidant

Reich, et al. (1989) and Baron, et al. (1990) in their sample or relative of normal probands, found no cases of avoidant personality. Zimmerman and Coryell (1990) reported rates ranging from 0.4% (PDQ) to 1.3% (SIPD). The rate reported by Maier, et al. (1.1 %) was comparable to that obtained by Zimmerman and Coryell and by Baron, et al. (1.6%) among relatives of schizophrenic probands.

xi) Dependent

Reich, et al. (1989) and Zimmerman and Coryell (1990) using the PDQ, reported rates of 5.1 % and 6.7% respectively. However, the rates were lower when a structured interview was used (SIPD: 1.7%; SCID: 1.6%).

xii) Compulsive

The rates of compulsive disorder were comparable in two studies Rich, et al (1989) and Zimmerman and Coryell (1990) in which the PDQ was used (6.4% and 4.0%). However, lower rates were reported with structured interviews, 1.7% with the SIDPD and 2.2% with the SCID.

xiii) Passive-Aggressive

Using the PDQ, Zimmerman and Coryell (1990) found a low rate (0.4%), while Reich, et al (1989) in their study, which included only 235 subjects, found no cases.

II.3.5. Studies showing therapeutic outcome on Personality Disorder Patients

Bateman and Fonagy, (1990) compared the effectiveness of psychoanalytically oriented partial hospitalization with standard psychiatric care for patients with Borderline Personality Disorder patients who were partially hospitalized showed a statically significant decrease on all measure

in contrast to the control group, which showed limited change or deterioration over the same period. An improvement in depressive symptoms, a decrease in suicidal and self-mutilatory acts reduced inpatient days, and better social and interpersonal function began at 6 months and continued until the end of treatment at 18 months.

Shea, et al. (1990) investigated the relationship between Personality Disorders and treatment outcome in the National Institute of Mental Health Treatment of Depression Collaborative Research Program, which involved 239 outpatients with major depressive disorder randomly assigned to one of four 16 week treatment conditions. Patients with Personality Disorders had a worse outcome in social functioning than patients without Personality Disorders and were significantly more likely to have residual symptoms of depression. There were no significant differences in work functioning or in mean depression across treatment termination. Outcome was similar for patients in the different cluster of Personality Disorders.

Stevenson and Meares (1992) evaluated the effectiveness of well-defined outpatient psychotherapy for patients with Borderline Personality Disorder. The subjects showed statistically significant improvement from the initial assessment to the end of the year of follow-up on every measure. Moreover, 30% of the subjects no longer fulfilled the DSM-111 criteria for Borderline Personality Disorder. This improvement had persisted one year after the cessation of therapy. The results suggest that a specific form of psychotherapy is of benefit for patients with Borderline Personality Disorder.

Putnam and Loewenstein (1993) conducted a questionnaire study of 305 clinicians representing a spectrum of mental health professionals to survey the types and relative efficiency of treatment modalities currently used with cases of multiple Personality Disorder. Individual psychotherapy facilitated by hypnosis was uniformly endorsed as the primary treatment by all practitioner groups. The average patient was in twice-weekly psychotherapy facilitated by hypnosis for 3.8 years. Antidepressant and anxiolytic medications were reported to be moderately useful adjunctive treatments.

Winston, et al. (1994) conducted a study in which eighty-one patients with Personality Disorders were randomly assigned to brief adaptive

psychotherapy, short-term dynamic psychotherapy, or a waiting list for therapy. Outcome at termination of therapy for the treatments groups and at the end of the waiting period for the waiting list group was evaluated by means of ratings of target complaints and scores in the SCL-90 and the Social Adjustment Scale. In addition, for 38 of the treated patients, target complaints were reevaluated an average of 1.5 years after treatment ended patients in the two therapy conditions improved significantly on all measures in comparison with the patients on the waiting list. There was no significant difference between the results in the two therapy conditions. The waiting list period averaged approximately 15 weeks, treatment averaged 40 weeks. At follow-up, after an average of 1.5 years, target complaints were not significantly different from those at the termination of therapy. These data indicate that brief adaptive psychotherapy and short-term dynamic psychotherapy are effective for patients with certain types of Personality Disorder and that the two therapy approaches do not differ in overall outcome.

Philips, et al. (1998) assessed 54 subjects with earl-onset, long-standing mild depressive features for depressive Personality Disorders, axis I and axis II disorders, family history, and treatment history; they conducted follow-up interviews 1 year after the baseline assessment. Subjects with (N=30) and without (N=24 depressive Personality Disorder were characterized and compared in terms of those variables. Although depressive Personality Disorder and Dysthymia co-occurred in some subjects, 63% of subjects with depressive Personality Disorder did not have Dysthymia, and 60% did not have current major depression, although subjects with depressive Personality Disorder were more likely than the mood disorder comparison group to have another Personality Disorder, 40% had no such disorder. Contrary to study hypotheses, mood disorder comparison group to have another Personality Disorder, 40% had no such disorder Mood disorder was not more common in first – degree relatives of subjects with depressive Personality Disorder than in relatives of the comparison group. Subjects with an without depressive and psychotherapy; however, the duration of psychotherapy was significantly longer for subjects with than for those without depressive personality. The depressive personality diagnosis was relatively stable over the 1 year follow-up period.

Bond, et al. (1998) conducted a study to examine the relationship between clearly defined therapist intervention and the therapeutic alliance with personality-disordered patients. Transference interpretations were followed by deterioration in the therapeutic alliance when the alliance was weak, but by enhanced work when the alliance was solid inpatient with both strong and weak alliance, defense interpretations and supportive interventions enhanced therapeutic work without increasing defensiveness. Supportive interventions seemed to prepare the way for exploration and to ruptured alliances.

Wilberg, et al. (1998) examined rates of completion, complication and outcome in a sample of poorly functioning patients who participated in a sample of poorly functioning patients who Personality Disorders. A total of 141 patients (77 percentage completed the day treatment program. Few patients experienced treatment complications. Effect sizes for GAF, GSI and IIP-C scores for treatment completers were in the medium-to-high range, indicating a fare level of promising as a first step towards development of a cost-efficient comprehensive long-term treatment program for patients with severe Personality Disorders.

McCallum, et al. (1999), conducted a study to find the influence of paranoid, borderline, and dependent Personality Disorders on 154 patients' responses to an intensive group-oriented evening treatment program was investigated. Possible mediating effects of patient psychological mindedness and work were also investigated. Post session work ratings were provided by patients, therapists, and other patients for a small insight-oriented group. Benefit was assessed by using general impressions of overall usefulness, provided by patients and therapists. Results indicated that psychological mindedness had a differential influence on work and outcome for the 3 disorders, but work was related to outcome regardless of the disorders

Perry, et al. (1999) examined the evidence for the effectiveness of psychotherapy for Personality Disorders in psychotherapy outcome studies. All studies reported improvement in Personality Disorders with psychotherapy. Among the three randomized, controlled treatment trials, active psychotherapy was more effective than no treatment according to self-report measures. In four studies, a mean of 52% of patients remaining in therapy

recovered - defined as no-longer meeting the full criteria for Personality Disorder after a mean of 1.3 years of treatment.

Wilberg, et al. (1999) evaluated the effectiveness of day treatment for poorly functioning patients with Personality Disorders who participated in day treatment consisting of analytically oriented and cognitive-behavioural therapy groups as part of a comprehensive group therapy program.. Follow-up data were available for 96 patients who completed the study, or 53 percent of the patients who were admitted to the study. Improvements in GAF, GSI, and IIP-C scores during day treatment were maintained at follow-up. Seventy-four percent of the treatment completers improved clinically from program admission to follow-up, as indicated by change in GAF scores, and 64 percent of the treatment completers continued in the outpatient group program. For the 26 percent of patients whose change in GAF score did not indicate clinical improvement, lack of improvement was most strongly predicted by the expression of suicidal thoughts during treatment. No patients committed suicide.

Bateman and Fonagy (2000) investigated the evidence for effectiveness of psychotherapeutic treatment for Personality Disorder. Problems of case identification, co morbidity, randomization, specificity of treatments and outcome measurement are inadequately addressed. Authors mainly relied on cohort studies. Evidence neither suggests superiority of one type of therapy over another nor indicates which subgroups of patients should be offered psychotherapy as inpatient, day patient, or outpatient.

Gabbard, et al. (2000) conducted a study to determine whether severe Personality Disorders improve or deteriorate with intensive inpatient treatment. Overall 216 patients diagnosed as having Personality Disorders by DSM-III-R criteria were prospectively monitored at two private psychiatric hospitals from admission through discharge to one year follow-up. Substantial positive change in the sample was recorded at discharge, and the improvements held up at one-year follow-up. The proportion of patients with scores of 50 or more on the Global Assessment Scale was 3.7 percent at the time of admission. By discharge the proportion had increased to 55.1 percent, and by one-year follow-up it had risen to 66.3 percent. These results suggest that patients with severe Personality Disorders benefit from intensive inpatient

treatment. We found no evidence that hospitalization of such patients is associated with regression or deterioration of function.

Chiesa, et al. (2000) conducted an investigation of early discontinuation of specialized inpatients psychosocial treatment in a sample of people with Personality Disorder. Out of 134 consecutive admissions to the Cassel Hospital, 42 early drop-outs and 92 patients who remained were compared on demographic and clinical variables. Early drop-outs were invited for in-depth interviews, to explore their hospital experiences. The early dropout group and the group which remained showed significant differences in occupational status, Borderline Personality Disorder (BPD) and the treatment programme to which they were allocated.

Verheul, et al. (2000) conducted a study to compare the effectiveness of Dialectical Behaviour Therapy (DBT) with treatment as usual for patients with Borderline Personality Disorder (BPD) and to examine the impact of baseline severity on effectiveness. Dialectical behaviour therapy resulted in better retention rates and greater reductions of self-mutilating and self-damaging impulsive behaviours compared with usual treatment, especially among those with a history of frequent self mutilation.

Bateman and Fonagy (2001) conducted a study to determine whether the substantial gains made by patients with Borderline Personality Disorder following completion of a psychoanalytically oriented partial hospitalization program, in comparison to patients treated with standard psychiatric care, were maintained over an 18-month follow-up period. Patients who completed the partial hospitalization program not only maintained their substantial gains but also showed a statistically significant continued improvement on most measures in contrast to the patients treated with standard psychiatric care, who showed only limited change during the same period.

Bender, et al. (2001) conducted a study to find out utilization of mental health treatment in patients with Personality Disorders and patients with Major Depressive Disorder without Personality Disorder. Patients with Personality Disorders had more extensive histories of psychiatric outpatient, inpatient, and psychopharmacologic treatment than patients with Major Depressive Disorder. Compared to the depression group, patients with Borderline

Personality Disorder were significantly more likely to have received every type of psychosocial treatment except self-help groups, and patients with Obsessive-Compulsive Personality Disorder reported greater utilization of individual psychotherapy. Patients with Borderline Personality Disorder were also more likely to have used anti-anxiety, antidepressant, and mood stabilizer medications, and those with Borderline or Schizotypal Personality Disorder had a greater likelihood of having received anti-psychotic medications patients with Borderline Personality Disorder had received greater amounts of treatment, except for family/couples therapy and self-help, than the depressed patients and patients with other Personality Disorders.

Smith, et al (2001) designed intensive outpatient programs to promote patients' functioning in the community by offering a more. Intensive level of structure and support than was previously available for outpatients. This paper describes the intensive outpatient program at McLean Hospital in Belmont, Massachusetts, which is tailored for patients with Borderline Personality Disorder. These patients are susceptible to control struggles and regressive behaviours in more restrictive treatment settings. Through frequent contact with clinicians and other patients in this group-oriented program, patients with Borderline Personality Disorders appear to feel sufficiently "held" and understood to develop their functional capacities as outpatients.

Paris (2003) studied on chronic suicidality among patients with Borderline Personality Disorder. Results show one in ten patients with Borderline Personality Disorder complete suicide, but this outcome is not readily preventable and does not necessarily occur during the course of treatment. In outpatient psychotherapy, chronic suicidal behaviour by patients with Borderline Personality Disorder can be best understood as a way of communicating distress. Hospitalization is of unproven value in preventing suicide by these patients and can sometimes have negative effects. Clinician's fear of potential litigation resulting from a completed suicide should not be the basis for admission. With no evidence that full hospitalization prevents suicide completion by patients with Borderline personality, suicidal risk is not a contraindication for day hospital treatment.

Perseus, et al. (2003) conducted a study to investigate patients and therapists perception of receiving and giving Dialectical behavioural Therapy

(DBT). Then deliberate self-harm patients with Borderline Personality Disorder and four DBT -therapists were interviewed. The interviews were analyzed with qualitative content analysis. The patients unanimously regard the DBT -therapy as life saving and something that has given them a bearable life situation. The patients and the therapists are concordant on the effective components of the therapy: the understanding, respect, and confirmation in combination with the cognitive and behavioural skills. The experienced effectiveness of DBT is contrasted by the patient's pronouncedly negative experiences from psychiatric care before entering DBT.

Leichsenring, and Leibing, (2003) conducted a meta-analysis to address the effectiveness of psychodynamic therapy and cognitive behavior therapy in the treatment of Personality Disorders. Psychodynamic therapy yielded a large overall effect size (1.46), with effect sizes of 1.08 found for self-report measures and 1.79 for observer rated measures. For cognitive behavior therapy, the corresponding values were 1.00, 1.20, and 0.87. For more specific measures of Personality Disorder pathology, a large overall effect size (1.56) was seen for psychodynamic therapy. Two cognitive behavior therapy studies reported significant effects for more specific measures of Personality Disorder pathology. For psychodynamic therapy, the effect sizes indicate long-term rather than short-term change in Personality Disorders.

Chiesa, et al. (2003) conducted study to evaluate the clinical effectiveness of these two psychosocial specialist programmes over a 3 year follow-up period. Improvements were significantly greater in the step-down programme for social adjustment and global assessment of mental health. Patients in the programme were found to self-mutilate, attempt suicide and be readmitted significantly less at 24- and 36-month Follow-up than patients in the inpatient group. Improvements associated with specialist residential treatment continued 2 years after discharge. A step-down model has significant advantages over a purely inpatient model.

Chiesa, et al. (2003) conducted a study to compare effectiveness or two models of psychosocial intervention for Personality Disorder. Subjects in the two-stage sample did significantly better on global assessment of mental health, according to the Global Assessment Score (GAS) at 6 and 12 months

and on social adjustment, according to the Social Adjustment Scale (SAS) at 12 months. Significant differences in rates of reliable improvement on the GAS (43% v. 17%) and SAS (39% v. 15%) in favor of the two-stage condition were found at 12 months. Subjects with Borderline Personality Disorder (BPD) allocated to the two stage model improved significantly more than such patients in the one stage model.

Davies, et al. (2003) conducted a study to identify hospital admissions before and after therapeutic community treatment of Personality Disorder. All patients were traced at 3-year follow-up. The significant reduction in inpatient admissions seen in the first year was maintained over 3 years. Those with the poorest outcomes, suicide, accidental death or prolonged admission were all in the quartile with the shortest admissions (under 42 days) to the therapeutic Community.

Hopwood (2006) has found that Borderline personality (BP) is prevalent in clinical populations and notoriously difficult to treat. Reasons for this difficulty include complexity of presentation, overall severity of functioning, premature discontinuation and difficulty establishing a therapeutic alliance. Brief treatments for BP are considered, and specific therapeutic goals with potential amenability to brief approaches are discussed, with a focus on the integrative combination of various modalities. It is noted that brief treatments have the potential to ameliorate problems related to premature discontinuation, supplement and enhance long-term treatments and increase the cost-effectiveness of treatment.

Strauss, et al. (2006) conducted a study in which the participants were 30 adult outpatients, diagnosed with avoidant Personality Disorder or obsessive-compulsive Personality Disorder, those who were enrolled in an open trial of cognitive therapy for Personality Disorders. Treatment consisted of up to 52 weekly sessions. Symptom evaluations were conducted at intake, at Sessions 17 and 34, and at the last session. Alliance variables were patients' first alliance rating and "rupture-repair" episodes, which are disruptions in the therapeutic relationship that can provide corrective experiences and facilitate change. Stronger early alliances and rupture-repair episodes predicted more improvement in symptoms of Personality Disorder

and depression. This work points to potentially important areas to target in treatment development for these Personality Disorders.

Kenneth N. Levy *et al* (2006) found how Transference Focused Psychotherapy (TFP) conceptualizes mechanisms in the cause and maintenance of borderline Personality Disorder (BPD) as well as change mechanisms both within the patient and in terms of specific therapists' interventions that engender patient change. Mechanisms of change at the level of the patient involve the integration of polarized representations of self and others; mechanisms of change at the level of the therapist's interventions include the structured treatment approach and the use of clarification, confrontation, and "transference" interpretations in the here and now of the therapeutic relationship. In addition, we briefly review evidence from our group regarding the following hypothesized mechanisms of change: contract setting, integration of representations, and changes in reflective functioning (RF) and affect regulation.

Kenneth L. C, Kenneth N. L and John F. C, (2007) conducted a randomized control trial comparing three treatments for borderline Personality Disorder (BPD). An important issue for any RCT is diagnostic reliability, demonstration of which is necessary to evaluate claims of a treatment's efficacy for a given population. The present paper examines the inter rater reliability of Axis I and II disorders in the context of a high base rate of BPD features for participants referred for inclusion in the RCT. The results indicated good to excellent levels of inter rater reliability for all Axis I and II disorders. Assessors were able to reliably diagnose BPD, exclusionary criteria, and co-morbid diagnoses. This data is important for comparing findings and sample composition across different studies using similar sampling strategies, especially as treatments are increasingly being developed and tested for BPD.

Duggan, et al. (2008) conducted a study which was aimed to examine the evidence from RCTs to justify intervening with pharmacological treatments in people with Personality Disorder. The main positive findings were those favoring the use of anticonvulsants to reduce aggression, and of anti-psychotics to reduce cognitive perceptual and mental state disturbance. However, there were major methodological deficiencies in the trial designs,

including small numbers of participants and limited duration of treatment and follow-up.

II.3.6. Personality Disorder and Hostility

Smith and Timothy W (1992) Discusses the influence of hostility on physical health. Evidence available from prospective studies suggests that hostile persons may be at increased risk for subsequent coronary heart disease and other life-threatening illnesses. Several plausible mechanisms possibly linking hostility and health have been articulated and subjected to initial evaluation. Hostile individuals display heightened physiological reactivity in some situations, report greater degrees of interpersonal conflict and less social support, and may have more unhealthy daily habits. Additional research is needed, and it must address a variety of past conceptual and methodological limitations. The most central of these concerns are the assessment of individual differences in hostility and the role of social contexts in the psychosomatic process.

Simone and Andreas (2004) have identified Three underlying Personality Disorder factors could be identified, which showed identical structures in both the forensic and the non-forensic sample. Factor 1 comprised emotionally unstable, histrionic, paranoid and dissocial traits and showed strong similarity to the construct of psychopathy. Factor 2 was defined by Anankastic Personality Disorder scores and an inverse relation to schizoid personality features. Factor 3 showed high negative loadings of anxious and dependent Personality Disorders. Self-report measures of personality and criminal history variables yielded different associations with the three PD dimensions. Offenders with high scores on factor 1 were highly aggressive, violent and impulsive.

Konrath, et al. (2006) conducted a research that has found that narcissists behave aggressively when they receive a blow to their ego. The current studies examined whether narcissistic aggression could be reduced by inducing a unit relation between the target of aggression and the aggressor. Experimental participants were told that they shared either a birthday (Study 1) or a fingerprint type (Study 2) with a partner. Control participants were not given any information indicating similarity to their

partner. Before aggression was measured, the partners criticized essays written by the participants. Aggression was measured by allowing participants to give their partner loud blasts of noise through a pair of headphones. In the control groups, narcissists were especially aggressive toward their partner. However, narcissistic aggression was completely attenuated, even under ego threat, when participants believed they shared a key similarity with their partner.

Fossati, et al. (2007) conducted a study and the aim of the study was to assess whether impulsive and aggressive traits can be placed on a continuum with DSM-IV Cluster B Personality Disorders (PDs) and to determine if different aspects of these personality traits are specifically associated with individual Cluster B PDs. The study group comprised 461 outpatients admitted consecutively to a clinic that specializes in the diagnosis and treatment of PDs. Principal Component analyses clearly suggested a five-factor structure of both normal and psychopathological personality traits. Importantly, measures of impulsivity, aggressiveness and novelty seeking formed a part of the principal component that clustered all Cluster B PDs. Regression analyses indicated that impulsive traits were selectively associated with Borderline PD whereas different aspects of aggressiveness were useful in discriminating Narcissistic PD from Antisocial PD. Sensation seeking traits formed a part of Histrionic PD. These results indicate that impulsive/aggressive traits may be useful in explaining both why Cluster B PDs tend to co-vary, and why they frequently differ in clinical pictures and courses.

Stone (2007) found that Persons committing murder and other forms of violent crime are likely to exhibit a Personality Disorder (PD) of one type or another. Essentially any Personality Disorder can be associated with violent crime, with the possible exception of avoidant PD. This includes those described in DSM as well as other disorders such as sadistic PD and Psychopathy. The latter two, along with antisocial and paranoid PDs, are the most common personality accompaniments of violent crime. Narcissistic traits (if not narcissistic PD (NPD) itself) are almost universal in this domain, since violent offenders usually place their own desires and urges far above those of other persons. While admixtures of traits from several disorders are common among violent offenders, certain ones are likely to be the main disorder:

antisocial PD, Psychopathy, Sadistic PD, Paranoid PD and NPD. Instrumental (as opposed to impulsive) spousal murders are strongly associated with NPD. Men committing serial sexual homicide usually show Psychopathy and sadistic PD; half these men also show schizoid PD. Mass murderers usually show strong paranoid traits. With a focus on murder, clinical examples drawn from the crime literature and from the author's personal interviews reflect 14 varieties of Personality Disorder. Animal torture before adulthood is an important predictor of future violent (including sadistic) crime. Whereas many antisocial persons are eventually capable of rehabilitation, this is rarely the case with psychopathic or sadistic persons.

Jamie and Rebecca (2008) conducted a study in which a sample of 679 (341 women) emerging adults ($M = 18.90$ years; $SD = 1.11$; range = 18.00–22.92) participated on the utility of forms (i.e., physical and relational) and functions (i.e., proactive and reactive) of aggression. They examined the link between these four subtypes of aggression and personality pathology (i.e., psychopathic features, borderline Personality Disorder features, and antisocial Personality Disorder features). The study supports the psychometric properties (i.e., test–retest reliability, internal consistency, discriminant validity) of a recently introduced measure of forms and functions of aggression during emerging adulthood. Aggression subtypes were uniquely associated with indices of personality pathology. For example, proactive (i.e., planned, instrumental or goal-oriented) and reactive (i.e., impulsive, hostile or retaliatory) functions of relational aggression were uniquely associated with borderline Personality Disorder features even after controlling for functions of physical aggression and gender. The results highlight the differential associations between forms and functions of aggression and indices of personality pathology in typically developing emerging adults.

According to Kenneth, et al. (2008) Attachment theory provides a framework for understanding and predicting critical aspects of aggression in the Personality Disorders. An association between borderline Personality Disorder (BPD) and insecure forms of adult attachment marked by high relationship anxiety has been repeatedly observed in the empirical literature. Aggression also has been linked to insecure attachment. The study extends previous work by exploring the degree to which the underlying attachment dimensions of relationship anxiety and avoidance are associated in BPD with

the following forms of hostility: (a) direct aggression (verbal or physical) initiated towards others, (b) expectation/perception of aggression from others (including “reactive” counter aggression when/if provoked), (c) aggression directed towards the self in the form of suicidality or Para-suicidality, and (d) affective experience of irritability or anger. The issue was studied in a sample of 92 patients diagnosed with BPD. Results show significant association between more fearful forms of attachment (simultaneous presence of relationship anxiety and avoidance) and the more reactive form of aggression involving expectation of hostility from others. Self-harm was significantly associated only with relational avoidance while anger and irritability were associated only with relational anxiety.

II.3.7. Quality of Life and Personality Disorders

Swinton, et al (2001), conducted a study which describes the use of an adapted version of the Lancashire Quality of Life profile as a patient based-outcome measure. Results showed that patients in the Dutch service reported a significantly higher Quality of Life which could not be explained by better objective circumstances. The data collected do not explain why the Dutch patients reported a higher Quality of Life. It is suggested that this finding was related to more extensive therapeutic activity and greater therapeutic optimism in the Dutch service. There is a need for critical scrutiny of the appropriateness of Quality of Life measures in offender patients before they are accepted for use as an outcome measure.

Perseus, et al (2006) conducted a study to: (i) test the reliability of a health-related Quality of Life (HRQOL) instrument [Swedish Health-Related Quality of Life Survey (SWED-QUAL)] on women patients with borderline Personality Disorder (BPD); (ii) compare their HRQOL to a normal population group comparable in age; and (iii) test for subgroup differences in HRQOL considering psychiatric DSM axis-I co morbidity. And found that SWED-QUAL could be considered as an instrument with acceptable reliability when assessing HRQOL in BPD patients. The BPD patients suffered significant impairments in HRQOL overall health dimensions compared to normal population. There were no subgroup differences due to axis-I comorbidity, which indicate that BPD in itself might be a predictor of substantial HRQOL impairment.

Trompenaars, et al (2006) conducted a study which scrutinizes the ability of the WHO Quality of Life assessment instrument (WHOQOL-100) to discriminate (1) between psychiatric outpatients and the general population, and (2) between subgroups of psychiatric outpatients. A sample of Dutch adult psychiatric outpatients (N = 410) completed the WHOQOL-100. In addition, DSM-IV Axis-I and Axis-II diagnoses were obtained. Compared with the general population, psychiatric outpatients scored significantly lower on all aspects of self-reported Quality of Life (QOL). Within the group of outpatients, participants with DSM-IV diagnoses had lower scores than those without. Participants with diagnoses on both Axis-I and Axis-II of DSM-IV (comorbidity) had the lowest self-reported QOL. It is concluded that in psychiatric outpatients, outcome scores of self-reported QOL were negatively related to presence and degree of psychopathology. The WHOQOL-100 has good discriminant ability for psychiatric outpatients

Bouman, et al. (2008) conducted a study to compare the QoL of male outpatients in treatment for PD or MMD overall and by means of specific social and subjective indicators in a sample of 135 men under treatment for PD in Dutch forensic outpatient facilities were compared with 79 men with MMD using the extended Dutch version of the Lancashire Quality of Life Profile (LQoLP). Almost all of the objective indicators of QoL were significantly poorer among men with MMD than those with PD, but the groups did not differ on domain-specific subjective ratings of QoL. Indeed, global subjective QoL was lower in the PD than in the MMD patient group. PD outpatients seemed to have a more complex concept of QoL than the MMD outpatients for whom almost half of the variance in subjective QoL rating was related to their everyday activities and their objective sense of safety.

Christoph, et al. (2008) conducted a study with an objective to examine patients' reports of positive Quality of Life over the course of multiple forms of psychotherapy and disorders. Data from 5 studies using a common assessment battery were pooled to evaluate the magnitude of change in positive Quality of Life and explore the relation of change in positive Quality of Life to change in symptoms and how these relations vary by disorder. Positive Quality of Life was measured at intake, termination, and during 2 post treatment visits 6 and 12 months following termination. Results revealed that positive Quality of Life improved moderately over the course of psychotherapy

and was sustained through follow-up. There were also moderately sized correlations between changes in positive Quality of Life and changes in symptomatic response and interpersonal functioning from intake to termination.

Chapter III

METHODOLOGY

PART-I Retrospective Analysis on the
Prevalence of Personality Disorders (Pilot
Study)

Sample

Tools

Procedure

Statistical Technique

PART-II Study Proper

Hypothesis

Research Design

Sample

Tools

Statistical technique

This chapter provides a descriptive details of the methods used for the research. It comprises of the sample, instruments used, details of the therapy-administrated namely Rational Emotive Behavior Therapy, and the statistical techniques employed. More importantly this chapter has been presented in 2 parts. The first part explains the methodology adopted for conducting the pilot study during the first phase, which has been executed to find out the possibility of getting samples for further research. Availability of samples with Personality Disorder for experimental research had been a major hurdle in research in this area.

And the part II, is consisting of methodology for experimental research adopted for finding out the efficacy of Rational Emotive Behavior Therapy in treating Paranoid Personality Disorder, Borderline Personality Disorder and Anankastic Personality Disorder respectively, which is termed as *Study Proper*

III.1 Part I- Retrospective Analysis on the Prevalence of Personality Disorders (Pilot Study)

Aim of this part of the study was to identify the prevalence rate of Personality Disorder in the patient population who are attending the psychiatric OPD of a General Hospital Setting.

This phase explains the methodology employed for conducting the pilot study, which is carried out to identify the availability of patients with Personality Disorders in psychiatric setting. This is a retrospective analysis of data were collected from the medical records.

III.1.1. Sample

Data is collected from the Psychiatry Department of Sacred Heart Mission Hospital, Irinjalakuda in Kerala. All the in and out patients who were registered in the Psychiatry Department as new cases, during a period of 6 years (1998-2003) were selected for the study. Total sample size is 5016 (**Table 3.1**). As this part being a retrospective analysis data were selected from the case sheets of every patient.

III.1.2. Tools

a) **Case Report:** it consists of the demographical data of the patient, case history, mental status examination details, treatment methods, psychometric evaluation reports, admission and discharge details and diagnosis.

b) A researcher made **Performa for Personality Disorders:** it was used to identify the cases, which are diagnosed as Personality Disorder.

It consists of spaces for the socio demographic details, pre-morbid personality and the diagnosis in the multi axial system.

Table III.1.1

The Total Number patients with their percentage

Total number of patients	No. of patients with Personality Disorder	Percentage
5016	497	9.89%

III.1.3. Procedure

All the case records in the psychiatric records library, during the period 1998 to 2003(six years) were surveyed and the data were collected using the Performa.

III.1.4. Statistical technique

Content analysis and coding pattern were done to get the frequency distribution of each Personality Disorder. Thus the prevalence rates of different Personality Disorders in total and on the bases of different demographic variables were obtained.

III.2 Part II- Study Proper

In this part of the methodology chapter the methodology adopted to find out the efficacy of Rational Emotive Behaviour Therapy in Paranoid Personality Disorder, Borderline Personality Disorder and Obsessive Compulsive Personality Disorder, is explained. It is also comprised of the methods utilized for finding out the reduction in hostility and its sub variables as well as the improvement in the Quality of Life in its six domains.

III.2.1. Hypotheses

Based on the objectives formed and reviews of various research studies elaborated in the last chapter the hypothesis were formulated. Following were the hypotheses formulated for the part II of the study.

- i) There will be no significant difference among the four groups in the pre test on IPDE score.
- ii) There will be no significant difference between the four groups in the posttest on IPDE score.
- iii) There will be no significant difference between the pre and post test scores on IPDE of the four groups
- iv) There will be no significant difference between the four groups in the pre test on Overall Hostility and its sub variables.
- v) There will be no significant difference between the four groups in the posttest on Overall Hostility and its sub variables.
- vi) There will be no significant difference between the pre and posttest scores on Overall Hostility and its sub variables of the four groups
- vii) There will be no significant difference between the four groups in the pre test on Overall Quality of Life and its domains.
- viii) There will be no significant difference between the four groups in the posttest on Overall Hostility and its sub variables of the four groups
- ix) There will be no significant difference between the pre and post test scores on Overall Quality of Life and its domains of the four groups
- x) There will be no significant difference between the four groups in the pre test on IPDE score.
- xi) There will be no significant difference between the four groups in the posttest on IPDE score.

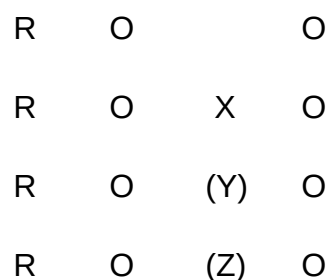
- xii) There will be no significant difference between the pre and post test scores on IPDE of the four groups
- xiii) There will be no significant difference between the four groups in the pre test on Overall Hostility and its sub variables.
- xiv) There will be no significant difference between the four groups in the posttest on Overall Hostility and its sub variables.
- xv) There will be no significant difference between the pre and posttest scores on Overall Hostility and its sub variables of the four groups.
- xvi) There will be no significant difference between the four groups in the pre test on Overall Quality of Life and its domains.
- xvii) There will be no significant difference between the four groups in the posttest on Overall Quality of Life and its domains.
- xviii) There will be no significant difference between the pre and post test scores on Overall Quality of Life and its domains of the four groups
- xix) There will be no significant difference between the four groups in the pre test on IPDE score.
- xx) There will be no significant difference between the four groups in the posttest on IPDE score.
- xxi) There will be no significant difference between the pre and post test scores on IPDE of the four groups.
- xxii) There will be no significant difference between the four groups in the pre test on Overall Hostility and its sub variables.
- xxiii) There will be no significant difference between the four groups in the posttest on Overall Hostility and its sub variables.

- xxiv) There will be no significant difference between the pre and posttest scores on Overall Hostility and its sub variables of the four groups.
- xxv) There will be no significant difference between the four groups in the pre test on Overall Quality of Life and its domains.
- xxvi) There will be no significant difference between the four groups in the posttest on Overall Quality of Life and its domains.
- xxvii) There will be no significant difference between the pre and post test scores on Overall Quality of Life and its domains of the four groups.

III.2.2. Research Design

Randomized experimental design is used for the research, as it reduces the likelihood of selection bias as a threat to internal validity, and it allows the use of the statistical theory of error. Probably the most common design is the Pretest-Posttest Group Design with random assignment. This design is used so often that it is frequently referred to by its popular name: the "classic" experimental design. In a true experimental design, the proper test of hypotheses is the comparison of the posttests between the treatment group and the control group.

The statistical textbooks cover many different experimental designs (for example Keppel,1991; Krick, 1995; Winer et al., 1991). Here for the research *randomized groups pretest-posttest design with more than two levels* suited the best.



In the notion, R denotes a randomized assignment of participants to experimental condition. Such assignment need to be done without bias, in order to ensure that each participant has an equal chance of being in each condition. In order to avoid systematic error (Cook and Campbell, 1979) the selection in each group was made by drawing a lot.

More than two levels: According to Barker C., et al There can be more than two levels of the between group factors, i.e., there may be more than one experimental group or more than one control group. (Barker C, et al., 2002).

Why are internal threats to validity removed by this design? History is removed as a rival explanation of differences between the groups on the posttest because both groups would experience the same events. Maturation effects are removed, because the same amount of time passes for all the groups. Instrumentation threats are controlled by this design because although any unreliability in the measurement could cause a shift in scores from pretest to posttest, all the groups would experience the same effect. By removing threats to internal validity equivalence between the groups was maintained. This enabled to conclude with a high degree of confidence that the independent variable caused the observed effect and not some alternate plausible explanation.

With respect to regression, the classic experimental design can control for regression through random assignment of subjects with extreme characteristics. This ensures that whenever regression does take place all groups will equally experience its effect. Regression toward the mean should not, therefore, account for any differences between the groups on the posttest. Randomization also controls for selection threat to internal validity by making sure that the comparison groups are equivalent.

III.2.3. Sample

a) Universe of the study

The samples were selected from the clinical population who were diagnosed as having Personality Disorder. Only those patients who had a second axis diagnosis of Paranoid, Borderline or Anankastic Personality Disorders were selected for the study proper as each of them represent each

of the clusters in Personality Disorder classification. The availability of samples was also taken in to consideration. Precautions were made to exclude those patients who had any Axis I Disorder or mental retardation. The following three paragraphs gives details regarding the samples selected under the three Personality Disorders namely paranoid, borderline and anankastic Personality Disorders.

b) Paranoid Personality Disorder

A total number of 637 patients out of 4562(13.96%) were identified as having a definite diagnosis of Personality Disorder. Among them 56 were identified as having Paranoid Personality Disorder (**Table III.2.1**). 32 of them who are not having no other Axis I diagnosis were selected for further research. They were grouped in to three after the administration of the tools with 10 members in each group. The three groups were matched in terms of their scores in the pre-tests, age, sex, socio economic status, and cultural background. Finally after the intervention period one more group is formed out of those who stopped coming for any type of intervention even from the initial phase of treatment. In effect the results were obtained from 24 subjects who were grouped in to 4 with 6 each in every group.

i) Inclusion Criteria

- Should have a definite diagnosis of Paranoid Personality Disorder in IPDE-ICD-10.

ii) Exclusion Criteria

- Having a major psychiatric condition as co morbid illness.
- Active symptoms of any other psychiatric illnesses.

Table III.2.1
Total number of patients, Number of patients with Personality Disorder, and Number of patients with Paranoid Personality Disorder and their Percentages

Total No. of patients	No of pts with Personality Disorder	%	No of pts with Paranoid Personality Disorder	% of pts with PPD to the total no. of pts	% of pts with PPD	No. of pts with PPD with no AXIS I disorders
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4562	637	13.96	56	1.22	8.79	32
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Table III.2.2
No. Of patients with PPD in each group viz. Control Group I, Experimental Group, Control Group II and Control Group III and their total

No. of subjects in Control Group I	No. of subjects in Experimental Group	No. of subjects in Control Group II	No. of subjects in Control Group III	Total
6	6	6	6	24

c) Borderline Personality Disorder

A total number of 637 patients were identified as having a definite diagnosis of Personality Disorder. Among them 58 were identified as having Borderline Personality Disorder. 42 of them who are not having any other AXIS I diagnosis were selected for the research. They were grouped in to three after the administration of the tools with 14 members in each group. The three groups were matched in terms of their scores in the pre-tests, age, sex, socio economic status, and cultural background. Finally after the intervention period one more group is formed out of those who stopped coming for any type of intervention even from the initial phase of treatment. In effect the results were obtained from 36 subjects who were grouped in to 4 with 9 each in every group.

i) Inclusion Criteria

- Should have a definite diagnosis of Emotionally Unstable (Borderline type) Personality Disorder in IPDE-ICD-10

ii) Exclusion Criteria

- Having a major psychiatric condition as co morbid illness.
- Active symptoms of any other psychiatric illnesses.

Table III.2.3
Total number of patients, Number of patients with Personality Disorder,
and Number of patients with Borderline Personality
disorder and their percentages

Total number of patients	No of pts with Personality Disorder	%	No of patients with Borderline Personality Disorder (BPD)	% of pts with BPD to the total no. of pts	% of pts with BPD to the total no. of pts with Personality Disorder	No. Of pts with BPD with no AXIS I disorders
4562	637	13.96	58	1.27	9.11	42

Table III.2.4

No. of patients with PPD in each group viz. Control group I,
Experiment group, Control group II and Control group III and their total

No. of subjects in Control group I	No. of subjects in Experiment group	No. of subjects in Control group II	No. of subjects in Control group III	Total
9	9	9	9	36

d) Obsessive Compulsive Personality Disorder

Out of the total 637 patients, who were identified as having a definite diagnosis of Personality Disorder, 61 were found to have Obsessive Compulsive Personality Disorder. 48 patients were found having no other AXIS I disorder and they were selected for the study. They were grouped in to three after the administration of the tools with 12 members in each group. The three groups were matched in terms of their scores in the pre-tests, age, sex, socio economic status, and cultural background. Finally after the intervention period one more group is formed out of those who stopped coming for any type of intervention even from the initial phase of treatment. In effect the results were obtained from 32 subjects who were grouped in to 4 with 8 each in every group.

i) Inclusion Criteria

- Should have a definite diagnosis of Obsessive Compulsive Personality Disorder in IPDE-ICD-10.

ii) Exclusion Criteria

- Having a major psychiatric condition as co morbid illness.
- Active symptoms of any other psychiatric illnesses.

Table III.2.5
Total number of patients, No of pts with Personality Disorder and No of pts with Obsessive Compulsive Personality Disorder and their percentages

Total number of patients	No of pts with Personality Disorder	%	No of patients with Anankastic Personality Disorder(A PD)	% of pts with APD to the total no. of pts	% of pts with APD to the total no. of pts with Personality Disorder	No. of pts with BPD with no AXIS I disorders
4562	637	13.9	61	1.34	9.57	42

Table III.2.6
No. of patients with APD in each group viz Control group I, Experimental Group, Control Group II and Control Group III and their total

No. of subjects in Control group I	No. of subjects in Experiment group	No. of subjects in Control group II	No. of subjects in Control group III	Total
8	8	8	8	32

II.2.4. Tools

1. International Personality Disorder Examination (IPDE ICD-10)
2. Multiphasic Hostility Inventory
3. WHO-Quality of Life scale (WHO QOL)
4. Brief Psychiatric Rating Scale
5. Rational Emotive Behaviour Therapy

1) International Personality Disorder Examination (IPDE-ICD-10) screening Questionnaire and Interview Schedule

The IPDE was developed for the World Health Organization (WHO) by Dr. Arnald W. Loranger et al. The IPDE was developed in the framework of the joint project on diagnosis and classification of mental Disorders, Alcohol- and Drug related Problems carried out by the WHO and US National Institute of Health(formerly Alcohol, Drug and Mental Health Administration).

IPDE-ICD-10 has got two parts. First one is the screening questionnaire which comprises of 59 items. It is expected to produce a considerable number of false-positive cases but relatively few false-negative cases. Hence it can be used to eliminate subjects who are unlikely to have a Personality Disorder. But under no circumstances should the IPDE-ICD-10 Screening Questionnaire be used to make psychiatric diagnosis.

Reliability and validity of the IPDE

The inter rater agreement and temporal stability of the IPDE-ICD-10 were studied at 14 clinical facilities in 11 countries in North America, Europe, Africa, and Asia. The Field trial employed 58 psychiatrists and clinical psychologists as interviewers and observers of 716 patients. The reliability and stability of the IPDE were roughly similar to what has been reported with instruments used to diagnose the psychosis, mood, anxiety, and substance use disorders.

Establishing the validity of semi structured clinical interviews has proved to be a more elusive undertaking, because of the absence of an acceptable gold standard. The use of consensus as that standard is problematic without information about the reliability and validity of the clinicians themselves. The advantages of semi structured interviews like IPDE-ICD-10, is that they have a certain procedural validity that makes their conclusions more readily exportable and less susceptible to institutional and regional basis. In theory, they provide clinicians and investigators with a more uniform method of case identification, and thus facilitate the comparison and replication of research findings. It was the opinion of most of the clinicians who participated in the field trial, that the IPDE-ICD-10 was a useful and essentially valid method of assessing Personality Disorders for research purposes.

2) Multiphasic Hostility Inventory

The hostility scale developed by Jayan *et al*, in 2005 is a five point scale which measures the hostility and the components like experience of hostility and expression of hostility. Hostility is defined as a constellation of action and feelings directed toward others and self. It is also considered as an emotion in which an individual is seen as being in opposition with others,

with a desire to harm or to negatively impact others and the feelings that problems in the individuals life are due to others interference.

The scale measures three components for the experience of hostility such as Self Criticism, Guilt and Cynicism. The expression of hostility also have three components and they are Acting Out of hostility, Criticism of others and Projection of Hostility.

Self Criticism refers to the act of making judgment towards oneself, analyzing one's own qualities and evaluation of comparative worth, especially the initial consideration and judgment of behaviour, interactions and literary or artistic work. It also includes the act of finding fault with unsure and disapproval of one's own behaviour, reprehend, suggesting sharp sense of disapproval, generally of faults or errors made by one self, poor judgment, empathic pronouncement of blame, feelings against self for their acts and stresses by fixing up responsibility of errors.

Guilt is a state of having done a wrong or committed an offence, culpability or it is a painful feeling of self reproach resulting from a belief that one has done something wrong, immoral, crime or sin.

Cynicism refers to believing that people are motivated in all their actions only by selfishness, denying the sincerity of people's motions and actions or values of living.

Acting Out of Hostility is the direct expression of the negative feelings inside which, it has got a cynical background. To act out hostility people usually do some movement or perform something to express the hostility inside, implement a decision to harm others through words or deeds to express the negative feelings inside toward them.

Criticism of others are the over judgment of others deeds, words and ideas; especially with fault finding aim and also compare worth qualities and values of others behaviour, compare literary and artistic works etc of others, especially with an aim of finding errors, mistakes etc.

Projection of Hostility refers to the hostile deeds of one self are projected identified and read in others as the casual factors of ones own un-luck, the world's conditions and other negative situations.

Reliability and Validity

The reliability of the scale was established by the authors through test odd-even reliability method. The scale was measured for its odd even reliability by administering up on a group of subjects (N = 60) including male and female of 18-58 years. The product moment correlation between the tests was found to be 0.75.

The scale was validated against an external criterion tat is hostility scale (Baby Shari and Baby, J.2004). The correlation coefficient obtained was 0.64. The face validity of the scale has been assured by many experts in the field.

3) WHO-Quality of Life Scale

The WHOQOL-SRPB field-test instrument exists of 32 questions, covering Quality of Life aspects related to spirituality, religiousness and personal beliefs (SRPB). This instrument has been developed from an extensive pilot test of 105 questions in 18 centers around the world. The resulting 32-item instrument represents the finalized version of the WHOQOL-SRPB to be used for field trials.

The WHOQOL-SRPB field-test instrument is to be used in conjunction with the WHOQOL-100. The definition of Quality of Life as *individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns*

Table III.2.7

The Original WHOQOL-100 with SRPB facets

Domain I	Physical
1	Pain and discomfort
2	Energy and fatigue
3	Sleep and rest
Domain II	Psychological
4	Positive feelings
5	Thinking, learning, memory and concentration
6	Self-esteem
7	Bodily image and appearance
8	Negative feelings
Domain III	Level of Independence
9	Mobility
10	Activities of daily living

11	Dependence on medication or treatments
12	Work capacity
Domain IV	Social Relationships
13	Personal relationships
14	Social support
15	Sexual activity
Domain V	Environment
16	Physical safety and security
17	Home environment
18	Financial resources
19	Health and social care: accessibility and quality
20	Opportunities for acquiring new information and skills
21	Participation in and opportunities for recreation/ leisure activities
22	Physical environment (pollution/noise/traffic/climate)
23	Transport
Domain VI	Spirituality/Religion/ Personal Beliefs
24	Spirituality
Additional SRPB Facets	
S1	*Spiritual Connection
S2	*Meaning & Purpose In Life
S3	*Experiences of Awe & Wonder
S4	*Wholeness & Integration
S5	*Spiritual Strength
S6	*Inner Peace
S7	*Hope & Optimism
S8	*Faith
Overall Quality of Life and general health perceptions	

**Facets that are highlighted in bold are specific to Spirituality, Religion and Personal Beliefs and have been added to the original WHOQOL.*

SCORING OF THE WHOQOL- SRPB INSTRUMENT

The WHOQOL-100 and WHOQOL SRPB field-test instrument together produce a Quality of Life profile with detailed information on SRPB aspects of Quality of Life. It is possible to derive six domain scores, 32 facet scores, and one general facet score that measures overall Quality of Life and general health. Eight of these 32 facets are facets belonging to the SRPB field-test instrument and these are highlighted in bold in Table 1. The SRPB facets are labeled SP1.1-SP8.1, to distinguish them from the generic WHOQOL-100 facets (which are labelled F1.1-f24.4 and G1.1 to G1.4). Each SRPB facet, like the WHOQOL-100, has four items to represent these facets.

The WHOQOL six domain scores denote an individual's perception of Quality of Life in the following domains: Physical, Psychological, Level of Independence, Social Relationships, Environment, and Spirituality

SCORING PROCEDURE

First, all scores need to be checked that they are in the appropriate range (between 1 and 5).

Check all items from assessment have a range of 1-5

RECODE f1.1 f1.2 f1.3 f1.4 f2.1 f2.2 f2.3 f2.4 f3.1 f3.2 f3.3 f3.4 f4.1 f4.2 f4.3 f4.4 f5.1 f5.2 f5.3 f5.4 f6.1 f6.2 f6.3 f6.4 f7.1 f7.2 f7.3 f7.4 f8.1 f8.2 f8.3 f8.4 f9.1 f9.2 f9.3 f9.4 f10.1 f10.2 f10.3 f10.4 f11.1 f11.2 f11.3 f11.4 f12.1 f12.2 f12.3 f12.4 f13.1 f13.2 f13.3 f13.4 f14.1 f14.2 f14.3 f14.4 f15.1 f15.2 f15.3 f15.4 f16.1 f16.2 f16.3 f16.4 f17.1 f17.2 f17.3 f17.4 f18.1 f18.2 f18.3 f18.4 f19.1 f19.2 f19.3 f19.4 f20.1 f20.2 f20.3 f20.4 f21.1 f21.2 f21.3 f21.4 f22.1 f22.2 f22.3 f22.4 f23.1 f23.2 f23.3 f23.4 f24.1 f24.2 f24.3 f24.4 g.1 g.2 g.3 g.4 SP1.1 SP1.2 SP1.3 SP1.4 SP2.1 SP2.2 SP2.3 SP2.4 SP3.1 SP3.2 SP3.3 SP3.4 SP4.1 SP4.2 SP4.3 SP4.4 SP5.1 SP5.2 SP5.3 SP5.4 SP6.1 SP6.2 SP6.3 SP6.4 SP7.1 SP7.2 SP7.3 SP7.4 SP8.1 SP8.2 SP8.3 SP8.4 (1=1) (2=2) (3=3) (4=4) (5=5) (ELSE=SYSMIS) .

Thirty-one items are negatively phrased. All negatively framed items need to be recoded, so that all scores reflect better Quality of Life. These items need to be reverse scored to ensure that higher scores reflect better QoL. For example, a negatively phrased item includes "Do you worry about pain or discomfort?" A participant, who answers (1) (not at all), would

therefore have good QoL for this facet. As the WHOQOL ensures that higher scores reflect better QoL, the score therefore needs to be reversed so that one is changed to five. This can be calculated as follows;

Reverse negatively phrased items

RECODE f1.1 f1.2 f1.3 f1.4 f2.2 f2.4 f3.2 f3.4 f7.2 f7.3 f8.1 f8.2 f8.3 f8.4 f9.3
f9.4 f10.2 f10.4 f11.1 f11.2 f11.3 f11.4 f13.1 f15.4 f16.3 f18.2 f18.4 f22.2 f23.2
f23.4

(1=5) (2=4) (3=3) (4=2) (5=1). (1=5) (2=4) (3=3) (4=2) (5=1).

(This transforms negatively framed questions to positively framed questions)

None of the new, additional SRPB items are negatively phrased.

CALCULATION OF FACET SCORES

Facets are scored through summative scaling. Each item contributes equally to the facet score. Mean scores are then calculated. In this case, all the items in the respective facet are added and divided by four.

WHOQOL-100

Pain = (f1.1 + f1.2 + f1.3 + f1.4)/4.

Energy = (f2.1 + f2.2 + f2.3 + f2.4)/4.

Sleep = (f3.1 + f3.2 + f3.3 + f3.4)/4.

Pfeel = (f4.1 + f4.2 + f4.3 + f4.4)/4.

Cog = (f5.1 + f5.2 + f5.3 + f5.4)/4.

Esteem = (f6.1 + f6.2 + f6.3 + f6.4)/4.

Body = (f7.1 + f7.2 + f7.3 + f7.4)/4.

Nfeel = (f8.1 + f8.2 + f8.3 + f8.4)/4.

Mobil = (f9.1 + f9.2 + f9.3 + f9.4)/4.

Adl = (f10.1 + f10.2 + f10.3 + f10.4)/4.

Depend = (f11.1 + f11.2 + f11.3 + f11.4)/4.

Work = (f12.1 + f12.2 + f12.3 + f12.4)/4.

Relation = (f13.1 + f13.2 + f13.3 + f13.4)/4.

Support = (f14.1 + f14.2 + f14.3 + f14.4)/4.

Sex = (f15.1 + f15.2 + f15.3 + f15.4)/4.

Safe = (f16.1 + f16.2 + f16.3 + f16.4)/4.

Home = (f17.1 + f17.2 + f17.3 + f17.4)/4.

Finance = (f18.1 + f18.2 + f18.3 + f18.4)/4.

Care = (f19.1 + f19.2 + f19.3 + f19.4)/4.

Info = (f20.1 + f20.2 + f20.3 + f20.4)/4.

Leisure = (f21.1 + f21.2 + f21.3 + f21.4)/4.

Environ = (f22.1 + f22.2 + f22.3 + f22.4)/4.

Trans = (f23.1 + f23.2 + f23.3 + f23.4)/4.

Srpb = (f24.1 + f24.2 + f24.3 + f24.4)/4.

Additional SRPB facets

connect = (SP1.1 + SP1.2 + SP1.3 + SP1.4)/4

meaning = (SP2.1 + SP2.2 + SP2.3 + SP2.4)/4

awe = (SP3.1 + SP3.2 + SP3.3 + SP3.4)/4

whole = (SP4.1 + SP4.2 + SP4.3 + SP4.4)/4

strength = (SP5.1 + SP5.2 + SP5.3 + SP5.4)/4

peace = (SP6.1 + SP6.2 + SP6.3 + SP6.4)/4

hope = (SP7.1 + SP7.2 + SP7.3 + SP7.4)/4

faith = (SP8.1 + SP8.2 + SP8.3 + SP8.4)/4

General = (g.1 + g.2 + g.3 + g.4)/4 .

CALCULATION OF DOMAIN SCORES

Each facet is taken to contribute equally to the domain score. Domain scores are calculated by computing the mean of the facet score within the domain, according to the following formulae. The facets are summated according to the procedure given below. Scores are multiplied by four, so that domain scores range between 4 and 20. The additional SRPB facets are to be scored with the original WHOQOL-100 spirituality facet.

Calculate Domain Scores

Domain1 = (pain + energy + sleep) / 3 * 4.

Domain2 = (pfeel + cog + esteem + body + nfeel) / 5 * 4.

Domain3 = (mobil + adl + depend + work) / 4 * 4.

Domain4 = (relatio + support + sex) / 3 * 4.

Domain5 = (safe + home + finance + care + info + leisure + enviro + trans) / 8 * 4.

Domain6 = (srpb + connection + meaning + awe + wholeness + strength + peace + hope + faith) / 9 * 4.

4) Brief Psychiatric Rating Scale

The BPRS, developed by JE Overall and Gorham, is a very widely used, relatively brief scale that measures major psychotic and non psychotic symptoms in individuals with a major psychiatric disorder, particularly schizophrenia. The 18 item BPRS is perhaps the most researched instrument in mental health. Various versions of the scale exist, with the intention of improving reliability and validity.

The limitations of the BPRS include somewhat ambiguous criteria for the various levels of severity, with potential for overlap in some of the items that are most broadly defined.

Strength of the scale includes its brevity, ease of administration, wide use, and well researched status.

Reliability coefficient of 0.56 to 0.87 has been reported by authors.

5) Rational Emotive Behaviour Therapy

As each Personality Disorder differs in their cognitive system, which is possessed by the patient, no single universal mode of operation is sufficient for the management of all Personality Disorders.

Hence three different therapeutic packages were developed on the basis of Rational Emotive Behavior Therapy principles to deal with the three groups of Personality Disorders namely the Paranoid, Borderline and Anankastic Personality Disorders. Even then some basic approaches to better therapeutic out come are adopted for executing the therapy as, the patterns of Personality Disorders are inflexible and pervasive across a broad range of personal and social situations. The enduring pattern of inner experience and behavior are often lead to clinically significant distress or impairment in social, occupational or other important areas of functioning.

Key features of a successful management plan

The most important factor is to have explicit and realistic goals in treatment. This may be very modest in of expected cognitive or personality change.

In general for every patient with Personality Disorder of any sub type, basic management goals such as the following are to be set.

- Support
- Monitoring and supervision
- Intervening in crises.
- Increasing motivation and compliance
- Increasing understanding of difficulties
- Building a Therapeutic relationship

- Avoiding deterioration
- Limiting harm
- Reducing distress
- Treating co morbid Axis I disorders
- Treating specific areas (e.g. Anger, self harm, social skills, offending help)

Unlike other axis I disorders especially anxiety disorder and depression, where REBT is experimentally found beneficial, in Personality Disorder motivation for change many a time is absent. So motivation arousal is necessary step to be taken. For that bringing the patient to a Trans-marginal state in which he or she would be very much suggestible, is advisable.

The approach of therapist also plays a key role in the management of patients with Personality Disorders other than knowledge and skill.

For instance, consistency, tolerance, patience, understanding and above all empathy and non judgmental acceptance are the key features of any successful therapeutic outcome.

Recommendations for modifying Rational Emotive Behavior Therapy for the treatment of Personality Disorders

- 1 Pay special attention to the therapeutic relationship.
- 2 Attend to ones own (The therapists) cognitive responses and emotional reactions.
- 3 Develop an individualized case conceptualization (including an assessment of the impact of developmental experience, significant traumas, and environmental stresses.
- 4 Place an initial focus on increasing Self-efficacy.
- 5 Use behavioral techniques, such as rehearsal and social skill training to reverse actual deficit in interpersonal functioning.
- 6 Set firm, reasonable limits.
- 7 Set realistic goals.

- 8 Anticipate complains problem.
- 9 Review and repeat treatment interventions.

II.2.5. Administration

The administration part has been sub divided in to three phases. They are

- i) Pre-Test
- ii) Intervention Proper and
- iii) Post-Test

i) Pre-Test

All the patients who are not having overt major psychiatric disorder were administered with Brief Psychiatric Rating Scale and IPDE-ICD-10 - Screening Questionnaire

Those who didn't had sufficient positive score for psychiatric diagnosis on Brief Psychiatric Rating Scale and got a score which was equal to or more than 3 in the IPDE-ICD-10 - Screening Questionnaire for Paranoid, Borderline or Obsessive Compulsive Personality Disorder were administered with *the IPDE-ICD-10 – Interview schedule*.

Those who got a definite diagnosis of Paranoid, Borderline or Obsessive Compulsive Personality Disorder were administered with the following tools

- Multiphasic Hostility Inventory
- Who-Quality of Life scale (WHO QOL)

ii) Intervention proper

As each of the Personality Disorders differ in their cognitive system, no single, universal package of REBT could be applied and hence three different packages based on the REBT principles were formed for the treatment of the three Personality Disorders.

a) Paranoid Personality Disorder

In *Cognitive Therapy of Personality Disorders*, Aaron T. Beck, Arthur Freeman, and associates (1990) list typical features associated with each specific Personality Disorder. The beliefs and attitudes rationalize and reinforce the idealized image and the compulsive attachments and aversions. Here are the typical beliefs that they have listed (pp. 362-363) for Paranoid Personality Disorder:

- I cannot trust other people.
- Other people have hidden motives.
- Others will try to use me or manipulate me if I don't watch out.
- I have to be on guard at all times.
- It isn't safe to confide in other people.
- If people act friendly, they may be trying to use or exploit me.
- People will take advantage of me if I give them the chance.
- For the most part, other people are unfriendly.
- Other people will deliberately try to demean me.
- Often people deliberately want to annoy me.
- I will be in serious trouble if I let other people think they can get away with mistreating me.
- If other people find out things about me, they will use them against me.
- People often say one thing and mean something else.
- A person whom I am close to could be disloyal or unfaithful.

Therapy Sessions

Session I

- The first step is to build a relationship with the client. This can be achieved using the core conditions of empathy, warmth and respect.
- Watch for 'secondary disturbances' about coming for help: self-downing over having the problem or needing assistance; and anxiety about coming to the interview.

- Finally, possibly the best way to engage a client for REBT is to demonstrate to them at an early stage that change is possible and that REBT is able to assist them to achieve this goal.

Psycho education about Paranoid Personality Disorder

- Its symptoms, course and consequences and the available mode of interventions
- Psychological
- Pharmacological
- Start with the client's view of what is wrong for them.
- Check for any secondary disturbance: how does the client feel about having this problem?
- Carry out a general assessment: determine the presence of any related clinical disorders, obtain a personal and social history, assess the severity of the problem, and check for any non-psychological causative factors: physical conditions; medications; substance abuse; lifestyle/environmental factors.
- Explaining the process of psychotherapy.
- Motivating the patient to identify the need for change.
- Assigning homework of keeping behavioral and cognitive diary about disturbing cognitions like suspicious ideas about spouse, others and events.
- Concluding the session

Session II

- Re educating the patient about Paranoid Personality Disorder
- Introducing the Rational Emotive Behavioral concepts in Paranoid Personality Disorder
- Clarify the treatment goals, ensuring these are concrete, specific and agreed to by both client and therapist; and assess the client's motivation to change.

- Introduce discussion about the basics of REBT, including the biopsychosocial model of causation.
- Discuss the approaches to be used and implications of treatment, and then develop a contract.
- Implement the treatment programme Most of the sessions will occur in the implementation phase, using activities like the following:
 - o Analyzing specific episodes where the target problem(s) occur, ascertaining the beliefs involved, changing them, and developing homework ('Rational Analysis').
 - o Developing behavioural assignments to reduce fears or modify ways of behaving.
 - o Supplementary strategies & techniques as appropriate, e.g. interpersonal skills training, etc.
- Analyzing the homework- Behavioral and cognitive diary
- Concluding the session

Session III

- Evaluating the homework
- Re Introducing the Rational Emotive Behavioral concepts in Paranoid Personality Disorder
- Show how the relevant beliefs may be uncovered. The ABC format is invaluable here. Using an episode from the client's own recent experience, the therapist notes the 'C', then the 'A'. The client is asked to consider (at 'B'): 'What was I telling myself about 'A', to feel and behave the way I did at 'C'? As the client develops understanding of the nature of irrational thinking, this process of 'filling in the gap' will become easier. Such education may be achieved by reading, direct explanation, and by self- analysis with the therapist's help and as homework between sessions.
- Homework- Continuing the behavioral diary
- Conclusion

Session IV

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Teach the client how to dispute and change the irrational beliefs, replacing them with more rational alternatives. Again, education will aid this. The ABC format is extended to include 'D' (Disputing irrational beliefs), 'E' (the new Effect the client wishes to achieve, i.e. new ways of feeling and behaving), and 'F' (Further Action for the client to take). Asks to continue this process as homework.
- Identifying and minimizing the de motivating factors
- Conclusions

Session V

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Using positive reinforcement for achievements of target behavior
- Help the client get into action. Acting against irrational beliefs - for example, disputing the belief that all the world should be faithful and not being so is intolerable and by aggressively reacting to it, then discovering that one survives - is an essential component of REBT. Its emphasis on both rethinking and action makes it a powerful tool for change. Such activities are usually referred to as 'homework'.
- Conclusions

Session VI

- Evaluating the homework assignment

Double-standard dispute: If the client is holding a 'should' or is self-downing about their behaviour, ask whether they would globally rate another person (e.g. best friend, therapist, etc.) for doing the same thing, or recommend that person hold their demanding core belief. When they say 'No', help them see

that they are holding a double-standard. This is especially useful with resistant beliefs which the client finds hard to give up.

- Continue home work
- Continue behavioral diary.

Session VII

- Re-evaluation with tools to understand the current position of severity of the Personality Disorder
- Evaluating the homework
- *The 'blow-up' technique:* this is a variation of 'worst-case' imagery, coupled with the use of humor to provide a vivid and memorable experience for the client. It involves asking the client to imagine whatever it is they fear happening, then blow it up out of all proportion till they cannot help but be amused by it. Laughing at fears will help get control of them. Again, the use of this technique requires sensitivity and appropriate timing.
- Home work to be continued
- Conclusion of the session

Session VIII, IX, X, XI

- Same as above

Session XII

- Evaluation of progress
- Same as the above sessions

Session XIII & XIV

Prepare the client for termination of therapy

- More focused on handing over the therapeutic responsibility to the patient by encouraging him/her to improve the ability to tolerate uncertainty to get rid off over estimation of personalization of consequences and to change from a tunneled view of the world to a broad one.

- Winding up of regular sessions.

Session XV

- Booster session after 1 months to reduce the possibility of relapse.

Final assessment

b) Borderline Personality Disorder

In *Cognitive Therapy of Personality Disorders*, Aaron T. Beck, Arthur Freeman, and associates (1990) have listed the typical features associated with each of the other Personality Disorders. Here are some of the "possible expressions of early maladaptive schemas" (pg. 185), adapted from J. Young that they have listed for Borderline Personality Disorder:

- No one would love me or want to be close to me if they really got to know me.
- I can't cope on my own. I need someone to rely on.
- I must subjugate my wants to the desires of others or they'll abandon me or attack me.
- People will hurt me, attack me, and take advantage of me. I must protect myself.
- It isn't possible for me to control myself or discipline myself.
- I must control my emotions or something terrible will happen.
- No one is ever there to meet my needs, to be strong for me, to care for me.

Therapy Sessions

Session I

- The first step is to build a relationship with the client. This can be achieved using the core conditions of empathy, warmth and respect.
- Watch for 'secondary disturbances' about coming for help: self-downing over having the problem or needing assistance; and anxiety about coming to the interview.
- Finally, possibly the best way to engage a client for REBT is to demonstrate to them at an early stage that change is possible and that REBT is able to assist them to achieve this goal.

Psycho education about Borderline Personality Disorder

- Its symptoms, course and consequences and the available mode of interventions
 - Psychological
 - Pharmacological
 - Start with the client's view of what is wrong for them.
 - Check for any secondary disturbance: how does the client feel about having this problem?
 - Carry out a general assessment: determine the presence of any related clinical disorders, obtain a personal and social history, assess the severity of the problem, and check for any non-psychological causative factors: physical conditions; medications; substance abuse; lifestyle/environmental factors.
 - Explaining the process of psychotherapy.
 - Motivating the patient to identify the need for change.
 - Assigning homework of keeping behavioral and cognitive diary about disturbing cognitions.
 - Concluding the session

Session II

- Re educating the patient about Borderline Personality Disorder
- Introducing the Rational Emotive Behavioral concepts in Borderline Personality Disorder
- Clarify the treatment goals, ensuring that these are concrete, specific and agreed to by both client and therapist; and assess the client's motivation to change.
- Introduce discussion about the basics of REBT, including the bio-psycho-social model of causation.
- Discuss the approaches to be used and implications of treatment, and then develop a contract.
- Implement the treatment program Most of the sessions will occur in the implementation phase, using activities like the following:
 - o Analyzing specific episodes where the target problem(s) occur, ascertaining the beliefs involved, changing them, and developing homework ('Rational Analysis').
 - o Developing behavioral assignments to reduce fears or modify ways of behaving.
 - o Supplementary strategies & techniques as appropriate, e.g. interpersonal skills training, etc.
- Analyzing the homework- Behavioral and cognitive diary
- Concluding the session

Session III

- Evaluating the homework
- Re Introducing the Rational Emotive Behavioral concepts in Borderline Personality Disorder
- Show how the relevant beliefs may be uncovered. The ABC format is invaluable here. Using an episode from the client's own recent experience, the therapist notes the 'C', then the 'A'. The client is asked to consider (at 'B'): 'What was I telling myself about 'A', to feel and behave the way I did at 'C'? As the client develops understanding of

the nature of irrational thinking, this process of 'filling in the gap' will become easier. Such education may be achieved by reading, direct explanation, and by self- analysis with the therapist's help and as homework between sessions.

- Homework- Continuing the behavioral diary
- Conclusion

Session IV

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Teach the client how to dispute and change the irrational beliefs, replacing them with more rational alternatives. Again, education will aid this. The ABC format is extended to include 'D' (Disputing irrational beliefs), 'E' (the new Effect the client wishes to achieve, i.e. new ways of feeling and behaving), and 'F' (Further Action for the client to take).Asks to continue this process as homework.
- Identifying and minimizing the de motivating factors
- Conclusions

Session V

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Using positive reinforcement for achievements of target behavior
- Help the client get into action. Acting against irrational beliefs - for example, disputing the belief that disapproval is intolerable by deliberately doing something to attract it, then discovering that one survives - is an essential component of REBT. Its emphasis on both rethinking and action makes it a powerful tool for change. Such activities are usually referred to as 'homework'.
- Conclusions

Session VI

- Evaluating the homework assignment
- *Devil's advocate*: this useful and effective technique (also known as reverse role playing) is designed to get the client arguing against his or her own dysfunctional belief. The therapist role- plays adopting the client's belief and vigorously argues for it; while the client tries to 'convince' the therapist that the belief is dysfunctional. It is especially useful when the client sees that a belief is irrational, but needs help to consolidate that understanding. (NB: as with all techniques, be sure to explain it to the client before using it).
- Continue home work
- Continue behavioral diary.

Session VII

- Re-evaluation with tools to understand the current position of severity of the Personality Disorder
- Evaluating the homework
- *The 'blow-up' technique*: this is a variation of 'worst-case' imagery, coupled with the use of humor to provide a vivid and memorable experience for the client. It involves asking the client to imagine whatever it is they fear happening, then blow it up out of all proportion till they cannot help but be amused by it. Laughing at fears will help get control of them. Again, the use of this technique requires sensitivity and appropriate timing.
- Home work to be continued
- Conclusion of the session

Session VIII, IX, X, XI

- *Time projection:* this technique is designed to show that one's life and the world in general, continue after a feared or unwanted event has come and gone. Ask the client to visualize the unwanted event occurring, then imagine going forward in time a week, then a month, then six months, then a year, two years, and so on, considering how they will be feeling at each of these points in time. They will thus be able to see that life will go on, even though they may need to make some adjustments.
- Same as above

Session XII

- Evaluation of progress
- Same as the above sessions

Session XIII & XIV

Prepare the client for termination of therapy

- More focused on handing over the therapeutic responsibility to the patient by encouraging him/her to improve the ability to tolerate uncertainty to get rid off over estimation of personalization of consequences and to change from a tunneled view of the world to a broad one.
- Winding up of regular sessions.

Session XV

- Booster session after 1 months to reduce the possibility of relapse.
- Final assessment

c) Obsessive Compulsive Personality Disorder

In *Cognitive Therapy of Personality Disorders*, Aaron T. Beck, Arthur Freeman, and associates (1990) list typical associated with each specific Personality Disorder. Here are the typical beliefs that they have listed for Obsessive-Compulsive Personality Disorder:

- I am fully responsible for myself and others.
- I have to depend on myself to see that things get done.
- Others tend to be too casual, often irresponsible, self-indulgent, or incompetent.
- It is important to do a perfect job on everything.
- I need order, systems, and rules in order to get the job done properly.
- If I don't have systems, everything will fall apart.
- Any flaw or defect of performance may lead to a catastrophe.
- It is necessary to stick to the highest standards at all times, or things will fall apart.
- I need to be in complete control of my emotions.
- People should do things my way.
- If I don't perform at the highest level, I will fail.
- Flaws, defects, or mistakes are intolerable.
- Details are extremely important.
- My way of doing things is generally the best way.

Therapy Sessions

Session I

- The first step is to build a relationship with the client. This can be achieved using the core conditions of empathy, warmth and respect.
- Watch for 'secondary disturbances' about coming for help: self-downing over having the problem or needing assistance; and anxiety about coming to the interview.
- Finally, possibly the best way to engage a client for REBT is to demonstrate to them at an early stage that change is possible and that REBT is able to assist them to achieve this goal.

Psycho education about Obsessive Compulsive Personality Disorder

- Its symptoms, course and consequences and the available mode of interventions
- Psychological
- Pharmacological
- Start with the client's view of what is wrong for them.

- Check for any secondary disturbance: how does the client feel about having this problem?
- Carry out a general assessment: determine the presence of any related clinical disorders, obtain a personal and social history, assess the severity of the problem, and check for any non-psychological causative factors: physical conditions; medications; substance abuse; lifestyle/environmental factors.
- Explaining the process of psychotherapy.
- Motivating the patient to identify the need for change.
- Assigning homework of keeping behavioral and cognitive diary about disturbing cognitions.
- Concluding the session

Session II

- Re educating the patient about Obsessive Compulsive Personality Disorder
- Introducing the Rational Emotive Behavioral concepts in Obsessive Compulsive Personality Disorder
- Clarify the treatment goals, ensuring these are concrete, specific and agreed to by both client and therapist; and assess the client's motivation to change.
- Introduce discussion about the basics of REBT, including the bio-psycho-social model of causation.
- Discuss the approaches to be used and implications of treatment, and then develop a contract.
- Implement the treatment program Most of the sessions will occur in the implementation phase, using activities like the following:
 - o Analyzing specific episodes where the target problem(s) occur, ascertaining the beliefs involved, changing them, and developing homework ('Rational Analysis').

- o Developing behavioral assignments to reduce fears or modify ways of behaving.
- o Supplementary strategies & techniques as appropriate, e.g. interpersonal skills training, etc.
- Analyzing the homework- Behavioral and cognitive diary
- Concluding the session

Session III

- Evaluating the homework
- Re Introducing the Rational Emotive Behavioral concepts in Obsessive Compulsive Personality Disorder
- Show how the relevant beliefs may be uncovered. The ABC format is invaluable here. Using an episode from the client's own recent experience, the therapist notes the 'C', then the 'A'. The client is asked to consider (at 'B'): 'What was I telling myself about 'A', to feel and behave the way I did at 'C'? As the client develops understanding of the nature of irrational thinking, this process of 'filling in the gap' will become easier. Such education may be achieved by reading, direct explanation, and by self- analysis with the therapist's help and as homework between sessions.
- Homework- Continuing the behavioral diary
- Conclusion

Session IV

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Teach the client how to dispute and change the irrational beliefs, replacing them with more rational alternatives. Again, education will aid this. The ABC format is extended to include 'D' (Disputing irrational beliefs), 'E' (the new Effect the client wishes to achieve, i.e. new ways of feeling and behaving), and 'F' (Further Action for the client to take). Asks to continue this process as homework.

- Identifying and minimizing the de motivating factors
- Conclusions

Session V

- General evaluation of the effectiveness of therapy
- Evaluating the homework assignment.
- Using positive reinforcement for achievements of target behavior
- Help the client get into action. Acting against irrational beliefs - for example, disputing the belief that disapproval is intolerable by deliberately doing something to attract it, then discovering that one survives - is an essential component of REBT. Its emphasis on both rethinking and action makes it a powerful tool for change. Such activities are usually referred to as 'homework'.
- Conclusions

Session VI

- Evaluating the homework assignment
- *Stepping out of character* is one common type of paradoxical behaviour. For example, a perfectionist person could deliberately do some things to less than their usual standard; or someone who believes that to care for one is 'selfish' could indulge in a personal treat each day for a week.
- Continue home work
- Continue behavioral diary.

Session VII

- Re-evaluation with tools to understand the current position of severity of the Personality Disorder
- Evaluating the homework
- *The 'blow-up' technique:* this is a variation of 'worst-case' imagery, coupled with the use of humor to provide a vivid and memorable experience for the client. It involves asking the client to imagine whatever it is they fear happening, then blow it up out of all proportion till they cannot help but be amused by it. Laughing at fears will help get control of them. Again, the use of this technique requires sensitivity and appropriate timing.
- Home work to be continued
- Conclusion of the session

Session VIII, IX, X, XI

- Same as above

Session XII

- Evaluation of progress
- Same as the above sessions

Session XIII & XIV

Prepare the client for termination of therapy

- More focused on handing over the therapeutic responsibility to the patient by encouraging him/her to improve the ability to tolerate uncertainty to get rid of over estimation of personalization of consequences and to change from a tunneled view of the world to a broad one.
- Winding up of regular sessions.

Session XV

- Booster session after 1 month to reduce the possibility of relapse.
- Final assessment

iii) Post-Test

Following the completion of 30 weeks (i.e. 15 sessions for the Experimental Groups) the subjects in all the four groups will be administered with all the tools, which were administered initially during the pre intervention phase except the IPDE Screening Questionnaire and Brief Psychiatric rating Scale. They are:

- IPDE-CD-10 – Interview schedule.
- Multiphasic Hostility Inventory
- Who Quality of Life Scale (WHO QOL)

III.2.6. Scoring

- Pre-test
- Post- test

III.2.7. Statistical Techniques

a) Analysis of variance

The analysis of variance is a statistical technique for analyzing measurements depending on several kinds of effects operations simultaneously to decide with kinds of effect are important to estimate the effect.

The comparison of the mean difference among three or more groups is usually done using Analysis of Variance. When the sample are classified on the basis of one variable, the technique is called one way ANOVA and when two classificatory variables are there, the technique is called two-way ANOVA.

b) t- Test

This is the statistical test appropriate for judging the significance of mean or judging the significance of difference between means of two samples (Garatte, 1969). The t-test can be applied in three conditions. They are the small sample, large sample and the correlated sample. The t-test is based on t-distributions. If the calculated t-value exceeds the cut off point (depending on the degrees of the freedom) the difference between the mean values will be considered significant. When the t-value is below the critical value, the difference between the mean values will not be considered significant.

Chapter IV

Results and Discussions

Part I-Pilot Study

Part II-Study Proper

Section I-Paranoid Personality Disorder

Section 2-Borderline Personality
Disorder

Section3-Obsessive Compulsive
Personality Disorder

This chapter is presented in two parts. The part I illustrate the results obtained during the pilot study and its discussions. The pilot study was retrospective analysis of the case records of patients who were registered for treatment in the psychiatry unit of a general hospital setting. The results obtained during the analysis are presented in the part I through tables and figures along with their discussions. Percentage analysis was used to find out the results.

The part II consists of the result and discussion of the data obtained during the study proper – which was aimed at finding out the efficacy of Rational Emotive Behaviour Therapy in dealing with Paranoid, Borderline and Obsessive Compulsive Personality Disorder. This part is presented in three sections. Each section illustrates exclusively the results and discussion of each Personality Disorder mentioned above.

IV.1. Part I - Pilot Study

This Part consists of the results obtained during the pilot study to find out the prevalence rate of Personality Disorders in psychiatric setting and there discussion.

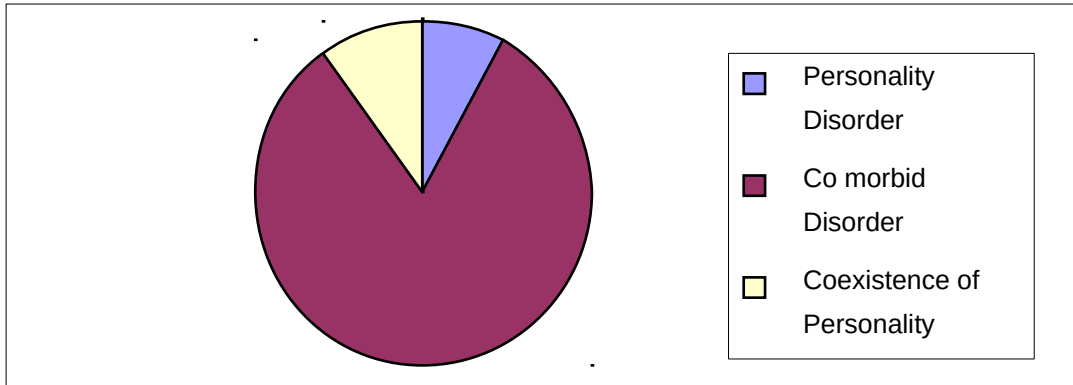
It is a retrospective analysis of 5016 patients who registered at the OPD of a psychiatric department in a private general hospital during a period of 6 years for having diverse psychiatric problems. Among the 5016 cases, 497 were found to have Personality Disorders. That is 9.89%.

Table IV.1.1.
Patients with Personality Disorder alone,
Personality Disorder with co morbidity, and co existence of two
or more Personality Disorders (Extensive Personality Disorders)

Personality Disorder	40	8.05%
Co morbid Disorder	407	81.89%
Coexistence of Other Personality Disorder	50	10.06%
Total	497	100%

Figure IV.1.1

Percentage of patients with Personality Disorder alone, Personality Disorder with co morbidity, and co existence of two or more Personality Disorders (Extensive Personality Disorders)



The Table IV.1.1 shows that majority of the subjects (81.89 %) with Personality Disorder were presented with other co-morbid conditions. Only 8.05 % had the soul diagnosis of any Personality Disorder and 10.06% of patients had the diagnosis of two or more Personality Disorder together.

Table IV.1.2.

Percentage of Personality Disorders in each cluster

Clusters	Total No of PD in each Cluster	%
Cluster A	127	25.55
Cluster B	245	49.29
Cluster C	104	20.97
Others	21	4.22
Total	497	100

The table IV.1.2 shows that out of the total 497 patients who were diagnosed as having a Personality Disorder, 127(25.55%) belongs to the cluster A, 245(49.29%) belongs to the cluster B, 104 (20.97%) belongs to cluster C and 21 (4.22%) belongs to Personality Disorder classified other than the three clusters which was the Passive aggressive Personality Disorder. cluster B Personality Disorders were finding to be the most prevalent one.

Figure IV.1.2

Percentage of each cluster of Personality Disorders

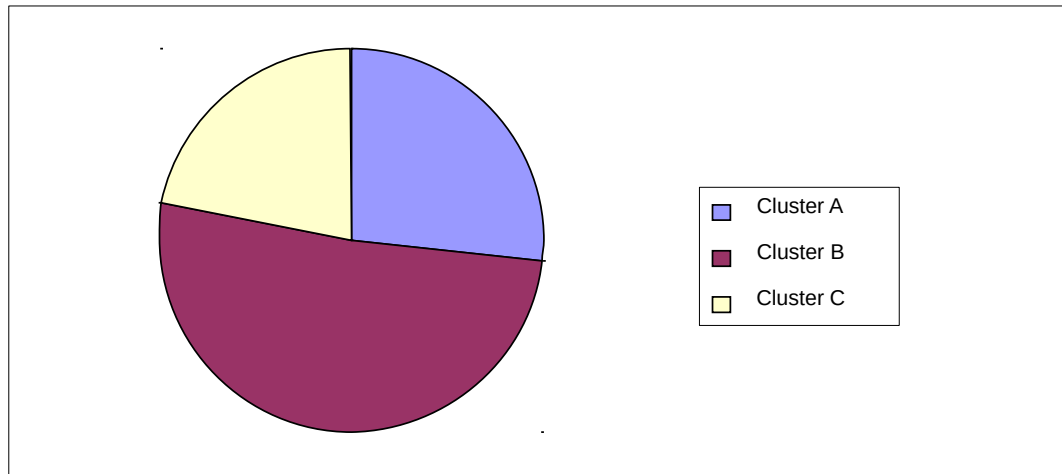


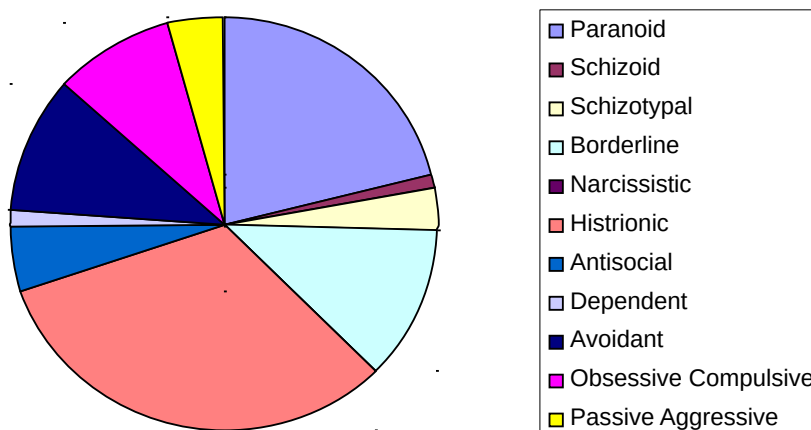
Table IV.1.3.

Percentage of each Personality Disorders

Personality Disorders	No. of pts	%
Paranoid	105	21
Schizoid	6	1.21
Schizotypal	16	3.23
Borderline	59	11.89
Narcissistic	1	.2
Histrionic	159	32.06
Antisocial	26	5.24
Dependent	6	1.21
Avoidant	53	10.69
Obsessive Compulsive	45	9.07
Passive Aggressive	21	4.23

Figure IV.1.3

Percentage of each Personality Disorders



The table IV.1.3 shows the percentage of each Personality Disorder along with their actual number. It can be seen from the table that Histrionic Personality Disorder was the most prevalent Personality Disorder with 32.06% in Psychiatric Setting. Then Paranoid, Borderline, Avoidant and Obsessive Compulsive Personality Disorders come subsequently. Narcissistic Personality Disorder was found to be the least one with 0.2%.

Table IV.1.4.

Percentage of Co morbid disorders with Personality Disorders

Co morbid Axis I Disorders	%
Depressive Disorder	47.29
Bipolar Mood Disorder	10.34
Impulse Control Disorder	9.85
Acute Psychotic Reaction	9.6
Anxiety Disorder	7.88
Schizophrenia	7.14
Obsessive Compulsive Disorder	5.42
Alcoholism	2.7

It can be seen from the tableIV.1.4 that Depressive Disorder(47.29%) was the most prevalent co-morbid condition with Personality Disorders and then comes the Bipolar Mood Disorder(10.34%).

Figure IV.1.4

Percentage of Co morbid disorders with Personality Disorders

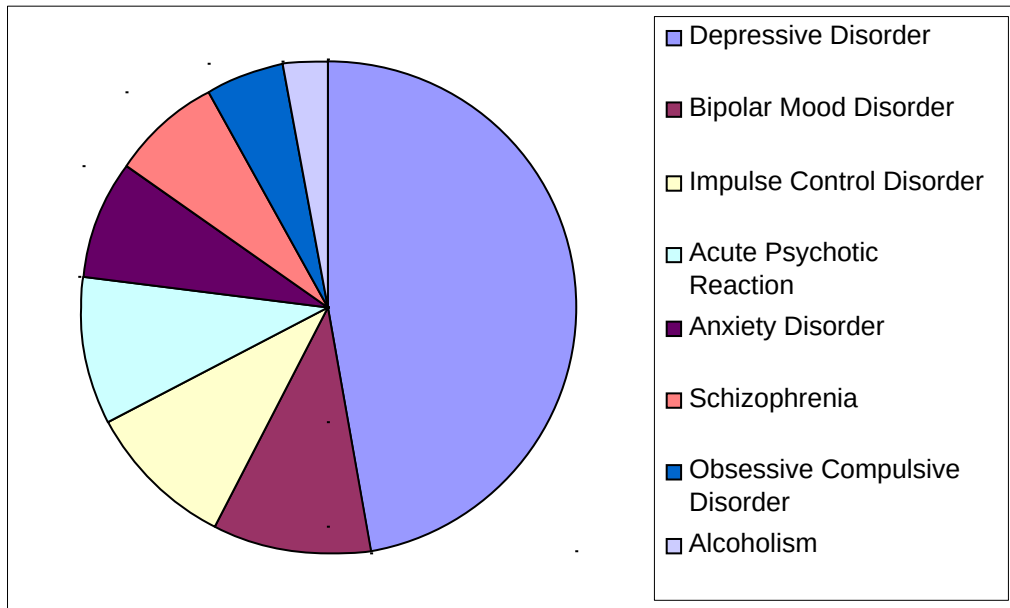


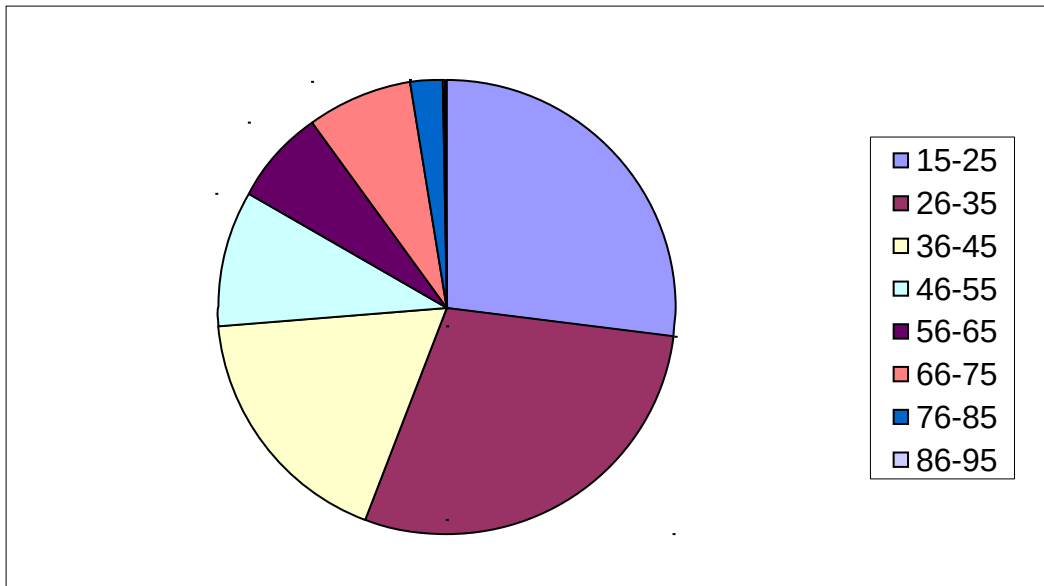
Table IV.1.5.

Personality Disorders in Different Age Groups

Age Range	% of PD
15-25	27.02
26-35	28.83
36-45	17.74
46-55	9.68
56-65	6.85
66-75	7.26
76-85	2.22
86-95	0.4

Figure IV.1.5

Percentage of Personality Disorders within each age group.



The table IV.1.5 shows that Personality Disorders are more prevalent in the age range between 26 and 35 or otherwise it can also be stated that during this age group more number of patients with Personality Disorder tend to seek psychiatric or psychological help from the hospital settings.

It can also be seen from the table that as the age advances the number also comes down and the least prevalence is seen in the age group between 86 and 95.

Table IV.1.6.

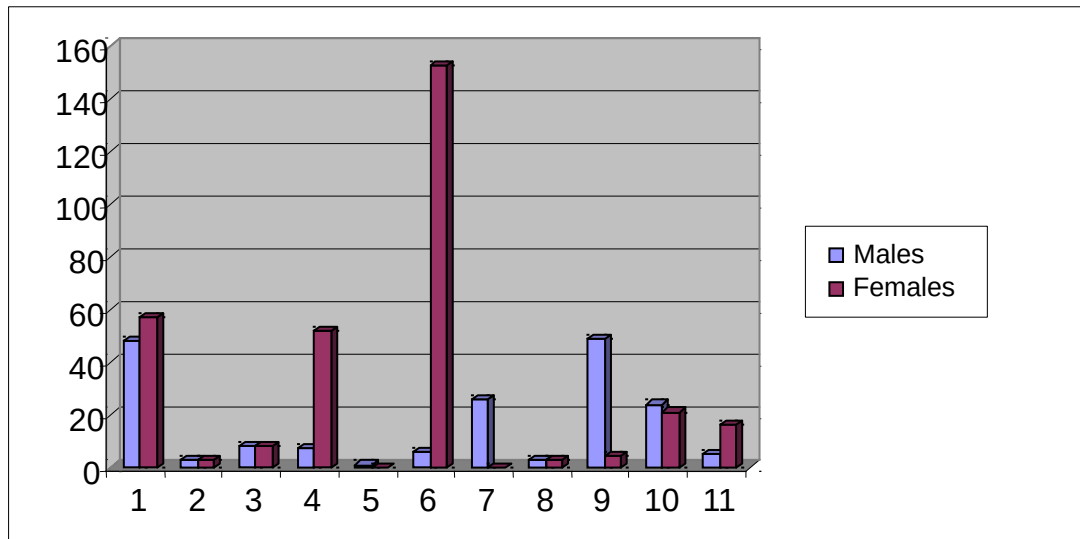
Gender difference and prevalence rate of Personality Disorders

Personality Disorders	No of Males	%	No of Females	%
Paranoid	48	45.71	57	54.29
Schizoid	3	50	3	50
Schizotypal	8	50	8	50
Border line	7	11.86	52	88.14
Narcissistic	1	100	0	0
Histrionic	6	3.77	153	96.23
Antisocial	26	100	0	0
Dependent	3	50	3	50
Avoidant	49	92.45	4	7.55
Obsessive Compulsive	24	53.33	21	46.67

Passive Aggressive	5	23.81	16	76.19
Total	180		317	
Percentage	36.82		63.18	

Figure IV.1.6

Gender difference in prevalence rate of Personality Disorder



The table IV.1.6 shows that in the psychiatric hospital population, females are the most prevalent gender who present with Personality Disorder. Females have outnumbered males in the prevalence of Paranoid, Borderline, Histrionic and Passive Aggressive Personality Disorders.

The inferences from this part of the research are that the prevalence rate of Personality Disorders in psychiatric setting is 9.89%, Histrionic Personality Disorder (32.06%) is the most prevalent one in psychiatric setting. Narcissistic Personality Disorder is the least one (0.2%), In Personality Disorders, prevalence of co morbidity is 81.89%, the most prevalent co morbid disorder in Personality Disorder is depressive disorder (47.29%), among cluster A, B & C, cluster B Personality Disorder is the most prevalent one, Personality Disorders are most prevalent in youngest age group and least prevalent in oldest age group and Personality Disorders are more common among females except in the cases of antisocial and avoidant Personality Disorders.

From the results obtained it can be seen that among the Personality Disorders seen in the subjects in the clinical population, Histrionic Personality Disorder, Paranoid Personality Disorder, Borderline Personality Disorder, Avoidant Personality Disorder and Obsessive Compulsive Personality Disorder are the more prevalent Personality Disorders. Hence for further research in finding out the efficacy of Rational Emotive Behaviour Therapy, the three Personality Disorders among the above mentioned Personality Disorders were selected.

IV.2. Part II - Study Proper

The part II comprised of the results and discussion of research which is termed as study proper, i.e. the results and discussion of the research carried out to find out the efficacy of Rational Emotive Behaviour Therapy in dealing with subjects with three different Personality Disorders, namely Paranoid, Borderline and Obsessive Compulsive Personality Disorders. The results are discussed separately for each Personality Disorder in three sections. The section I consist of the results and discussion of Paranoid Personality Disorder and section II and section III are of Borderline and Obsessive Compulsive Personality Disorders respectively.

The presentation of the results and discussion in each section are organized in such a way that altogether they are divided in to three parts, each for each variable namely IPDE score, Hostility and Quality of Life.

Analysis of the experimental group and control groups on IPDE score is executed in four steps. First step involves the analysis of the dimensional score obtained by the four groups in the pretest using one way ANOVA. The second step involves the analysis of the dimensional score obtained by the four groups on IPDE-ICD-10 in the post test again using one way ANOVA. The third step compares the dimensional scores obtained on IPDE-ICD-10 in the pre and post intervention assessment for each group. Finally the pretest and the post test scores of each subject on each item of IPDE-ICD-10 (dimensional scores) are represented through graphs.

The results and discussions for the variables Hostility and Quality of Life are also organized in the same order except for the comparison of pre test and post test scores for each subject through graphs.

For the last two variables namely Hostility and Quality of Life, the results of the analysis of pre test scores, post test scores and the comparison between the pre test and post test scores are presented for its every sub variables.

IV.2.1. Section I - Paranoid Personality Disorder

In this section, the results obtained through the research on Paranoid Personality Disorder are discussed. Subjects with Paranoid Personality Disorder often exhibit symptoms like sensitivity, tendency to bear grudges persistently, suspiciousness and persistent self-referential attitude. Patients with Paranoid Personality Disorder often brought for consultation with complaints like frequent quarrel with spouse, suspecting their fidelity and alcoholism. The subjects were selected according to the scores on the IPDE interview schedule. Only those subjects, who got a score of 4 or more in the number of criteria met, were selected for the research, (i.e. subjects who are having a definite diagnosis of Paranoid Personality Disorder).

The total population of Paranoid Personality Disorder (N=24) is grouped into four matched group, one among them was the Experimental group. Besides the Dimensional score on IPDE, other dependent variable such as Hostility and Quality of Life were also attempted in the study.

To identify the efficacy of Rational Emotive Behaviour Therapy in subjects with Paranoid Personality Disorder when compared to the Control Groups and in terms of pre and post assessment were the major focus of this part of the study.

The reduction in hostility and its sub variables and the improvement in the Quality of Life were measured in the process of identifying the efficacy of Rational Emotive Behaviour Therapy in subjects with Paranoid Personality Disorder. For this purpose this part is sub divided in to three sub parts. The three sub parts comprises the analysis of the four group's scores in IPDE-ICD-10, the analysis of the four groups in the score obtained on hostility scale, and finally the analysis of the scores obtained in the Quality of Life scale.

I. Analyses of Experimental Group and Control Groups on IPDE

As it is explained earlier this part is presented in 4 steps. They are the Pre test and Post test results of ANOVA, Comparison of pre test and post test using t-test and pretest and post test using graphs for each sample on every item in the IPDE.

a) PRE-TEST

Hypotheses:

There will be no significant difference between the four groups in the pre test on IPDE.

The pre- test scores of IPDE-ICD-10 obtained by the four groups namely the Control Group I, Experimental Group, Control Group II and Control group III, in the Pre and Post tests are analyzed using one-way ANOVA. Scheffe test is used to identify the groups which show significant difference.

The Pretest result and F-value for the Experimental Group and the Control Groups are given in **Table IV.2.1.1**.

Table IV.2.1.1
F-value of the Four Groups on IPDE

Variable	Between Group (df=3)		Within group (df=20)		f-value
	Sum of squares	Mean square	Sum of squares	Mean square	
IPDE	1.12	0.37	39.83	1.99	0.18

The **Table IV.2.1.1** clearly indicates that there is no significant difference between the four groups, on IPDE score statistically. The F-value obtained is 0.18 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Table IV.2.1.2
Mean and Standard deviation of Four Groups on IPDE Score

Groups	Control Group I		Experimental Group		Control Group II		Control Group III	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE Score	10.16	1.47	9.83	1.16	9.66	1.50	10.16	1.472

The table (**Table IV.2.1.2**) shows that in the pre intervention assessment the mean scores on IPDE obtained by the samples of the four groups doesn't differ much and the Scheffe test shows no significance of mean difference among the four groups.

The inference is that all the four groups namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents, are matched in terms of their scores on IPDE. This also indicates that the scores obtained by the samples during the initial assessment are more or less same and the degrees of severity of the Personality Disorder traits are similar.

b) POST-TEST

Hypothesis:

There will be no significant difference between the four groups in the posttest on IPDE.

In the post test, the obtained mean values significantly differ in the Analysis of Variance, which is given in the **Table IV.2.1.3** given below. The results suggest that there was significant impact on the samples due to the administration of the interventions. The F-value found was 9.86, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that the difference between the mean values of the four groups on IPDE scores is highly significant.

Table IV.2.1.3

F-value of four groups on IPDE

Variables	Between Groups (df=3)		With in groups(df=20)		F
	Sum of Squares	Mean Squares	Sum of Squares	Mean Squares	
IPDE Score	82.12	27.37	55.5	2.77	9.86**

***significant at 0.01 level*

Table IV.2.1.4

Mean and Standard deviation of Four Groups on IPDE

Groups	Control Group-I		Experimental Group		Control Group II		Control Group III	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE Score	9.333	2.0656	5.5	1.0488	4.333	1.505	6.333	1.862

The **Table IV.2.1.4** shows the mean and the standard deviation of the scores obtained by the four groups in the post intervention assessment on IPDE-ICD-10. The result indicates significant mean difference between the four groups in the post assessment.

On further analysis with Scheffe test it was seen that firstly the Experimental Group differs significantly in its mean values from that of the Control group I.

Table IV.2.1.4 shows that the mean of the Experimental Group is 5.5 and that of the Control Group I is 9.33. The above result explains the efficacy of Rational Emotive Behaviour Therapy in reducing the symptom severity in subjects with Paranoid Personality Disorder to a significant level. It means that Rational Emotive Behaviour Therapy alone is effective in managing patients with Paranoid Personality Disorder particularly in reducing their symptoms.

Secondly the Control Group II shows significant difference in its mean value from that of the Control Group I. Here the mean value of the Control group II is 4.33, (**Table IV.2.1.4**). This finding suggests that the group which was administered with Rational Emotive Behaviour Therapy and pharmacological agents shows significant difference in reducing the symptoms of Paranoid Personality Disorder when compared to the Control Group I. The inference is that Rational Emotive Behaviour Therapy when combined with medicines is more effective than the unmanaged patients with Paranoid Personality Disorder in reducing their symptoms. Thirdly the Control Group III also differs significantly in its mean from that of the Control Group I. This finding suggest that the group which was getting medicines alone as a

means of treatment is improved when compared to the group which received no treatment.

No other two groups show significant difference. As there was no significant difference between the Experimental Group and Control Group III, it cannot be predicted that which one among the Rational Emotive Behaviour Therapy and medicines is more effective in reducing the symptoms of Paranoid Personality Disorder.

Hence it can be concluded that Rational Emotive Behaviour Therapy, medicines and the combination of both, all are equally effective in the treatment of Paranoid Personality Disorder, when compared to the group which received no treatment for its management.

c) Comparison between the Pre-test and Post-test Scores of Each Group.

In this section the results of t- test obtained in the comparison of pre test and post test scores are presented and discussed. The pre test and post test scores of each group are compared in order to find out the efficacy of Rational Emotive Behaviour Therapy when used alone or when used in combination with medicines, the medicines alone and of no treatment.

i) Control Group I

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group I.

Table IV.2.1.5

Pretest-Post test Scores of Control Group I on IPDE

IPDE Score	N	Mean	SD	t-value
Pre test	6	10.16	1.47	1.39
Post test		9.33	2.06	

The mean and the standard deviation for pre-test IPDE score were found to be 10.16 and 1.47 respectively (**table IV.2.1.5**). The mean and the standard deviation for post-test were found to be 9.33 and 2.06 The t-value obtained is 1.39 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that there will not be any significant change in the symptoms of Paranoid Personality Disorder when no treatment module is introduced. This indicates that when no intervention introduced among patients with Paranoid Personality Disorder their symptoms remains relatively enduring and persistent.

ii) Experimental Group

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Experimental Group.

Table IV.2.1.6

Pre test and Post test Scores of the Experimental Group

IPDE Score	N	Mean	SD	t-value
Pre test	6	9.83	1.16	5.4*
Post test		5.5	1.04	

**significant at 0.05 level*

The mean and the standard deviation for pre-test IPDE score were

found to be 9.83 and 1.19 respectively. The mean and the standard deviation for post-test were found to be 5.5 and 1.04. The t-value is calculated as 5.4 (**table IV.2.1.6**), which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result suggests that there is significant change in the symptoms of Paranoid Personality Disorder due to the introduction of Rational Emotive Behavior Therapy. The marked reduction in the post test score of the Experimental Group suggests the effect of Rational Emotive Behaviour Therapy in dealing with the severity of symptoms of Paranoid Personality Disorder.

iii) Control Group II

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group II.

Table IV.2.1.7

Pre test and Post test Scores of the Control Group II

IPDE Score	N	Mean	SD	t-value
Pre test	6	9.66	1.50	5.06*
Post test		4.33	1.86	

**significant at 0.05 level*

The mean and the standard deviation for pre-test IPDE score were found to be 9.66 and 1.50 respectively and the mean and standard deviation of the post test scores are 4.33 and 1.86. The t-value is calculated as 5.06 (**table IV.2.1.7**), which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result suggests that there will be significant change in the severity symptoms of Paranoid Personality Disorder as a result of the introduction of a combination treatment of Rational Emotive Behavior Therapy and pharmacological treatment.

iv) Control Group III

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group III.

Table IV.2.1.8

Pre test and Post test Scores of the Control Group III

IPDE Score	N	Mean	SD	t-value
Pre test	6	10.16	1.47	5.45*
Post test		6.33	1.86	

**significant at 0.05 level*

The mean and the standard deviation for pre-test IPDE score were found to be 10.16 and 1.47 respectively. The mean and the standard deviation for post-test were found to be 6.33 and 1.86. The t-value is calculated as 5.45, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result suggests that there is significant change in the symptoms of Paranoid Personality Disorder due to the introduction of pharmacological treatment alone.

d) Comparison of Pre test and Post test Scores on IPDE for Each Subject on each Item in the IPDE scores

Under this section the pre test and post test scores of the whole subjects in the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on each item in the IPDE are presented through table and graph. This would provide a better understanding of the change in the pretest and post test scores of each sample in each group on each item. The variables in the IPDE-ICD-10 are considered to be the symptoms of Paranoid Personality Disorder. This helped to identify how far the intervention methods were effective in reducing each symptom in subjects with Paranoid Personality Disorder.

There are seven items (symptoms) in the IPDE-ICD-10 for Paranoid Personality Disorder. Each of them for each group is presented in sequential order with their graph showing the scores obtained by each subject during their pre and post intervention assessments.

i) Excessive sensitivity to set backs and rebuffs

The subjects with Paranoid Personality Disorder often exhibits a characteristic inclination toward being slighted in situation where most people would not especially feel that way or of reacting excessively to actual slights. This may occur as a consequence of what others say or fail to say, or what they do or fail to do.

Table IV.2.1.9

Pretest and Post test Scores of each Subject in the Four Groups on the item excessive sensitivity to set backs and rebuffs

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	2	2	2	2	2	2	2
Experimental Group	2	1	2	2	2	1	2	2	2	2	2	1
Control Group II	2	1	2	1	2	2	2	2	2	2	2	0
Control Group III	0	0	2	2	2	2	1	0	2	2	2	2

The score 2 (**Table IV.2.1.9**) indicates that the subjects frequently is slighted, or react excessively to actual slights. Also displays similar behaviors in response to setbacks. The score one indicates that the subject occasionally is easily slighted reacts excessively to actual slights. Also displays similar behaviors in response to set backs or frequently is easily slighted, or reacts to actual slights, but not set backs or frequently reacts excessively to setbacks, but not to slights. The score of zero indicates that the symptom is denied, rare, or not supported by convincing example. The Pretest and Post test scores for of this item in the IPDE-ICD-10 obtained by each subject in the Control Group I can be seen in the table.

The graph in the **Figure IV.2.1.1** shows that all the subjects in the Control Group I get the score of 2 during both the pre test and post test. The inferences which can be made from this finding are firstly there was a high diagnostic consistency of IPDE-ICD-10 as a standardized tool for assessing Personality Disorders.

Secondly there was consistency in pre test and post test score of every subject which indicates that, when no intervention methods are introduced this symptom will remain unchanged in subjects with Paranoid Personality Disorder.

The graph **Figure IV.2.1.2** shows that 3 of the subjects (subject 2, subject 4 and subject 5) in the Experimental Group one having the maximum score of 2 on both pre test and post test. The other 3 subjects show a reduction in the post test scores to a score of 1. Initially they were having the score 2. In short all the samples were having the maximum score during the pre assessment, which indicates the consistency of this of this item of IPDE in the diagnosis of Paranoid Personality Disorder. But there was no considerable reduction in the post test score of the subject, it can not be stated that Rational Emotive Behavior Therapy is effective in reducing this symptoms seen in subjects with Paranoid Personality Disorder (only 3 subjects show a post test reduction and that too is only partial).

The graph in the **Figure IV.2.1.3** shows that 3 of the subjects in the Control Group II are having the maximum score on both pre test and post tests. The subject 1 and 2 shows the maximum score in the pre test and a score of 1 in the post test. The subject 6 shows a pre test score of 2 and during the post test it has got only a score of zero. Once again it can be noted in the graph that all the subjects have got a pre test score of 2 which is the maximum and that indicate the consistency of this item in the diagnosis of Paranoid Personality Disorder using IPDE-ICD-10. Only one subject shows a complete reduction in the post test score and two subjects shows only partial reduction. This indicates that though there will not be any change in the excessive sensitivity to setbacks and rebuffs in subjects with Paranoid Personality Disorder when they are administered with both Rational Emotive Behavior Therapy and medicines together in general, it do produces some effect on some subjects.

Figure IV.2.1.1
Pretest and Post test Scores of
each Subject in the Control Group I on the item
'Excessive sensitivity to setbacks and rebuffs'

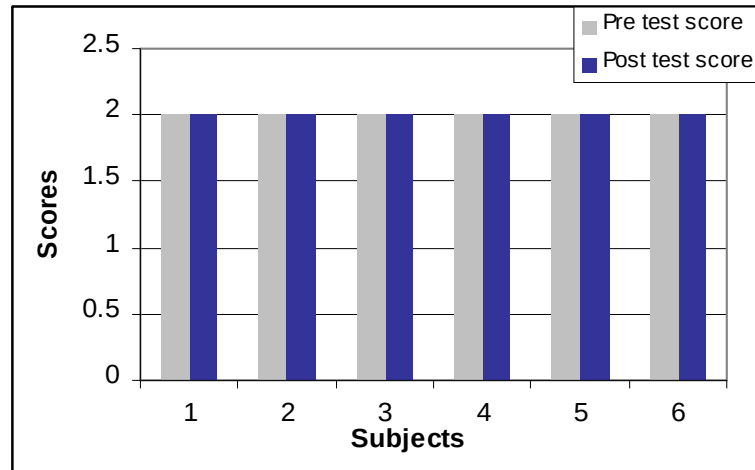
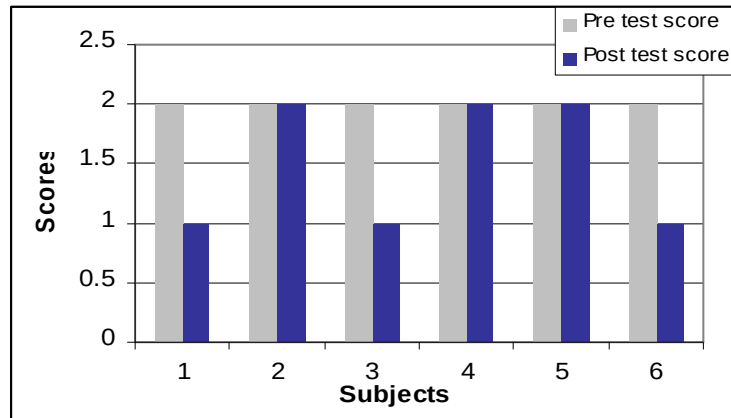


Figure IV.2.1.2
Pretest and Post test Scores of
each Subject in the Experimental Group on the
item 'Excessive sensitivity to setbacks and rebuffs'



The graph in the **Figure IV.2.1.4** shows that four subjects out of the six in the Control Group III got the score of two during both the pre test and post test. The subject 1 shows a zero score on both occasions. Through the results the consistency of this item can be predicted in diagnosing Paranoid Personality Disorder. At the same time it can also be predicted that medicines have no effect in majority of the subjects with Paranoid Personality Disorder in controlling the excessive sensitivity to setbacks and rebuffs.

Altogether none of the four groups show any significant reduction in their subject's post test score which would suggest that the excessive sensitivity to setbacks and rebuffs may remain unchanged whether if they have administered with Rational Emotive Behavior Therapy, medicines or both of them together.

Figure IV.2.1.3
Pretest and Post test Scores of
each Subject in the Control Group II on the item
Excessive sensitivity to setbacks and rebuffs

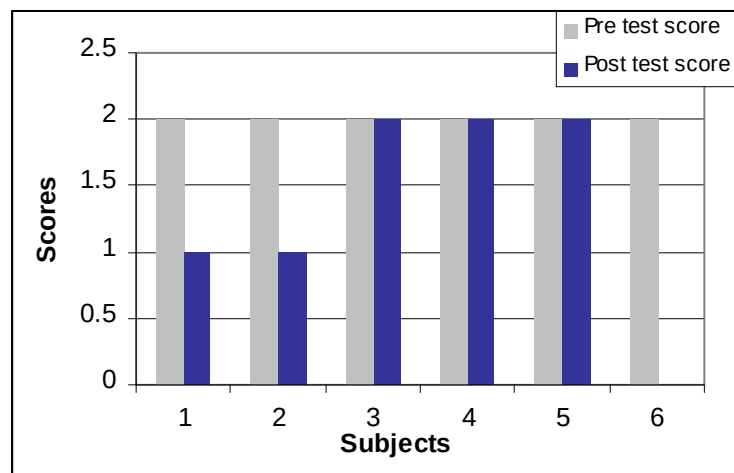
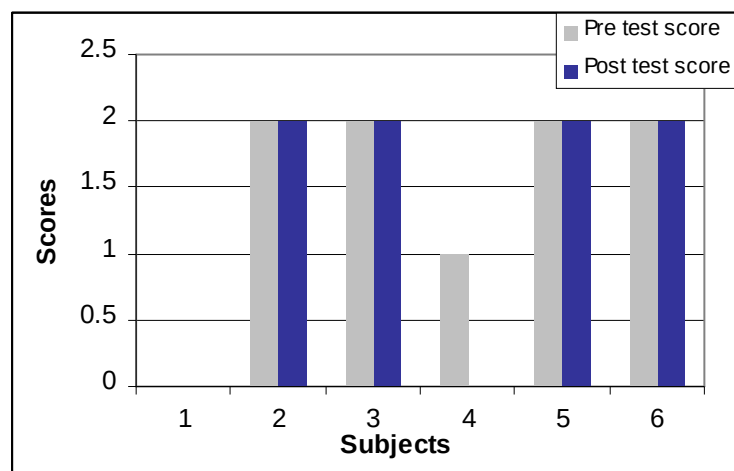


Figure IV.2.1.4
Pretest and Post test Scores of
each Subject in the Control Group III on the item
Excessive Sensitivity to setbacks and rebuffs



ii) **Tendency to bear grudges persistently**

Subjects with Paranoid Personality Disorder usually bear grudges with people whom they had negative experience for a long time. They will either try to avoid or refuse to speak to the person for more than a year. For a score 2 there should be evidence of a grudge against more than one or two people. The example should establish that the reaction is obviously disproportionate. For example, a grudge against a parent responsible for child abuse or incest would not warrant a positive score.

A score of 2 suggest that the subject has born persistent grudges, i.e., has been unforgiving of insults, injuries, or slights against several people. A score of one suggest that the subject has born persistent grudges, i.e., has been unforgiving of insults, injuries, or slights against one or two people. A zero score suggest that the subject either denied or not supported by examples.

The table (**Table IV.2.1.10**) shows that among the subjects in the Control Group 1, three subjects shows a score of 2 on both pre and post assessment. The subject 3 and 4 shows the score of zero and 1 respectively during both assessments. Only the subject six shows a reduction in the post intervention assessment.

The graph in the **Figure IV.2.1.5** shows that only the subject 6 shows a reduction in the post test when compared to the pre test score. This may suggest that there was no change in the subjects with Paranoid Personality Disorder in the Control Group I related to their tendency to bear grudges persistently, i.e., when no intervention was administered.

As four of the subjects have shown a pre test score of 2 and three among them remained the same this item can be considered as a common symptom seen in subjects with Paranoid Personality Disorder

The graph (**Figure IV.2.1.6**) shows that 4 of the subjects in the Experimental Group which was administered with Rational Emotive Behavior Therapy alone, got the maximum score during their pre test and only one among them i.e., subject 1 remained unchanged in the post tests. All the other subjects show reduction in the post test score. The subject 5 shows zero score for both the pre test and post test

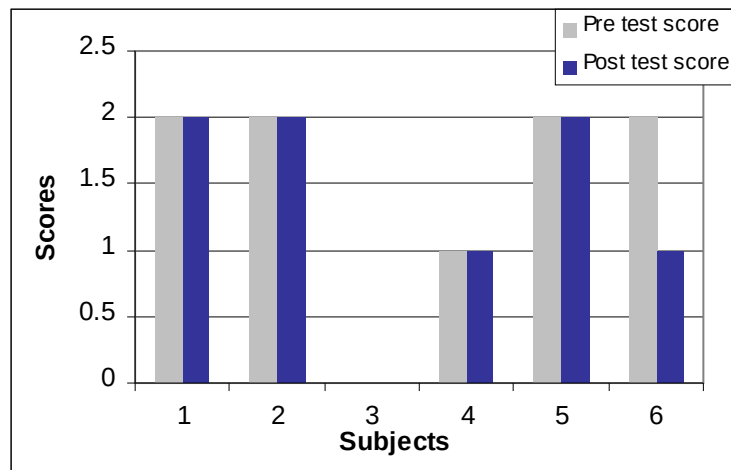
Table IV.2.1.10

Pretest and Post test Scores of each Subject in the Four Groups on the item Tendency to bear grudges persistently

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	0	0	1	1	2	2	2	1
Experimental Group	2	2	2	1	2	1	1	1	0	0	2	1
Control Group II	0	0	1	0	2	1	2	2	2	1	2	1
Control Group III	0	0	1	2	2	1	1	0	0	0	2	0

Figure IV.2.1.5

Pretest and Post test Scores of each Subject in the Control Group I on the item Tendency to bear grudges persistently



The above results show that Rational Emotive Behavior Therapy is effective in reducing the tendency to bear grudges persistently which is seen in the Paranoid Personality Disorder.

The score of the Control Group II (**Figure IV.2.1.7**) shows that the subjects 2, 3, 5 and 6 shows reduction in their post test scores. Subject 1 got a zero score on both pre tests and post tests. Subject four shows a score of 2 on both occasions. All together the results indicates that the combination

treatment of medicines and Rational Emotive Behavior Therapy do have an effect in reducing the tendency to bear grudges persistently which is seen in Paranoid Personality Disorder.

The graph (**Figure IV.2.1.8**) shows the pre test post test score of subjects in the Control Group III. The subject one and five got the score of zero on both pre test and post test. The subject two got a pre test score of 1 which has increased to a score of 2 in the post test. Subject three and six got a pre test score of 2 and subject three shows a reduction to score of 1 and subject 6 shows a reduction to score of zero in the post test.

The subject four shows a score of 1 during the pre test and a score of zero in the post test. Only 4 subjects have got a positive score in the pre test and 3 among them shows a reduction in their post test score.

This shows that medicines alone also can be effective in reducing the tendency to bear grudges persistently, which is seen in subjects with Paranoid Personality Disorder.

The above results for the four groups indicates that among all the groups which were administered with the intervention methods such as Rational Emotive Behavior Therapy, medicines or a combination of both, are showing considerable reduction in their post test scores for the item tendency to bear grudges persistently in subjects with Paranoid Personality Disorder. Only the Control Group I shows almost similar pre test and post test score in the subjects.

Figure IV.2.1.6

Pretest and Post test Scores of each Subject in the Experimental Group on the item 'Tendency to bear grudges persistently'

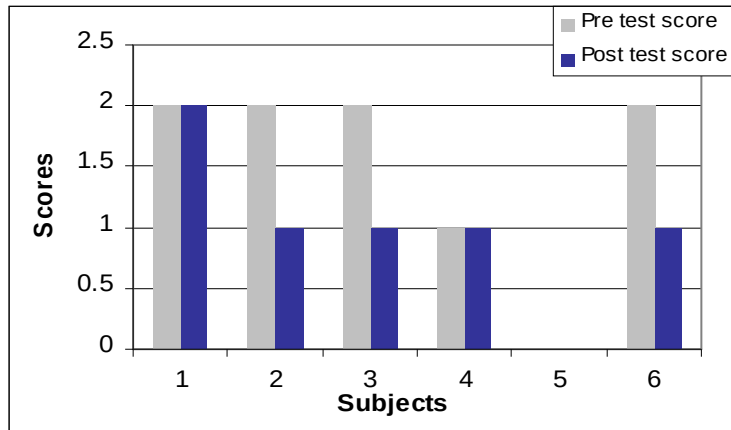


Figure IV.2.1.7

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Tendency to bear grudges persistently'

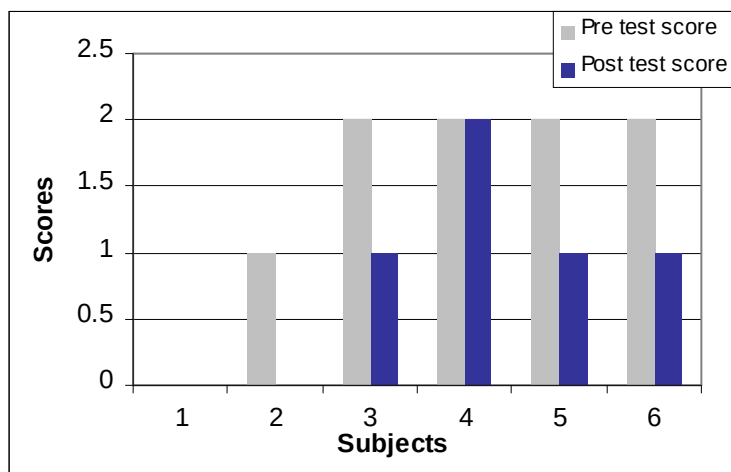
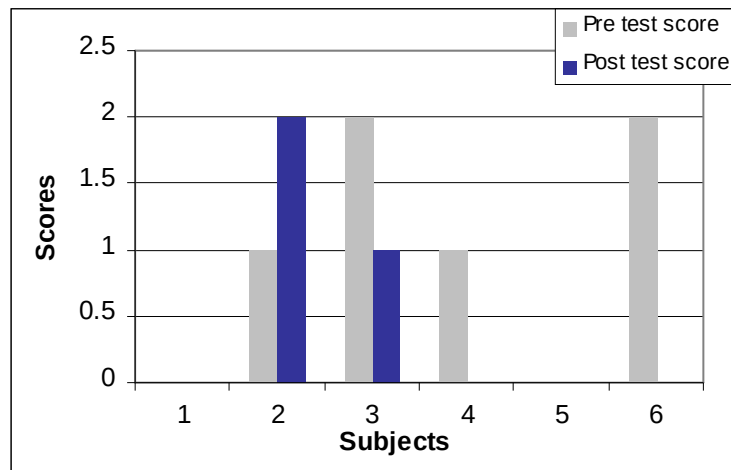


Figure IV.2.1.8
Pretest and Post test Scores of
each Subject in the Control Group III on the
item 'Tendency to bear grudges persistently'



iii) **Suspiciousness and tendency to distort**

This is the suspiciousness and pervasive tendency to distort experience by misconstruing the neutral or friendly actions of others as hostile or contemptuous. It is scored 2 when the subject frequently expects, without sufficient basis, to be exploited or harmed by others. It is scored 1 if the subject only occasionally expects without sufficient basis, to be exploited or harmed by others, or if the subject denies but evident in interview. Zero is scored when denied, rare, or not supported by convincing examples.

The table shows that only one subject in the Control Group I is having a reduction in the post test score for this variable. All the other subjects retained the pre test score in the post test assessment also.

The graph in the **Figure IV.2.1.9** shows that 3 subjects in the Control Group I got the pre test and post test score as 2. Subjects three and six got the pre test and post test score as zero and one respectively. Only one subject shows a reduction in the post test score i.e., the subject's pre test score was 1 and that became zero in the post assessment. As majority of the samples does not show any change in their score during pre test and post test, it can be concluded that there is a consistency in the pre test and post test score of the Control Group I which means that suspiciousness and tendency to distort will remain unchanged if no intervention is introduced.

The graph (**Figure IV.2.1.10**) of the Experimental Groups shows that

there is reduction in the post test score on three of the subjects. The subject one shows a post test score of 1 whose pre test score was 2. Subject four shows that his pre test score was 2 and that became zero in the post assessment. The subject six also shows a reduction in the post test scores from a score of 1 to a score of zero. All other three subjects show the same pre test and post test scores. Hence it can be stated that Rational Emotive Behaviour Therapy was effective in half of the subjects in reducing their suspiciousness and tendency to distort.

All the subjects except for the subject four and subject six in the Control Group II shows (**Figure IV.2.1.11**) a reduction in their post test score which indicates the efficiency of the combination treatment of medicine and Rational Emotive Behaviour Therapy in dealing with this symptom in subjects with Paranoid Personality Disorder. Three subject's tendency of frequent expectation, without sufficient basis, to be exploited or harmed by others, has changed to occasional, without sufficient basis. And one subject's occasional expectation of that has changed to rare.

The graph (**Figure IV.2.1.12**) of the Control Group III shows that all the subjects except for the subject four shows reduction in the post test score which is in a considerable measure. This would indicate the efficacy of medicines used in controlling the symptom Suspiciousness and tendency to distort.

To conclude all the groups except for the Control Group I show more or less similar effect in controlling this symptom which indicates that Rational Emotive Behaviour Therapy and medicines when used together or alone, they produce effect in the subjects with Paranoid Personality Disorder in controlling this symptom.

Table IV.2.1.11

Pretest and Post test Scores of each Subject in the Four Groups on the item Suspiciousness and tendency to distort

Subjects	1		2		3		4		5		6	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	0	0	1	0	2	2	1	1
Experimental Group	2	1	1	1	1	1	2	0	2	2	1	0
Control Group II	2	1	2	1	1	0	2	2	2	1	1	1
Control Group III	2	0	2	1	2	0	2	2	2	0	2	0

Figure IV.2.1.9

Pretest and Post test Scores of each Subject in the Control Group I on the item 'Suspiciousness and tendency to distort'

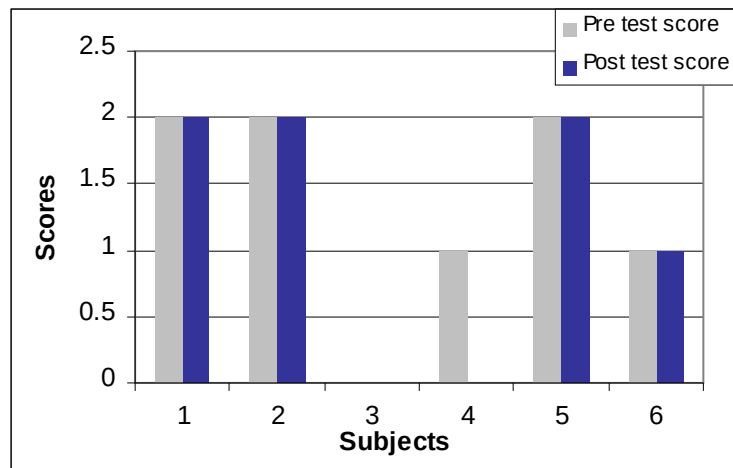


Figure IV.2.1.10

Pretest and Post test Scores of each Subject in the Experimental Group on the item 'Suspiciousness and Tendency to distort'

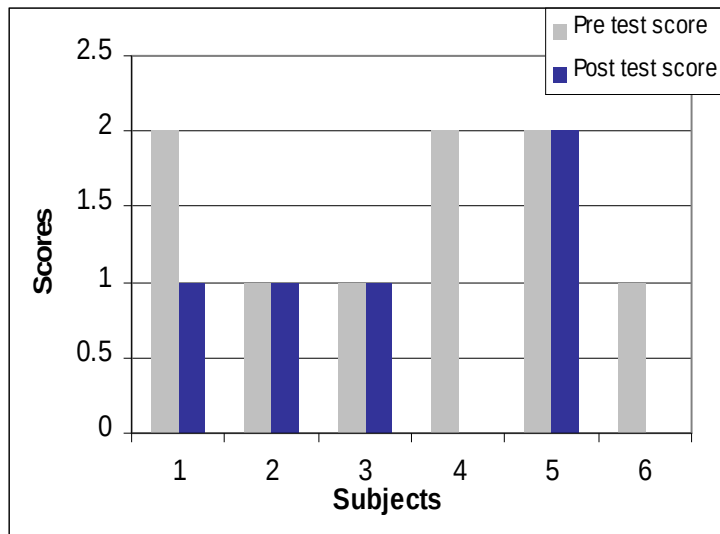


Figure IV.2.1.11

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Suspiciousness and tendency to distort'

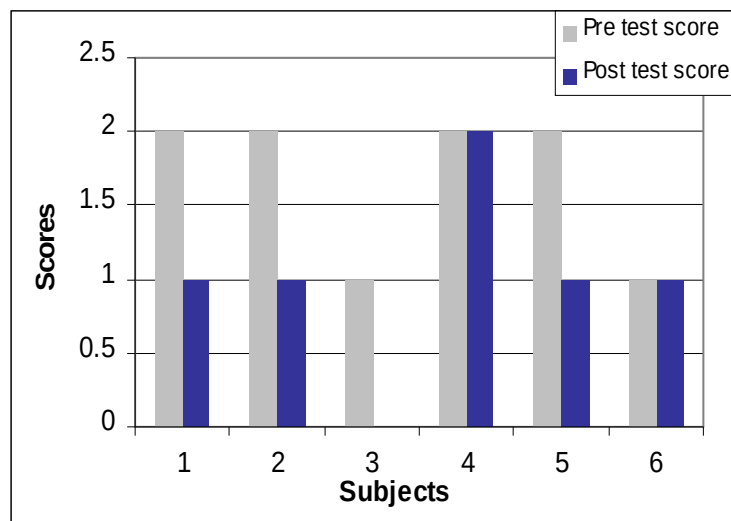
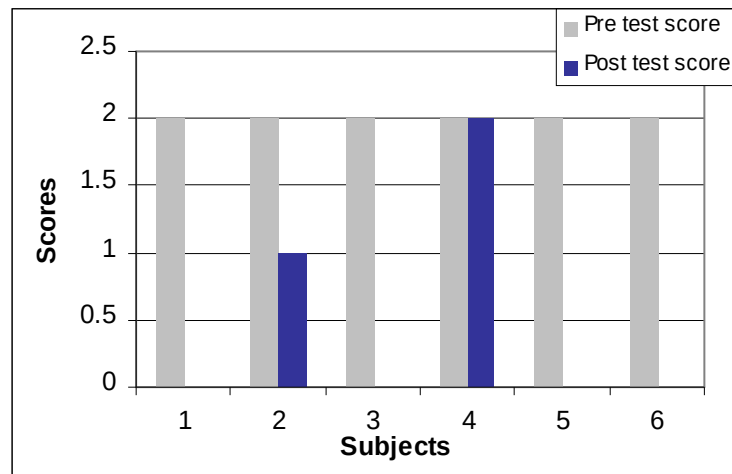


Figure IV.2.1. 12
Pretest and Post test Scores of
each Subject in the Control Group III on the
item 'Suspiciousness and tendency to distort'



iv) A Combative and Tenacious Sense of Personal Rights

Subjects with Paranoid Personality Disorder often exhibit this symptom which is characterized by argumentative or disagreeable behaviour that occurs within the context of subjects defending in an exaggerated or inappropriate fashion what they perceive to be their rights. A score of two is given when the subject frequently displays a combative and tenacious sense of personal rights out of keeping with the actual situation. A score of one is given when the subject occasionally displays combative and tenacious sense of personal rights out of keeping with the actual situation. When the symptom is denied, rare or not supported by convincing examples, a score of zero will be given.

The table (**Table IV.2.1.12**) shows that all the subjects in the Control Group I have retained the pre test score during their post test assessment. This result indicates that this symptom remained unchanged when no intervention methods were introduced to the subjects with Paranoid Personality Disorder.

The graph (**Figure IV.2.1.14**) shows that all the subjects in the experimental group had a reduction in their post test score except for the subject I and subject 4 who got only zero during both their pre test and post

test. The reduction in majority of the subjects points out the efficacy of Rational Emotive Behaviour Therapy in dealing with this symptom possessed by the subjects with Paranoid Personality Disorder.

The subjects in the Control Group II also shows reduction (**Figure IV.2.1.15**) in their post test score. Out of the five subjects who got a positive score in the pre test one is showing complete reduction and three of them shows partial reduction. This indicates the effectiveness of the combination treatment of both Rational Emotive Behaviour Therapy and pharmacotherapy in dealing with this symptom

Only one subject in the Control group III shows reduction (**Figure IV.2.1.16**) in the post test score. All the other subjects have retained the same score of pre test score in the post test also. This would indicate that the medicines used in the treatment of Paranoid Personality Disorder have no convincing effect in reducing this symptom

Table IV.2.1.12

Pretest and Post test Scores of each Subject in the Four Groups on the item Combative and Tenacious Sense of Personal Rights

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	0	0	2	2	2	2	0	0	2	2
Experimental Group	0	0	2	1	1	0	0	0	2	1	2	1
Control Group II	2	0	2	2	2	1	0	0	2	1	2	1
Control Group III	2	2	2	1	1	1	0	0	0	0	1	1

Figure IV.2.1.13

Pretest and Post test Scores of each Subject in the Control Group I on the item 'Combative and Tenacious Sense of Personal Rights'

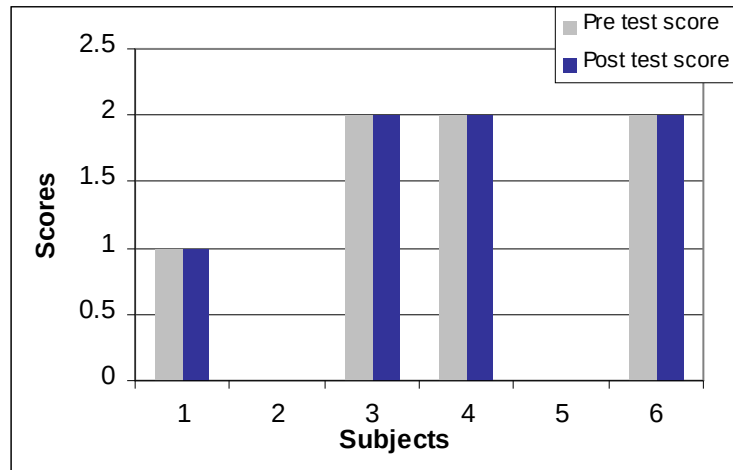


Figure IV.2.1.14

Pretest and Post test Scores of each Subject in the Experimental Group on the item 'Combative and Tenacious Sense of Personal Rights'

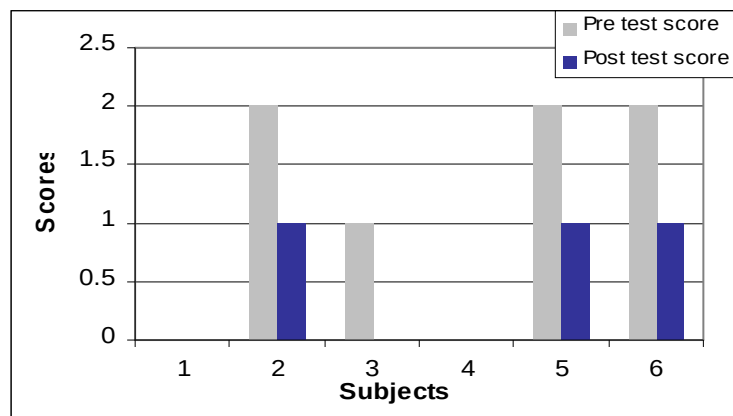


Figure IV.2.1.15

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Combative and Tenacious Sense of Personal Rights'

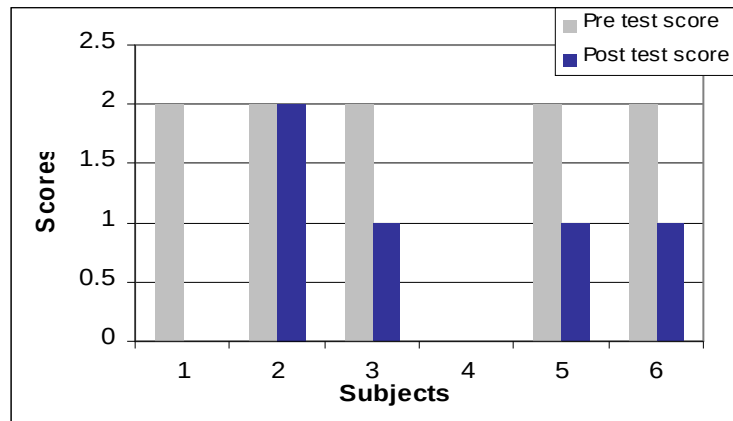
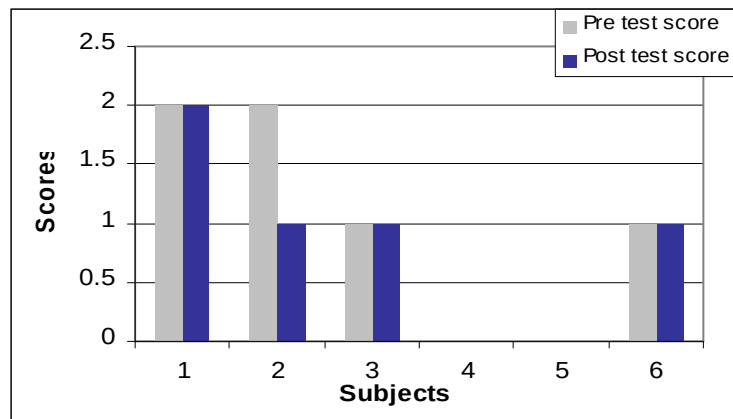


Figure IV.2.1.16

Pretest and Post test Scores of each Subject in the Control Group III on the item 'Combative and Tenacious Sense of Personal Rights'



v) Suspiciousness regarding sexual fidelity

This symptom is characterized by recurrent suspicions, without justification, regarding sexual fidelity of spouse or sexual partner. For a score of 2 there should be admission of more than brief, transient concerns about the sexual fidelity of one's spouse or partner or otherwise 2, is scored when on a number of occasions or with a number of different partners was obviously very concerned about fidelity, with no apparent justification. A score of 1 is given when on one or two occasions was obviously very concern about fidelity, with no apparent justification. Zero is scored when denied, rare,

insignificant, or not supported by subjects account.

Four subjects in the Control Group I (**Figure IV.2.1.17**) have retained the original score during the post test assessment. Only the subject 3 and subject 6 are showing reduction in their post test score. This indicates that the symptom, suspiciousness regarding sexual fidelity remains unchanged when no intervention methods are introduced.

All the subjects in the Experimental Group (**Figure IV.2.1.18**) except for the subject 5 shows reduction in their score during the post test assessment. The subject 5 got zero on both pre and post assessment. This result indicates that Rational Emotive Behaviour Therapy is effective in reducing suspiciousness in sexual fidelity in subjects with Paranoid Personality Disorder.

5 subjects in the Control Group II (**Figure IV.2.1.19**) got the maximum score in their pre test and four of them show a reduction in the post test. The subject 2 got a score of 2 on both occasions as the subject 4 got zero on both. The combination treatment of Rational Emotive Behaviour Therapy and pharmacotherapy may be predicted in controlling this symptom as majority of the subjects show reduction in their post test score.

All the subjects in the Control Group III (**Figure IV.2.1.20**) got the maximum score of 2 during their pretest assessment and four subjects among them show reduction in their post test assessment. This reduction in the post test assessment in majority of the subjects indicates the efficacy of medicines in controlling the symptom, suspiciousness in sexual fidelity in subjects with Paranoid Personality Disorder.

Table IV.2.1.13

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Suspiciousness regarding sexual fidelity'

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	1	1	1	2	2	2	1
Experimental Group	1	0	2	0	2	0	2	1	0	0	2	1
Control Group II	2	0	2	2	2	1	0	0	2	1	2	1
Control Group III	2	1	2	2	2	1	2	2	2	1	2	1

Figure IV.2.1.17

Pretest and Post test Scores of each Subject in the Control Group I on the item 'Suspiciousness regarding Sexual fidelity'

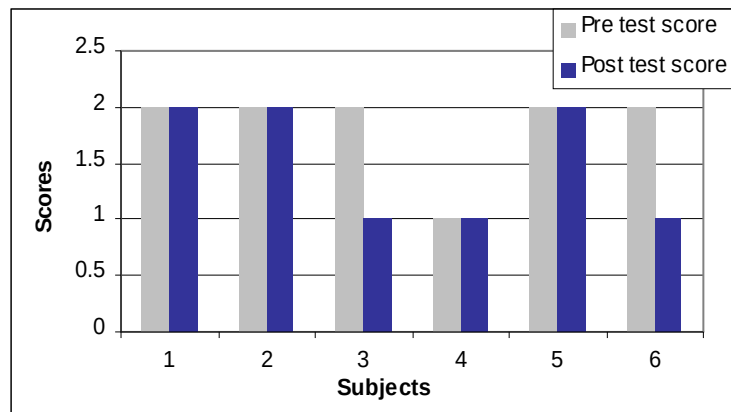


Figure IV.2.1.18

Pretest and Post test Scores of each Subject in the Experimental Group I on the item 'Suspiciousness regarding Sexual fidelity'

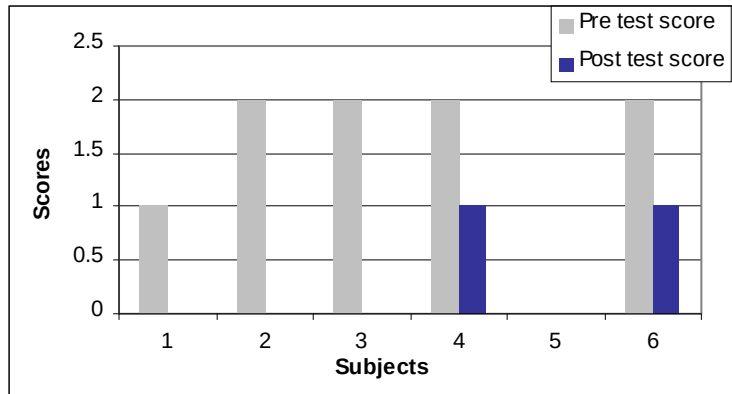


Figure IV.2.1.19

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Suspiciousness regarding Sexual fidelity'

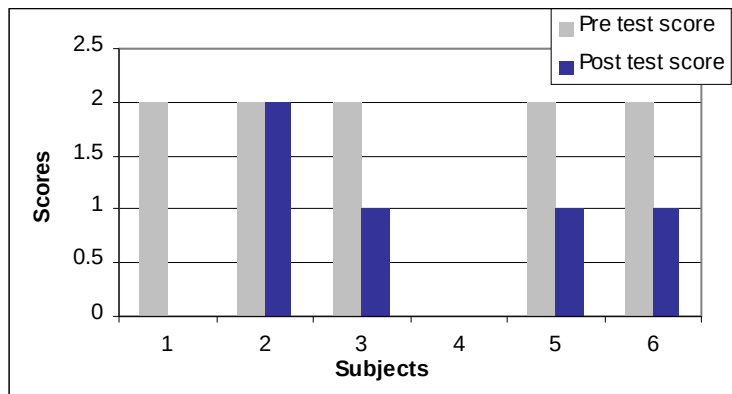
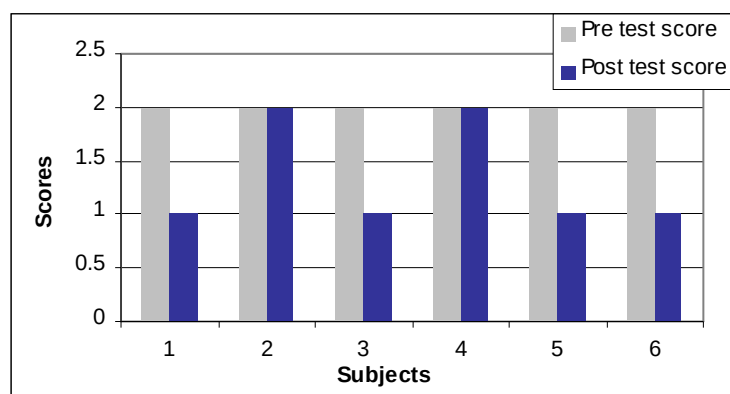


Figure IV.2.1.20

Pretest and Post test Scores of each Subject in the Control Group III on the item 'Suspiciousness regarding Sexual fidelity'



vi) Self-important, self-referential attitude

This symptom, self important and self-referential attitude is characterized by persistent self-referential attitudes, which is more than momentary and associated particularly with excessive self-importance. A score of 2 is given when these ideas of reference are experienced frequently and a score of 1 is given when these experiences are only occasional. Zero is scored when this is denied, rare, not supported by convincing examples, or delusional in nature.

The table (**Table IV.2.1.14**) shows that only two subjects in the Control Group I are having a reduction in the post test score for this variable. All the other subjects except the subject 2 retained the pre test score in the post test assessment also. There is an increase seen in the post test score of the subject 2. The graph shows (**Figure IV.2.1.21**) that one subject in the Control Group I got the pre test and post test score as 2. Subjects two got the pre test score of zero and post test score of one. As majority of the samples does not show any change in their score during pre test and post test, it can be conclude that there is a consistency in the pre test and post test score of the Control Group I which means that self important and self referential attitude will remain unchanged if no intervention is introduced.

The graph of the Experimental Groups (**Figure IV.2.1.22**) shows that there is reduction in the post test score on only one of the subjects. The

subject three shows a post test score of 0 whose pre test score was 1. Subject two shows that his pre test score was 0 and that became 1 in the post assessment. All other three subjects show the same pre test and post test scores. Hence it can be stated that Rational Emotive Behaviour Therapy was not satisfactorily effective in reducing their self important and self referential attitude.

Three subjects in the Control Group II (**Figure IV.2.1.23**) shows a reduction in their post test score and no subjects show an increase in their post test scores, which indicates the efficiency of the combination treatment of medicine and Rational Emotive Behaviour Therapy in dealing with this symptom in subjects with Paranoid Personality Disorder.

The graph of the Control Group III (**Figure IV.2.1.23**) shows that the subjects one and six show reduction in the post test score and all other subjects remind the same during both their pre test and post test assessments.

Table IV.2.1.14

Pretest and Post test Scores of each Subject in the Four Groups on the items 'Self-important and Self Referential Attitude'

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	0	1	2	1	2	2	1	1	1	0
Experimental Group	1	1	0	1	1	0	0	0	2	2	1	1
Control Group II	1	0	0	0	0	0	0	0	1	0	2	0
Control Group III	2	1	0	0	1	1	2	2	0	0	1	0

Figure IV.2.1.21

Pretest and Post test Scores of each Subject in the Control Group I on the item 'Self-important, self-referential attitude'

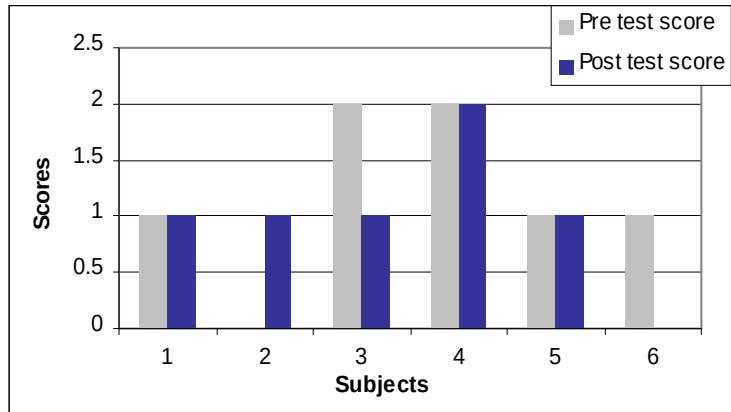


Figure IV.2.1.22

Pretest and Post test Scores of each Subject in the Experimental Group on the item 'Self-important, Self-referential Attitude'

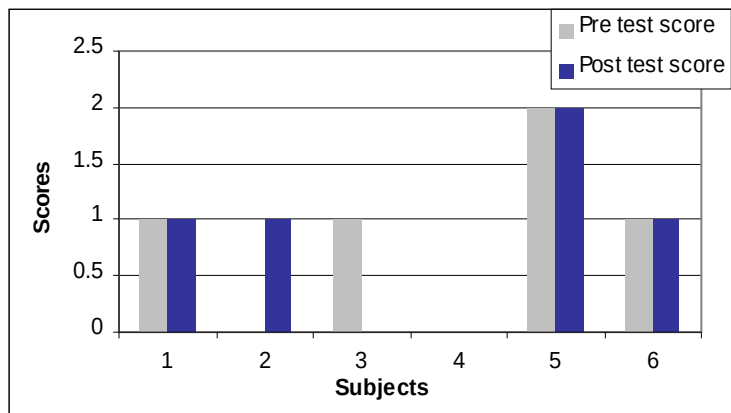


Figure IV.2.1.23

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Self-important, Self-referential Attitude'

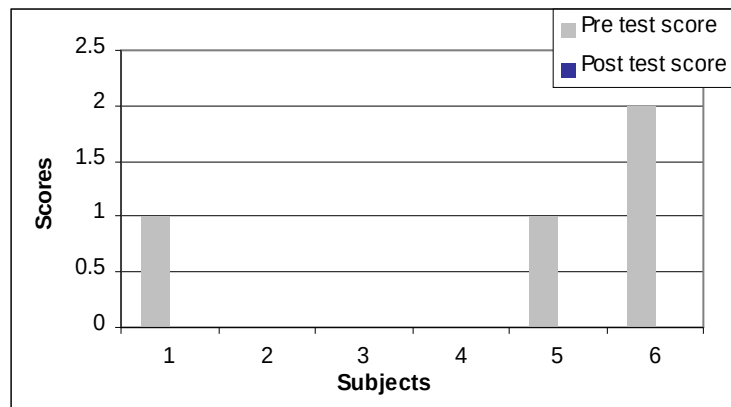
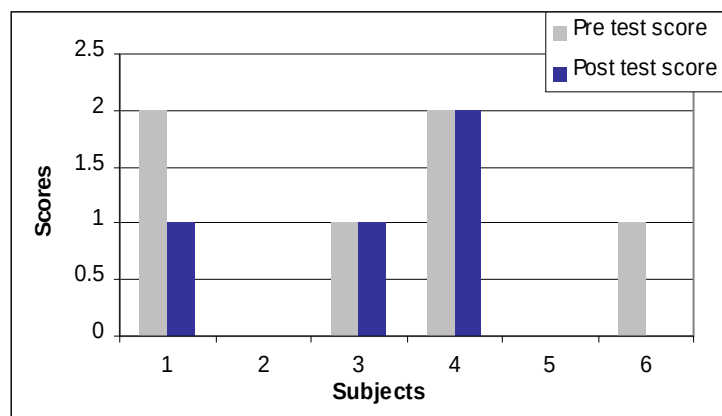


Figure IV.2.1.24

Pretest and Post test Scores of each Subject in the Control Group III on the item 'Self-important, Self-referential Attitude'



vii) Preoccupation with Conspiratorial explanations

This symptom refers to a definite preoccupation that either produces emotional distress or has an obvious influence on the subject's behaviour. A score of 2 is given when the subject is often preoccupied with unsubstantiated conspiratorial explanations. This sometimes produces emotional distress or has an obvious influence on the subject's behaviour. A score of one is given when the same occurs occasionally. Zero is scored when denied, rare, does not cause distress or influence behaviour, or not supported by subject's description.

All the subjects in the Control Group I (**Figure IV.2.1.25**) got the same score during both the pre and post assessment, which shows the higher consistency for this symptom in the diagnosis of Paranoid Personality Disorder. It also indicates that when no intervention method is used this symptom remains unchanged in patients with Paranoid Personality Disorder.

Four subjects out of the total six in the Experimental Group (**Figure IV.2.1.26**) shows reduction in the post test assessment and the two remaining subjects shows the same score during both pre test and post test. As majority of the subjects shows a decrease in the post assessment, it can be predicted that Rational Emotive Behaviour Therapy is effective in reducing the symptom, Preoccupation with Conspiratorial explanations.

All the subjects in the Control Group II (**Figure IV.2.1.27**) shows reduction in the post test, which indicates that when the combination treatment of Rational Emotive Behaviour Therapy and pharmacotherapy is used in Paranoid Personality Disorder patients, it is effective in reducing the symptom, Preoccupation with Conspiratorial explanations.

Three subjects in the Control Group III (**Figure IV.2.1.28**) shows a post test reduction in their scores and the other three remind the same. Limited effect can only be predicted for pharmacotherapy on Paranoid Personality Disorder with reference to this symptom, from this result.

Table IV.2.1.15

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Preoccupation with Conspiratorial explanations'

Subjects	1		2		3		4		5		6	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	1	1	0	0	2	2	1	1	1	1
Experimental Group	2	0	1	0	2	1	2	1	0	0	1	1
Control Group II	2	1	2	0	2	0	2	1	2	0	1	0
Control Group III	1	0	2	1	1	0	2	2	2	2	2	2

Figure IV.2.1.25

Pretest and Post test Scores of each Subject in the Control Group I on the item 'Preoccupation with Conspiratorial Explanations'

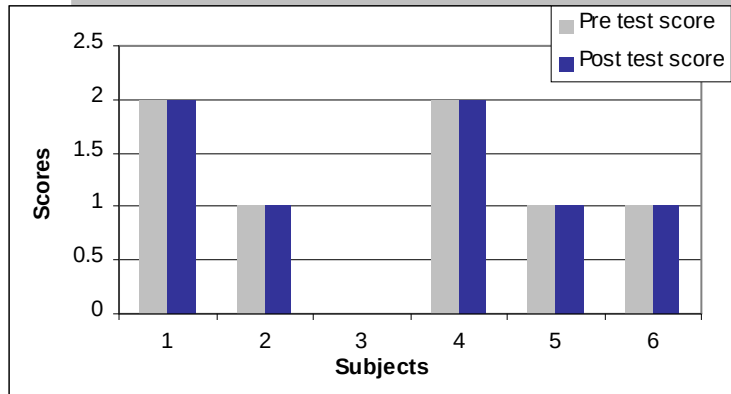


Figure IV.2.1.26

Pretest and Post test Scores of each Subject in the Experimental Group on the item 'Preoccupation with Conspiratorial Explanations'

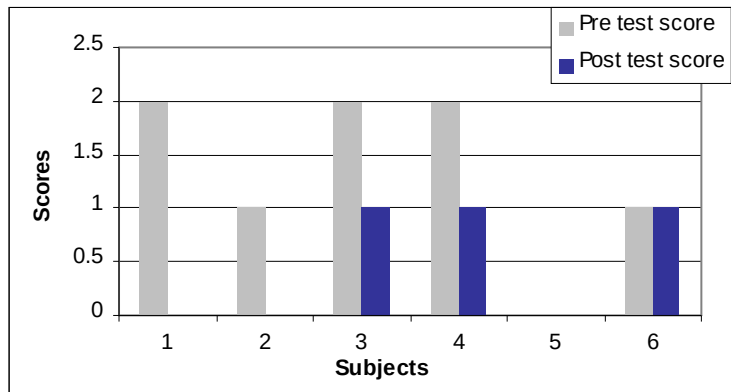


Figure IV.2.1.27

Pretest and Post test Scores of each Subject in the Control Group II on the item 'Preoccupation with Conspiratorial Explanations'

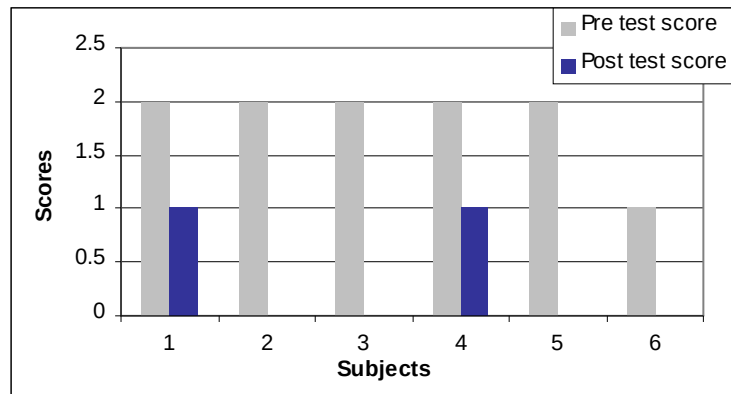
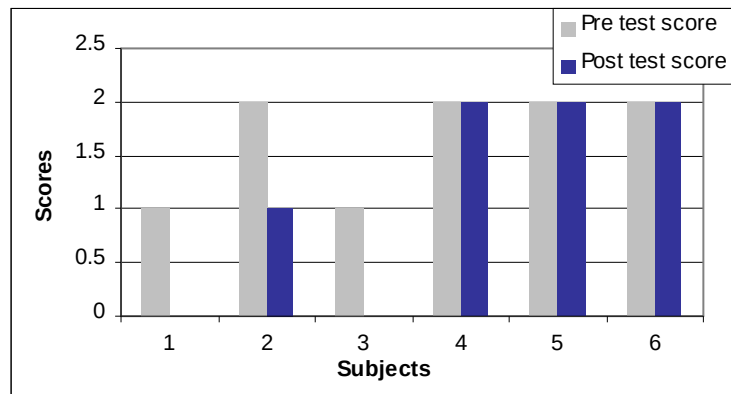


Figure IV.2.1.28

Pretest and Post test Scores of each Subject in the Control Group III on the item 'Preoccupation with Conspiratorial Explanations'



B) Analyses of Experimental Group and Control Groups on Hostility

As described earlier the total sample (N=24) with the diagnosis of Paranoid Personality Disorder is subdivided into 4, based on the intervention module administered on them, as follows: Control Group I (No intervention is administered), Experimental Group (Rational Emotive Behaviour Therapy is administered), Control Group II (Rational Emotive Behaviour Therapy and medication are administered and Control Group III (Only medication is administered). All the above four groups were administered with Hostility Scale during both pre and post Intervention phases.

The data were analyzed using one way ANOVA and Scheffe test was used to identify the groups which show significant difference. The results and discussions are organized in this part is in such a way that the results of ANOVA of the four groups on their pretest scores on the six sub variables of hostility and the Overall Hostility are presented first, which is followed by the same of the post test scores, secondly. Finally the results of the comparison of pretest and post test scores of all the sub variables and Overall Hostility, using t- test are discussed.

I. PRE-TEST

The Pretest result and F-values for the Experimental Group and the Control Groups are given in **Table IV.2.1.16**. None of the F-value (**Table IV.2.1.16**) related to the Overall Hostility and its sub variables for the four groups are found significant at 0.05 level.

The **Table IV.2.1.16** gives the Mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables. None of the four groups shows significant difference in the mean value in any of the sub variables and the Overall Hostility as well. Hence it can be clearly stated that the researcher's attempts to match the four groups became successful with respect to their level of Overall Hostility and the sub variables of hostility. The significance of making the four groups matched in terms of their hostility is that, Paranoid Personality Disorder is an axis II diagnosis and there were many axis I diagnoses which may in variably affect the hostility of the subjects with Paranoid Personality Disorder.

Table IV.2.1.16

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		With in group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	12.79	4.26	159.33	7.99	0.53
Guilt	34.16	11.39	553.67	27.68	0.41
Cynicism	1.46	0.49	406.50	20.33	0.02
Criticizing Others	10.13	3.38	312.83	15.64	0.21
Acting Out	34.33	11.44	321	16.05	0.71
Projection of Hostility	24.46	8.15	686.17	34.31	0.23
Overall Hostility	73.46	24.49	2509.50	125.48	0.19

The ANOVA results of the pretest scores of the four groups suggest that all the four groups are having more or less similar levels of hostility and

more importantly the four groups are having similar scores on every sub variables of hostility, the differences of which are insignificant.

The below given are the results of each sub variables of hostility and that of the Overall Hostility of subjects in the four groups.

Table IV.2.1.17
Mean and SD of (Pre-test) the Four Groups on Hostility and its Sub- Variables

Variables	No. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self Criticism	6	31.17	2.64	29.83	3.13	30.33	2.42	29.17	3.06
Guilt	6	20.50	4.32	17.67	4.76	18.67	5.39	17.50	6.65
Cynicism	6	14.67	1.97	14.17	5.88	14.50	4.64	14.83	4.62
Criticizing Others	6	37.67	3.50	36.67	2.34	38.17	3.49	36.67	5.72
Acting Out	6	33.33	4.63	33.67	3.39	35.50	3.02	36.17	4.71
Projection of Hostility	6	19.50	6.53	22.00	8.67	21.67	3.67	20.33	2.42
Overall Hostility	6	158	11.00	155.33	17.44	158.8	6.82	154.6	5.47

1. Self Criticism

Hypothesis:

There will be no significant difference between the four groups in the pre test on Self Criticism.

The highest mean value for this variable seen is 31.17 and the lowest is 29.17. These are the scores of the Control Group I and the Control Group III respectively. The F-value for this variable is 0.53 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

As no two groups differ significantly in their mean values on Scheffe test, it can be stated that the four groups are matched in terms of their scores on Self Criticism.

2. Guilt

Hypothesis:

There will be no significant difference between the four groups in the pre test on Guilt.

The F-value for this variable is 0.41 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group I which is 20.50 and the lowest mean is that of the Control Group III which is found to be 17.50. Here also no two groups differ significantly on Scheffe test and hence the differences between the mean values of the four groups are insignificant. So they are assumed to be matched in terms of their score on the variable 'Guilt'.

Though there is some amount of difference between the scores for the Control Group II and Control Group I, as no two groups differs significantly in their mean values on Scheffe test, this difference is insignificant statistically, which suggest that the four groups are matched in terms of their scores on Guilt.

3. Cynicism

Hypothesis:

There will be no significant difference between the four groups in the pre test on Cynicism.

The F-value for this variable is 0.02, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 14.83, which is for the Control Group III and the lowest mean is 14.17, which is for the Experimental Group. No two groups differ significantly on Scheffe test and hence the four groups are assumed to be matched in terms of their score on the variable 'Cynicism'.

4. Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the pre test on Criticizing Others.

The F-value for this variable is 0.21 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group II which is 38.17 and the lowest mean is that of the Experimental Group and Control Group III which is 36.67. No two groups differ significantly, and hence the groups are considered to be matched in terms of their scores on the variable 'Criticizing Others'.

5. Acting Out

Hypothesis:

There will be no significant difference between the four groups in the pre test on Acting Out.

The F-value for this variable is 0.71, which is not significant at 0.05 level. Hence the hypothesis is accepted.

The highest mean is 36.17, which is for the Control Group III and the lowest mean is 33.33, which is for the Control Group I. As no two groups differ significantly, the groups are assumed to be matched in terms of their scores on this variable.

6. Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the pre test on Projection of Hostility.

The F-value for this variable is 0.23 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Experimental Group, which is 22 and the lowest mean is that of the Control Group III, which 19.50 is. No two groups differ significantly and hence the four groups are assumed to be matched in terms of their scores on this variable.

7. Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the pre test on Overall Hostility.

The F-value for total hostility is 0.19 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result indicates that all the four groups have got more or less same mean score for their Pre intervention assessment on Overall Hostility as well as for its sub variables. Hence it can be claimed that all the four groups are matched in terms of its scores on hostility.

Table IV, 2.1.17, shows that the Control Group II got the highest mean which is 158.8 and the Control Group III got the lowest mean which is 154.6. The difference is only 1.43.

II. POST-TEST

The Posttest result and F-values for the Experimental Group and the Control Groups are given in **Table IV.2.1.18**. The **Table IV.2.1.19** gives the Mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables.

The below given are the results of each sub variables of hostility and that of the Overall Hostility of subjects in the four groups.

Table IV.2.1.18

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		Within group		F-values
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	760.33	253.44	561.67	28.08	9.02**
Guilt	156.83	52.28	361.00	18.05	2.89
Cynicism	60.50	20.17	201.33	10.06	2.00
Criticizing Others	178.13	59.38	287.83	14.39	4.13*
Acting Out	635.46	211.82	702.50	35.13	6.03**
Projection of Hostility	17.00	5.67	589.00	29.45	0.19
Overall Hostility	6223.17	2074.39	1408.67	70.43	29.45**

**significant at 0.05 level*

***significant at 0.01 level*

Table IV.2.1.19

**Mean and SD of (Post-test) the
Four Groups on Hostility and its Sub- Variables**

Variables	no. of samples	Control group I		Experiment group		Control group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self Criticism	6	30.50	2.95	21.33	7.84	16.17	5.74	28	3.03
Guilt	6	18.67	4.27	13.83	3.97	11.67	4.18	15.50	4.55
Cynicism	6	14	2.52	10.33	2.25	10	2.28	12	8.86
Criticizing Others	6	35.83	3.49	33.83	3.19	29.33	2.73	29.83	5.27
Acting Out	6	29.50	7.56	23.67	3.61	19.83	6.05	33.17	5.81
Projection of Hostility	6	17.83	4.79	16.33	6.31	15.50	6.28	16.33	3.93
Overall Hostility	6	145.50	13.31	120.83	5.88	102.50	7.84	134.83	2.93

1. Self Criticism

Hypothesis:

There will be no significant difference between the four groups in the post test on Self Criticism.

The highest mean score for this variable is 30.50 and the lowest is 16.17. These are the scores of the Control Group I and the Control Group II respectively. The F-value for this variable is 9.02, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The results of the Scheffe test shows that the Control Group II is having significant difference in the mean value with that of the Control Group I and Control Group III. No other two groups differ significantly. The result suggests that only the combination treatment of both Rational Emotive Behaviour Therapy and medicines were effective in reducing the Self Criticism nature of subjects with Paranoid Personality Disorder. In shorts the combination treatment of both Rational Emotive Behaviour Therapy and medicines is more effective than medicines using alone in the treatment or no treatment of Paranoid Personality Disorder.

2. Guilt

Hypothesis:

There will be no significant difference between the four groups in the post test on Guilt.

The F-value of the groups for this variable is 2.89 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group I which is 18.67 and the lowest mean is that of the Control Group II, which is 11.67. Though there is significant reduction in the mean value of Experimental Group and Control Group II when compared to the other two groups, the difference is not significant statistically.

3. Cynicism

Hypothesis:

There will be no significant difference between the four groups in the post test on Cynicism.

The F-value of the four groups for this variable is 2, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 14, which is for the Control Group I and the lowest mean is 10, which is for the Control Group II. No two groups differ significantly in their mean values. The results shows that the introduction of Rational Emotive Behaviour Therapy or Pharmacological agents, either alone or together is not sufficient to bring changes in the Cynicism of subjects with Paranoid Personality Disorder, when compared to the group which received no treatment.

4. Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the post test on Criticizing Others.

The F-value of the four groups for this variable is 4.13 and is significant at 0.05 levels. Hence the hypothesis is rejected.

The highest mean is for Control Group I which is 35.83 and the lowest mean is that of the Control Group II which 29.33 is. The results of the Scheffe test shows that only the group which was introduced with Rational Emotive Behaviour Therapy and medicines together is showing significant difference from the Control Group I. No other two groups differ significantly. The result

indicates that the combination treatment of both Rational Emotive Behaviour Therapy and medicines is more effective than using no treatment in the management of the nature of Criticizing Others in the subjects with Paranoid Personality Disorder.

5. Acting Out

Hypothesis:

There will be no significant difference between the four groups in the post test on Acting Out.

The F-value for this variable is 6.03, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The highest mean for this variable is 33.17, which is for the Control Group III and the lowest mean is 19.83, which is for the Control Group II.

Here only the Control Group II differs significantly from the Control Group III. This shows that the group which was administered with Rational Emotive Behaviour Therapy and medicines together was more effective in reducing the Acting Out of the hostility than the group which was administered with medicines alone.

6. Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the post test on Projection of Hostility.

The F-value for this variable is 0.19 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group I, which is 17.83 and the lowest mean is that of the Control Group II which is 15.50. Here none of the groups differ significantly.

7. Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the post test on Overall Hostility.

The F-value of the four groups on Overall Hostility is 29.45 and is significant at 0.01 levels. Hence the hypothesis is rejected.

The highest mean is for Control Group I, which is 145.50 and the lowest mean is that of the Control Group II, which is 102.50. Here Control Group II differs significantly from the Control Group I, Control Group III and the Experimental Group. The Experimental Group differs significantly from the Control Group I in the post test assessment. The results suggest that the introduction of Rational Emotive Behaviour Therapy either alone or together with Pharmacological agents, is sufficient to bring changes in the Overall Hostility' of subjects with Paranoid Personality Disorder.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on Overall Hostility and its sub variables are compared using Matched t-test to find out the level of significance in the difference between the scores in their Pre and Post intervention assessment.

1) Control Group I

Here the Pre and Post tests scores of the subjects in the Control Group I on each variables of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group I.

Table IV.2.1.20

Pretest-Post test Scores of Control Group I on Self Criticism

Group	N	Mean	SD	t- value
Pre test	6	31.17	2.64	1.35
Post test	6	30.50	2.95	

The t-test results for the Control Group I between the means in the pre and post intervention assessment on Self Criticism, score shows no significant difference. The obtained t-value is 1.35 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

This shows that the Self Criticism of subjects with Paranoid Personality Disorder remains unchanged if it is not handled with any sort of management tools.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group I.

Table IV.2.1.21

Pretest-Post test Scores of Control Group I on Guilt

Group	N	Mean	SD	t- value
Pre test	6	20.50	4.32	4.57**
Post test		18.66	4.27	

***significant at 0.01 level*

The t-test results for the Control Group I between the means in the pre and post intervention assessment on Guilt score shows significant difference. The obtained t-value is 4.57 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The sense of Guilt in subjects with Paranoid Personality Disorder have changed significantly even without any intervention methods.

c) **Cynicism**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group I.

Table IV.2.1.22

Pretest-Post test Scores of Control Group I on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.67	1.96	0.73
Post test		14	2.53	

The t-test results for the Control group between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 0.73 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The subjects with Paranoid Personality Disorder does not shows significant change in their Cynicism when no intervention method is applied.

d) **Criticizing Others**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group I.

Table IV.2.1.23

Pretest-Post test Scores of Control Group I on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	6	37.67	3.50	2.02
Post test		35.83	3.49	

The t-test results for the Control group between the means in the pre and post intervention assessment on 'Criticizing Others' score shows no significant difference. The obtained t-value is 2.02 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The tendency for Criticizing Others in subjects with Paranoid Personality Disorder remains unchanged when it is not attempted to change using any sort of treatment methods.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group I.

Table IV.2.1.24

Pretest-Post test Scores of Control Group I on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	33.33	4.63	1.27
Post test		29.50	7.56	

The t-test results for the Control group between the means in the pre and post intervention assessment on 'Acting Out' score shows no significant difference. The obtained t-value is 1.27, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Acting Out of hostility in subjects with Paranoid Personality Disorder remains unchanged when no intervention method is applied.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group I.

Table IV.2.1.25

Pretest-Post test Scores of Control Group I on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	19.50	6.54	1.33
Post test		17.83	4.79	

The t-test results for the Control group I between the means in the pre and post intervention assessment on Projection of Hostility score shows no significant difference. The obtained t-value is 1.33 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Projection of Hostility remains unchanged in subjects with Paranoid Personality Disorder if not applied with any sort of management tool.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group I.

Table IV.2.1.26

Pretest-Post test Scores of Control Group I on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	6	158	11	3.15*
Post test		145.50	13.31	

**significant at 0.05 level*

The t-test results for the Control group I between the means in the pre and post intervention assessment on Overall Hostility score shows significant difference. The obtained t-value is 3.15, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The Overall Hostility of subjects with Paranoid Personality Disorder has changed even when no intervention is administered in them to change the same. This shows that there may be some other effect which the researcher could not control had occurred which may have brought the change.

2) Experimental Group

Here the Pre and Post tests scores of the subjects in the Experimental Group on each variable of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Experimental Group.

Table IV.2.1.27

Pretest-Post test Scores of Experimental Group on Self Criticism

Group	N	Mean	SD	t- value
Pre test	6	29.83	3.12	2.31
Post test		21.33	7.84	

The t-test results for the Experimental group between the means in the pre and post intervention assessment on 'Self Criticism' score shows no significant difference. The obtained t-value is 2.31 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

No change had been seen among subjects with Paranoid Personality Disorder in their Self Criticism even after they were administered with Rational Emotive Behaviour Therapy.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Experimental Group.

Table IV.2.1.28

Pretest-Post test Scores of Experimental Group on Guilt

Group	N	Mean	SD	t- value
Pre test	6	17.67	4.76	3.46*
Post test		13.83	3.97	

**significant at 0.05 level*

The t-test results for the Experimental group between the means in the pre and post intervention assessment on 'Guilt' score shows significant difference. The obtained t-value is 3.46, which is significant at 0.05 levels. Hence the hypothesis is rejected.

This would indicate that Rational Emotive Behavior Therapy is effective in reducing the sense of Guilt experienced by the subjects with Paranoid Personality Disorder. The significant difference in Guilt between the pre test and post test mean values suggests that there is significant effect for Rational Emotive Behaviour Therapy in reducing the Guilt experienced by the subjects with Paranoid Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Experimental Group.

Table IV.2.1.29

Pretest-Post test Scores of Experimental Group on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.17	5.88	1.98
Post test		10.33	2.25	

The t-test results for the Experimental group between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 1.98 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that there will be no effect for Rational Emotive Behaviour Therapy in reducing the Cynicism of subjects with Paranoid Personality Disorder.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Experimental Group.

Table IV.2.1.30

Pretest-Post test Scores of Experimental Group on Criticizing Others

Group	N	Mean	SD	t- value
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Pre test	6	36.67	2.34	1.56
Post test		33.83	3.19	

The t-test results for the Experimental group between the means in the pre and post intervention assessment on 'Criticizing Others' score shows no significant difference. The obtained t-value is 1.56 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Criticizing Others in subjects with Paranoid Personality Disorder remains unchanged even after they had been administered with Rational Emotive Behaviour Therapy, which shows the insufficiency of this therapy in bringing significant change in this variable.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Experimental Group.

Table IV.2.1.31

Pretest-Post test Scores of Experimental Group on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	33.67	3.39	4.47**
Post test		23.67	3.61	

***significant at 0.01 level*

The t-test results for the Experimental group between the means in the pre and post intervention assessment on Acting Out of Hostility score shows significant difference. The obtained t-value is 4.47, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Acting Out of hostility among subjects with Paranoid Personality Disorder may be subject to change when they are administered with Rational Emotive Behaviour Therapy.

f) **Projection of Hostility**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Experimental Group.

Table IV.2.1.32

Pretest-Post test Scores of Experimental Group on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	22	8.67	1.97
Post test		16.33	6.31	

The t-test results for the Experimental group between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 1.97, which is not significant at 0.05 levels.

Hence the hypothesis is accepted. This would indicate that Rational Emotive Behavior Therapy is not effective in reducing the Projection of Hostility of the subjects with Paranoid Personality Disorder.

g) **Overall Hostility**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Experimental Group.

Table IV.2.1.33

Pretest-Post test Scores of Experimental Group on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	6	155.33	17.44	11.07**
Post test		120.83	5.88	

***significant at 0.01 level*

The t-test results for the Experimental group between the means in the pre and post intervention assessment on Overall Hostility score shows

significant difference. The obtained t-value is 11.07, which is significant at 0.01 levels.

Hence the hypothesis is rejected. This would indicate that Rational Emotive Behavior Therapy alone is effective in reducing the Overall Hostility of the subjects with Paranoid Personality Disorder.

3) Control Group II

Here the Pre and Post tests scores of the subjects in the Control Group II on each variables of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group II.

Table IV.2.1.34

Pretest-Post test Scores of Control Group II on Self Criticism

Group	N	Mean	SD	t- value
Pre test	6	30.33	2.42	4.82**
Post test		16.17	5.74	

***significant at 0.01 level*

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Self Criticism score shows significant difference. The obtained t-value is 4.82 which is significant at 0.01 levels. Hence the hypothesis is rejected.

Here the combination treatment of both Rational Emotive Behaviour Therapy and medicines in subjects with Paranoid Personality Disorder in reducing their Self Criticism is found to be effective.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group II.

Table IV.2.1.35

Pretest-Post test Scores of Control Group II on Guilt

Group	N	Mean	SD	t- value
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Pre test	6	18.67	5.39	4.87**
Post test		11.67	4.18	

***significant at 0.01 level*

The t-test results for the Control group between the means in the pre and post intervention assessment on Guilt shows significant difference. The obtained t-value is 4.87, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Paranoid Personality Disorder, that had reduced the level of Guilt to a significant degree.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group II.

Table IV.2.1.36

Pretest-Post test Scores of Control Group II on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.50	4.64	1.96
Post test		10	2.28	

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 1.96, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The combination treatment of both Rational Emotive Behaviour Therapy and medicines shows no effects on reducing the Cynicism in subjects with Paranoid Personality Disorder.

d) **Criticizing Others**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group II.

Table IV.2.1.37

Pretest-Post test Scores of Control Group II on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	6	38.17	3.49	5.59**
Post test		29.33	2.73	

***significant at 0.01 level*

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Criticizing Others score shows no significant difference. The obtained t-value is 5.59 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The combination treatment of both Rational Emotive Behaviour Therapy and medicines in reducing the nature of Criticizing Others in subjects with Paranoid Personality Disorder is highly effective.

e) **Acting Out**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group II.

Table IV.2.1.38

Pretest-Post test Scores of Control Group II on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	35.50	3.02	5.01**
Post test		19.83	6.05	

***significant at 0.01 level*

The t-test results for the Control group II between the means in the pre and post intervention assessment on Acting Out score shows significant difference. The obtained t-value is 5.01, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Acting Out of hostility in subjects with Paranoid Personality Disorder can effectively been managed when a combination treatment of both Rational Emotive Behaviour Therapy and medicines are administered in them.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group II.

Table IV.2.1.39

Pretest-Post test Scores of Control Group II on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	21.67	3.67	3.05*
Post test		15.50	6.28	

**significant at 0.05 level*

The t-test results for the Control group II between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 3.05, which is significant at 0.05 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Paranoid Personality Disorder, that had reduced the Projection of Hostility to a significant degree.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group II.

Table IV.2.1.40

Pretest-Post test Scores of Control Group II on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	6	158.83	6.82	14.75**
Post test		102.50	7.84	

***significant at 0.01 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Overall Hostility score shows significant difference. The obtained t-value is 14.75, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behaviour Therapy along with medicines was administered on subjects with Paranoid Personality Disorder, that had reduced the level of Overall Hostility to a significant degree.

4) Control Group III

Here the Pre and Post tests scores of the subjects in the Control Group III on each variable of hostility scale and the Overall Hostility are analyzed.

1) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group III.

Table IV.2.1.41

Pretest-Post test Scores of Control Group III on Self Criticism

Group	N	Mean	SD	t- value
Pre test	6	29.17	3.06	0.79
Post test		28	3.03	

The t-test results for the Control group III between the means in the pre and post intervention assessment on Self Criticism score shows no significant difference. The obtained t-value is 0.79 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that there may be no effect for medicines in reducing the Self Criticism of subjects with Paranoid Personality Disorder.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group III.

Table IV.2.1.42

Pretest-Post test Scores of Control Group III on Guilt

Group	N	Mean	SD	t- value
Pre test	6	17.50	6.35	1.27
Post test		15.50	4.55	

The t-test results for the Control group III between the means in the pre and post intervention assessment on Guilt score shows no significant difference. The obtained t-value is 1.27 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Medicines alone are not effective in reducing the sense of Guilt in subjects with Paranoid Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group III.

Table IV.2.1.43

Pretest-Post test Scores of Control Group III on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.83	4.62	1.32
Post test		12	4.86	

The t-test results for the Control group III between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 1.32 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Result shows that there is no effect for medicines in reducing Cynicism in subjects with Paranoid Personality Disorder

d) **Criticizing Others**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group III.

Table IV.2.1.44

Pretest-Post test Scores of Control Group III on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	6	36.67	5.71	6.17**
Post test		39.83	5.26	

***significant at 0.01 level*

The t-test results for the Control group between the means in the pre and post intervention assessment on Criticizing Others score shows no significant difference. The obtained t-value is 6.17, which is significant even at 0.01 levels. Hence the hypothesis is rejected.

There is significant effect for medicines in reducing the tendency for Criticizing Others in subject with Paranoid Personality Disorder.

e) **Acting Out**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group III.

Table IV.2.1.45

Pretest-Post test Scores of Control Group III on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	36.17	4.71	4.39**
Post test		33.17	5.81	

***significant at 0.01 level*

The t-test results for the Control group between the means in the pre and post intervention assessment on Acting Out score shows significant difference. The obtained t-value is 4.39 which is significant at 0.01 levels. Hence the hypothesis is rejected.

Result suggests that Acting Out of hostility could be effectively reduced by using medicines alone.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group III.

Table IV.2.1.46

Pretest-Post test Scores of Control Group III on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	20.33	2.42	3.65*
Post test		16.33	3.93	

**significant at 0.05 level*

The t-test results for the Control group between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 3.65, which is significant at 0.05 levels. Hence the hypothesis is rejected. The result shows that the medicinal treatment alone is sufficient for reducing Projection of Hostility among the subjects with Paranoid Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group III.

Table IV.2.1.47

Pretest-Post test Scores of Control Group III on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	6	154.67	5.47	8.51**
Post test		134.83	2.93	

***significant at 0.01 level*

The t-test results for the Control group between the means in the pre and post intervention assessment on Overall Hostility score shows significant difference. The obtained t-value is 8.51, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The result shows that the medicinal treatment alone is sufficient for reducing the Overall Hostility among the subjects with Paranoid Personality Disorder.

The above results of the comparison between the pre-test and post test scores of the four groups' shows that there were significant reduction in the Overall Hostility and Guilt in the subjects in the Control Group I. Among the subjects in the Experimental Group their Overall Hostility, Guilt and Acting Out were found significantly reduced in the post test assessment. The Overall Hostility and all its sub variables except Cynicism found to be significantly reduced in the Control Group II during their post test assessment. The group which was administered with medicines alone showed reduction in the post test scores on the sub variables like Criticizing Others, Acting Out, Projection of Hostility and Overall Hostility.

C) Analyses of Experimental Group and Control Groups on Quality of Life

In this section the effectiveness of Rational Emotive Behavior Therapy in improving Quality of Life among samples with Paranoid Personality Disorder is examined and discussed.

In this the Domain scores and the Overall Quality of Life scores of WHO-QOL scale obtained by the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III, in the pre and post tests are analyzed using one-way ANOVA. Scheffe test is used to identify the groups which show significant difference.

I. PRE-TEST

The Pretest result and f-values for the Experimental Group and the Control Groups are given in table IV.2.1.48

Table IV.2.1.48

F-values (Pretest) of the Four Groups on Quality of Life and its Domains

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	14.88	4.96	90.13	4.51	1.10

Domain II	0.81	0.27	25.96	1.29	0.21
Domain III	7.13	2.38	39.5	1.98	1.20
Domain IV	4.65	1.55	42.21	2.11	0.73
Domain V	16.78	5.59	223.44	11.17	0.50
Domain VI	2.58	0.86	33.23	1.66	0.52
Overall Quality of life	52.95	17.65	490.59	24.52	0.72

The results suggest that in the pre test, none of the four groups, namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents, differs significantly on the mean values of their domain scores on Quality of Life scale(WHO).

This finding points out that the four groups are matched in terms of their scores on WHO QOL Scale

Table IV.2.1.49
Mean and SD of (Pre-test) the
Four Groups on Quality of Life and its Domains.

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Domain I	6	9.72	2.92	8.04	1.60	9.09	2.12	7.78	1.56
Domain II	6	5.38	1.02	5.51	1.52	5.87	0.97	5.48	0.94
Domain III	6	8.5	1.52	7	1.26	8	1.41	8	1.41
Domain IV	6	5.25	1.22	6.28	1.75	5.78	1.61	5.19	1.14
Domain V	6	9.29	1.63	9.96	3.18	10.22	3.75	11.59	4.23*
Domain VI	6	7.40	1.26	6.60	0.94	7.33	1.45	7.33	1.45

Results of the sub variables and Overall Quality of Life

As it has been explained earlier in the chapter III the Quality of Life scale consists of sub scores in six different domains. The results obtained during the pretest on ANOVA of those domains and the Overall Quality of Life are illustrated below.

a) Domain I

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain I of Quality of Life.

The F-value found on this variable is 1.10 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 9.72 and that of the Experimental Group, Control Group II and Control Group III are 8.04, 9.09 and 7.78 respectively. The highest mean is that of the Control Group I and the lowest is that of the Control Group III. No two groups differ significantly on Scheffe test.

In short the physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life of the four groups were matched accordingly.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain II of Quality of Life.

The f-value found on this variable is 0.21 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 5.38 and that of the Experimental Group, Control Group II and Control Group III are 5.51, 5.87 and 5.48 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The result suggests that no two groups differ significantly.

Hence the domain II, which encompasses the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings also can be said to be matched among the four groups.

c) Domain III

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain III of Quality of Life.

The f-value found on this variable is 1.20 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 8.5 and that of the Experimental Group, Control Group II and Control Group III are 7, 8, and 8 respectively. The highest mean is that of the Control Group I and the lowest is that of the Experimental Group. The result suggests that no two groups differ significantly.

Hence the domain III, which determines the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, also can be said to be matched.

d) Domain IV

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain IV of Quality of Life.

The f-value found on this variable is 0.73 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 5.25 and that of the Experimental Group, Control Group II and Control Group III are 6.28, 5.78 and 5.19 respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group III. No two groups differ significantly. Hence it can be said that the four groups are matched in terms of their score on domain IV of WHO-QOL, which corresponds to the social relationship of the individual which includes personal relationships, social supports and sexual activity.

e) Domain V

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain V of Quality of Life.

The f-value found on this variable is 0.50 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 9.29 and that of the Experimental Group, Control Group II and Control Group III are 9.96, 10.22 and 11.59 respectively. The highest mean is that of the Control Group III and the lowest is that of the Control Group I. No two groups differ significantly. Hence it can be said that the four groups are matched in terms of their score on domain V of WHO-QOL, which corresponds the environment of the individual which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport.

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain VI of Quality of Life.

The f-value found on this variable is 0.52 which is not significant at 0.05 levels.

The mean of Control Group I on this variable is 7.40 and that of the Experimental Group, Control Group II and Control Group III are 6.60, 7.33 and 7.33 respectively. The highest mean is that of the Control Group I and the lowest is that of the Experimental Group. No two groups differ significantly. Hence the four groups can be said to be matched in terms of their score on the domain VI which is the spirituality including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the pre test on Overall Quality of Life.

The f-value found on the overall Quality of Life is 0.72 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of the Group I is 47.43 and that of the Experimental Group, Control Group II and Control Group III are 43.38, 46.30 and 45.37 respectively. No two groups differ significantly.

II. POST-TEST

The Post test results and f-values for the Experimental Group and the Control Groups are given in Table IV.2.1.50.

Table IV.2.1.50

F-values of the Four Groups on Quality of Life and its Domains

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	155.46	51.88	96.19	4.81	10.79**
Domain II	417.05	139.02	48.04	2.40	57.87**
Domain III	105.26	35.09	76.94	3.85	9.12**
Domain IV	401.95	133.98	74.20	3.71	36.11**
Domain V	170.85	56.95	49.47	2.47	23.03**
Domain VI	318.86	106.29	31.97	1.59	66.48**
Overall Quality of Life	7690.08	2563.36	651.93	32.59	78.64**

The table shows the F-values of the four group namely, the Control Group I, which was not been administered by any sort of therapeutic measures, the

Table IV.2.1.51

Mean and SD of (POST TEST) the Four Groups on Quality of Life and its Domains

Variable	No. of Sample								
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Domain I	6	9.42	2.98	14	1.39	13.81	1.97	8.32	2.13
Domain II	6	5.61	0.95	14.27	2.08	16.67	1.71	10.63	1.20
Domain III	6	9.17	1.9	14.1	1.7	14.3	0.8	12	2.8

			4	7	2	5	1		3
Domain IV	6	5.26	0.9 2	15.3 3	2.1 9	14.7 8	1.4 2	9.83	2.6 8
Domain V	6	9.05	1.4 7	14.6 7	1.0 8	16.2 0	0.7 6	13.6 9	2.4 5
Domain VI	6	7.18	1.5 9	14.2 7	0.8 6	16.3 8	1.1 7	9.62	1.3 2
Overall Quality of Life	6	47.56	5.8 6	86.7	5.1 4	92.1 9	4.4 2	64.0 9	7.0 7

Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents.

Results of the sub variables and Overall Quality of Life

The results obtained during the post test on ANOVA of the six domains and Overall Quality of Life are illustrated below.

a) Domain I

Hypothesis:

There will be no significant different between the four groups in the post test on Domain I of the Quality of Life.

The F-value found on this variable is 10.79, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 9.42 and that of the Experimental Group, Control Group II and Control Group III are 14, 13.81 and 10.63, respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group III. The result suggest that the Control Group I differs significantly from the Experimental Group and the Control Group II. The Control Group III also shows significant difference with the Experimental Group and Control Group II.

In short the physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life has been improved in the Experimental Group and Control Group II when compared to the Control

Group I and Control Group III. It indicates that Rational Emotive Behaviour Therapy is effective in improving the physical aspects of Quality of Life in subjects with Paranoid Personality Disorder. Though the Control Group II also shows significant improvement, it cannot be attributed to the effect of medicines as the Control Group III shows no significant improvement when compared to the Control Group I. Hence it can be concluded that Rational Emotive Behaviour Therapy is more effective for this variable.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain II of the Quality of Life.

The F-value found on this variable is 57.87, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 5.61 and that of the Experimental Group, Control Group II and Control Group III are 14.27, 16.67 and 10.63 respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group I. The results suggest that the Control Group I differs in its mean value from that of all the other groups and the Experimental Group and Control Group II differs from the Control Group III.

This result indicates that the groups which were administered with Rational Emotive Behaviour Therapy alone and along with medicines shows significant improvement in their psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, when compared to the group which was not administered with any sort of treatment program and to the group which was administered with only the medicines.

Some effect for the group which was administered with medicines can be noticed as they showed significant difference with the Control Group I. But when compared to the Experimental Group and Control Group II, the later groups have significantly higher improvement than the Control Group III, which confirms the efficacy of Rational Emotive Behaviour Therapy in

improving the psychological aspects of Quality of Life in subjects with Paranoid Personality Disorder.

c) Domain III

Hypothesis

There will be no significant difference between the four groups in the post test on Domain III of the Quality of Life.

The F-value found on this variable is 9.12, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 9.17 and that of the Experimental Group, Control Group II and Control Group III are 14.17, 14.35 and 12 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The result suggests that the Control Group I differs significantly from the Experimental Group and Control Group II. No other two groups differ significantly.

Hence it can be concluded from the results that domain III of Quality of Life, which determines the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, has improved as a result of the administration of Rational Emotive Behaviour Therapy in subjects with Paranoid Personality Disorder. Here also the effect of medicines cannot be predicted as the Control Group III shows no significant difference from the Control Group I.

d) Domain IV

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain IV of the Quality of Life.

The F-value found on this variable is 36.11, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 5.26 and that of the Experimental Group, Control Group II and Control Group III are 15.33, 14.78 and 9.83 respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group I. The results suggest that the

Experimental Group differs significantly from the Control Group I and the Control Group III. The Control Group II differs significantly from the Control Group I and the Control Group III, and the Control Group III differs significantly from the Control Group I.

There was no significant difference between the Experimental Group and the Control Group II. Hence it can be concluded Rational Emotive Behaviour Therapy is effective in improving the social relationship of the individuals with Paranoid Personality Disorder, which includes personal relationships, social supports and sexual activity. Here the medicines used could also be imparted in the improvement.

e) Domain V

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain of Life.

The F-value found on this variable is 23.03, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 9.05 and that of the Experimental Group, Control Group II and Control Group III are 14.67, 16.20 and 13.69 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group, Control Group II and Control Group III differ significantly from the Control Group I. No other two groups differ significantly. Hence it can be concluded that there was a significant improvement in the environment of the subjects, which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, irrespective of the intervention administered when compared to the group which was not administered with any sort of intervention.

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain VI of the Quality of Life.

The F-value found on this variable is 66.48, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 7.18 and that of the Experimental Group, Control Group II and Control Group III are 14.27, 16.38 and 9.62 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group differs significantly from the Control Group I and the Control Group III. The Control Group II differs significantly from the Control Group I and the Control Group III, and the Control Group III differs significantly from the Control Group I.

There was no significant difference between the Experimental Group and the Control Group II. Hence it can be concluded that the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith are also improved by the administration of Rational Emotive Behaviour Therapy. As there is significant difference between the Control Group II and Control Group III the effect of medicines can not be predicted in improving the spiritual aspects of subjects with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the post test on Overall Quality of Life.

The F-value found on the Overall Quality of Life is 78.64 which is significant at 0.01 level. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 47.56 and that of the Experimental Group, Control Group II and Control Group III are 86.7, 92.19 and 64.09 respectively. The highest-mean is that of the Control Group II and lowest is that of the Control Group I. The results of the Scheffe test shows that all the three groups (Experimental Group, the Control Group II and Control Group III) differ significantly from the Control Group I.

The results indicate that the groups which are administered REBT shows significant improvement in the Quality of Life when compared to the other groups. This shows the efficacy of REBT in improving the Quality of Life among the subjects with Paranoid Personality Disorder.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on WHO Quality of Life Scale were compared using Matched t-test to find out the level of significance in the difference.

1. Control Group I

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group I on each variables of WHO QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group I.

Table IV.2.1.52

Pretest-Post test Scores of Control Group I on Domain I

Group	N	Mean	SD	t- value
Pre test	6	9.72	2.92	0.49
Post test		9.42	2.98	

From the above table it can be seen that the mean of the Control Group I on domain I of the WHO-QOL scale score is 9.72 in the pre test and the same is 9.42 in the post test assessment. The t- value found is 0.49 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects

including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life when no intervention is administered.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group I.

Table IV.2.1.53

Pretest-Post test Scores of Control Group I on Domain II

Group	N	Mean	SD	t- value
Pre test	6	5.38	1.02	-0.82
Post test		5.61	0.95	

From the above table it can be seen that the mean of the Control Group I on domain II of the WHO-QOL scale score is 5.38 in the pre test and the same is 5.61 in the post test assessment. The t-value found is -0.82 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings when no intervention is administered.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group I.

Table IV.2.1.54

Pretest-Post test Scores of Control Group I on Domain III

Group	N	Mean	SD	t- value
Pre test	6	8.50	1.52	
Post test		9.16	1.94	

From the above table it can be seen that the mean of the Control Group I on domain III of the WHO-QOL scale score is 7.88 in the pre test and in the post test assessment the mean value is found to be 12.42. The t- value found is -7.22 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there was no significant change, when no intervention administered, in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, has occurred.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group I.

Table IV.2.1.55

Pretest-Post test Scores of Control Group I on Domain IV

Group	N	Mean	SD	t- value
Pre test	6	5.25	1.22	-0.4
Post test		5.27	0.92	

From the above table it can be seen that the mean of the Control Group I on domain IV of the WHO-QOL scale score is 5.25 in the pre test and the same is 5.27 in the post test assessment. The t-value found is -0.4 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when no intervention is administered.

d) Domain V**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group I.

Table IV.2.1.56

Pretest-Post test Scores of Control Group I on Domain V

Group	N	Mean	SD	Correlation	t- value
Pre test	6	9.29	1.63	0.95	1.24
Post test		9.05	1.47		

From the above table it can be seen that the mean of the Control Group I on domain V of the WHO-QOL scale score is 9.29 in the pre test and the same is 9.05 in the post test assessment. The t- value found is 1.24 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in

and opportunities for recreation/leisure activities, physical environments and transport, when no intervention is administered.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group I.

Table IV.2.1.57

Pretest-Post test Scores of Control Group I on Domain VI

Group	N	Mean	SD	t- value
Pre test	6	7.4	1.26	0.91
Post test		7.18	1.59	

From the above table it can be seen that the mean of the Control Group I on domain VI of the WHO-QOL scale score is 7.40 in the pre test and the same is 7.18 in the post test assessment. The t- value found is 0.91 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith when no intervention is administered.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the period post test scores on overall Quality of Life of the Control Group I.

Table IV.2.1.58

Pretest-Post test Scores of Control Group I on Overall Quality of Life

Group	N	Mean	SD	t- value
Pre test	6	47.43	4.21	-0.14
Post test		47.57	5.86	

From the above table it can be seen that the mean of the Control Group I on Overall Quality of Life is 47.43 in the pre test and 47.57 in the post-test. The t-value found is 0.14, which is not significant at 0.05 level. Hence the hypothesis is accepted.

The results indicate that there will not be any significant change in the Overall Quality of Life of the subjects with Paranoid Personality Disorder if they are not provided with any management technique.

To conclude in none of the above mentioned domains of Quality of Life, comparison of the pre test and post test shows significant changes. So it can be predicted that when no intervention method used there will not be any change in any of the aspects which determines the Quality of Life in subjects with Paranoid Personality Disorder.

2. Experimental Group

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Experimental Group on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Experimental Group.

Table IV.2.1.59

Pretest-Post test Scores of Experimental Group on Domain I

Group	N	Mean	SD	t- value
Pre test	6	8.04	1.60	-5.89**
Post test		14	1.39	

***significant at 0.01 level*

From the above table it can be seen that the mean of the Experimental Group on domain I of the WHO-QOL scale score is 8.04 in the pre test and in the post test assessment, it is 14. The t- value found is -5.89 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Rational Emotive Behavior Therapy is administered in patients with Paranoid Personality Disorder.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Experimental Group.

Table IV.2.1.60

Pretest-Post test Scores of Experimental Group on Domain II

Group	N	Mean	SD	t- value
Pre test	6	5.51	1.52	-11.95**
Post test		14.27	2.08	

***significant at 0.01 level*

The above table shows that the mean of the Experimental Group on domain II of the WHO-QOL scale score is 5.51 in the pre test and is 14.27 in the post test assessment. The t- value found is -11.95, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life

including the positive feeling, thinking, learning, memory and concentration, self-esteem, bodily image and appearance and negative feelings, when Rational Emotive Behavior Therapy is administered, in patients with Paranoid Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Experimental Group.

Table IV.2.1.61

Pretest-Post test Scores of Experimental Group on Domain III

Group	N	Mean	SD	t- value
Pre test	6	7	1.27	-8.21**
Post test		14.17	1.72	

***significant at 0.01 level*

The above table shows that the mean of the Experimental Group on domain III of the WHO-QOL scale score is 7 in the pre test and is 14.17 in the post test assessment. The t- value found is -8.21 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Rational Emotive Behavior Therapy is administered, in patients with Paranoid Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Experimental Group.

Table IV.2.1.62

Pretest-Post test Scores of Experimental Group on Domain IV

Group	N	Mean	SD	t- value
Pre test	6	6.28	1.74	-6.76**
Post test		15.33	2.19	

***significant at 0.01 level*

The above table shows that the mean value of the Experimental Group on domain IV of the WHO-QOL scale score is 6.28 in the pre test and is 15.33 in the post test assessment. The t- value found is -6.76 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Rational Emotive Behavior Therapy is administered, in patients with Paranoid Personality Disorder.

e) Domain V**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain V of the Experimental Group.

Table IV.2.1.63

Pretest-Post test Scores of Experimental Group on Domain V

Group	N	Mean	SD	t- value
Pre test	6	9.96	3.18	-3.34*
Post test		14.67	1.08	

**significant at 0.05 level*

The above table shows that the mean score of the Experimental Group on domain V of the WHO-QOL scale score is 9.96 in the pre test and is 14.67 in the post test assessment. The t- value found is -3.34 which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and

opportunities for recreation/leisure activities, physical environments and transport, when Rational Emotive Behavior Therapy is administered, in patients with Paranoid Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Experimental Group.

Table IV.2.1.64

Pretest-Post test Scores of Experimental Group on Domain VI

Group	N	Mean	SD	t- value
pre test	6	6.60	0.94	-16.04**
post test		14.26	0.86	

** Significant at 0.01 level

The above table shows that the mean of the Experimental Group on domain VI of the WHO-QOL scale score is 10.45 in the pre test and is 14.2857 in the post test assessment. The t- value found is -4.48 which is significant at 0.01levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Rational Emotive Behavior Therapy is administered in patients with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the pre test and post-test score on Overall Quality of Life of the Experimental Group.

Table IV.2.1.65

Pretest-Post test Scores of Experimental Group on Overall Quality of Life

Group	N	Mean	SD	t- value
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Pre test	6	43.38	3.67	-16.04
Post test		86.7	5.14	

**** Significant at 0.01 level**

The Table IV.2.1.65 shows that the mean of the Experimental Group on Overall Quality of Life is 43.38 in the pre-test and is 86.7 in the post test. The t-value found is -13.38 which is significant at 0.01 level. Hence the hypothesis is rejected.

The result shows that the overall Quality of Life of the subjects with Paranoid Personality Disorder improves significantly as a result of using REBT.

To conclude, all the above mentioned domains of Quality of Life are showing statistically significant improvement in the post test assessment. So it can be predicted that when Rational Emotive Behaviour Therapy is used there will be significant change in all the aspects, which determines the Quality of Life, in subjects with Paranoid Personality Disorder.

3. Control Group II

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group II on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post test scores on Domain I of the Control Group II.

Table IV.2.1.66

Pretest-Post test Scores of Control Group II on Domain I

Group	N	Mean	SD	t- value
Pre test	6	9.09	2.11	-4.31**
post test		13.81	1.97	

***significant at 0.01 level*

From the above table it can be seen that the mean of the Control Group II on domain I of the WHO-QOL scale score is 9.09 in the pre test and the in the post test assessment, it is 13.81. The t- value found is -4.31 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Rational Emotive Behaviour Therapy along with Medicines, is administered in patients with Paranoid Personality Disorder.

b) Domain II**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group II.

Table IV.2.1.67

Pretest-Post test Scores of Control Group II on Domain II

Group	N	Mean	SD	t- value
pre test	6	5.87	0.97	-10.96**
post test		16.67	1.71	

***significant at 0.01 level*

The above table shows that the mean value of the Control Group II on domain II of the WHO-QOL scale score is 5.87 in the pre test and is 16.67 in the post test assessment. The t- value found is -10.96, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life

including the positive feeling, thinking, learning, memory and concentration, self-esteem, bodily image and appearance and negative feelings, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Paranoid Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group II.

Table IV.2.1.68

Pretest-Post test Scores of Control Group II on Domain III

Group	N	Mean	SD	t- value
Pre test	6	8	1.41	-12.53**
Post test		14.35	0.81	

***significant at 0.01 level*

The above table shows that the mean of the Control Group II on domain III of the WHO-QOL scale score is 8 in the pre test and is 14.35 in the post test assessment. The t- value found is -12.53 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Paranoid Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group II.

Table IV.2.1.69

Pretest-Post test Scores of Control Group II on Domain IV

Group	N	Mean	SD	t- value
pre test	6	5.78	1.61	-10.83**
post test		14.79	1.42	

***significant at 0.01 level*

The above table shows that the mean value of the Control Group II on domain IV of the WHO-QOL scale score is 5.78 in the pre test and is 14.79 in the post test assessment. The t- value found is -10.83 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Rational Emotive Behaviour Therapy along with Medicines is administered, in patients with Paranoid Personality Disorder.

e) Domain V**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group II.

Table IV.2.1.70

Pretest-Post test Scores of Control Group II on Domain V

Group	N	Mean	SD	t- value
Pre test	6	10.22	3.74	-4.60**
Post test		16.20	0.76	

***significant at 0.01 level*

The above table shows that the mean score of the Control Group II on domain V of the WHO-QOL scale score is 10.22 in the pre test and is 16.20 in the post test assessment. The t- value found is -4.60 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment,

financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Paranoid Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group II.

Table IV.2.1.71

Pretest-Post test Scores of Control Group II on Domain VI

Group	N	Mean	SD	t- value
Pre test	6	7.33	1.45	-12.43**
Post test		16.38	1.17	

** Significant at 0.01 level

The above table shows that the mean value of the Control Group II on domain VI of the WHO-QOL scale score is 7.33 in the pre test and is 16.38 in the post test assessment. The t- value found is -12.43, which is significant at 0.01levels.Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the pre and post tests scores on Overall Quality of the Control Group II.

Table IV.2.1.72

**Pre test and Post test scores of
Control Group II on Overall Quality of Life**

Group	N	Mean	SD	t- value
Pre test	6	46.3	5.29	-17.79**
Post test		92.19	4.42	

*** Significant at 0.01 level*

The above table (Table IV.2.1.72) shows that the mean value of the Control Group II on overall Quality of Life is 46.3 in the pre test and is 16.38 in the post test assessment. The t-value found is -17.79 which is significant at 0.01 level. Hence the hypothesis is rejected.

The influence is that there will be significant change in the Overall Quality of Life as a result of using the combination treatment of both REBT and medicine.

To conclude, all the above mentioned domains of Quality of Life are showing statistically significant improvement in the post test assessment. So it can be predicted that Rational Emotive Behaviour Therapy when used in combination with medicines, there will be significant change in all the aspects, which determines the Quality of Life, in subjects with Paranoid Personality Disorder.

4. Control Group III

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group III on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group III.

Table IV.2.1.73

Pretest-Post test Scores of Control Group III on Domain I

Group	N	Mean	SD	t- value
Pre test	6	7.78	1.56	-0.58
Post test		8.33	2.13	

From the above table it can be seen that the mean value of the Control Group III on domain I of the WHO-QOL scale score is 7.78 in the pre test and the in the post test assessment, it is 8.33. The t- value found is -0.58 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Medicines alone, is administered in patients with Paranoid Personality Disorder.

b) Domain II**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group III.

Table IV.2.1.74

Pretest-Post test Scores of Control Group III on Domain II

Group	N	Mean	SD	t- value
Pre test	6	5.48	0.94	-10.06**
Post test		10.63	1.20	

***significant at 0.01 level*

The above table shows that the mean value of the Control Group III on domain II of the WHO-QOL scale score is 5.48 in the pre test and is 10.63 in the post test assessment. The t- value found is -10.06, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration,

self- esteem, bodily image and appearance and negative feelings, when Medicines alone, is administered, in patients with Paranoid Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group III.

Table IV.2.1.75

Pretest-Post test Scores of Control Group III on Domain III

Group	N	Mean	SD	t- value
Pre test	6	8	1.41	-3.87*
Post test		12	2.82	

**significant at 0.051 level*

The above table shows that the mean of the Control Group III on domain III of the WHO-QOL scale score is 8 in the pre test and is 12 in the post test assessment. The t- value found is -3.87 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Medicines alone, is administered, in patients with Paranoid Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group III.

Table IV.2.1.76

Pretest-Post test Scores of Control Group III on Domain IV

Group	N	Mean	SD	t- value
Pre test	6	5.19	1.14	-4.60**
Post test		9.83	2.68	

***significant at 0.01 level*

The above table shows that the mean value of the Control Group III on domain IV of the WHO-QOL scale score is 5.19 in the pre test and is 9.83 in the post test assessment. The t-value found is -4.60 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Medicines alone is administered, in patients with Paranoid Personality Disorder.

e) Domain V**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group III.

Table IV.2.1.77

Pretest-Post test Scores of Control Group III on Domain V

Group	N	Mean	SD	t- value
Pre test	6	11.59	4.23	-1.75
Post test		13.69	2.45	

The above table shows that the mean score of the Control Group III on domain V of the WHO-QOL scale score is 11.59 in the pre test and is 13.69 in the post test assessment. The t- value found is -1.75 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and

transport, when Medicines alone, is administered, in patients with Paranoid Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group III.

Table IV.2.1.78

Pretest-Post test Scores of Control Group III on Domain VI

Group	N	Mean	SD	t- value
Pre test	6	7.33	1.45	-5.78**
Post test		9.62	1.31	

** Significant at 0.01 level

The above table shows that the mean value of the Control Group III on domain VI of the WHO-QOL scale score is 7.33 in the pre test and is 9.62 in the post test assessment. The t- value found is -5.78, which is significant at 0.01levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Medicines alone, is administered, in patients with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the pre and post test scores on Quality of Life.

Table IV.2.1.79

Pretest-Post test Scores of Control Group III on Overall Quality of Life

Group	N	Mean	SD	t- value
Pre test	6	45.37	6.23	-7.18**
Post test		64.09	7.06	

*** Significant at 0.01 level*

The Table IV.2.1.78 shows that the mean value of the Control Group III on Overall Quality of Life is 45.37 in the Pre-Test and 64.09 in the Post-test assessment. The t-value found is -7.18, which is significant at 0.01 level. Hence the hypothesis is rejected.

The result shows that medicines alone are capable of bringing significant improvement in the Quality of Life in the subjects with Paranoid Personality Disorder.

To conclude, in the above mentioned domains of Quality of Life all the domains except domain I and domain V are showing statistically significant improvement in the post test assessment. The domain I encompasses the physical aspects of Quality of Life and the domain V determines the physical safety and security. So it can be predicted that when medicines are used, there will be significant change in some of the aspects, which determines the Quality of Life, except for the physical aspects and the physical safety and security in subjects with Paranoid Personality Disorder.

Rational Emotive Behavior Therapy was effective in lifting the Quality of Life among patients with Paranoid Personality Disorder.

The efficacy of using pharmacological agents along with Rational Emotive Behavior Therapy was as equal as using Rational Emotive Behavior Therapy alone in lifting the Quality of Life among patients with Paranoid Personality Disorder.

Administration of pharmacological agents alone in patients with Paranoid Personality Disorder is not significantly effective in lifting the Quality of Life as compared to group which was not administered with any sort of management technique.

But the pretest post test comparison reveals that there is significant effect for medicines in bringing up the Quality of Life of subjects with Paranoid Personality Disorder.

IV.2.2. Section 2 - Borderline Personality Disorder

In this part, the results obtained through the research on Borderline Personality Disorder are discussed. Subjects with Borderline Personality Disorder often exhibit symptoms like disturbances in and uncertainty about self-image, aims, and internal preferences, liability to become involved in intense and unstable relationships often leading to emotional crises, excessive efforts to avoid abandonment, recurrent threats or acts of self-harm and chronic feelings of emptiness.

Patients with Borderline Personality Disorder often brought for consultation with complaints like frequent quarrel with spouse, suicidal gestures, impulsive acts, unhealthy love relations and depression. The subjects were selected according to the scores on the IPDE interview schedule. Only those subjects, who got a score of 3 or more in the number of criteria met for the first five items and a score of 2 or more in the number of criteria met for the next five items in the IPDE-ICD-10 , were selected for the research, (i.e. subjects who are having a definite diagnosis of Borderline Personality Disorder).

The total population of Borderline Personality Disorder (N=36) is grouped into four matched group, one among them was the Experimental Group. Besides the Dimensional score on IPDE, other dependent variable such as Hostility and Quality of Life were also attempted in the study.

To identify the efficacy of Rational Emotive Behaviour Therapy in subjects with Borderline Personality Disorder when compared to the Control Groups and in terms of pre and post assessment are the major focus of this part of the study.

The reduction in hostility and its sub variables and the improvement in the Quality of Life were attempted to study in the process of identifying the efficacy of Rational Emotive Behaviour Therapy in subjects with Borderline Personality Disorder. For this purpose this part is sub divided in to three

sections. The first section comprises of the analysis of the four groups scores in IPDE-ICD-10. The second session comprises of the analysis of the four groups in the score obtained on hostility scale and finally the third section contains the analysis of the scores obtained in the Quality of Life scale.

A) Analyses of Experimental Group and Control Groups on IPDE

Scores

In this the scores of IPDE-ICD-10 obtained by the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III, in the Pre and Post tests are analyzed using one-way ANOVA.

Scheffe test is used to identify the groups which show significant difference.

I. PRE-TEST

Hypothesis:

There will be no significant difference between the four groups in the Pre test on IPDE score.

The Pretest result and F-value for the Experimental Group and the Control Groups are given in **Table No. IV.2.2.1**

Table No. IV.2.2.1

F-values of four Groups on IPDE scores

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
IPDE SCORE	0.97	0.32	171.33	5.35	0.06

From the above table (**Table No: IV.2.2.1**) it can be seen that there is no significant difference between the four groups on IPDE score statistically. The F-value obtained is 0.06 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Table No. IV.2.2.2

Mean and Standard deviation of Four Groups on IPDE Score

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE SCORE	9	11.88	2.47	11.66	2.12	11.44	2.55	11.55	2.06

The **Table No IV.2.2.2** shows that the mean scores for the Control Group I, Experimental Group, Control Group II and Control Group III are 11.88, 11.66, 11.44 and 11.55 respectively. None of the mean values of the above four groups differs significantly. Scheffe test shows no significance of mean difference among the four groups. The highest Mean value is that of the Control Group I which is 11.88 and the lowest Mean value is that of the Control Group II (11.44).

The inference is that all the four groups namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents, are matched in terms of their scores on IPDE during the pretest. This also indicates that the scores obtained by the samples during the initial assessment are more or less same and the degrees of severity of the Borderline Personality Disorder traits are similar.

II. POST-TEST

Hypothesis:

There will be no significant difference between the four groups in the Pre test on IPDE score.

In the Post test, the obtained mean values significantly differ in the Analysis of Variance, (**Table No. IV.2.2.3**)

Table No. IV.2.2.3

F-value of four groups on IPDE score

Variable	Between group		Within group		F-value
	Sum of	Mean	Sum of	Mean	

	squares	Squares	squares	Squares	
IPDE SCORE	260.75	86.91	102.88	3.21	27.03**

***significant at 0.01 level*

The above table (**Table No.IV.2.2.3**) shows that the F-value which has been found in the comparison of the mean values of the four groups is 27.03, which is significant at 0.01 levels. Hence the hypothesis is rejected.

Further in detail on Scheffe test the Control Group II (the group which had been administered with both Rational Emotive Behavior Therapy and Pharmacological treatment) differ significantly in their mean values with that of the Control Group I (The group which was not administered with any sort of intervention) and the Control Group III (the group which was administered only with Pharmacological treatment).The Experimental Group (group which was administered with only Rational Emotive Behaviour Therapy) also differs significantly with the Control Group I and the Control Group III.

The mean values and standard deviations obtained for the four groups are presented in the below table (**Table No. No IV.2.2.4**).

Table No. IV.2.2.4

Mean and Standard deviation of Four Groups on IPDE Score

Variable	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE SCORE	9	11.22	2.68	5.88	1.26	4.55	1.33	9.55	1.50

The lowest mean is that of the Control Group II, which is 4.55 and this differs significantly from the mean values of Control Group I and Control Group III. This would indicate the efficacy of Rational Emotive Behaviour Therapy when administered along with Pharmacological treatment in reducing the symptoms of Borderline Personality Disorder. At the same time the Experimental Group also differs significantly from the above two groups in their mean values on IPDE. But the mean values of the Experimental Group and the Control Group II does not differ significantly, which suggests that though there was a difference in their mean values, the use of medicines does not contribute significant change in IPDE score even when combined with

Rational Emotive Behaviour Therapy. Also the Control Group III which was administered only with Pharmacological treatment does not differ with any other groups especially from the Control Group I. Hence it can be inferred that the use of Rational Emotive Behaviour Therapy in patients with Borderline Personality Disorder is effective in reducing their symptoms. The effect of medicines in reducing the IPDE score is under suspicion.

To conclude Rational Emotive Behaviour Therapy is effective in reducing the symptoms of Borderline Personality Disorder and Pharmacological Agents have no significant effect in reducing the symptoms of Borderline Personality Disorder.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the pretest and Post test score of four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on IPDE is compared using Matched t-test to find out the level of significance in the difference between the scores in their Pre and Post tests.

1) Control Group I

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group I.

Table No. IV.2.2.5

Pretest-Post test Scores of Control Group I on IPDE

Group	N	Mean value	SD	t- value
Pre test	9	11.88	2.47	1.33
Post test		11.22	2.68	

The t-test results for the Control Group I between the mean values in the Pre and Post tests with IPDE show no significant difference. The obtained t-value is 1.33 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that when no intervention method is introduced, the characteristics of Borderline Personality Disorder remain the same.

2) Experimental Group

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Experimental Group.

Table No. IV.2.2.6

Pretest-Post test Scores of Experimental Group on IPDE

Group	N	Mean value	SD	t- value
Pre test	9	11.66	2.12	6.58**
Post test		5.88	1.26	

***significant at 0.01 level*

The t-test results for the Experimental Group between the mean values in the Pre and Post tests with IPDE show significant difference. The obtained t-value is 6.58, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The result suggests that the traits of Borderline Personality Disorder are subject to change if intervened with Rational Emotive Behaviour Therapy. In other words REBT is effective in managing Borderline Personality Disorder. It effectively reduces the symptoms of the disorder.

3) Control Group II

Hypothesis:

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group II.

Table No. IV.2.2.7

Pretest-Post test Scores of Control Group II on IPDE

Group	N	Mean	SD	t- value
Pre test	9	11.44	2.55	8.54**
Post test		4.55	1.33	

***significant at 0.01 level*

The t-value obtained is 8.54, which is significant at 0.01 levels. When the subjects are administered with Rational Emotive Behaviour Therapy and medicines together, their scores on IPDE-ICD-10 is found to be reduced to a significant level. The Pre test mean was 11.44 and the Post test mean was 4.55. Hence the hypothesis is rejected.

The administration of REBT along with pharmacological treatment also results in the reduction of the severity of the traits of Borderline Personality Disorder. As the t-test for the Experimental Group where, only the Rational Emotive Behaviour Therapy was administered, was also significant, this reduction cannot be attributed to the effects of the pharmacological agents.

4) Control Group III**Hypothesis:**

There will be no significant difference between the Pre and Post tests score on IPDE of the Control Group II.

Table No. IV.2.2.8

Pretest-Post test Scores of Control Group III on IPDE

Group	N	Mean	SD	t- value
Pre test	9	11.55	2.06	3.21
Post test		9.55	1.50	

The t-test results for the Control Group III between the mean values in the Pre and Post tests with IPDE show no significant difference. The obtained

t-value is 3.21 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that the traits of Borderline Personality Disorder are not subject to change with the administration of pharmacological agents alone. The mean obtained in the Pre test was 11.55 and the mean obtained in the Post test was 9.55.

IV. Comparison of Pretest and Post test Scores on IPDE for Each Subject Through Graphs

Under this section the researcher had attempted to compare the Pretest and Post test scores of each subject in the four groups on each variable in the IPDE-ICD-10. The variables in the IPDE-ICD-10 are considered to be the symptoms of Borderline Personality Disorder. This helped to identify how far the intervention methods were effective in reducing each symptom in subjects with Borderline Personality Disorder.

There are ten items (symptoms) in the IPDE-ICD-10 for Borderline Personality Disorder. Each of them for each group is presented in sequential order with their graph showing the scores obtained by each subject during their pre and post intervention assessments.

i. Act unexpectedly

This symptom refers to the consequences of acting suddenly and unexpectedly on impulse. It is scored positively only if the subject can produce convincing examples of problems that have arisen or could have arisen as a result of this tendency. A score of two is given when the subject frequently acts suddenly and unexpectedly on impulse. This sometimes causes problems or could cause problems. A score of one is given when occasionally acts suddenly and unexpectedly on impulse. This sometimes causes problems or could cause problems. Zero is scored when denied, rare, or not supported by convincing examples. This is one of the commonest symptoms seen in this disorder.

The graph for the Control Group I (**Figure IV.2.2.1**) shows the pretest and Post test scores of each subject on this item. Here all the subjects except for subject 2 and subject 7 got the same maximum score during both the Pre test and Post test. The subject 2 got a zero score during both occasion and

the subject 7 got a score of 1 during the pre assessment and zero during the post assessment. The graph shows that there was no change in the Post test scores of majority of the samples in the Control Group I, which indicate the consistency of scores in this item of IPDE-ICD-10 when no intervention is administered in subjects with Borderline Personality Disorder.

The graph of the Experimental Group (**Figure IV.2.2.2**) shows that the subjects 4, 5, 6,7and 8 shows a complete reduction in their Post test score and the subjects 2 and 3 shows a partial reduction in their Post test score. This indicates that majority of the subjects who were frequently acts suddenly and unexpectedly on impulse, have changed their reacting pattern and achieved good amount of control over their impulses after the introduction of Rational Emotive Behaviour Therapy, which shows the efficacy of Rational Emotive Behaviour Therapy in dealing with the tendency of subjects with Borderline Personality Disorder to act suddenly and unexpectedly.

The graph for the Control Group II (**Figure IV.2.2.3**) shows that the subjects 1, 3, 4, 5 and 8 got complete reduction in their Post test score, who were having the maximum score in the pre assessment. This indicates that majority of the subjects who were

Table No.IV.2.2.9

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Acts Unexpectedly'

Subjects	1		2		3		4		5		6		7		8		9	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	0	0	2	2	2	2	2	2	2	2	1	0	2	2	2	2
Experimental Group	1	1	2	1	2	1	2	0	2	0	2	0	1	0	2	0	0	1
Control Group II	2	0	2	1	2	0	2	0	2	0	2	1	2	1	2	0	2	2
Control Group III	2	0	2	2	2	0	2	2	2	0	2	0	2	1	2	1	2	0

Figure IV.2.2.1

Pretest and Posttest scores of each subject in the Control Group I on the Item 'Act Unexpectedly'

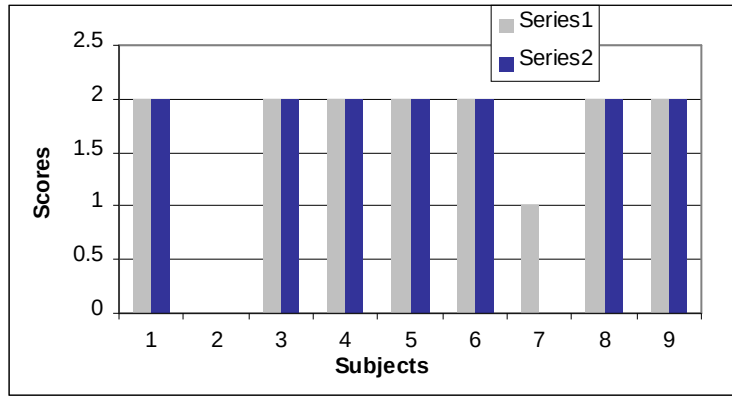


Figure IV.2.2.2

Pretest and Posttest scores of each subject in the Experimental Group I on the Item 'Act unexpectedly'

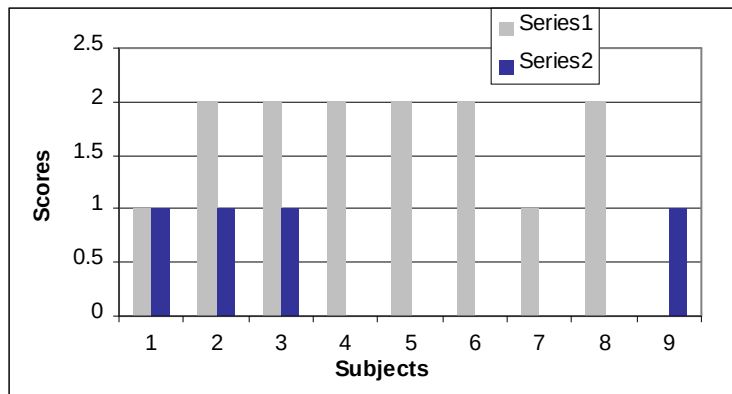


Figure IV.2.2.3

Pretest and Posttest scores of each subject in the Control Group II on the Item 'Act unexpectedly'

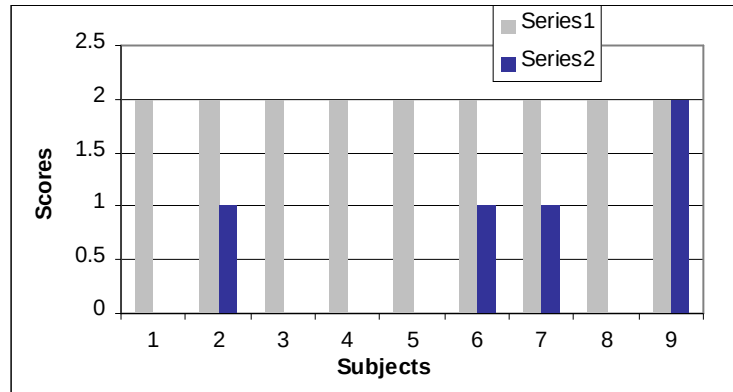
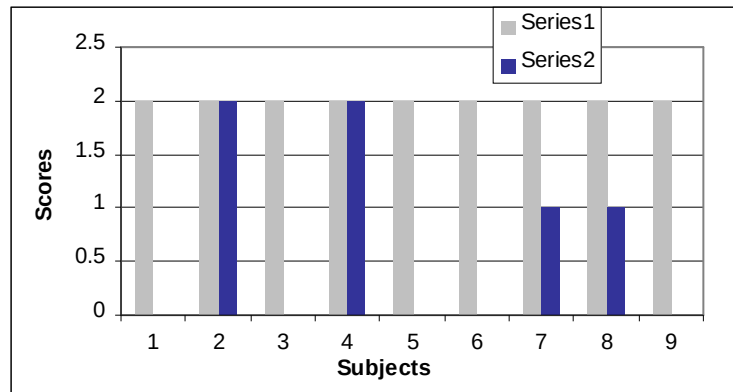


Figure IV.2.2.4

Pretest and Posttest scores of each subject in the Control Group III on the Item 'Act unexpectedly'



frequently acts suddenly and unexpectedly on impulse, have changed their reacting pattern and achieved good amount of control over their impulses after the introduction of Rational Emotive Behaviour Therapy along with medicines, which shows the efficacy of Rational Emotive Behaviour Therapy when used in combination with medicines in dealing with the tendency of subjects with Borderline Personality Disorder to act suddenly and unexpectedly. But as the Experimental Group also shows the same results, the effect cannot be attributed to the introduction of medicines unless we consider the graph of the fourth group.

The graph for the Control Group III (**Figure IV.2.2.4**) shows that there also considerable reduction in the Post test score as the subjects 1, 3, 5, 6, and 9 show complete reduction in their Post test scores. Hence it can be concluded that both Rational Emotive Behaviour Therapy and medicines are effective in controlling the uncontrolled sudden acts which is shown by the subjects with Borderline Personality Disorder.

ii. Quarrelsome when thwarted or criticized

This symptom refers to the quarrelsome behaviour and conflict occurs especially when the subject's impulsive acts are prevented, condemned, or criticized. To score two the subject should frequently engage in quarrelsome behaviour and conflicts with others, especially when the subject's impulsive acts are prevented, condemned, or criticized. A score of one is given when the subject occasionally engage in quarrelsome behaviour and conflicts with others, especially when the subject's impulsive acts are prevented, condemned, or criticized. Zero is scored when denied, rare, or not supported by convincing examples.

The Control Group I show in the graph (**Figure IV.2.2.5**) that only two subjects shows a complete reduction in the Post test assessment and that too is from a score of one. Two subjects show only partial reduction and four subjects remain same with their Pre test score. The subject 3 got a zero score on both the Pre test and Post test assessment. The figures indicate that the symptom Quarrelsome when thwarted or criticized will remain unchanged if no intervention to deal that symptom is introduced.

The graph of the Experimental Group (**Figure IV.2.2.6**) shows that out of the total nine subjects two subjects show complete reduction in their Post test score and four subjects shows a partial reduction in their Post test score. Though there is reduction in the majority of subject's Post test score, it cannot enough to predict the effect of Rational Emotive Behaviour Therapy as there is an increase in the Post test score of two subjects.

The graph for the Control Group II (**Figure IV.2.2.7**) shows that out of the five subjects who shows the positive score in the Pre test which is two, only one subject shows a complete reduction in the post assessment and three subjects shows only a partial reduction to a score of one. One subject

shows the same score of two on both occasions. This indicates that majority of the subjects who were frequently engaging in quarrelsome behaviour and conflicts with others, especially when the subject's impulsive acts are prevented, condemned, or criticized, has changed to occasionally engaging in quarrelsome behaviour and conflicts with others, especially when the subject's impulsive acts are prevented, condemned, or criticized. As only one subject showed this symptom occur only rarely, the combination treatment of both Rational Emotive Behaviour Therapy and medicines in managing the symptom of quarrelsome behaviour cannot be predicted as effective.

The Control Group III (**Figure IV.2.2.8**) also shows similar results through their graphs. Out of the seven subjects who scored positively in their pre assessment, only two subjects show a complete reduction in the post assessment and that too is from a score of one to zero. Four subjects remain the same on both assessment and one subject who was having a zero score in the pre assessment shows an increase in the post assessment to a score of one. Hence like the other groups here also the treatment method introduced (i.e. the medicines) have no effect in controlling this symptom.

Table No. IV.2.2.10

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Quarrelsome when thwarted or criticized'

Subjects	1		2		3		4		5		6		7		8		9	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	0	0	2	1	1	0	2	2	2	2	1	0	2	1
Experimental Group	2	2	2	0	2	1	0	1	2	1	2	1	2	0	2	1	0	1
Control Group II	0	0	0	0	2	1	2	2	2	1	0	0	2	0	2	1	0	0
Control Group III	1	1	1	1	0	1	0	0	1	0	2	2	1	0	2	1	2	2

Figure IV.2.2.5

Pretest and posttest scores of each subject in the Control Group I on the item 'Quarrelsome when thwarted or criticized'

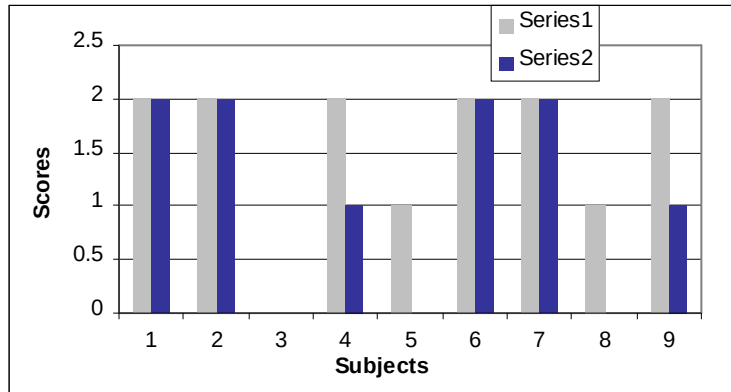


Figure IV.2.2.6

Pretest and posttest scores of each subject in the Experimental Group I on the item 'Quarrelsome when thwarted or criticized'

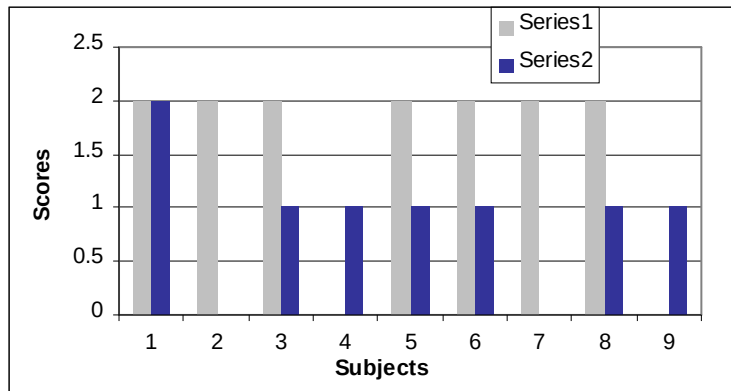


Figure IV.2.2.7

Pretest and posttest scores of each subject in the Control Group II on the item 'Quarrelsome when thwarted or criticized'

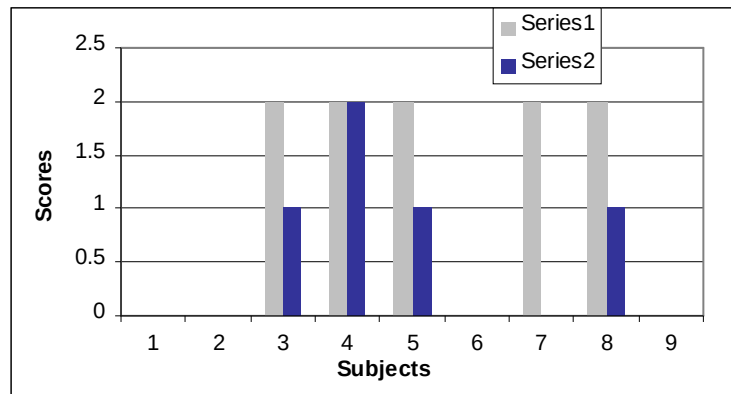
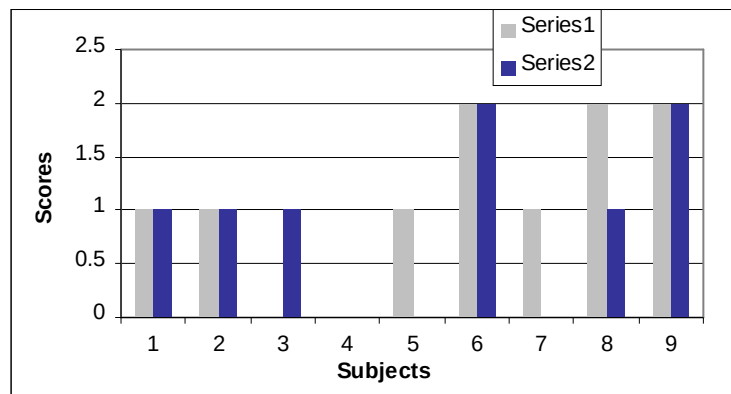


Figure IV.2.2.8

Pretest and posttest scores of each subject in the Control Group III on the item 'Quarrelsome when thwarted or criticized'



iii. Liability to anger or violence

The subjective experience of intense anger or psycho dynamically inferred anger is not within the scope of this criterion. The anger must be either inappropriate or intense and uncontrolled. Overt verbal or physical displays of anger are required

A score of 2 is given when the subject frequently verbally displays inappropriate or intense, uncontrolled anger. Occasionally indulges in extreme physical displays of inappropriate or intense, uncontrolled anger. A score of 1 is given when the subject displays verbally inappropriate or intense, uncontrolled anger. or on one or two occasions indulged in extreme physical

displays of inappropriate or intense, uncontrolled anger. Score of zero is scored when these symptoms are denied.

The graph for the Control Group I (**Figure IV.2.2.9**) show that subjects 1 to 8 obtained a score of 2 in Pre test and Post test. The subject 9 scored zero on Pre test and got 1 for Post test. From the result it can be found that the symptom, liability to anger and violence remains unchanged when reassessed after a period of 6 months for 8 subjects. This shows that when no intervention is administered this symptom of borderline Personality Disorder remain unchanged. It also indicates that the symptom liability to anger and violence is a highly consistent item in diagnosing borderline Personality Disorder.

The graph for the Experimental Group (**Figure IV.2.2.10**) shows that out of the five subject who got the maximum score in the Pre test one shows complete reduction in post assessment and three subjects shows a partial reduction. One subject remained unchanged in the post assessment. Here since the difference in the Pre test score and Post test score are not highly considerable the effect of Rational Emotive Behaviour Therapy can not be strongly recommended. But in majority of the subjects the symptom shows lesser severity in the Post test assessment.

The Control Group II (**Figure IV.2.2.11**) shows that out of the total nine subjects seven subjects got the maximum score in the Pre test. Among them one subject shows a complete reduction and four subjects show a partial reduction in the Post test. One subject, who got a score of one in the pretest, shows complete reduction in the Post test. As majority of the subjects shows reduction in their Post test score it can be

Table No. IV.2.2.11

Pretest and Post test Scores of each Subject in the Four Groups on the item Liability to anger or violence

Subjects	1		2		3		4		5		6		7		8		9	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	1
Experimental Group	2	1	0	1	1	1	2	1	2	1	0	0	2	0	1	0	2	2
Control Group II	2	1	2	1	1	0	2	1	2	2	0	0	2	0	2	1	2	2
Control Group III	2	1	2	2	2	2	0	0	2	2	2	1	0	1	2	2	2	2

Figure IV.2.2.9

Pretest and posttest scores of each subject in the Control Group I on the item 'Liability to anger or violence'

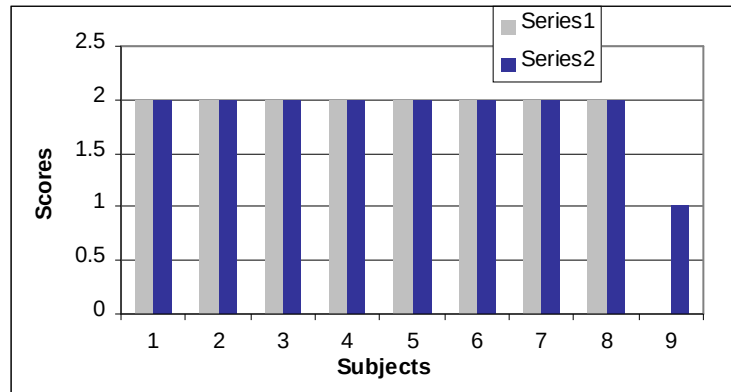


Figure IV.2.2.10

Pretest and posttest scores of each subject in the Experimental Group on the item 'Liability to anger or violence'

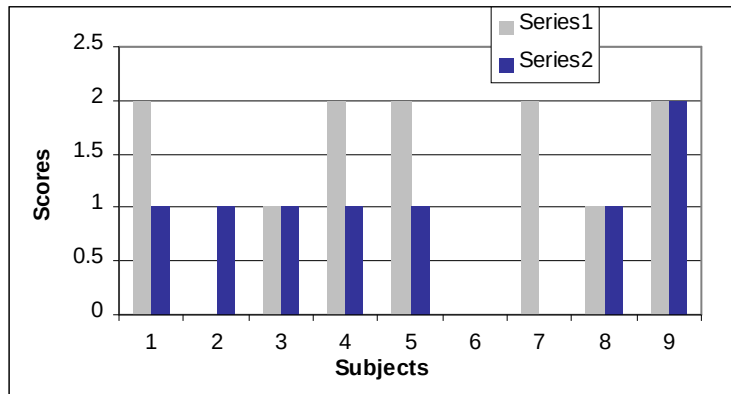


Figure IV.2.2.11

Pretest and posttest scores of each subject in the Control Group II on the item 'Liability to anger or violence'

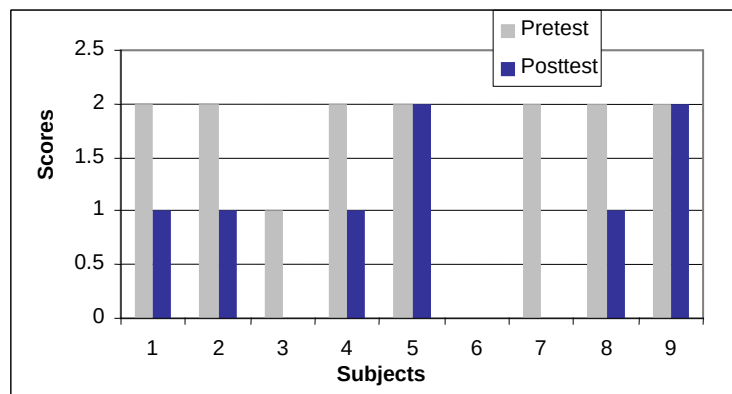
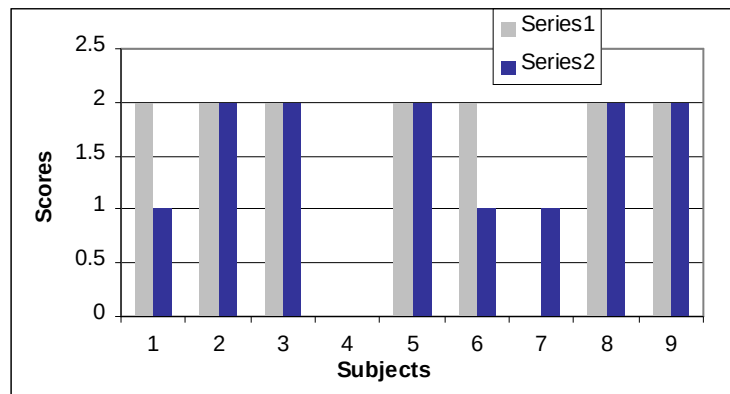


Figure IV.2.2.12

Pretest and posttest scores of each subject in the Control Group III on the item 'Liability to anger or violence'



predicted that the combination treatment of both Rational Emotive Behaviour Therapy and medicines is effective in reducing the symptom liability to anger or violence.

The graph for the Control Group III (**Figure IV.2.2.12**) shows that seven out of nine subjects shows a maximum score in the Pre test and only two subjects shows reduction in the Post test and that too is only partial. Which mean values that only two subjects who were frequently verbally displayed inappropriate or intense, uncontrolled anger or occasionally indulged in extreme physical displays of inappropriate or intense, uncontrolled anger have changed to occasional display of verbal anger. All the other subjects show the same amount of liability to anger and violence. Hence it can be stated that there is no effect of medicines in controlling this symptom in subjects with Borderline Personality Disorder.

iv. Not-persistent when no immediate reward

This symptom refers to the difficulty in maintaining any course of action that offers no immediate reward. This refers to the impatience and lack of perseverance when there is no immediate reward. To be scored positively there must be evidence from convincing examples that this results in subjective distress or problems in social or occupational functioning. Impatience associated with the pursuit of minor, everyday matters is not within the scope of the criterion. A score of two is scored when the subject

frequently has difficulty in maintaining any course of action that offers no immediate reward. This sometime causes subjective distress or problems in social or occupational functioning. One in scored when the same occurs occasionally. A zero score will be given when the symptom is denied, rare, or examples unconvincing.

The graph (**Figure IV.2.2.13**) of the Control Group I show that only two subjects show a positive score in the Pre test but five subjects shows positive score in the Post test. This indicate that when no intervention is administered this symptom not only remain unchanged but gets increased also.

Table No. IV.2.2.12

Pretest and Post test Scores of each Subject in the Four Groups on the item Not-persistent when no immediate reward

Subjects	1		2		3		4		5		6		7		8		9	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	0	0	0	0	0	1	2	2	0	1	0	0	0	0	2	2	0	2
Experimental Group	2	0	0	1	0	0	0	0	0	0	1	1	0	1	1	1	2	1
Control Group II	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	2	0
Control Group III	0	0	0	0	0	1	2	2	1	2	0	1	2	1	0	0	0	0

Figure IV.2.2.13

Pretest and Posttest scores of each subjects in the Control Group I on the item 'Not Persistent when no immediate reward'

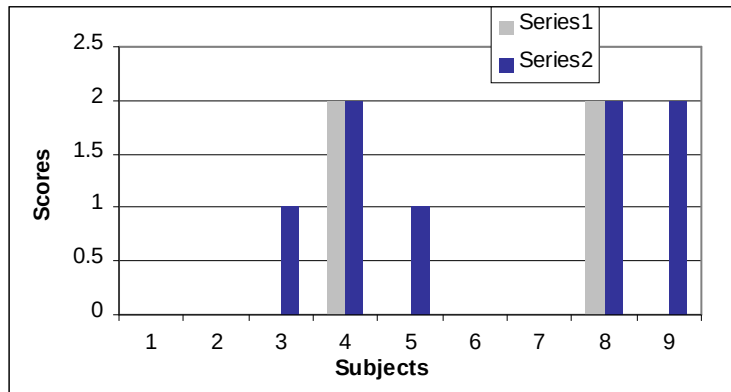


Figure IV.2.2.14

Pretest and Posttest scores of each subjects in the Experimental Group on the item 'Not Persistent when no immediate reward'

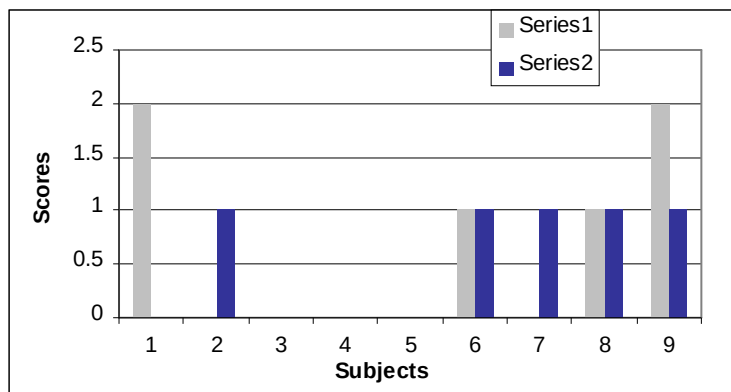


Figure IV.2.2.15

Pretest and Posttest scores of each subjects in the Control Group II on the item 'Not Persistent when no immediate reward'

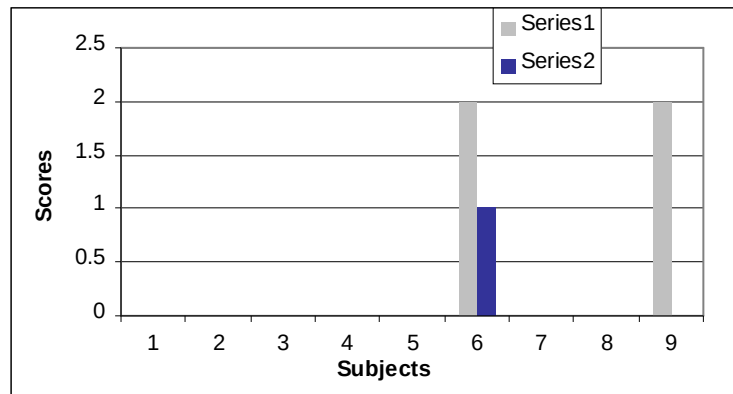
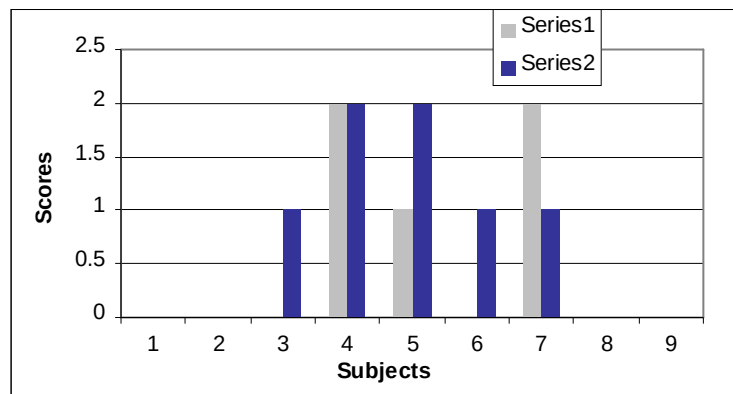


Figure IV.2.2.16

Pretest and Posttest scores of each subjects in the Control Group III on the item 'Not Persistent when no immediate reward'



The graph (**Figure IV 2.2.14**) of the Experimental Group shows that only two subjects got the maximum score in the Pre test and two subjects shows a score of one in the pretest. Only one subject shows a complete reduction in the Post test score and on subject shows a partial reduction in the post assessment. Two subjects remain unchanged and two subjects show an increase in the Post test from a score of zero to a score of one.

The graph of the Control Group II (**Figure IV.2.2.15**) shows that only two subjects got a positive score in the Pre test and among them one subject shows complete reduction and the other shows a partial reduction. No other subjects scored positively on both Pre test and Post test. Hence no

conclusion could be formulated with respect to the effect of Rational Emotive Behaviour Therapy in managing the symptom of difficulty in maintaining any course of action that offers no immediate reward.

In its graph (**Figure IV.2.2.16**) the Control Group III shows that there is no convincing finding to predict the effect of medicines in managing the symptom difficulty in maintaining any course of action that offers no immediate reward.

v. Unstable and Capricious Mood

This symptom refers to the mood changes that are frequent, short lived and also of some intensity. To score two there should be frequent experience of affective instability. A score of one is given when occasionally experience affective instability. Zero is scored when the symptom is denied, rare, or not supported by examples.

In the Control Group I, (**Figure IV.2.2.17**) 5 of the subjects got the maximum score of 2 in their pre assessment and 3 among them got the same during the Post test. 2 of them had reduced their score to 1 in the post assessment. 3 of the subjects got a score of zero for both their pre and Post tests. One subject got the same score of 1 on both occasions. Here again the consistency of this item of IPDE-ICD-10 in determining Borderline Personality Disorder is revealed and when no interventions were administered there will not any change in this item in majority of the subjects.

In the Experimental Group (**Figure IV.2.2.18**) when Rational Emotive Behaviour Therapy is done, partial reduction of score from two to one is found for 3 subjects as well as from one to zero for one subject. Three subjects got highest score both in post test and pre test. One subject scored zero for pre test and one for post test. From the result it can be concluded that Rational Emotive Behaviour Therapy alone is not much effective in handling the problem of frequent and intense mood changes. The graph for Control Group II (**Figure IV.2.2.19**) shows an overall partial reduction of symptom from two to one for four subjects and one to zero for one subject after intervention. But one subject scored one after administering Rational Emotive Behaviour Therapy and medicines though his score was zero in pre test. Other 3 subjects got zero in pre and post test. It can be found that to an extend

Rational Emotive Behaviour Therapy along with medicines helps patients who are suffering from affective instability.

Control Group III (**Figure IV.2.2.20**) show partial reduction of scores from two to one for five subjects, reduction from one to zero for two subjects and a complete reduction from two to zero for one subject in the post test. One subject scored zero on both pre and post test. From the result it can be assessed treatment with medicines is also effective in managing people who are suffering from unstable and capricious mood.

Table No. IV.2.2.13

Pretest and Post test Scores of each Subject in the Four Groups on the item Unstable No. and Capricious mood

Subjects	1		2		3		4		5		6		7		8		9	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	1	1	1	2	2	0	0	0	0	0	0	2	1
Experimental Group	2	1	2	2	2	1	2	2	2	1	0	1	2	2	1	0	0	0
Control Group II	2	1	2	1	2	1	1	0	0	1	2	1	0	0	0	0	0	0
Control Group III	1	0	2	1	2	0	2	1	0	0	2	1	1	0	2	1	2	1

Figure IV.2.2.17

Pretest and Posttest Scores of each subjects in the Control Group I on the Item 'Unstable and Caprivicous Mood'

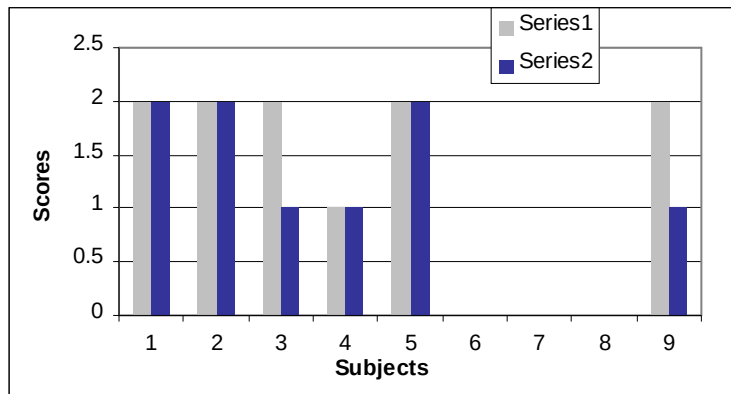


Figure IV.2.2.18

Pretest and Posttest Scores of each subjects in the Experimental Group on the Item 'Unstable and Caprivicous Mood'

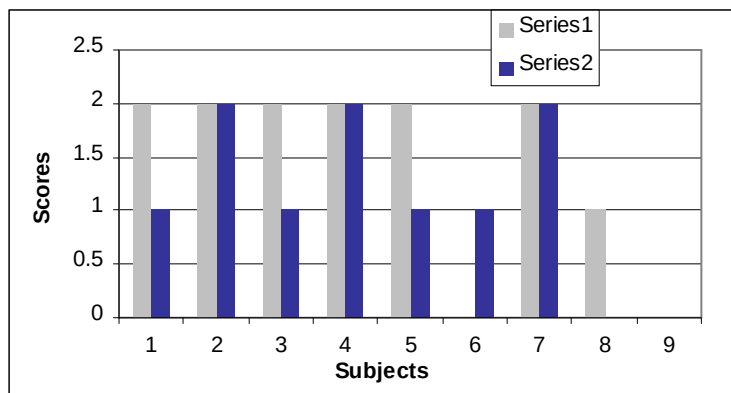


Figure IV.2.2.19

Pretest and Posttest Scores of each subjects in the Control Group II on the Item 'Unstable and Caprivicous Mood'

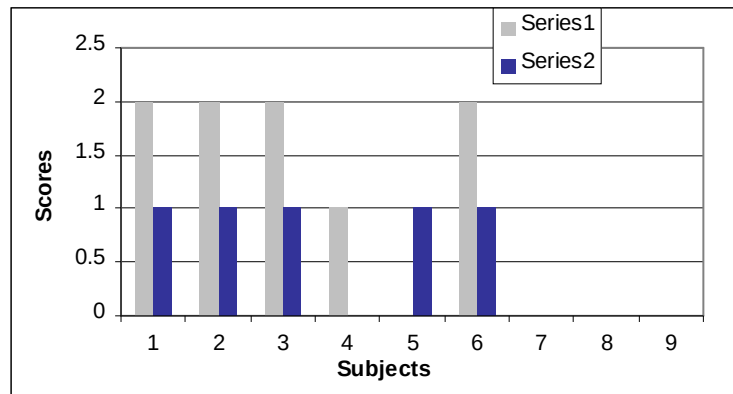
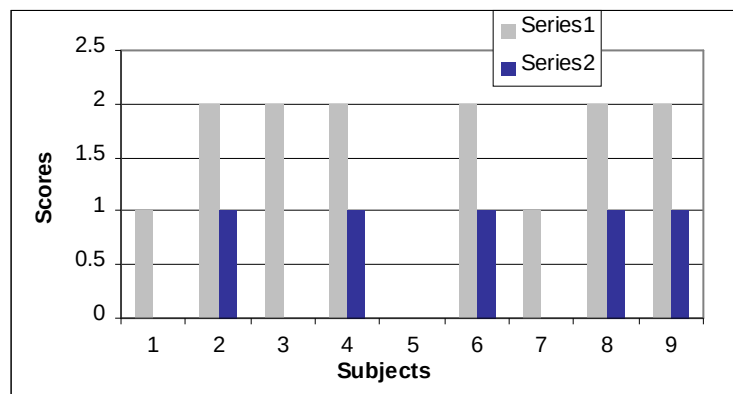


Figure IV.2.2.20

Pretest and Posttest Scores of each subjects in the Control Group III on the Item 'Unstable and Caprivicous Mood'



iv) Uncertainty about self image, aims etc.

The subjects with Borderline Personality Disorder often shows an uncertainty about their self image and life goals. They will have confusion about their own image. Only three subjects show the pre score of 2 for this item and 4 subjects show a score of zero during both their pre and post assessments. The majority of zero scores in subjects in all four groups, for this item indicate an infrequent existence of this symptom in subjects with Borderline Personality Disorder.

For the Control Group (**Figure IV.2.2.21**) the graph shows that except for only one sample all the other subjects shows a consistency in their Pre test and Post test score for this item, which indicates that when no intervention is introduced the subjects with Borderline Personality Disorder would remain unchanged for their symptoms of uncertainty about self image, aim etc. But one subject scored one after administering Rational Emotive Behaviour Therapy and medicines though his score was zero in pre test. Other 3 subjects got zero in pre and post test. It can be found Rational Emotive Behaviour Therapy along with medicines also helping patients who are suffering from affective instability.

In the Experimental Group it is shown two subjects got a score of one before and score of one after intervention. Two subjects' score are two and two before and after intervention. Other four subjects' score remain zero before and after intervention. One subject's score is reduced from one to zero. From the result it can be inferred Rational Emotive Behaviour Therapy alone cannot recommend in managing uncertainty about self image and life goals though this symptom is relatively rare in people with Personality Disorder.

Control Group III show partial reduction of scores from two to one for five subjects, reduction from one to zero for two subjects and a complete reduction from two to zero for one subject in the post test. One subject scored zero on both pre and post test. From the result it can be assessed treatment with medicines is effective to an extent in managing people who are suffering from unstable and capricious mood.

Table No. IV.2.2.14

Pretest and Post test Scores of each Subject in the Four Groups on the item Uncertainty about self-image, aims, etc

Subjects	1		2		3		4		5		6		7		8		9	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	0	0	0	0	2	2	1	1	0	0	2	2	0	0	2	1
Experimental Group	1	1	0	0	0	0	0	0	2	2	1	1	2	2	1	0	0	0
Control Group II	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	0
Control Group III	2	2	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0

Figure IV.2.2.21

Pretest and Posttest scores of each subject in the Control Group I on the Item 'Uncertainty about Self Image, aims, etc.'

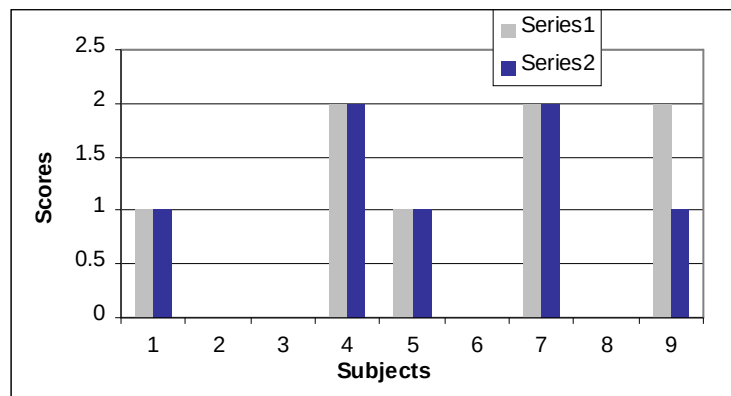


Figure IV.2.2.22

Pretest and Posttest scores of each subject in the Experimental Group on the Item 'Uncertainty about Self Image, aims, etc.'

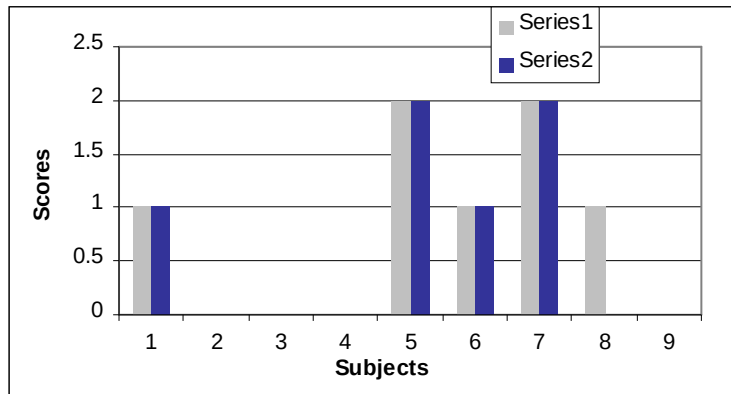


Figure IV.2.2.23

Pretest and Posttest scores of each subject in the Control Group II on the Item 'Uncertainty about Self Image, aims, etc.'

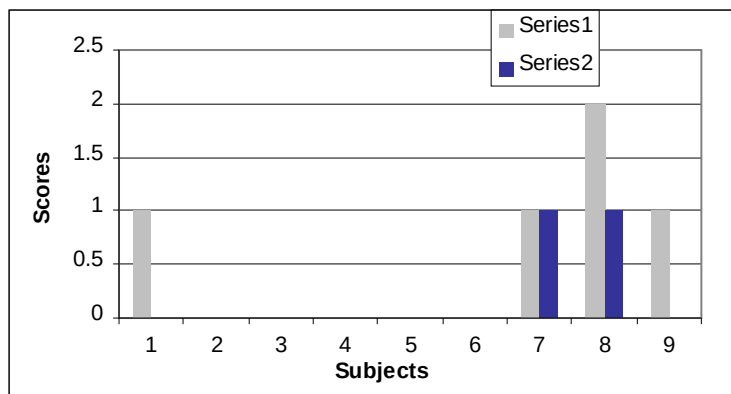
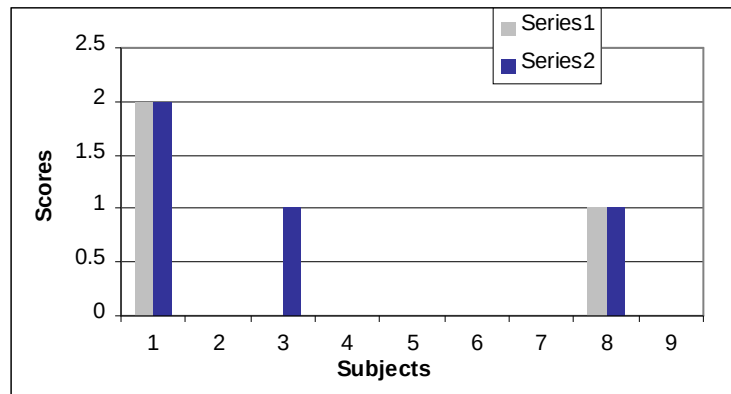


Figure IV.2.2.24

Pretest and Posttest scores of each subject in the Control Group III on the Item 'Uncertainty about Self Image, aims, etc.'



vii) Intense and unstable relations

Like the subjects with Antisocial Personality Disorder the subjects with Borderline Personality Disorder also have an uncanny knack of getting in to love relation or other close relationships, which will be intense initially, but as their Personality Disorder prevents them they won't be able to sustain their relationship long.

Here only 2 subjects in the Control Group I (**Figure IV.2.2.25**) have this symptom quite frequently in the pre test and remained the same during their post assessment as well (Subject 1 and subject 4). Two subjects got the Pre test score of 1 and all other subjects got the Pre test score of zero for this item. 2 of the subjects show a reduction in their Post test score (Subject 2 and subject 5). All other subject remained the same on both assessments. This would mean that this symptom will remain unchanged if when no intervention is introduced. The graph shows in Experimental Group (**Figure IV.2.2.26**) Subject one's score is reduced completely from two to zero.

In the Control Group II three subjects' score reduced from two to one in the post test and one subject's score reduced from one to zero. The subject 7 remains unchanged after intervention and subject 2 scores one from zero after intervention. The result suggests Rational Emotive Behaviour Therapy alone may be partially helpful for few people. In Control Group II complete reduction of score from two to zero for two subjects and a partial reduction

from two to one subject is found. 2 subjects remained unchanged during both the pretest and posttest assessments.

The graph in **the Figure IV.2.2.28** shows that among the 6 subjects in the Control Group III, who got a positive score in the pretest, one subject shows complete reduction to a score of zero and one subject shows a partial reduction from a score of 2 to 1. All the other subjects remain unchanged and one subject who was having zero score in the pre-assessment got a score and 2 in the post-assessment.

Table No. IV.2.2.15

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Intense and Unstable relations'

Subjects	1		2		3		4		5		6		7		8		9		
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	
Control Group I	2	2	1	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0
Experimental Group	2	0	0	1	2	1	2	1	1	0	1	1	1	0	2	2	2	2	1
Control Group II	2	1	0	0	2	0	2	2	2	0	0	0	0	0	0	0	2	2	2
Control Group III	1	0	2	2	0	0	2	2	2	2	0	2	2	1	0	0	2	2	2

Figure IV.2.2.25

Pretest and Posttest scores of each subject in the Control Group I on the item 'Intense and Unstable Relation'

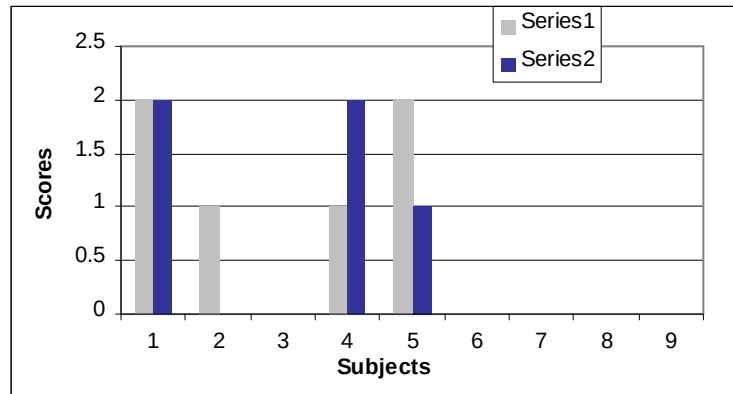


Figure IV.2.2.26

Pretest and Posttest scores of each subject in the Experimental Group on the item 'Intense and Unstable Relation'

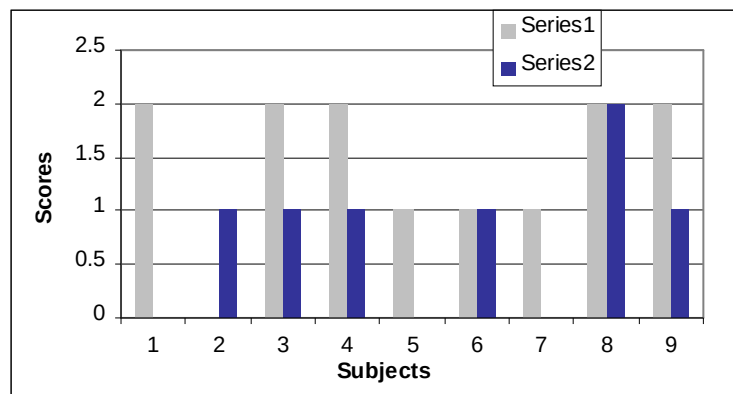


Figure IV.2.2.27

Pretest and Posttest scores of each subject in the Control Group II on the item 'Intense and Unstable Relation'

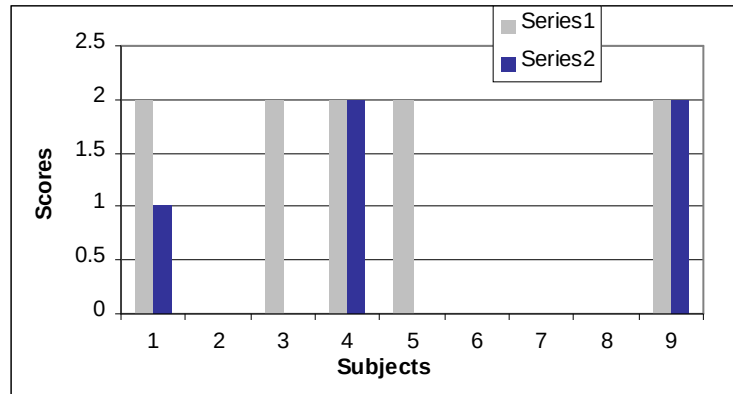
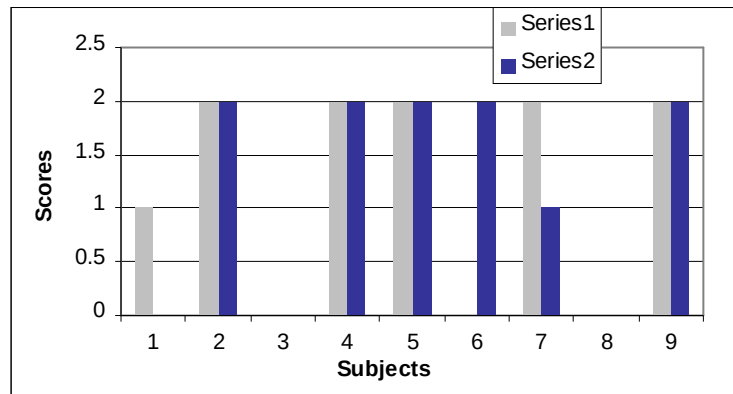


Figure IV.2.2.28

Pretest and Posttest scores of each subject in the Control Group III on the item 'Intense and Unstable Relation'



viii) Excessive efforts to avoid abandonment

The subjects with Borderline Personality Disorder always take efforts to avoid real or imagined abandonment. These efforts are associated with obvious feeling of anxiety or agitation. Table No IV.2.2.16 shows the pretest and posttest scores of every subjects in the four groups.

Out of 9 subjects in the Control Group I only one subject shows **(Figure IV.2.2.29)** the Pre test and Post test score of 2. Three of the subjects show a Pre test score of 1 and 2 among them remained unchanged during the Post test and the other subjects shows a reduction to a score of zero in the Post test. All the other subjects show a pre and Post test score of zero. The

results indicate that there is a consistency of subjects in the Control Group I, for this item.

The **Figure IV.2.2.30** shows that only 5 subjects in the experimental groups got a positive score in the pretest and three of them had compute reduction in the post test. The remaining 2 subjects show partial reduction. As all the subjects shows reduction in the post test assessment, consideration as effective in controlling the symptom! 'Excessive efforts to avoid abandonment'.

Table No. IV.2.2.16

Pretest and Post test Scores of each Subject in the Four Groups on the item Excessive efforts to avoid abandonment

Subjects	1		2		3		4		5		6		7		8		9	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	0	0	1	0	2	2	0	0	0	0	1	1	0	0	0	0
Experimental Group	0	0	0	0	2	0	0	0	0	0	2	0	2	1	1	0	2	1
Control Group II	0	0	0	0	2	1	1	0	1	1	2	1	0	0	0	0	2	0
Control Group III	1	1	0	0	2	0	0	1	2	2	2	1	1	1	2	2	2	2

Figure IV.2.2.29

Pretest and Posttest Scores of each subjects in the Control Group I on the items 'Excessive efforts to avoid abandonment'

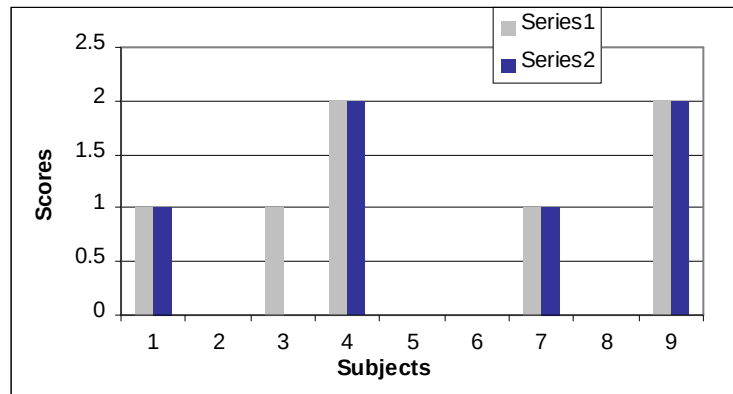


Figure IV.2.2.30

Pretest and Posttest Scores of each subjects in the Experimental Group on the items 'Excessive efforts to avoid abandonment'

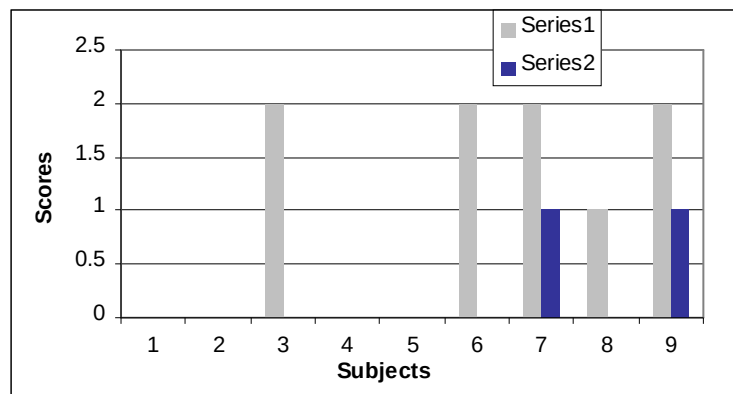


Figure IV.2.2.31

Pretest and Posttest Scores of each subjects in the Control Group II on the items 'Excessive efforts to avoid abandonment'

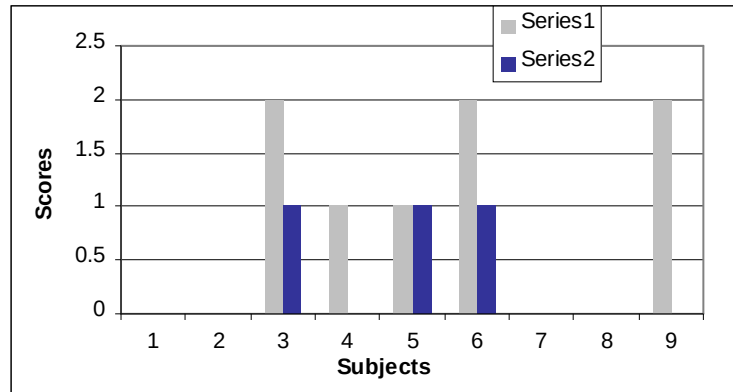
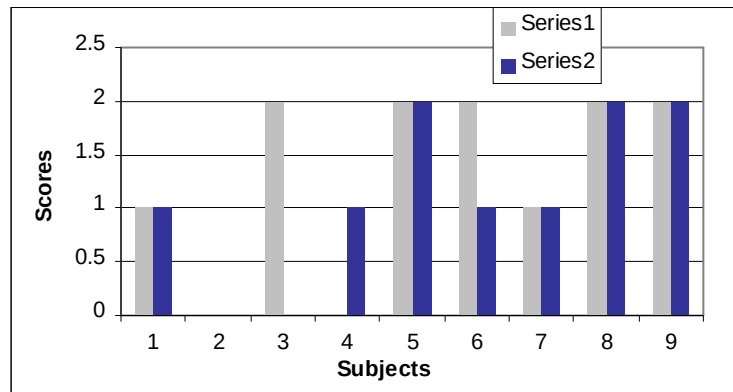


Figure IV.2.2.32

Pretest and Posttest Scores of each subjects in the Control Group III on the items 'Excessive efforts to avoid abandonment'



The Control Group II shows that **(Figure IV.2.2.31)** 3 subjects got the maximum score in the pretest and 2 subjects have got a score of 1 during the pretest. Among those 5 subjects two subject shows complete reduction and two subjects shows partial reduction in the post assessment. Only one subject remain unchanged during post assessment, who got a score of 1 as both the pre and post assessment.

The Control Group III **(Figure IV.2.2.32)** shows that out of 7 subjects who got positive score during the pretest, only one got complete reduction in the post assessment and are got partial reduction to a sure of one. All the other subjects have got the same score on both assessments. The results

indicate that medium have not comparative effects in controlling the item 'excessive effort to avoid abandonment'.

ix. Recurrent threats or acts of self-harm

Often the subjects with Borderline Personality Disorder exhibits Intention to commit suicide. Also they show suicidal gestures which include wrist cutting, deliberately breaking glass with one's body, burning one self, head banging and other deliberate forms of self-injury of a non suicidal nature.

The graph (**Figure IV.2.2.33**) shows that six subjects in the Control Group I show the maximum score of 2 during both their pre and post assessments. One subject shows a pre and Post test score of 1 and one subject shows a pre and Post test score of zero for this item. Only one subject who got an initial score zero shows a change in the Post test score i.e., 2. The results indicate a consistency for the Pre test and Post test score of subjects with Borderline Personality Disorder for this item, when no intervention is administered.

Table No. IV.2.2.17

Pretest and Post test Scores of each Subject in the Four Groups on the item 'Recurrent Threats or Acts of Self-harm'

Subjects	1		2		3		4		5		6		7		8		9	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	2	2	2	2	0	2	2	2	2	0	2	2	2	2	0	0
Experimental Group	2	0	2	0	0	0	2	0	1	1	2	0	1	0	0	0	0	0
Control Group II	2	0	2	0	1	0	2	1	2	0	2	1	2	1	2	0	0	0
Control Group III	2	2	0	0	1	1	0	0	2	2	2	0	2	2	2	2	0	0

Figure IV.2.2.33

Pretest and Posttest scores of each subjects in the Control Group I on the item 'Recurrent threats or acts of self harm'

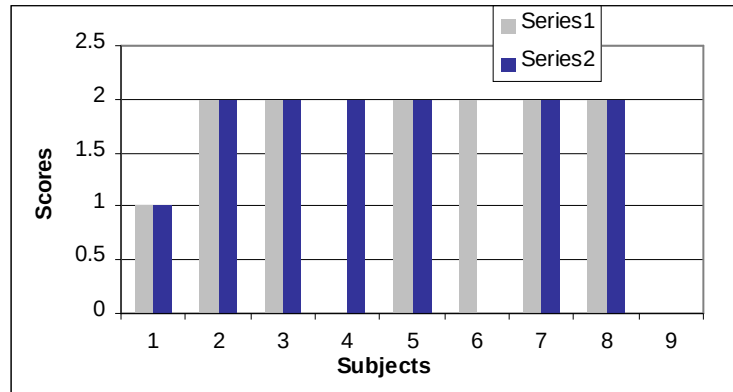


Figure IV.2.2.34

Pretest and Posttest scores of each subjects in the Experimental Group on the item 'Recurrent threats or acts of self harm'

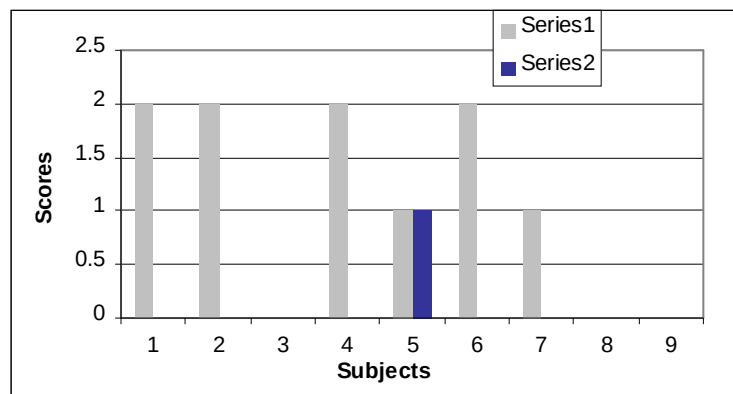


Figure IV.2.2.35

Pretest and Posttest scores of each subjects in the Control Group II on the item 'Recurrent threats or acts of self harm'

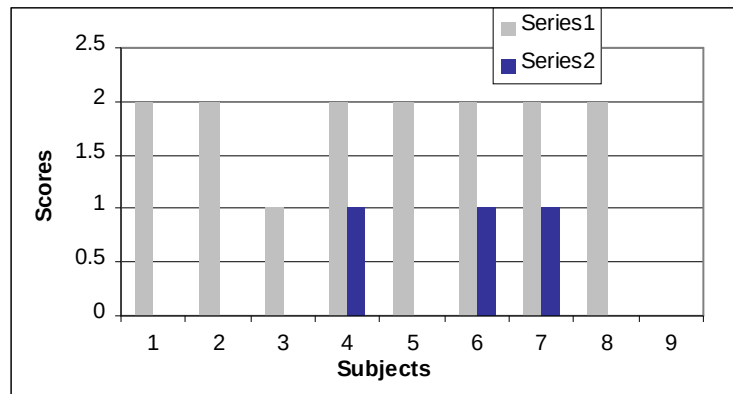
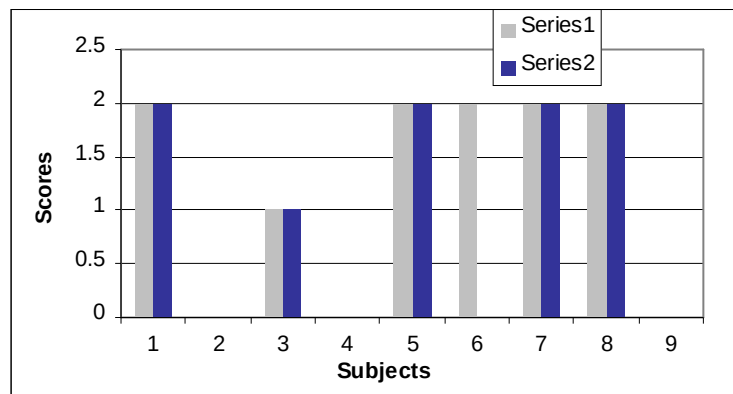


Figure IV.2.2.36

Pretest and Posttest scores of each subjects in the Control Group III on the item 'Recurrent threats or acts of self harm'



The **Figure IV.2.2.34** shows that 5 subjects out of 9 in the Experimental Group had complete reduction in the posttest assessment. The remaining are subject got the same score of one during both pre and post test assessment. The result indicates that REBT is highly effective in reducing the recurrent threats or acts of Self-harm which is predominant in subjects with Borderline Personality Disorder.

All the subjects in the Control Group II (**Figure IV.2.2.35**) show reduction in the post test assessment for this item. 5 subjects out of 9 in this group had complete reduction and 3 subjects got partial reduction. The result

indicates the effectiveness of REBT when used in combination with the medicine in controlling the symptom of recurrent threats or acts of self harm.

Only one subjects in the Control Group III showed reduction in the posttest assessment. All the other subjects remained the score during both pre and post assessment. This shows that when medicine alone is administered the symptom of 'Recurrent threat or act of self harm' could not be managed properly.

x. Chronic feelings of emptiness

Subjects with Borderline Personality Disorder often exhibits feeling of emptiness which is obviously distressing to the subject or sometimes leads to maladaptive behaviors such as substance abuse, self mutilation, suicidal gestures, impulsive sexual activities etc. The graph shows that six subjects out of nine of the Control Group I (Figure IV.2.2.37) show frequent feeling of emptiness to got a score of 2 on both pre and post assessment. Only one subject shows 0 score on both occasions. Consistency of Pre test and Post test scores shown in the graph for majority of the subjects indicate that there is consistency of symptoms for the subject and also it remains unchanged when no intervention is administered.

In the experimental group only 3 subjects showed a pretest score of 2 and two of them remain unchanged. It can also be seen that two subjects whose pretest scores were zero had changed to positive scores in the posttest assessment. Only one subject shows a reduction in the post test assessment and that too is only a partial reduction. Hence the effect of REBT above cannot be predicted in terms of the chronic feelings of emptiness in subjects Borderline Personality Disorder.

Table No. IV.2.2.18

Pretest and Post test Scores of each Subject in the Four Groups on the item Chronic feelings of emptiness

Subjects	1	2	3	4	5	6	7	8	9										
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test									
Control Group I	2	2	2	2	2	0	0	1	1	2	2	2	2	2	2	2	2	2	1
Experimental Group	0	0	2	1	0	0	0	1	2	2	0	0	0	2	2	2	0	0	0
Control Group II	1	0	2	1	2	1	1	1	0	0	0	0	2	1	1	0	0	0	0
Control Group III	0	0	2	2	2	2	2	2	1	1	0	0	0	0	0	1	0	0	0

Figure IV.2.2.37

Pretest and Posttest scores of each subjects in the Control Group I on the item 'Chronic Feelings of Emptiness'

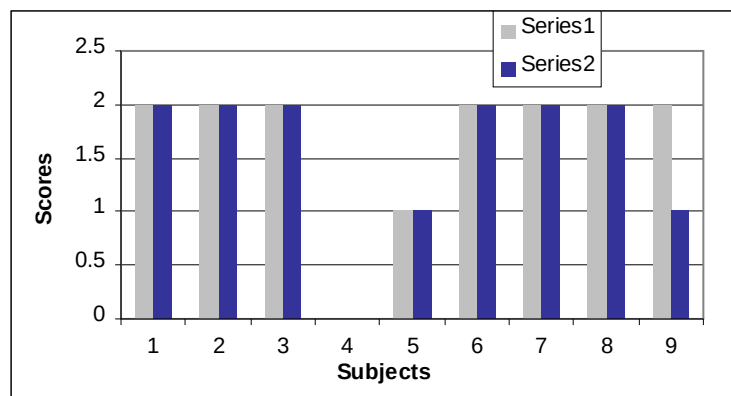


Figure IV.2.2.38

Pretest and Posttest scores of each subjects in the Experimental Group on the item 'Chronic Feelings of Emptiness'

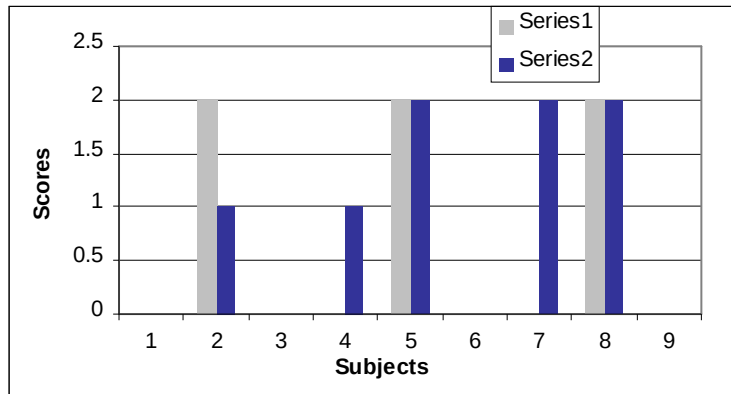


Figure IV.2.2.39

Pretest and Posttest scores of each subjects in the Control Group II on the item 'Chronic Feelings of Emptiness'

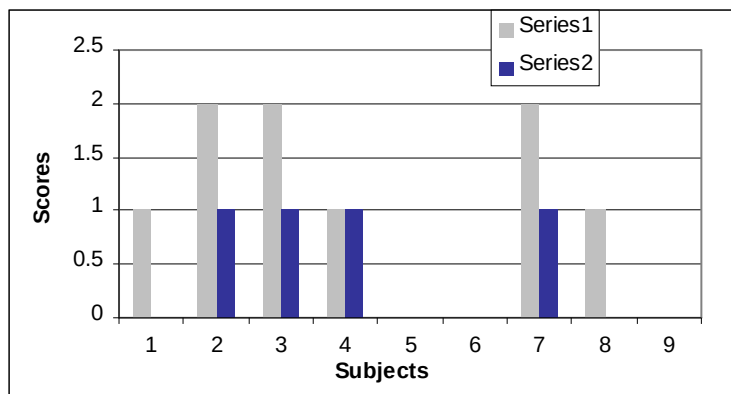
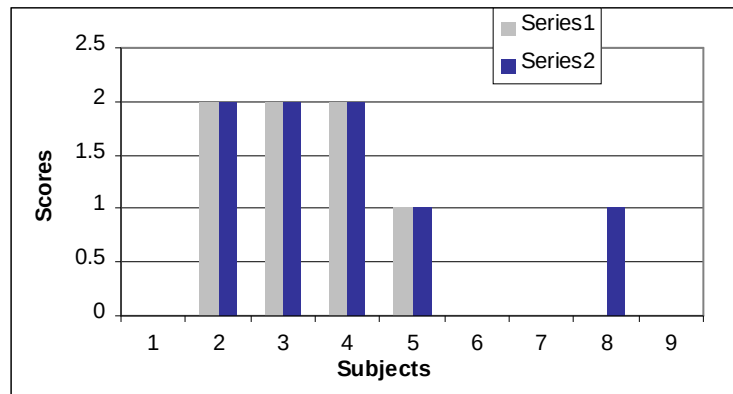


Figure IV.2.2.40

Pretest and Posttest scores of each subjects in the Control Group III on the item 'Chronic Feelings of Emptiness'



The **Figure IV.2.2.39** shows that 3 subjects who were having the maximum score during the pretest assessment shows a partial reduction to a score of one in the posttest assessment: Two subject who were having a score of one in the pretest have completely denied the symptom during the post assessment. Only one remained unchanged during the post test assessment. The graph shows some effect for the combination treatment of REBT and medicine in reducing the chronic feelings of emptiness in subjects with Borderline Personality Disorder.

The figure for the Control Group III (**Figure IV.2.2.40**) shows that none of the subjects got a reduction in the post test assessment due to the introduction of medicine for their chronic feelings of emptiness.

To conclude the graphs for the four groups on the symptoms of Borderline personality shows that REBT is effective in reducing the symptoms 'acts unexpectedly', 'quarrelsome to avoid abandonment' and 'recurrent threats or acts for self-harm', when REBT is used alone.

B) Analyses of Experimental Group and Control Groups on Hostility

As described earlier the total sample (N=36) with the diagnosis of Borderline Personality Disorder is subdivided into 4, based on the intervention module administered on them, as follows: Control Group I (No intervention is administered), Experimental Group (Rational Emotive Behaviour Therapy is administered), Control Group II (Rational Emotive Behaviour Therapy and medication are administered and Control Group III (Only medication is administered). All the above four groups were administered with Hostility Scale during both pre and post interview phase. The data were analyzed using one way ANOVA and Scheffe test was used to identify the groups which show significant difference.

The results and discussions are organized in this part is in such a way that the results of ANOVA of the four groups on their pretest scores on the six sub variables of hostility and the Overall Hostility are presented first, which is followed by the same of the Post test scores, secondly. Finally the results of the comparison of pretest and Post test scores of all the sub variables and Overall Hostility, using t- test are discussed.

I. PRE-TEST

The Pretest result and F-values for the Experimental Group and the Control Groups are given in **Table No. IV.2.2.19**. None of the F-value (**Table No. IV.2.2.19**) related to the Overall Hostility and its sub variables for the four groups are found significant at 0.05 level.

The table (**TableNo.IV.2.2.20**) gives the mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables. None of the four groups shows significant difference in the mean value in any of the sub variables and the Overall Hostility as well. Hence it can be clearly stated that the researcher's attempts to match the four groups became successful with respect to their level of Overall Hostility and the sub variables of hostility.

The significance of making the four groups matched in terms of their hostility is that, Borderline Personality Disorder is an axis II diagnosis and there were many axis I diagnoses which may in variably affect the hostility of the subjects with Borderline Personality Disorder.

Table No. IV.2.2.19

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	1	0.33	365.55	11.42	0.02
Guilt	881.88	293.96	650	20.31	14.47**
Cynicism	209	69.66	448.22	14.00	4.97*
Criticizing Others	343.33	114.44	766.22	23.94	4.77*
Acting Out	252.97	84.32	779.77	24.36	3.46*
Projection of Hostility	219.88	73.29	865.33	27.04	2.71*
Total Hostility	719.63	239.87	4209.33	131.54	1.82

significant at 0.05 level**significant at 0.01 level*

The ANOVA results of the pretest scores of the four groups suggest that all the four groups are having more or less similar levels of hostility and more importantly the four groups are having similar scores on every sub variables of hostility, the differences of which are insignificant.

Table No. IV.2.2.20

Mean and SD of (Pre-test) the
Four Groups on Hostility and its Sub- Variables

variables	no. of samples	Control Group I		Experiment group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self Criticism	9	29.55	4.55	29.88	3.25	29.44	2.74	29.55	2.60
Guilt	9	29.22	3.96	28.77	3.66	19.33	4.5	18.88	5.64
Cynicism	9	21.22	2.58	19.88	2.61	15.11	4.31	16.88	4.88
Criticizing Others	9	31	4.82	30.66	6	37.55	3.39	36.33	5
Acting Out	9	31.66	5.12	28.44	6.36	34.22	3.59	35.33	4.21
Projection of Hostility	9	25.22	5.73	27	7.64	21.44	3.08	21.22	2.68
Overall Hostility	9	167.88	12.95	164.66	16.29	157.11	6.09	158.22	7.46

1. Self-Criticism

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Self Criticism.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 29.55, 29.88, 29.44 and 29.55 respectively. The highest mean is that of the Experimental Group and that lowest Mean is that of the Control Group II. The F-value obtained for the four groups is 0.02 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

This would indicate that the four groups are not having considerable difference in their pretest scores and therefore matched in terms of their score in Self-Criticism.

2. Guilt

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Guilt.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 29.22, 28.77, 19.33 and 18.88 respectively. The highest mean is that of the Control Group I and the lowest mean is that of the Control Group III. The F-value obtained is 14.47 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The scheffe test shows that the significant Mean difference is between the Control Group I and Control Group III. No other two groups differ significantly. The result indicates that the attempts to make the four groups matched went failed in respect of the score of the subjects in Guilt.

3. Cynicism

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Cynicism.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 21.22, 19.88, 15.11 and 16.88 respectively. The highest Mean is that of the Control Group I and the lowest Mean is that of the Control Group II. For This variable the obtained F-value is 4.97, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The results indicate that there is significant difference in the mean values of the four groups. Results of the scheffe test show that the Control Group I differs in its mean value from that of the Control Group II. No other two groups show significant difference. The result indicates that the attempts to make the four groups matched went failed in respect of the score of the subjects in Cynicism.

4. Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Criticizing Others.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 31, 30.66, 37.55 and 35.33 respectively. The highest mean is that of the Control Group II and the lowest Mean value is that of the Experimental Group. The F-value obtained for this variable is 4.77, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The scheffe test shows that the Control Group II differs significantly in its Mean with that of the Experimental Group. No other two groups differ significantly. The result indicates that the attempts to make the four groups matched went failed in respect of the score of the subjects in Criticizing Others.

5. Acting Out

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Acting Out.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 31.66, 28.44, 34.22 and 35.33 respectively. The highest Mean value is that of the Control Group III and the lowest Mean value is that of the Experimental Group. The F-value obtained for this variable is 3.46, which is significant at 0.05 levels. Hence the hypothesis is rejected.

Scheffe Test shows that the Experimental Group differs in its Mean value from that of the Control Group III. No other two groups differ significantly. The result indicates that the attempts to make the four groups matched went failed in respect of the score of the subjects in Acting Out.

6. Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Projection of Hostility.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 25.22, 27, 21.44 and 21.22 respectively. The highest Mean value is that of the Experimental Group and the lowest Mean value is that of the Control Group III. The F-value obtained for this variable is 2.71, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

This would indicate that the four groups are matched in terms of their scores in Projection of Hostility.

7. Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Overall Hostility.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 167.88, 164.66, 157.11 and 158.22 respectively. The highest mean is that of the Control Group I and the lowest mean is that of the Control Group II. On

ANOVA the obtained F-value for the four groups is 1.82 which is not significant at 0.05 levels. Hence the Hypothesis is accepted.

This shows that the four groups did not differed in their mean values on Overall Hostility score in the pre intervention assessment. This would indicate that the four groups are matched in terms of their Overall Hostility score.

II. POST-TEST

The Posttest result and F-values for the Experimental Group and the Control Groups are given in **Table No: IV.2.2.21**. **Table No: IV.2.2.22** gives the Mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables.

The below given are the results of each sub variables of hostility and that of the Overall Hostility of subjects in the four groups.

Table No. IV.2.2.21

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	591.86	197.28	1046.88	32.71	6.03**
Guilt	1623.86	541.28	878.44	27.45	19.71**
Cynicism	456.08	152.02	493.55	15.42	9.85**
Criticizing Others	116.75	38.91	868	27.12	1.43
Acting Out	939.86	313.28	856.88	26.77	11.69**
Projection of Hostility	593	197.66	700.88	21.90	9.02**
Overall Hostility	14797.33	4932.44	5237.55	163.67	30.13**

**significant at 0.01 level

Table No. IV.2.2.22

Mean and SD of (Post-test) the
Four Groups on Hostility and its Sub- Variables

Variables	no. of samp	Control Group I		Experiment group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD

	les								
Self Criticism	9	26.77	7.85	24.22	5.44	16.77	5.33	26.55	3.32
Guilt	9	30	7.92	23.22	3.66	13.33	4.21	14.88	3.98
Cynicism	9	19.55	4.30	17.22	4.32	10.11	2.08	13.88	4.48
Criticizing Others	9	27.55	6.10	25.88	6.21	28	3.31	30.88	4.64
Acting Out	9	28.88	5.25	27.44	5.29	19.55	5.41	33.77	4.71
Projection of Hostility	9	25.44	4.00	19.22	5.16	14.44	5.45	17.11	3.88
Overall Hostility	9	158.2 2	21.3 7	1140..22	9.98	102.22	8.58	137.11	4.96

1. Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the Post test on Overall Hostility.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 158.22, 140.22, 102.22 and 137.11 respectively. The highest Mean value is that of the Control Group I and the lowest Mean value is that of the Control Group II. In the ANOVA the obtained F-value is 30.13, which is significant statistically at 0.01 levels. Hence the Hypothesis is rejected.

This shows that there was significant difference in the mean values of the four groups in the Post test on Overall Hostility. In detail, the scheffe test shows that the Control Group II is having significant difference in its Mean from that of all the other groups. The Control Group I also differs from all the other groups significantly.

The results show that when Rational Emotive Behaviour Therapy is combined with medicinal treatment it will definitely reduce the Overall Hostility in subjects with Borderline Personality Disorder. Also the group, which obtained no mode of intervention (Control Group I), differs in its Mean with that of all the other groups, which indicates that use of Rational Emotive Behaviour Therapy alone, medicines alone and a combination of both, all the methods of interventions used, can eventually bring down the Overall Hostility in subjects with Borderline Personality Disorder when compared to the group

which didn't received any sort of treatment. But it can be concluded that when the combination treatment is administered the efficacy in reducing hostility is much more significant, than the groups which were administered with either REBT or medicines alone.

2. Self-Criticism

Hypothesis:

There will be no significant difference between the four groups in the Post test on Self Criticism.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 26.77, 24.22, 16.77 and 26.55 respectively. The highest Mean value is that of the Control Group I and the lowest Mean value is that of the Control Group II. The F-value obtained is 6.03 which, is significant at 0.01 levels. Hence the hypothesis is rejected.

The results of the Scheffe test shows that the Control Group II differs in its Mean value from that of Control Group I and Control Group III significantly. The result indicates that marked reduction in Self Criticism had occurred in those subjects who were administered with a combination treatment of both Rational Emotive Behaviour Therapy and Pharmacological treatment when compared to the other two Control Groups. As there was no significant difference in the mean values between the Experimental Group and Control Group II, the effect of Rational Emotive Behaviour Therapy can not be denied. It can also be observed from the results that the Control Group II and Control Group III also differ in their Mean score significantly, which shows that the group which was administered with medicines alone had no positive effect in controlling the variable self-criticism.

3. Guilt

Hypothesis:

There will be no significant difference between the four groups in the Post test on Guilt.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 30, 23.22,

13.33 and 14.88 respectively. The highest Mean value is that of the Control Group I and the lowest Mean value is that of the Control Group II. The F-value obtained is 19.71 which, is significant at 0.01 levels. Hence the hypothesis is rejected.

Here the Scheffe test shows that Control Groups II & III differs significantly from the Control Group I and the Experimental Group. In detail the groups which were administered with Medicines either when combined with REBT or administered alone, shows marked reduction in their feeling of Guilt in subjects with Borderline Personality Disorder. As there was no significant difference among the Experimental Group and the Control Group I in their mean values the effect of Rational Emotive Behaviour Therapy in controlling the Guilt of the subjects with Borderline Personality Disorder, can not be predicted.

4. Cynicism

Hypothesis:

There will be no significant difference between the four groups in the Post test on Cynicism.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 19.55, 17.22, 10.11 and 13.88. The highest Mean value is that of the Control Group I and the lowest Mean value is that of the Control Group II. The F-value obtained for this variable is 9.85, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Scheffe test shows that the Control Group I differs in its mean from that of the Control Group II and III. Also the Experimental Group shows significant difference from the Control Group II.

The results suggest that there was no effect what so ever for applying Rational Emotive Behaviour Therapy alone in reducing Cynicism in subjects with Borderline Personality Disorder when compared with the Control Group II which was administered with Rational Emotive Behaviour Therapy and Medicines, though it shows a reduction in the score when compared to the Control Group I.

Also the difference in the Mean of the Experimental Group and Control Group II is significant. This shows that the effect may significantly be contributed by the pharmacological agents administered.

5. Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the Post test on Criticizing Others.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 27.55, 25.88, 28 and 30.88 respectively. The highest Mean value is that of the Control Group III and the lowest Mean value is that of the Experimental Group. The F-value obtained is 1.43 and it is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that irrespective of the method administered the nature of Criticizing Others in subjects with Borderline Personality Disorder will be the same as that of the group who receive no interventions.

6. Acting Out

Hypothesis:

There will be no significant difference between the four groups in the Post test on Acting Out.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 28.88, 27.44, 19.55 and 33.77 respectively. The highest Mean value is that of the Control Group III and the lowest Mean value is that of the Control Group II. On ANOVA the obtained F-value is 11.69, which is significant statistically at 0.01 levels. Hence the hypothesis is rejected.

Here the Scheffe test shows that the Control Group II differs in its mean from that of all the other groups. Only the group which was administered with the combination treatment of both REBT and Medicines is showing significant reduction in Acting Out of hostility when compared to all the other groups.

6. Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the Post test on Projection of Hostility.

The mean values of the four groups namely Control Group I, Experimental Group, Control Group II and the Control Group III are 25.44, 19.22, 14.44 and 17.11 respectively. The highest Mean value is that of the Control Group I and the lowest Mean value is that of the Control Group II. The F-value obtained is 9.02, which is significant at 0.01 levels. Hence the hypothesis is rejected.

Scheffe test shows that the Control Group I differs in its mean value from that of the Control Group II and the Control Group III.

The groups which were administered with the combination treatment of both REBT and Medicines and medicines alone are showing significant reduction in Projection of Hostility when compared to all the other groups. The Experimental Group which was administered with Rational Emotive Behaviour Therapy alone shows no significant difference in its Mean value from that of the Control Group I, though it shows a reduction.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on Overall Hostility and its sub variables are compared using Matched t-test to find out the level of significance in the difference between the scores in their Pre and Post intervention assessment.

1. Control Group I

Here the Pre and Post tests scores of the subjects in the Control Group I on each variables of hostility scale and the Overall Hostility is analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group I.

Table No. IV.2.2.23

Pretest-Post test Scores of Control Group I on Self Criticism

Group	N	Mean	SD	t- value
Pre test	9	29.55	4.55	1.24
Post test		26.77	7.85	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Self Criticism score shows no significant difference. The obtained t-value is 1.24 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the level of Self Criticism in subjects with Borderline Personality Disorder remains unchanged.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group I.

Table No. IV.2.2.24

Pretest-Post test Scores of Control Group I on Guilt

Group	N	Mean	SD	t- value
Pre test	9	29.22	3.96	-0.3
Post test		30	7.92	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Guilt score shows no significant difference. The obtained t-value is -0.3 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the sense of Guilt in subjects with Borderline Personality Disorder remains unchanged

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group I.

Table No. IV.2.2.25

Pretest-Post test Scores of Control Group I on Cynicism

Group	N	Mean	SD	t- value
Pre test	9	21.22	2.58	1.96
Post test		19.55	4.30	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 1.96 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the sense of Cynicism in subjects with Borderline Personality Disorder remains unchanged

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group I.

Table No. IV.2.2.26

Pretest-Post test Scores of Control Group I on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	9	31	4.82	2.60*
Post test		27.55	6.10	

**significant at 0.05 level*

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Criticizing Others score shows significant difference. The obtained t-value is 2.60, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result shows that even when no intervention methods were administered there is significant change in the tendency for Criticizing Others in subjects with Borderline Personality Disorder.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group I.

Table No. IV.2.2.27

Pretest-Post test Scores of Control Group I on Acting Out

Group	N	Mean	SD	t- value
Pre test	9	31.66	5.12	2.27
Post test		28.88	5.25	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Acting Out score shows no

significant difference. The obtained t-value is 2.27, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the tendency of Acting Out of hostility in subjects with Borderline Personality Disorder remains unchanged

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group I.

Table No. IV.2.2.28

Pretest-Post test Scores of Control Group I on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	9	25.22	5.74	-0.2
Post test		25.44	4.00	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Projection of Hostility score shows no significant difference. The obtained t-value is -0.2 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the level of Projection of Hostility in subjects with Borderline Personality Disorder remains unchanged

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group I.

Table No. IV.2.2.29

Pretest-Post test Scores of Control Group I on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	9	167.88	12.95	1.8
Post test		158.22	21.37	

The t-test results for the Control Group between the mean values in the pre and post intervention assessment on Overall Hostility score shows no significant difference. The obtained t-value is 1.8 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that when no intervention method is administered the level Overall Hostility in subjects with Borderline Personality Disorder remains unchanged

2. Experimental Group

Here the Pre and Post tests scores of the subjects in the Experimental Group on each variable of hostility and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Experimental Group.

Table No. IV.2.2.30

Pretest-Post test Scores of Experimental Group on Self Criticism

Group	N	Mean	SD	t- value
Pre test	9	29.88	3.25	3.14*
Post test		24.22	5.44	

**significant at 0.05 level*

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment on Self Criticism score shows significant difference. The obtained t-value is 3.14, which is significant at 0.05 levels. Hence the hypothesis is rejected.

Here the result clearly shows that when the subjects with Borderline Personality Disorder were administered with Rational Emotive Behaviour Therapy, there was substantial reduction in the Self Criticism which is significant statistically. So Rational Emotive Behaviour Therapy is effective in reducing Self Criticism among patients with Borderline Personality Disorder.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Experimental Group.

Table No. IV.2.2.31

Pretest-Post test Scores of Experimental Group on Guilt

Group	N	Mean	SD	t- value
Pre test	9	28.77	3.66	5.20**
Post test		23.22	3.66	

***significant at 0.01 level*

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment on Guilt shows significant difference. The obtained t-value is 5.20, which is significant at 0.01 levels. Hence the hypothesis is rejected.

Here the result clearly shows that when the subjects with Borderline Personality Disorder were administered with Rational Emotive Behaviour Therapy, there was substantial reduction in the Guilt which is significant statistically.

So Rational Emotive Behaviour Therapy is effective in reducing Guilt among patients with Borderline Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Experimental Group.

Table No. IV.2.2.32

Pretest-Post test Scores of Experimental Group on Cynicism

Group	N	Mean	SD	t- value
Pre test	9	19.88	2.61	2.08
Post test		17.22	4.32	

The t-test results for the Experimental Group between the mean values in the pre and post intervention assessment on Cynicism shows no significant difference. The obtained t-value is 2.08, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The above result shows that introduction of Rational Emotive Behaviour Therapy in subjects with Borderline Personality Disorder has no significant efficacy in dealing with their Cynicism, though their score in the post assessment had come down to a small degree, which is not statistically significant.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Experimental Group.

Table No. IV.2.2.33

Pretest-Post test Scores of Experimental Group I on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	9	30.66	6	2.39*
Post test		25.88	6.21	

**significant at 0.05 level*

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment on *Criticizing Others* score shows significant difference. The obtained t-value is 2.39, which is significant at 0.05 levels. Hence the hypothesis is rejected.

Here the result clearly shows that when the subjects with Borderline Personality Disorder were administered with Rational Emotive Behaviour Therapy, there was substantial reduction in the *Criticizing Others* which is significant statistically. So Rational Emotive Behaviour Therapy is effective in

reducing *Criticizing Others* among patients with Borderline Personality Disorder.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Experimental Group.

Table No. IV.2.2.34

Pretest-Post test Scores of Experimental Group on Acting Out

Group	N	Mean	SD	t- value
Pre test	9	28.44	6.36	0.53
Post test		27.44	5.29	

The t-test results for the Experimental Group between the mean values in the pre and post intervention assessment on *Acting Out* score shows no significant difference. The obtained t-value is 0.53, which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The above result shows that introduction of Rational Emotive Behaviour Therapy in subjects with Borderline Personality Disorder has no significant efficacy in dealing with their Acting Out of Hostility, though their score in the post assessment had come down to a small degree.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Experimental Group.

Table No. IV.2.2.35

Pretest-Post test Scores of Experimental Group on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	9	27	7.64	3.31*
Post test		19.22	5.16	

**significant at 0.05 level*

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment on *Projection of Hostility* shows significant difference. The obtained t-value is 3.31, which is significant at 0.05 levels. Hence the hypothesis is rejected.

Here the result clearly shows that when the subjects with Borderline Personality Disorder were administered with Rational Emotive Behaviour Therapy, there was substantial reduction in the Projection of Hostility which is significant statistically. So Rational Emotive Behaviour Therapy is effective in reducing Projection of Hostility among patients with Borderline Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Experimental Group.

Table No. IV.2.2.36

Pretest-Post test Scores of Experimental Group on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	9	164.66	16.29	5.05**
Post test		140.22	9.98	

***significant at 0.01 level*

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment Hostility shows significant difference. The obtained t-value is 5.05, which is significant at 0.01 levels. Hence the hypothesis is rejected.

Here the result clearly shows that when the subjects with Borderline Personality Disorder were administered with Rational Emotive Behaviour Therapy, there was substantial reduction in the Overall Hostility which is significant statistically. So Rational Emotive Behaviour Therapy is effective in reducing Overall Hostility among patients with Borderline Personality Disorder.

3. Control Group II

Here the Pre and Post tests scores of the subjects in the Control Group II on each variables of hostility and the Overall Hostility is analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group II.

Table No. IV.2.2.37

Pretest-Post test Scores of Control Group II on Self Criticism

Group	N	Mean value	SD	t- value
Pre test	6	30.33	2.42	4.82**
Post test		16.17	5.74	

***significant at 0.01 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Self Criticism shows significant difference. The obtained t-value is 4.82 which is significant even at 0.01 levels. Hence the hypothesis is rejected.

Here the combination treatment of both Rational Emotive Behaviour Therapy and medicines in subjects with Borderline Personality Disorder in reducing their Self Criticism is found to be effective.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group II.

Table No. IV.2.2.38

Pretest-Post test Scores of Control Group II on Guilt

Group	N	Mean	SD	t- value
Pre test	6	18.67	5.39	4.87**
Post test		11.67	4.18	

***significant at 0.01 level*

The t-test results for the Control group between the mean values in the pre and post intervention assessment on Guilt shows significant difference. The obtained t-value is 4.87, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Borderline Personality Disorder, that had reduced the level of Guilt to a significant degree.

e) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group II.

Table No. IV.2.2.39

Pretest-Post test Scores of Control Group II on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.50	4.64	1.96
Post test		10	2.28	

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Cynicism shows no significant difference. The obtained t-value is 1.96. Hence the hypothesis is accepted.

The combination treatment of both Rational Emotive Behaviour Therapy and medicines shows no effects on reducing the Cynicism in subjects with Borderline Personality Disorder.

f) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group II.

Table No. IV.2.2.40

Pretest-Post test Scores of Control Group II on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	6	38.17	3.49	5.59**
Post test		29.33	2.73	

***significant at 0.01 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Criticizing Others shows highly significant difference. The obtained t-value is 5.59 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The combination treatment of both Rational Emotive Behaviour Therapy and medicines in reducing the nature of Criticizing Others in subjects with Borderline Personality Disorder is highly effective.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group II.

Table No. IV.2.2.41

Pretest-Post test Scores of Control Group II on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	35.50	3.02	5.01**
Post test		19.83	6.05	

***significant at 0.01 level*

The t-test results for the Control group II between the mean values in the pre and post intervention assessment on Acting Out shows highly significant difference. The obtained t-value is 5.01 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Acting Out of hostility in subjects with Borderline Personality Disorder has significantly changed when a combination treatment of both

Rational Emotive Behaviour Therapy and medicines were administered in them.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group II.

Table No. IV.2.2.42

Pretest-Post test Scores of Control Group II on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	21.67	3.67	3.05*
Post test		15.50	6.28	

**significant at 0.05 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Projection of Hostility shows significant difference. The obtained t-value is 3.05, which is significant at 0.05 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Borderline Personality Disorder, that had reduced the Projection of Hostility to a significant degree.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group II.

Table No. IV.2.2.43

Pretest-Post test Scores of Control Group II on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	6	158.83	6.82	14.75**
Post test		102.50	7.84	

***significant at 0.01 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Overall Hostility shows significant difference. The obtained t-value is 14.75, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behaviour Therapy along with medicines was administered on subjects with Borderline Personality Disorder, that had reduced the level of Overall Hostility to a significant degree.

4. Control Group III

Here the Pre and Post tests scores of the subjects in the Control Group III on each variable of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group III.

Table No. IV.2.2.44

Pretest-Post test Scores of Control Group III on Self Criticism

Group	N	Mean	SD	t- value
Pre test	6	29.17	3.06	0.79
Post test		28	3.03	

The t-test results for the Control group III between the mean values in the pre and post intervention assessment on Self Criticism shows no significant difference. The obtained t-value is 0.79 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result shows that there may be no effect for medicines in reducing the Self Criticism of subjects with Borderline Personality Disorder.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group III.

Table No. IV.2.2.45

Pretest-Post test Scores of Control Group III on Guilt

Group	N	Mean	SD	t- value
Pre test	6	17.50	6.35	1.27
Post test		15.50	4.55	

The t-test results for the Control group III between the mean values in the pre and post intervention assessment on Guilt shows no significant difference. The obtained t-value is 1.27 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Medicines alone are not effective in reducing the sense of Guilt in subjects with Borderline Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group III.

Table No. IV.2.2.46

Pretest-Post test Scores of Control Group III on Cynicism

Group	N	Mean	SD	t- value
Pre test	6	14.83	4.62	1.32
Post test		12	4.86	

The t-test results for the Control group III between the mean values in the pre and post intervention assessment on Cynicism shows no significant difference. The obtained t-value is 1.32 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Result shows that there is no effect for medicines in reducing Cynicism in subjects with Borderline Personality Disorder

e) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group III.

Table No. IV.2.2.47

Pretest-Post test Scores of Control Group III on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	6	36.67	5.71	6.17**
Post test		39.83	5.26	

***significant at 0.01 level*

The t-test results for the Control Group III between the mean values in the pre and post intervention assessment on Criticizing Others shows significant difference. The obtained t-value is 6.17, which is significant at 0.01 levels. Hence the hypothesis is rejected.

Medicines used in Borderline Personality Disorder are effective in reducing the tendency for Criticizing Others in subject with Borderline Personality Disorder.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group III.

Table No. IV.2.2.48

Pretest-Post test Scores of Control Group III on Acting Out

Group	N	Mean	SD	t- value
Pre test	6	36.17	4.71	4.39**
Post test		33.17	5.81	

***significant at 0.01 level*

The t-test results for the Control Group III between the mean values in the pre and post intervention assessment on Acting Out shows significant difference. The obtained t-value is 4.39 which is significant at 0.01 levels. Hence the hypothesis is rejected.

Result suggests that Acting Out of hostility could be reduced by using medicines alone.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group III.

Table No. IV.2.2.49

Pretest-Post test Scores of Control Group III on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	6	20.33	2.42	3.65*
Post test		16.33	3.93	

**significant at 0.05 level*

The t-test results for the Control group between the mean values in the pre and post intervention assessment on Projection of Hostility shows significant difference. The obtained t-value is 3.65, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result shows that the medicinal treatment alone is sufficient for reducing the Projection of Hostility among the subjects with Borderline Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group III.

Table No. IV.2.2.50

Pretest-Post test Scores of Control Group III on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	7	154.67	5.47	8.51**
Post test		134.83	2.93	

***significant at 0.01 level*

The t-test results for the Control Group III between the mean values of the pre and post intervention assessment on Overall Hostility shows significant difference. The obtained t-value is 8.51, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The result shows that the medicinal treatment alone is sufficient for reducing the Overall Hostility among the subjects with Borderline Personality Disorder.

C) Analyses of Experimental Group and Control Groups on Quality of Life

In this section the effectiveness of Rational Emotive Behavior Therapy in improving Quality of Life among samples with Borderline Personality Disorder is examined and discussed. For this, the Domain scores of WHO-QOL scale obtained by the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III, in the pre and post tests are analyzed using one-way ANOVA. Scheffe test is used to identify the groups which show significant difference.

I. PRE-TEST

The Pretest result and f-values for the Experimental Group and the Control Groups are given in **Table No IV.2.2.51**

Table No. IV.2.2.51

F-values of the Four Groups on Quality of Life and its Domains

Variable	Between Group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	3.94	1.31	102.75	3.21	0.40
Domain II	2.46	0.82	77.14	2.41	0.34
Domain III	2.30	0.76	108	3.37	0.22
Domain IV	32.64	10.88	117.75	3.68	2.95*
Domain V	1.00	0.33	47.12	1.47	0.22
Domain VI	4.85	1.61	73.88	2.30	0.70
Overall Quality of Life	40.64	13.54	1138.74	35.58	0.38

* Significant at 0.05 level.

Table No. IV.2.2.52 suggest that in the Pre test non of the four groups, namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents, differs significantly on their F-value in their scores on Quality of Life scale(WHO) in total and all of its domains except for Domain IV .

Table No. IV.2.2.52

Mean and SD of (Pre-test) the Four Groups on Quality of Life and its Domains

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean value	SD	Mean value	SD	Mean value	SD	Mean value	SD
Domain I	9	6.38	1.56	6.81	1.81	5.92	1.64	6.61	2.09
Domain II	9	6.75	1.20	7.28	1.01	7.28	1.76	6.77	2.01
Domain III	9	8.44	1.33	7.88	1.76	8.33	1.32	7.88	2.61
Domain IV	9	8.74	1.35	6.66	1.49	6.66	2.58	8.36	2.00
Domain V	9	7.27	1.03	7.5	0.96	7.61	1.34	7.73	1.44
Domain VI	9	7.51	1.30	7.15	1.25	7.24	1.34	8.09	2.03
Overall Quality of Life	9	45.11	5.13	43.31	2.16	43.07	8.49	45.47	6.25

As it has been explained earlier in the chapter III the Quality of Life scale consists of sub scores in six different domains. The results obtained during the pretest on ANOVA of those domains are illustrated below.

a) Domain I

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain I of the Quality of Life.

The F-value found for this variable is 0.40 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Mean value of Control Group I on this variable is 6.38 and that of the Experimental Group, Control Group II and Control Group III are 6.81, 5.92 and 6.61 respectively. The highest Mean value is that of the Experimental Group and the lowest is that of the Control Group II. The above result suggests that all the four groups are matched in terms of their scores on WHOQOL scale obtained on its Domain I which determines their physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain II of the Quality of Life.

The F-value found on this variable is 0.34 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Mean value of Control Group I on this variable is 6.75 and that of the Experimental Group, Control Group II and Control Group III are 6.77, 7.28 and 7.28 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. As there is no significant difference in their mean values it can be stated that all the four groups are matched in terms of their score for Domain II of WHOQOL scale which encompasses the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings.

c) Domain III

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain III of the Quality of Life.

The F-value found on this variable is 0.22 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Mean value of Control Group I on this variable is 8.44 and that of the Experimental Group, Control Group II and Control Group III are 7.88, 8.33 and 7.88 respectively. The lowest Mean value is that of the Experimental Group II and the Control Group III (same score) and the highest is that of the Control Group I.

As there is no significant difference in their mean values it can be stated that all the four groups are matched in terms of their score for Domain III of WHOQOL scale which determines the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity.

d) Domain IV

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain IV of the Quality of Life.

The F-value found on this variable is 2.95, which is not significant at 0.05 levels. Hence the hypothesis is accepted

The Mean value of Control Group I on this variable is 6.75 and that of the Experimental Group, Control Group II and Control Group III are 6.77, 7.28 and 7.28 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I.

As there is no significant difference in their mean values it can be stated that all the four groups are matched in terms of their score for Domain IV of WHOQOL scale, which corresponds the social relationship of the individual which includes personal relationships, social supports and sexual activity.

e) Domain V

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain V of the Quality of Life.

The F-value found on this variable is 0.22 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Mean value of Control Group I on this variable is 7.27 and that of the Experimental Group, Control Group II and Control Group III are 7.5, 7.61 and 7.73 respectively. The highest Mean value is that of the Control Group III and the lowest is that of the Control Group I. As there is no significant difference in their mean values it can be stated that all the four groups are matched in terms of their score for Domain V of WHOQOL scale which corresponds the environment of the individual which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport..

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Domain V of the Quality of Life.

The F-value found on this variable is 0.70 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Mean value of Control Group I on this variable is 7.51 and that of the Experimental Group, Control Group II and Control Group III are 7.15, 7.24 and 8.09 respectively. The highest Mean value is that of the Control Group III and the lowest is that of the Experimental Group. As there is no significant difference in their mean values it can be stated that all the four groups are matched in terms of their score for Domain VI of WHOQOL scale, which is the spirituality including the spiritual connection, meaning, values and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the Pre test on Overall Quality of Life.

The F-value found on the total score on WHOQOL scale is 0.38, which is also not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean values obtained for Control Group I, Experimental Group, Control Group II and Control Group III are 45.11, 43.31, 43.07 and 45.47 respectively.

As no two groups are significantly different in their mean values it can be stated that all the four groups are matched in terms of their Overall Quality of Life score on WHO-QOL scale.

II. POST-TEST

The Post test results and f-values for the Experimental Group and the Control Groups are given in **Table No: IV.2.2.53**.

Table No. IV.2.2.53
F-values of the Four Groups
(Post Test) on Quality of Life and its Domains

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	443.40	147.80	127.44	3.98	37.10**
Domain II	546.16	182.05	89.08	2.78	65.39**
Domain III	385.05	128.35	102.23	3.19	40.17**
Domain IV	368.64	122.88	85.79	2.68	45.83**
Domain V	444.84	148.28	58.18	1.81	81.54**
Domain VI	303.78	101.26	56.39	1.76	57.45**
Overall Quality of Life	14493.02	4831.00	1142.38	35.69	135.32* *

** Significant at 0.01 level.

Table No. IV.2.2.53 shows the results of the ANOVA between and with in the four group namely, the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents.

The table (**Table No.IV.2.2.54**) shows the mean and SD of each variables of Quality of Life and of the overall Quality of Life score.

Table No. IV.2.2.54

**Mean and SD of (PRE TEST) the
Four Groups on Quality of Life and its Domains**

variables	no. of samples	Control Group I		Experimental group		Control Group II		Control Group III	
		Mean value	SD	Mean value	SD	Mean value	SD	Mean value	SD
Domain I	9	6.22	1.49	14.66	1.63	14.54	2.01	10.01	2.64
Domain II	9	7.91	1.71	15.64	1.55	16.26	1.6	8.46	1.79
Domain III	9	7.88	1.76	14.66	1.65	15.01	1.40	8.77	2.22
Domain IV	9	7.70	1.45	15.55	1.76	15.19	1.27	11.32	1.96
Domain V	9	7.55	0.95	15	1.41	16.35	1.29	10.51	1.63
Domain VI	9	7.86	1.13	14.44	0.76	14.68	1.95	10.07	1.16
Overall Quality of Life	9	45.14	6.50	89.97	5.89	92.05	5.70	59.16	5.75

Results of the sub variables

The results obtained during the post test on ANOVA of the six domains are illustrated below.

a) Domain I

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain I of the Quality of Life.

The F-value found on this variable is 37.10, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I, Experimental Group, Control Group II and Control Group III are 6.22, 14.66, 14.54 and 10.01 respectively (**Table No. IV.2.2.54**). The highest Mean value is that of the Experimental Group and the lowest is that of the Control Group I. The result of the scheffe test suggest that the Control Group I differs significantly in its mean from that of all the other groups. It shows that the groups which were administered with any sort of intervention method, whether it was REBT alone, medicines alone or a combination of both, can eventually increase their physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life Quality of Life, when compared to the group which was not

administered with any sort of intervention. Also the Control Group III shows significant difference in its Mean with that of the Experimental Group and the Control Group II. The group which was administered with REBT alone and the group which was administered with REBT and Medicines together are showing significantly higher level of physical aspects of Quality of Life when compared to the group which was administered with medicines alone. This shows the efficacy of Rational Emotive Behaviour Therapy in improving the domain I i.e. physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life among patients with Borderline Personality Disorder in comparison with applying medicines alone.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain II of the Quality of Life.

The F-value found on this variable is 65.39, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I, Experimental Group, Control Group II and Control Group III, are 7.91, 15.64, 16.26 and 8.46 respectively (Table IV.2.2.54). The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. The result of the scheffe test suggest that the Control Group I differs significantly in its mean from that of the Experimental Group and Control Group II. No significant difference is seen between the Control Group I and the Control Group III. The Control Group III also differs significantly in its mean from that of the Experimental Group and the Control Group II. It shows that only the groups which were administered with REBT alone and a combination of REBT and medicines, shows significant improvement in their psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, when compared to the group which was not administered with any sort of intervention or when only medicines were introduced. Here the noticeable effect can only be attributed to the use of Rational Emotive Behaviour Therapy in improving the Domain II variable of Quality of Life.

c) **Domain III**

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain III of the Quality of Life scale.

The F-value found on this variable is 40.17, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Mean value of Control Group I, Experimental Group, Control Group II and Control Group III, are 7.88, 14.66, 15.01 and 8.77 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. The result of scheffe test suggest that the Control Group I differs significantly in its Mean from that of the Experimental Group and Control Group II. No significant difference is seen between the Control Group I and the Control Group III. The Control Group III also differs significantly in its Mean from that of the Experimental Group and the Control Group II. It shows that only the groups which were administered with REBT alone and a combination of REBT and medicines, can eventually increase their level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when compared to the group which was not administered with any sort of intervention or when only medicines were introduced. Here the noticeable effect can only be attributed to the use of Rational Emotive Behaviour Therapy in improving the Domain III variable of Quality of Life, which determines the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity among patients with Borderline Personality Disorder.

d) **Domain IV**

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain IV of the Quality of Life scale.

The F-value found on this variable is 45.83, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Mean value of Control Group I, Experimental Group, Control Group II and Control Group III, are 7.70, 15.55, 15.19 and 11.32 respectively. The highest Mean value is that of the Experimental Group and the lowest is that of the Control Group I. The result of the scheffe test suggest that the Control Group I differs significantly in it's Mean from that of all the other groups. It shows that the groups which were administered with any sort of intervention method, whether it was REBT alone, medicines alone or a combination of both, can eventually increase their social relationship which includes personal relationships, social supports and sexual activity, when compared to the group which was not administered with any sort of intervention. Also the Control Group III shows significant difference in its Mean with that of the Experimental Group and the Control Group II. The group which was administered with REBT alone and the group which was administered with REBT and Medicines together are showing significantly higher level of Quality of Life in Domain IV when compared to the group which was administered with medicines alone. This shows the efficacy of REBT in improving the Domain IV variable of Quality of Life i.e. the social relationship of the individuals with Borderline Personality Disorder, which includes personal relationships, social supports and sexual activity in comparison with applying medicines alone.

e) Domain V

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain V of the Quality of Life scale.

The F-value found on this variable is 81.54, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Mean value of Control Group I, Experimental Group, Control Group II and Control Group III, are 7.55, 15, 16.35 and 10.51 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. The result of the scheffe test suggest that the Control Group I differs significantly in its Mean from that of all the other groups. It shows that the groups which were administered with any sort of intervention method, whether it was REBT alone, medicines alone or a combination of

both, can eventually improve the quality of their environment, which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when compared to the group which was not administered with any sort of intervention. Also the Control Group III shows significant difference in its Mean with that of the Experimental Group and the Control Group II. The group which was administered with REBT alone and the group which was administered with REBT and Medicines together are showing significantly higher level of Quality of Life in Domain V when compared to the group which was administered with medicines alone. This shows the efficacy of REBT in improving the Domain V variable of Quality of Life i.e. the environment of the subjects, which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, among patients with Borderline Personality Disorder in comparison with applying medicines alone.

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the Post test on Domain VI of the Quality of Life scale.

The F-value found on this variable is 57.45, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Mean value of Control Group I, Experimental Group, Control Group II and Control Group III, are 7.86, 14.44, 14.68 and 10.07 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. The result of the scheffe test suggest that the Control Group I differs significantly in its Mean from that of all the other groups. It shows that the groups which were administered with any sort of intervention method, whether it was REBT alone, medicines alone or a combination of both, can increase their spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and

wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when compared to the group which was not administered with any sort of intervention. Also the Control Group III shows significant difference in its Mean with that of the Experimental Group and the Control Group II. The group which was administered with REBT alone and the group which was administered with REBT and Medicines together are showing significantly higher level of Quality of Life in Domain VI when compared to the group which was administered with medicines alone. This shows the efficacy of REBT in improving the Domain VI variable of Quality of Life which is the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith among patients with Borderline Personality Disorder in comparison with applying medicines alone.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the Post test on Overall Quality of Life.

The F-value found on the total score on WHOQOL is 135.32, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The Mean value of Control Group I, Experimental Group, Control Group II and Control Group III, are 45.14, 89.97, 92.05, and 59.16 respectively. The highest Mean value is that of the Control Group II and the lowest is that of the Control Group I. The result suggest that the Control Group I differs significantly in it's Mean from that of all the other groups. It shows that the groups which were administered with any sort of intervention method, whether it was Rational Emotive Behaviour Therapy alone, medicines alone or a combination of both, can eventually increase their Quality of Life, when compared to the group which was not administered with any sort of intervention. Also the Control Group III shows significant difference in its Mean with that of the Experimental Group and the Control Group II. The group which was administered with REBT alone and the group which was administered with REBT and Medicines together are showing significantly higher level of Quality of Life when compared to the group which was

administered with medicines alone. This shows the efficacy of REBT in improving the Quality of Life among patients with Borderline Personality Disorder in comparison with applying medicines alone.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on WHO Quality of Life Scale were compared using Matched t-test to find out the level of significance in the difference.

1. Control Group I

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group I on each variables of WHO QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group I.

Table No. IV.2.2.55

Pretest-Post test Scores of Control Group I on Domain I

Group	N	Mean value	SD	t- value
Pre test	9	6.38	1.56	0.28
Post test		6.22	1.49	

From the above Table it can be seen that the Mean value of the Control Group I on domain I of the WHO-QOL scale score is 6.38 in the Pre test and the same is 6.22 in the Post test assessment. The t- value found is 0.28 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life when no interventions are administered.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group I.

Table No. IV.2.2.56

Pretest-Post test Scores of Control Group I on Domain II

Group	N	Mean value	SD	t- value
Pre test	9	6.7556	1.207	-1.80
Post test		7.9111	1.718	

Here the Pre test Mean value is 6.75 and the Post test Mean value is 7.91. The t-value obtained is -1.80 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings when no interventions are administered.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group I.

Table No. IV.2.2.57

Pretest-Post test Scores of Control Group I on Domain III

Group	N	Mean value	SD	t- value
Pre test	9	8.44	1.33	1.10
Post test		7.88	1.76	

From the above Table it can be seen that the Mean value of the Control Group I on domain III of the WHO-QOL scale score is 8.44 in the Pre

test and the same is 7.88 in the Post test assessment. The t- value found is 1.10 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when no interventions are administered.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group I.

Table No. IV.2.2.58

Pretest-Post test Scores of Control Group I on Domain IV

Group	N	Mean value	SD	t- value
Pre test	9	8.74	1.35	2.80*
Post test		7.70	1.45	

**significant at 0.05 level*

From the above Table it can be seen that the Pre test Mean value is 8.74 and the Post test Mean value is 7.70. The t-value obtained is 2.80, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there occurred a significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, even when no interventions were administered.

d) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group I.

Table No. IV.2.2.59

Pretest-Post test Scores of Control Group I on Domain V

Group	N	Mean value	SD	t- value
Pre test	9	7.27	1.03	-0.92
Post test		7.55	0.95	

From the above Table No. it can be seen that the Mean value of the Control Group I on domain V of the WHO-QOL scale score is 7.27 in the Pre test and the same is 7.55 in the Post test assessment. The t-value found is -0.92 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when no interventions are administered.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group I.

Table No. IV.2.2.60

Pretest-Post test Scores of Control Group I on Domain VI

Group	N	Mean value	SD	t- value
Pre test	9	7.51	1.30	-1.36
Post test		7.86	1.13	

From the above Table No. it can be seen that the Mean value of the Control Group I on domain VI of the WHO-QOL scale score is 7.51 in the Pre test and the same is 7.86 in the Post test assessment. The t-value found is -1.36 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength,

inner peace, hope and optimism and faith when no intervention is administered.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Control Group I.

Table No. IV.2.2.61

Pretest-Post test Scores of Control Group I on Overall Quality of Life

Group	N	Mean	SD	t- value
Pre test	9	45.11	5.139	-0.03
Post test		45.14	6.506	

From the above Table No. it can be seen that the Mean value of the Control Group I on domain VI of the WHO-QOL scale score is 45.1193 in the Pre test and the same is 45.1481 in the Post test assessment. The t- value found is -0.03 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the total score of WHO-QOL Scale when no interventions are administered.

2. Experimental Group

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Experimental Group on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Experimental Group.

Table No. IV.2.2.62

Pretest-Post test Scores of Experimental Group on Domain I

Group	N	Mean value	SD	t- value
Pre test	9	6.81	1.81	-8.46**
Post test		14.66	1.63	

***significant at 0.01 level*

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain I of the WHO-QOL scale score is 6.81 in the Pre test and in the Post test assessment it is 14.66. The t- value found is - 8.46, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Experimental Group.

Table No. IV.2.2.63

Pretest-Post test Scores of Experimental Group on Domain II

Group	N	Mean value	SD	t- value
Pre test	9	7.28	1.01	-11.24**
Post test		15.64	1.55	

***significant at 0.01 level*

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain II of the WHO-QOL scale score is 7.28 in the Pre test and in the Post test assessment it is 15.64. The t-value found is - 11.24 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self-

esteem, bodily image and appearance and negative feelings, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Experimental Group.

Table No. IV.2.2.64

Pretest-Post test Scores of Experimental Group on Domain III

Group	N	Mean value	SD	t- value
Pre test	9	7.88	1.764	-9.93**
Post test		14.66	1.658	

***significant at 0.01 level*

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain III of the WHO-QOL scale score is 7.88 in the Pre test and in the Post test assessment it is 14.66. The t-value found is -9.93 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Experimental Group.

Table No. IV.2.2.65

Pretest-Post test Scores of Experimental Group on Domain IV

Group	N	Mean value	SD	t- value
Pre test	9	6.66	1.49	-10.33**

Post test		15.55	1.76	
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****significant at 0.01 level**

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain IV of the WHO-QOL scale score is 6.66 in the Pre test and in the Post test assessment it is 15.55. The t-value found is -10.33 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Experimental Group.

Table No. IV.2.2.66

Pretest-Post test Scores of Experimental Group on Domain V

Group	N	Mean value	SD	t- value
Pre test	9	7.5	0.96	-13.89
Post test		15	1.41	

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain V of the WHO-QOL scale score is 7.5 in the Pre test and in the Post test assessment it is 15. The t- value found is -13.89, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain V of WHO-QOL Scale, that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Experimental Group.

Table No. IV.2.2.67

Pretest-Post test Scores of Experimental Group on Domain VI

Group	N	Mean value	SD	t- value
Pre test	9	7.15	1.25	-16.52**
Post test		14.44	0.76	

***significant at 0.01 level*

From the above Table No. it can be seen that the Mean value of the Experimental Group on domain VI of the WHO-QOL scale score is 7.15 in the Pre test and in the Post test assessment it is 14.44. The t- value found is -16.52 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Experimental Group.

Table No. IV.2.2.68

Pretest-Post test Scores of Experimental Group on Overall Quality of Life

Group	N	Mean value	SD	t- value
Pre test	9	43.3148	2.163	-23.60**

Post test		89.9778	5.897	
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From the above Table No. it can be seen that the Mean value of the Experimental Group on total score on WHO-QOL scale score is 43.3148 in the Pre test and in the Post test assessment it is 89.9778. The t- value found is -16.52 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the Quality of Life assessed through WHO-QOL Scale when Rational Emotive Behavior Therapy is administered in patients with Borderline Personality Disorder.

3. Control Group II

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group II on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group II.

Table No. IV.2.2.69

Pretest-Post test Scores of Control Group II on Domain I

Group	N	Mean value	SD	t- value
Pre test	9	5.92	1.64	-12.88**
Post test		14.54	2.01	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group in Domain I of WHO-QOL scale is 5.92 and the same in the Post test is 14.54. The t-value obtained is -12.88 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline

Personality Disorder, their score in the Domain I of the WHO-QOL scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, has improved to a significant level.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group II.

Table No. IV.2.2.70

Pretest-Post test Scores of Control Group II on Domain II

Group	N	Mean value	SD	t- value
Pre test	9	7.28	1.76	-11.59**
Post test		16.26	1.60	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group in Domain II of WHO-QOL scale is 7.28 and the same in the Post test is 16.26. The t-value obtained is -11.59 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their score in the Domain II of the WHO-QOL scale which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, has improved to a significant level.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group II.

Table No. IV.2.2.71

Pretest-Post test Scores of Control Group II on Domain III

Group	N	Mean value	SD	t- value
Pre test	9	8.33	1.32	-12**
Post test		15.01	1.40	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group in Domain III of WHO-QOL scale is 8.3333 and the same in the Post test is 15.0122. The t-value obtained is -12 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their score in the Domain III of the WHO-QOL determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, scale has improved to a significant level.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group II.

Table No. IV.2.2.72

Pretest-Post test Scores of Control Group II on Domain IV

Group	N	Mean value	SD	t- value
Pre test	9	6.66	2.58	-9.92
Post test		15.19	1.27	

The above Table No. shows that the Pre test Mean value for the Control Group in Domain IV of WHO-QOL scale is 6.66 and the same in the Post test is 15.19. The t-value obtained is -9.92 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their score in the Domain IV of the WHO-QOL scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, has improved to a significant level.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group II.

Table No. IV.2.2.73

Pretest-Post test Scores of Control Group II on Domain V

Group	N	Mean value	SD	t- value
Pre test	9	7.61	1.34	-14.87
Post test		16.35	1.29	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group in Domain V of WHO-QOL scale is 7.61 and the same in the Post test is 16.35. The t-value obtained is -14.87 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their score in the Domain V of the WHO-QOL scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, has improved to a significant level.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group II.

Table No. IV.2.2.74

Pretest-Post test Scores of Control Group II on Domain VI

Group	N	Mean value	SD	t- value
Pre test	9	7.24	1.34	-11.08**
Post test		14.68	1.95	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group in Domain VI of WHO-QOL scale is 7.24 and the same in the Post test is 14.68. The t-value obtained is -11.08 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their score in the Domain VI of the WHO-QOL scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, has improved to a significant level.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain overall Quality of Life of the Control Group II.

Table No. IV.2.2.75

Pretest-Post test Scores of Control Group II on Overall Quality of Life

Group	N	Mean	SD	t- value
Pre test	9	43.07	8.49	-19.15**
Post test		92.05	5.70	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group II in total score on WHO-QOL scale is 43.0704 and the same in the Post test is 92.0519 The t-value obtained is -19.15 which shows a high level of significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when a combination of Rational Emotive Behaviour Therapy and medicines are used in patients with Borderline Personality Disorder, their total score in the WHO-QOL scale has improved to a significant level.

5. Control Group III

Here the results and discussions t-test between the Pre and Post tests scores of the subjects in the Control Group III on each variables of WHO-QOL are presented.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group III.

Table No. IV.2.2.76

Pretest-Post test Scores of Control Group III on Domain I

Group	N	Mean value	SD	t- value
Pre test	9	6.61	2.09	-3.18*
Post test		10.01	2.64	

**significant at 0.05 level*

The above Table No. shows that the Pre test Mean value for the Control Group III in Domain I of WHO-QOL scale is 6.61 and the same in the Post test is 10.01. The t-value obtained is -3.18 which shows significance at 0.05 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their score in the Domain I of the WHO-QOL scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, has improved to a significant level.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group III.

Table No. IV.2.2.77

Pretest-Post test Scores of Control Group III on Domain II

Group	N	Mean value	SD	t- value
Pre test	9	6.77	2.01	-2.56*
Post test		8.46	1.79	

***significant at 0.01 level*

The above Table No. shows that the Pre test mean value for the Control Group III in Domain II of WHO-QOL scale is 6.77 and the same in the

Post test is 8.46. The t-value obtained is -2.56 which shows significance at 0.05 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their score in the Domain II of the WHO-QOL scale which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, has improved to a significant level.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group III.

Table No. IV.2.2.78

Pretest-Post test Scores of Control Group III on Domain III

Group	N	Mean value	SD	t- value
Pre test	9	7.88	2.61	-0.67
Post test		8.77	2.22	

The obtained mean value of the Domain III of WHO-QOL scale in the Pre test is 7.88 and that in the Post test is 8.77. The t-value is -0.67 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that the medicines had no impact in the Domain III score of WHO-QOL scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, in subjects with Borderline Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group III.

Table No. IV.2.2.79

Pretest-Post test Scores of Control Group III on Domain IV

Group	N	Mean value	SD	t- value
Pre test	9	8.36	2.00	-2.78*
Post test		11.32	1.96	

**significant at 0.05 level*

The above Table No. shows that the Pre test Mean value for the Control Group III in Domain IV of WHO-QOL scale is 8.36 and the same in the Post test is 11.32. The t-value obtained is -2.78 which shows significance at 0.05 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their score in the Domain IV of the WHO-QOL scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, has improved to a significant level.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group III.

Table No. IV.2.2.80

Pretest-Post test Scores of Control Group III on Domain V

Group	N	Mean value	SD	t- value
Pre test	9	7.73	1.44	-4.00**
Post test		10.51	1.63	

***significant at 0.01 level*

The above Table No. shows that the Pre test Mean value for the Control Group III in Domain V of WHO-QOL scale is 7.7311 and the same in the Post test is 10.5156. The t-value obtained is -4 which shows significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their score in the Domain V of the WHO-QOL scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, has improved to a significant level.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group III.

Table No. IV.2.2.81

Pretest-Post test Scores of Control Group III on Domain VI

Group	N	Mean value	SD	t- value
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Pre test	9	8.09	2.03	-3.57**
Post test		10.07	1.17	

****significant at 0.01 level**

The above Table No. shows that the Pre test mean value for the Control Group III in Domain VI of WHO-QOL scale is 8.09 and the same in the Post test is 10.07. The t-value obtained is -3.57 which shows significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their score in the Domain VI of the WHO-QOL scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith has improved to a significant level.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Control Group III.

Table No. IV.2.2.82

Pretest-Post test Scores of Control Group II on Overall Quality of Life

Group	N	Mean value	SD	t- value
Pre test	9	45.47	6.25	-4.92**
Post test		59.16	5.75	

****significant at 0.01 level**

The above Table No. shows that the Pre test Mean value for the Control Group III in total score of WHO-QOL scale is 45.47 and the same in the Post test is 59.1656. The t-value obtained is -4.92 which shows significance at 0.01 levels. Hence the hypothesis is rejected.

The inference is that when medicines are used alone in patients with Borderline Personality Disorder, their total score of the WHO-QOL scale has improved to a significant level.

IV.2.3. Section 3 - Obsessive Compulsive Personality Disorder

Subjects with Obsessive Compulsive Personality Disorder often exhibit symptoms like emotional constriction, orderliness, perseverance, stubbornness and indecisiveness. As they being aware of their suffering they seek treatment on their own. (DSM IV uses the name Obsessive Compulsive Personality Disorder).

The subjects were selected according to the scores on the IPDE interview schedule. Only those subjects, who got a score of 4 or more in the number of criteria met, were selected for the research, (i.e. subjects who are having a definite diagnosis of Obsessive Compulsive Personality Disorder (named as Obsessive Compulsive Personality Disorder in ICD).

As described earlier the total population of Obsessive Compulsive Personality Disorder (N=28) is grouped into four matched group, one among them was the Experimental Group. Besides the Dimensional score on IPDE, other dependent variable such as Hostility and Quality of Life were also attempted in the study.

To identify the efficacy of Rational Emotive Behaviour Therapy in subjects with Obsessive Compulsive Personality Disorder when compared to the Control Groups and in the terms of pre and post assessment are the major focus of the study.

The reduction in hostility and its sub variables and the improvement in the Quality of Life studied in the process of identifying the efficacy of Rational Emotive Behaviour Therapy in subjects with Obsessive Compulsive Personality Disorder. For this purpose this part is sub divided in to three parts. The first part comprises of the analysis of the four groups scores in IPDE-ICD-10. The second part comprises of the analysis of the four groups in the score obtained on hostility scale and finally the third part contains the analysis of the scores obtained in the Quality of Life scale.

A. Analyses of Experimental Group and Control Groups on IPDE Scores

This part of the analysis is executed in four stages. First step involves the analysis of the dimensional score obtained by the four groups in the pretest using one way ANOVA. The second step involves the analysis of the dimensional score obtained by the four groups on IPDE-ICD-10 in the post test again using one way ANOVA. The third step compares the dimensional

scores obtained on IPDE-ICD-10 in the pre and post intervention assessment for each group.

Finally the pretest and the post test scores of each subject on IPDE-ICD-10 (dimensional scores) are represented through graphs.

I. PRE-TEST

Hypothesis:

There will be no significant difference between the four groups in the pre test on IPDE score.

In this the scores of IPDE-ICD-10 obtained by the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III, in the pretest are analyzed using one-way ANOVA. Scheffe test is used to identify the groups which show significant difference.

The Dimensional scores obtained by the four groups on IPDE-ICD-10 in the pre test are analysed using one way ANOVA. **Table IV.2.3.1** shows the F-value for the Experimental Group and the Control Groups.

Table IV.2.3.1

F-value of Four Groups on IPDE scores

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
IPDE SCORE	0.28	0.09	96.5	4.02	0.02

The F-value is not found to be significant for the four groups on the dimensional score of IPDE in the pretest. The F-value obtained is 0.02 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that all the four groups namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only Rational Emotive Behaviour Therapy, the Control Group II, which was administered with both pharmacological treatment and Rational Emotive Behaviour Therapy and finally the Control Group III which was administered only with pharmacological agents, are matched in terms of their scores on IPDE. This also indicates that the scores obtained by the samples during the

initial assessment are more or less same and hence the degrees of severity of the Personality Disorder traits are similar.

The **Table IV.2.3.1** shows the mean and standard deviation of the four groups and the number of samples in each group. There is no significant difference in the means of the four groups. This shows that the four groups are homogenous.

Table IV.2.3.2

Mean and Standard deviation of Four Groups on IPDE Score

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE SCORE	7	11.57	2.14	11.71	2.28	11.42	1.81	11.57	1.71

II. POST-TEST

Hypothesis:

There will be no significant difference between the four groups in the posttest on IPDE score.

In the post test the obtained means significantly differs in the Analysis of Variance, which is given in the table IV.2.3.3.

Table IV.2.3.3

F-value of four groups on IPDE score

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
IPDE SCORE	116.39	38.79	115.71	4.82	8.04**

***significant at 0.01 level*

The results suggest that there was significant impact on the samples due to the administration of the interventions. The F-value found was 8.04, which is significant at 0.01 levels. Hence the hypothesis is rejected.

It indicates that the differences between the mean scores of the four groups on IPDE are highly significant. The F-value for the four groups on IPDE score in the post test is 8.04, which is significant at 0.01 levels. The

result indicates significant mean difference between the four groups in the post assessment.

On further analysis with Scheffe test it was seen that the Experimental Group differs significantly in its mean value from that of the Control Group I. **Table IV.2.3.4**, shows that the mean of the Experimental Group is 6.42 and that of the Control Group I is 11.42. The above result explains the efficacy of Rational Emotive Behaviour Therapy in reducing the dimensional score of IPDE in subjects with Obsessive Compulsive Personality Disorder to a significant level. It means that Rational Emotive Behaviour Therapy is effective in managing patients with Obsessive Compulsive Personality Disorder particularly in reducing their symptoms.

Secondly the Experimental Group shows significant difference in its mean value from that of the Control Group III. Here the mean value of the Control Group III is 10.14, (**Table IV.2.3.4**). This finding suggests that the group which was administered with Rational Emotive Behaviour Therapy shows significant difference in reducing the symptoms of Obsessive Compulsive Personality Disorder when compared to the group which was administered only with medicines. The inference is that Rational Emotive Behaviour Therapy is more effective than medicines in managing patients with Obsessive Compulsive Personality Disorder.

Thirdly the Control Group II differs in its mean from that of the Control Group I on Scheffe test. The combination of Rational Emotive Behaviour Therapy and medicines also found effective in reducing the IPDE dimensional score which is significant when compared with the Control Group I. The mean value of the Control Group II is 7.28, (**Table IV.2.3.4**). Hence the combination of both Rational Emotive Behaviour Therapy and medicines had produced the effect but as there was no significant difference in the mean values between the Control Group I and Control Group III, the effect of medicines, in reducing the mean value is not convincing. Hence the difference between the mean values of Control Group III and Control Group I may only be attributed to the effect of Rational Emotive Behaviour Therapy.

Finally the Experimental Group shows significant difference in its mean value with that of the Control Group III, the group which was administered with only medicines. This result again proves the effect of Rational Emotive

Behaviour Therapy over medicines in managing the symptoms of Obsessive Compulsive Personality Disorder.

Table IV.2.3.4

Mean and Standard deviation of Four Groups on IPDE Score

variable	no. of samples	Control Group I		Experimenta I Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
IPDE SCORE	7	11.42	1.61	6.42	1.98	7.28	3.14	10.14	1.67

To conclude Rational Emotive Behaviour Therapy is effective in controlling the symptoms of Obsessive Compulsive Personality Disorder. Effect of medicines in controlling the same is not proven.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test score of four groups namely the Control Group I, Experimental Group , Control Group II and Control Group III on IPDE is compared using Matched t-test to find out the level of significance in the difference between the scores in their Pre and Post tests.

1) Control Group I

Hypothesis:

There will not be significant difference between the means of IPDE score in the Pre and Post tests of the Control Group I.

In order to understand whether the Control Group I, for which no intervention methods were administered, has any change in its mean value in the post assessment, matched t-test was used. The results are illustrated in the **Table IV.2.3.5**

Table IV.2.3.5

Pretest-Post test Scores of Control Group I on IPDE

Group	N	Mean	SD	t- value
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Pre test	7	11.57	2.14	0.31
Post test		11.42	1.61	

The t-test results for the Control Group I, which received no intervention method, between the means in the pre and post tests with IPDE interview schedule show no significant difference. The obtained t-value is 0.31 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that the traits of Obsessive Compulsive Personality Disorder are relatively stable and will not be subject to change if not intervened with any therapeutic attempts. The table IV.2.3.5 shows that the post test score is lesser than the pre test score. But the difference is only very minimal. The pretest mean is 11.57 and the post test mean is 11.42.

2) Experimental Group

Hypothesis:

There will not be significant difference between the means of IPDE score in the Pre and Post tests of the Experimental Group.

The pre test and post test dimensional scores on IPDE of the Experimental Group was compared using matched t-test in order to find out the efficacy of Rational Emotive Behavior Therapy in reducing the dimensional score of Obsessive Compulsive Personality Disorder, which is the major focus of the study.

Table IV.2.3.6

Pre test and Post test Scores of the Experimental Group

Group	N	Mean	SD	t- value
Pre test	7	11.71	2.28	4*
Post test		6.42	1.98	

** Significant at 0.05 level*

The t-test results for the Experimental Group between the means in the Pre test and Post test with IPDE interview schedule show significant difference. The obtained t-value is 4, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result suggests that the traits of Obsessive Compulsive Personality Disorder are subject to change if intervened with Rational Emotive Behaviour Therapy. In other words Rational Emotive Behaviour Therapy is effective in managing Obsessive Compulsive Personality Disorder. It effectively reduces the symptoms of the disorder. The mean score in the Pre test was 11.71, where as in the Post test the score had come down to 6.42.

As the dimensional score being an indicative of the severity disorder the result suggest that Rational Emotive Behaviour Therapy is effective in reducing the severity of the symptoms of the disorder.

3) Control Group II

Hypothesis:

There will not be significant difference between the means of IPDE score in the Pre and Post tests of the Control Group II.

To find out the efficacy of using a combination treatment of both Rational Emotive Behavior Therapy and medicinal treatment, the pretest and post test scores of the Control Group II were compared using matched t-test. The findings are given in table

Table IV.2.3.7

Pre test and Post test Scores of the Control Group II

Group	N	Mean	SD	t- value
Pre test	7	11.42	1.81	3.5*
Post test		7.28	3.14	

** Significant at 0.05 level*

The t-test results for the Experimental Group between the means in the Pre and Post intervention assessment with IPDE interview schedule show significant difference. The obtained t-value is 3.5, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The administration of REBT along with Pharmacological Treatment also results in the reduction of the severity of the traits of Obsessive Compulsive Personality Disorder.

This reduction cannot be attributed to the effects of the pharmacological agents as there was no significant change between the means obtained for the Control Group III, where only pharmacological treatment were administered (**Table IV.2.3.8**). This result is explained below.

The mean score in the Pre test was 11.42 where as in the post test the score had come down to 7.28 which indicate the reduction in the severity of the symptoms of the disorder.

4) Control Group III

Hypothesis:

There will not be significant difference between the means of IPDE score in the Pre and Post tests of the Control Group III.

The pretest and post test scores on IPDE-ICD-10 of the Control Group III, the group which was administered only with medicines, were compared using matched t-test in order to find out the efficacy of medicines in reducing the symptoms of Obsessive Compulsive Personality Disorder.

Table IV.2.3.8

Pre test and Post test Scores of the Control Group III

Group	N	Mean	SD	t- value
Pre test	7	11.57	1.71	1.43
Post test		10.14	1.67	

The t-test results for the Control Group III between the means in the pre and post intervention assessment with IPDE interview schedule show no significant difference. The obtained t-value is 1.43 which not significant at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that the traits of Obsessive Compulsive Personality Disorder are not subject to change with the administration of pharmacological agents.

The mean obtained in the pre test was 11.5714 and the mean obtained in the post test was 10.1429 (**Table No. IV.2.3.8**). Though there was a reduction in the post test score, it is not statistically significant.

In shorts the results shows that among the three groups the groups which were administered with Rational Emotive Behaviour Therapy alone and Rational Emotive Behaviour Therapy along with medicines are having significant improvement in the post assessment i.e. after a period of six months. This shows this show the efficacy of Rational Emotive Behaviour Therapy in the treatment of Obsessive Compulsive Personality Disorder.

IV) Comparison of Pretest and Post test Scores on IPDE for Each Subject on each Item in the IPDE through Graphs

Under this section the pre test and post test scores of the whole subjects in the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on each item in the IPDE are presented through table and graph. This would provide a better understanding of the change in the pretest and post test scores of every sample in every group on every item. The sub variables in the IPDE-ICD-10 are considered to be the symptoms of Obsessive Compulsive Personality Disorder. This will help to identify how far the intervention methods were effective in reducing each symptom in subjects with Obsessive Compulsive Personality Disorder.

There are eight items (symptoms) in the IPDE-ICD-10 for Obsessive Compulsive Personality Disorder. Each of them for each group is presented in

sequential order with their graph showing the scores obtained by each subject during their pre and post intervention assessments.

i) Excessive Doubt and Caution

It can be seen from the graph (**Figure IV.2.3.1**) that all the seven subjects in the Control Group I got the same score both during the pretest and post test. The subjects 1, 2, 3, 5, and 6 got the maximum score of 2 on both the pre and post assessments. The subjects 4 and seven got the score of 1 on both assessments. As five of the seven subjects got the maximum score for this symptom i.e. Excessive Doubt and Caution, it may be considered as one of the common symptom for Obsessive Compulsive Personality Disorder. This symptom is generally characterized by lots of doubts about things and being cautious and afraid of making mistakes. The subjects 4 and 7 only occasionally shows excessive doubt and caution and this sometimes causes distress or problems in social or occupational functioning where as all the other subjects frequently shows these symptoms. No subjects neither denied this symptom nor expressed examples which were unconvincing. As all the samples got the same score during both their pre and post assessments it can be assumed that this

Table IV.2.3.9
Pretest and Post test Scores of each Subject in the
Four Groups on the item Excessive Doubt and Caution

Subjects	1		2		3		4		5		6		7	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	2	1	1	2	2	2	2	1	1
Experimental Group	2	1	2	2	2	1	2	2	2	1	2	0	2	0
Control Group II	2	2	2	2	2	2	1	1	2	2	2	1	1	1
Control Group III	2	2	2	2	2	2	1	2	2	2	2	2	1	1

Figure IV.2.3.1

Pretest and Post test Scores of each Subject in the Control Group I on the item Excessive Doubt and Caution

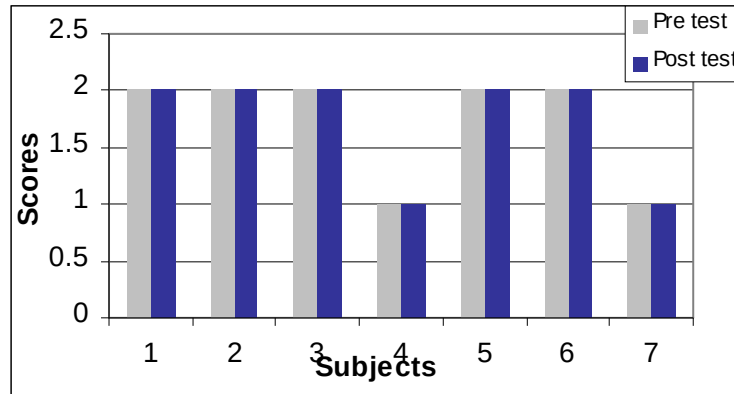


Figure IV.2.3.2

Pretest and Post test Scores of each Subject in the Experimental Group on the item Excessive Doubt and Caution

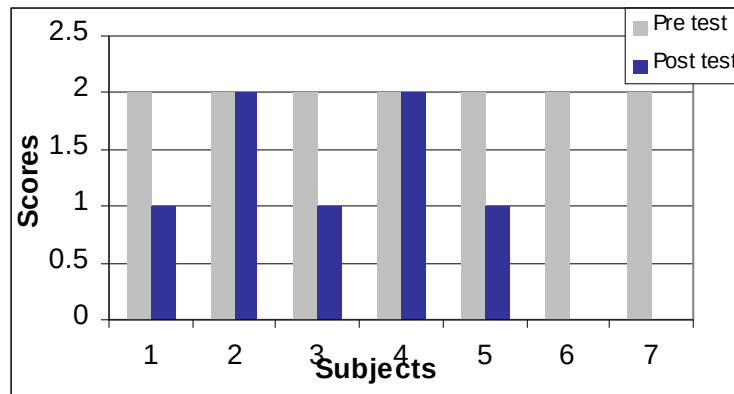
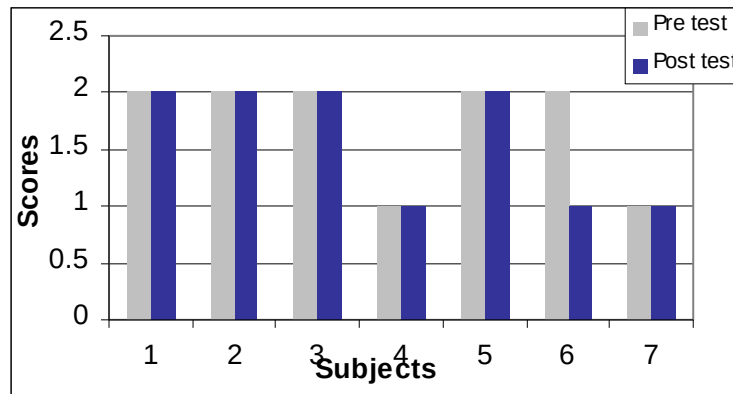


Figure IV.2.3.3

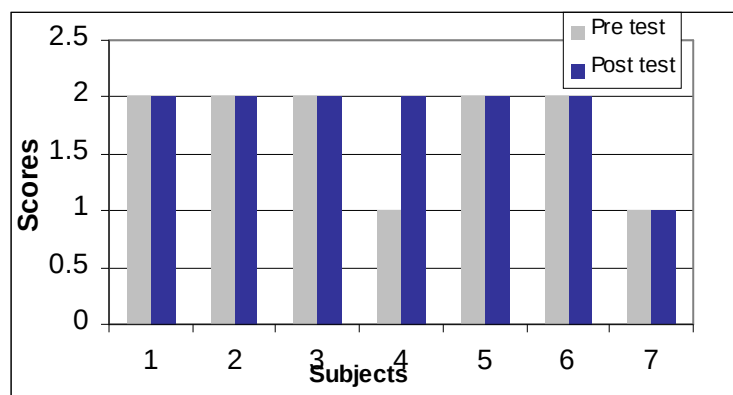
Pretest and Post test Scores of each Subject in the Control Group II on the item Excessive Doubt and Caution



symptom of subjects with Obsessive Compulsive Personality Disorder remains unchanged if not intervened with any sort of management technique. The results also suggest that this item in the IPDE-ICD-10 interview schedule is having high amount of consistency for this item in subjects with Obsessive Compulsive Personality Disorder.

Figure IV.2.3.4

Pretest and Post test Scores of each Subject in the Control Group III on the item Excessive Doubt and Caution



All the subjects in the Experimental Group have got the maximum score (**Figure IV.2.3.2**) in the pre test for this variable, which means that all the subjects were frequently having excessive doubt and caution, which caused distress or problem in social or occupational functioning. In the post

test the score had come down in all the subjects except for the subject 2 and subject 4. The subject 6 and subject 7 shows complete reduction in their scores on this item and the subjects 1, 3 and 5 came down to a score of 1 which indicates only an occasional doubt and caution which sometimes causes distress and problem in the social and occupational functioning, in period of 6 months.

The **figures IV.2.3.3** shows the comparison of pre test and post test scores on the item Excessive doubt and caution obtained by the subjects in the Control Group II. Five out of seven subjects got the maximum score in the pre test and only one subject (subject 6) among them shows a reduction in the post test score and that too is only partial. The subject 4 and subject 7 got a pre test score of 1 and that remained unchanged during the post intervention assessment.

The graph suggest that more than a half of the subjects in the Control Group II are having frequent sense of doubt or caution which causes distress and problem in the social or occupational functioning, even after they had been administered with a combination of Rational Emotive Behaviour Therapy and pharmacological treatment. Only one subject out of seven shows a partial reduction in the post test score. Hence it may be inferred that the combination treatment of both Rational Emotive Behaviour Therapy and medicines in subjects with Obsessive Compulsive Personality Disorder is not worth while in reducing their sense of excessive doubt and caution.

On the item Excessive Doubt and Caution all the subjects in the Control Group III (**Figure IV.2.3.4**) except for subject 4 and 7 shows the maximum score in the pre test. The subject 4 and 7 show a score of 1 in the pre test (Figure IV.2.3.31). No subject shows any kind of reduction in their post test score and in contrary the subject 4 shows a rise in the post test score. The above results show that the medicine has no value what ever in reducing the symptom called Excessive Doubt and Caution in subjects with Obsessive Compulsive Personality Disorder.

ii) Preoccupation with Detail

Here all the subjects in the Control Group I (**Figure IV. 2. 3. 5**), except for the subject 2, got the maximum score on both pre and post assessments. Hence this symptom also may be considered as one among the commonest symptoms of Obsessive Compulsive Personality Disorder. The subject 2 denied this symptom during the pre assessment and in the post assessment explained convincing evidences that supports that the behavior occasionally interferes with reasonable expectations of productivity. But all the other subjects had given sufficient evidences which supports that their preoccupation with details, rules, lists order, organization, or schedule frequently interferes with reasonable expectations of productivity.

All most all the patients were given examples which suggest that they are spending lot of time, than which they are expected to, in preoccupation with their details.

The result suggests that this symptom namely Preoccupation with Details remains unchanged, if not attempted to manage with any sort of management technique. The symptom remained with the same intensity in six out of seven subjects who were not administered with any sort of intervention or interventions. This item hence shows the consistency as a symptom for Obsessive Compulsive Personality Disorder. Here also all the subjects except for the subject 2 obtained maximum score for this item during the pre assessment. Only the subject 1 obtained the same score of 2, which he obtained in the pre test, during the post test as well. All the other subjects show a reduction in their post test scores. But only the subject 6 shows a complete reduction in the post test score for this item. This may indicate that the method of Rational Emotive Behaviour Therapy is only fairly effective in managing the preoccupation with details of subjects with Obsessive Compulsive Personality Disorder. Majority of the subjects remained having this behaviour that occasionally interferes with reasonable expectation of productivity.

Table IV.2.3.10

**Pretest and Post test Scores of each Subject
in the Four Groups on the item Preoccupation with Details**

Subjects	1		2		3		4		5		6		7	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	0	1	2	2	2	2	2	2	2	2	2	2
Experimental Group	2	2	1	1	2	1	2	1	2	1	2	0	2	1
Control Group II	2	1	1	1	1	0	0	0	1	2	2	1	2	1
Control Group III	2	2	1	1	1	1	0	0	1	2	2	2	1	1

Figure IV. 2. 3. 5

**Pretest and Posttest scores of
each subjects in the Control Group I
in the item 'Preoccupation with Detail'**

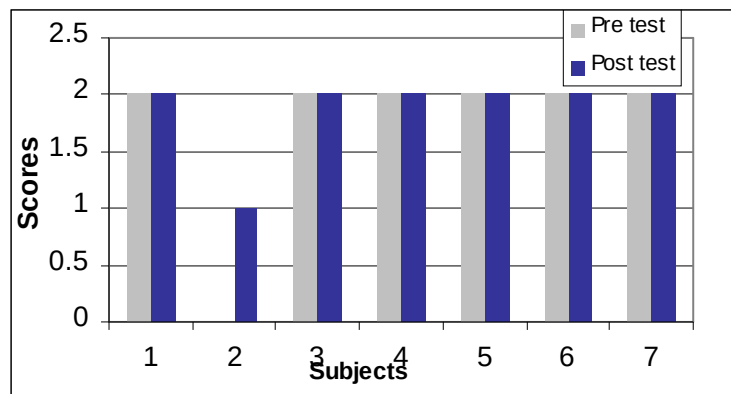


Figure IV.2.3.6

Pretest and Posttest scores of each subjects in the Experimental Group in the item 'Preoccupation with Detail'

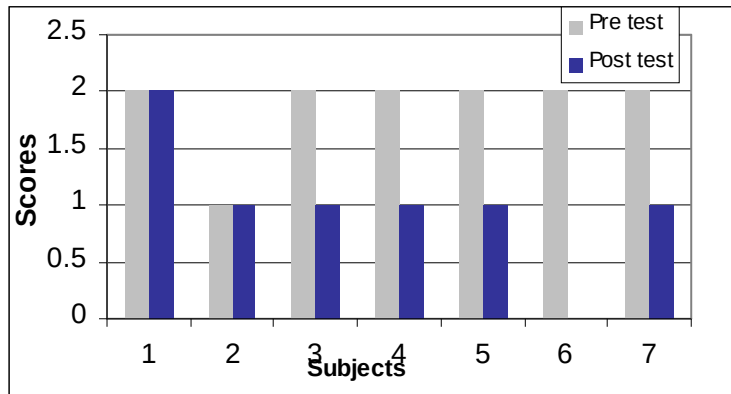


Figure IV.2.3.7

Pretest and Posttest scores of each subjects in the Control Group II in the item 'Preoccupation with Detail'

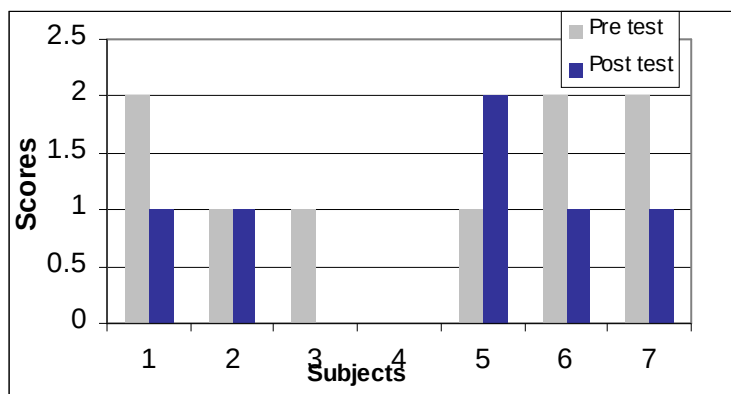
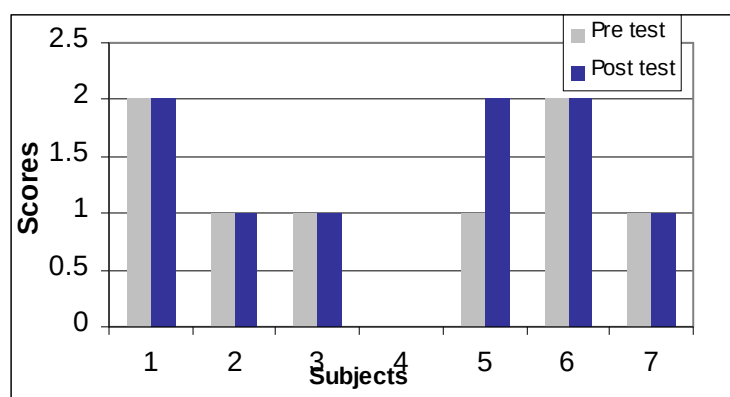


Figure IV.2.3.8

Pretest and Posttest scores of each subjects in the Control Group III in the item 'Preoccupation with Detail'



The graph in the **figure IV.2.3.6** shows that among the Experimental Group four subjects got partial reduction in the post test and one subject got a complete reduction. The complete reduction of the post test score of this item of the subject 6 indicate that Rational Emotive Behaviour Therapy is effective in managing this symptoms in at least some patients with Obsessive Compulsive Personality Disorder.

For Control Group II, only three subjects got the maximum score in the pre test (**figure IV.2.3.7**). The subject 2, 3 and 5 got the pre test score of 1 and the subject 4 got a score zero score in the pre test. Only the subject 3 shows a complete reduction in the post test. The subjects 1, 6 and 7 show a partial reduction. The subject 2 shows the same score in the post test as well.

Surprisingly the subject 5 shows an increase in the post test score. On further analysis of the score of this subject on other variables shows that he is having a reduction in the post test score only on two variables. They are Perfectionism and Undue Preoccupation with Productivity.

Figure IV.2.3.8 shows the pre test and post test score of each subject in the Control Group III on the item Preoccupation with Details. Here also no subject shows reduction in the post test scores when compared to their pre test scores.

Only 2 subjects got the maximum score in the pre test, they are subject 1 and 6. The subject 4 shows a score of zero on both occasions. All the other

subjects show the same scores of 1 on both pre test and post test. The results indicate that the administration of medicine alone in subjects with Obsessive Compulsive Personality Disorder is not worthwhile.

iii) Perfectionism

In the Control Group I, (**figure IV.2.3.9**), the first five subjects had given the maximum score for this item both during the pre and post assessments. The subject 6 had given a score of 1 on both occasions. The subject 7 had given a score of 2 in the pre assessment and a score of 1 in the post assessment. Here also five out of seven subjects show a consistency in their pre and post tests, which suggest that there may not be any change in the symptom called perfectionism in subjects with Obsessive Compulsive Personality Disorder, if not intervened with any intervention on these subjects. It also suggests that there is a consistency of this item in the diagnosis of Obsessive Compulsive Personality Disorder. As this symptom was there in almost all the subjects, it may be also considered as one among the commonest symptoms of the Disorder. Except for the subjects 1 and 3 all the other subjects have got a maximum score for this item in the pre intervention assessment.

For the Experimental Group, the subjects 1, 4 and 6 show a complete reduction in the post test assessment (**figure IV.2.3.10**). The subjects 3, 5 and 7 show a partial reduction and the subject 2 and 3 shows no reduction in their post test scores. As only one subject shows no reduction in post test scores Rational Emotive Behaviour Therapy may be considered as an effective tool for reducing perfectionism in subjects with Obsessive Compulsive Personality Disorder, which is in a pronounced degree or to the extend that it significantly interferes with their functioning particularly in the completion of work or productivity. As the subjects 1, 4 and 6 shows complete reduction in their post test score, it may be inferred that it is possible to remove the symptoms - perfectionism, which is dysfunctional in subjects with Obsessive Compulsive Personality Disorder using Rational Emotive Behaviour Therapy alone.

Table IV.2.3.11

Pretest and Post test Scores of each Subject in the Four Groups on the item Perfectionism

Subjects	1		2		3		4		5		6		7	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	2	2	2	2	2	2	2	2	1	1	2	1
Experimental Group	1	0	2	2	1	1	2	0	2	1	2	0	2	1
Control Group II	2	1	2	2	2	1	2	1	2	1	1	1	2	0
Control Group III	2	2	2	1	2	1	2	2	2	2	0	1	2	0

Figure IV. 2. 3. 9

Pretest and Posttest Scores of each subjects in the Control Group I on the item perfectionism

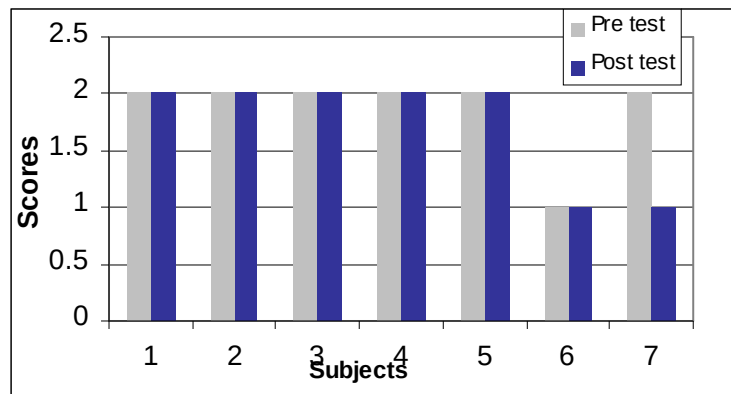


Figure IV. 2. 3. 10

Pretest and Posttest Scores of each subjects in the Experimental Group on the item perfectionism

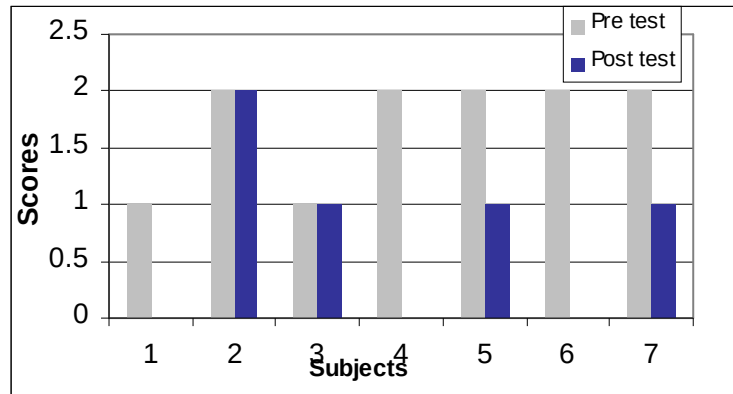


Figure IV. 2. 3. 11

Pretest and Posttest Scores of each subjects in the Control Group II on the item perfectionism

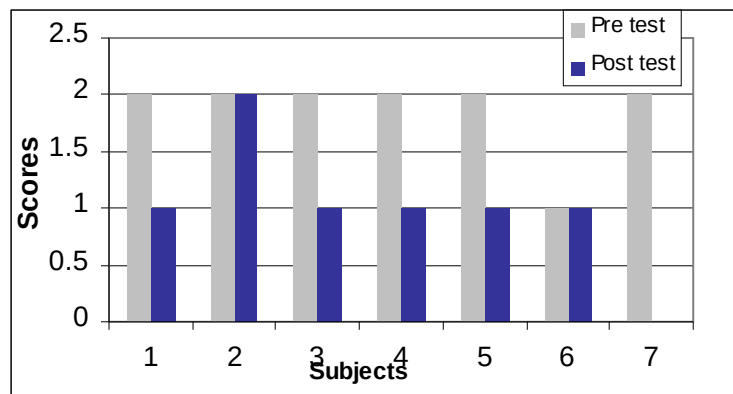
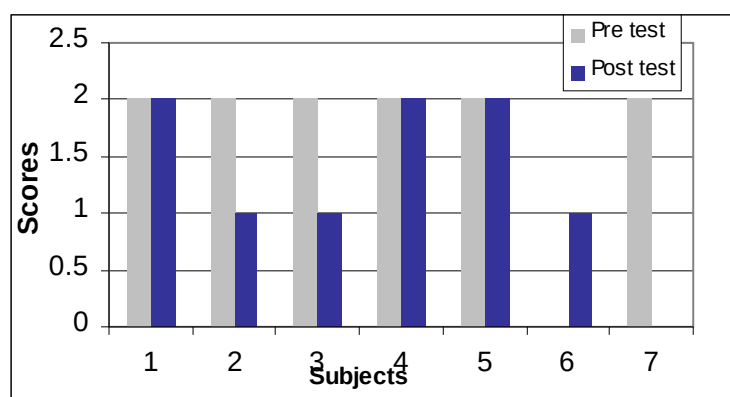


Figure IV. 2. 3. 12

Pretest and Posttest Scores of each subjects in the Control Group III on the item perfectionism



The **Figure IV.2.3.11** shows that all the subjects in the Control Group II, except for the subject 6 got a pre test score of 2 on this item. The subject 6 got only a score of 1 in the pre test and remained the same in the post test as well. Only the subject 7 shows complete reduction in the post test. The subject 2 and subject 6 shows the same score for both pre and post assessments. All the other subjects show only partial reduction in their post assessment score i.e. their post test scores had reduced to 1 from 2. The score of 2 suggest perfectionism in a pronounced degree to an extend that it significantly interferes with their functioning particularly in the completion of work or productivity. As majority of the subjects shows a reduction from definite perfectionism score to as probable score or to a negative score, the combination treatment can be considered as an effective tool for managing perfectionism in subjects with Obsessive Compulsive Personality Disorder

On the item Perfectionism (**Figure IV.2.3.12**) all the subjects in the Control Group III, except the subject 6 shows a pre test score of 2 and only the subject 2 and 3 shows a reduction in the post test and that is only partial. The subject 6 who got a score of zero in the pre test shows a post test score 1. All together the results show that there was no improvement in the subjects with Obsessive Compulsive Personality Disorder with reference to the symptom called 'Perfectionism' on using medicines.

iv) Excessive Conscientious and Scrupulousness

In the Control Group I, (Figure IV.2.3.13) only the subjects 4, 6, and 7 got the maximum score of 2, the subject 2 got only a score of 0 both in the pre and post assessment. The subjects 1, 3 and 5 got a score of 1 on both assessments. As only three out of seven subjects, got the maximum score this symptom may not be considered as a very common symptom for Obsessive Compulsive Personality Disorder among the subjects. All the subjects have shown a consistency in their pre and post assessment score. This suggests that this symptom may remain unchanged if not intervened with any intervention methods.

Table IV.2.3.12

Pretest and Post test Scores of each Subject in the Four Groups on the item Excessive Conscientious and Scrupulousness

Subjects	1		2		3		4		5		6		7	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	0	0	1	1	2	2	1	1	2	2	2	2
Experimental Group	1	1	2	1	1	0	0	2	1	1	2	1	2	1
Control Group II	1	1	2	0	1	1	2	0	0	1	2	0	2	1
Control Group III	1	1	2	1	1	1	2	2	1	1	2	2	2	1

Figure IV. 2. 3. 13

Pretest and Posttest Scores of each subjects in the Control Group I on the item 'Excessive Conscientious and Scrupulousness

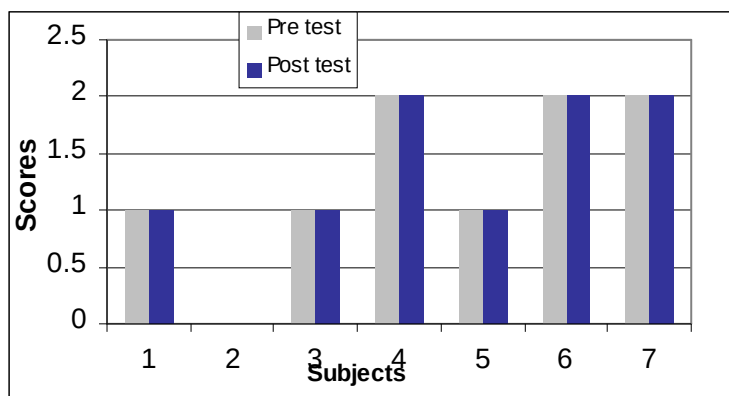


Figure IV. 2. 3. 14

Pretest and Posttest Scores of each subjects in the Experimental Group on the item 'Excessive Conscientious and Scrupulousness

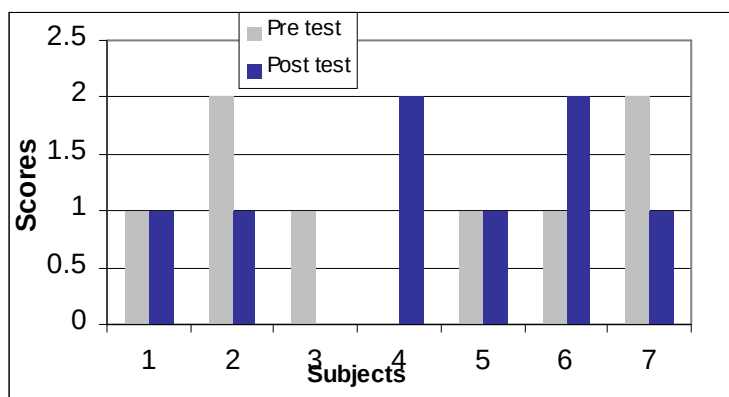


Figure IV. 2. 3. 15

Pretest and Posttest Scores of each subjects in the Control Group II on the item 'Excessive Conscientious and Scrupulousness'

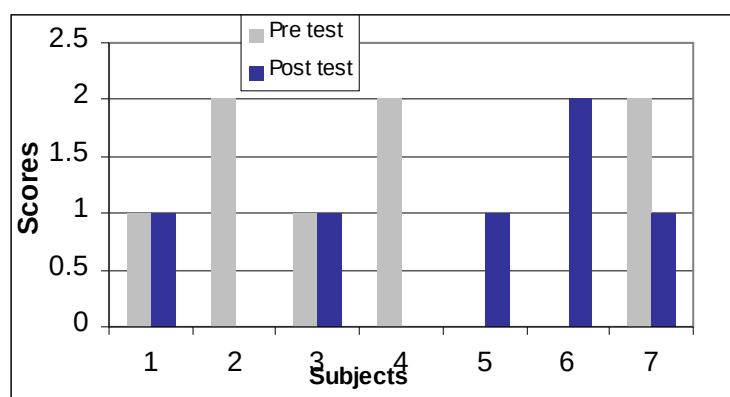
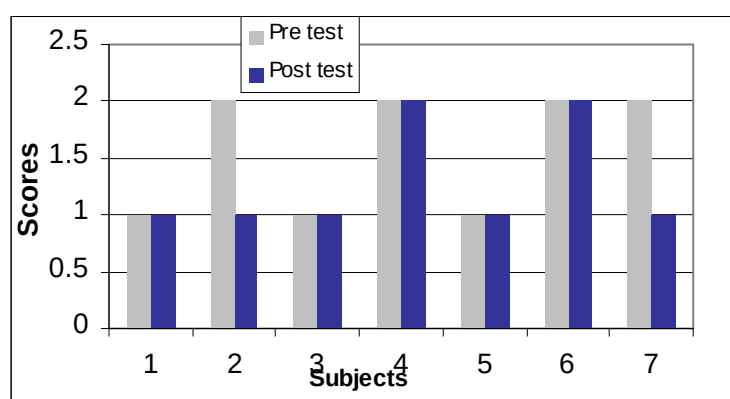


Figure IV. 2. 3. 16

Pretest and Posttest Scores of each subjects in the Control Group III on the item 'Excessive Conscientious and Scrupulousness'



This symptom indicates excessive concern about rules, ethics, morality or matters of right and wrong. The subjects 2 and 7 in the Experimental Group (**Figure IV.2.3.14**) got the maximum score of 2 in the pre assessment. The subjects 1, 3, and 5 got the score of 1 in the pre assessment. The subject 4 got a nil score. During the post intervention assessment only the subject 3 shows a complete reduction (pretest score was 1). The subject 1 and 5 shows no change in their post test scores. The subjects 2, 6 and 7 show a partial reduction i.e. from a score of 2 to a score of 1. The subject 4 who was having a score of zero in the pretest showed a score of 2 in the post test. The responds of the whole subject group indicate that Rational Emotive Behaviour Therapy is only fairly effective in dealing with the symptom- Excessive

Conscientious and Scrupulousness in subjects with Obsessive Compulsive Personality Disorder.

The **Figure IV.2.3.15** shows that 4 of the subject in the Control Group II shows a score of two in the pre assessment and all of them are showing reduction in the post assessment. One among them shows a partial reduction and three of them show a complete reduction. The subject 1 and 3 shows a score of 1 on both pre and post tests. This symptom indicate an excessive concern about rules ,ethics, morality or matters of right or wrong and the results suggests that the application of a combination of Rational Emotive Behaviour Therapy and medicines in subjects with Obsessive Compulsive Personality Disorder is effective in reducing their symptom – excessive conscientious and scrupulousness.

The **Figure IV.2.3.16** shows the pre test and post test score of each subject in the Control Group III on item Excessive Conscientious and Scrupulousness. 4 of the subjects show a re test score of 2 and 3 of them show a score of 1. Only 2 subjects show a reduction in their post test score and that too is only partial. This indicates that using medicine alone in subjects with Obsessive Compulsive Personality Disorder for managing the symptom called Excessive Conscientious and Scrupulousness is ineffective

v) Undue Preoccupation with Productivity

All the subjects in the Control Group I (**Figure IV.2.3.17**) except for subject 1 and subject 4 got the maximum score on this item on both their pre and post assessments. The subject 1 got a score of 1 on both occasions and subject 4 got a score of one in the pre assessment and during the post assessment it has became 2. The consistency in the scores for 6 subjects out of 7 in the pre and post assessments suggests that the undue preoccupation with productivity seen in subjects with Obsessive Compulsive Personality Disorder remain unchanged if no intervention methods are introduced.

For the Experimental Group (**Figure IV.2.3.18**) the subjects 2, 3, 6 and 7 have got the maximum score during the pre assessment and subject 3 shows complete reduction in the post assessment. Subjects 2 and 6 showed partial reduction and subject 7 remained unchanged.

Table IV.2.3.13

Pretest and Post test Scores of each Subject in the Four Groups on the item Undue Preoccupation with Productivity

Subjects	1		2		3		4		5		6		7	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	2	2	2	2	1	2	2	2	2	2	2	2
Experimental Group	1	0	2	1	2	0	0	2	1	1	2	1	2	2
Control Group II	1	1	2	2	0	0	0	0	2	0	2	1	2	2
Control Group III	1	1	2	2	2	1	0	0	2	1	2	2	2	2

Figure IV. 2. 3. 17

Pretest and Posttest scores of each subjects in the Control Group I on the item 'Under Preoccupation with Productivity'

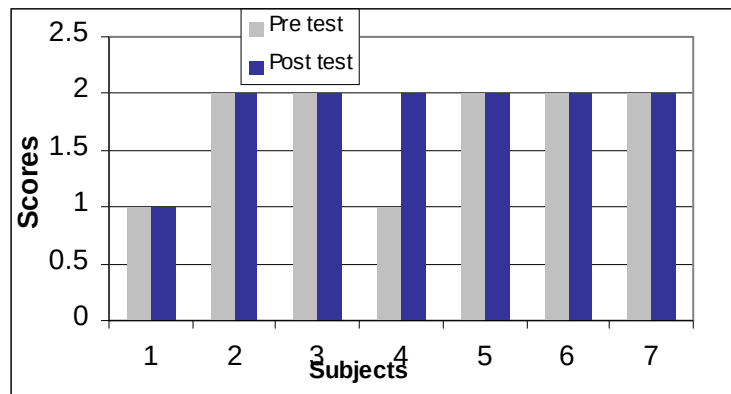


Figure IV. 2. 3. 18

Pretest and Posttest scores of each subjects in the Experimental Group on the item 'Under Preoccupation with Productivity'

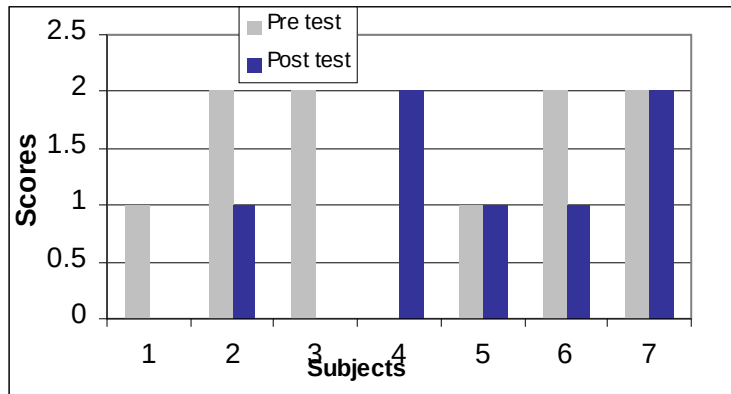


Figure IV. 2. 3. 19

Pretest and Posttest scores of each subjects in the Control Group II on the item 'Under Preoccupation with Productivity'

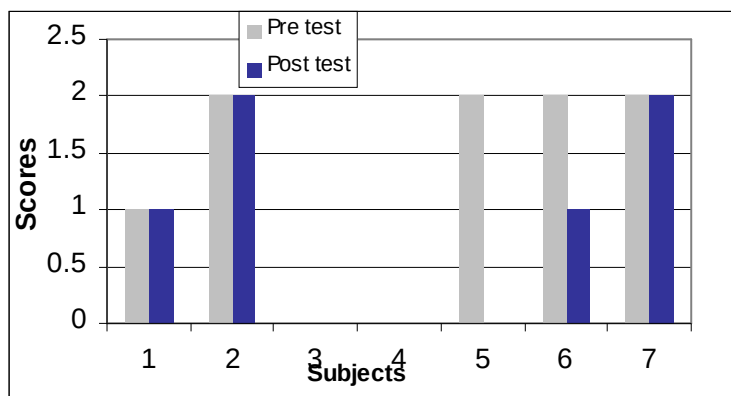
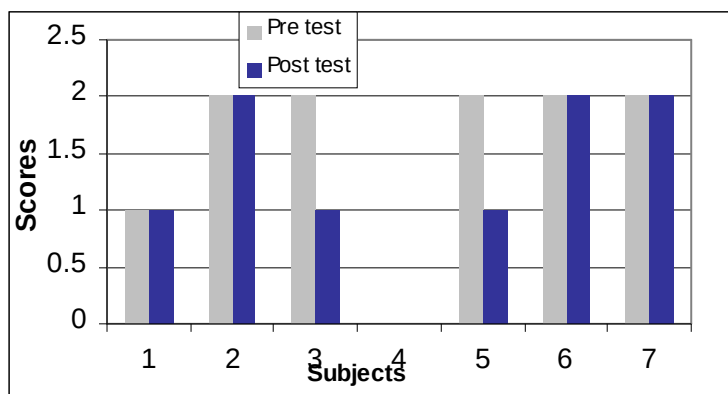


Figure IV. 2. 3. 20

Pretest and Posttest scores of each subjects in the Control Group III on the item 'Under Preoccupation with Productivity'



Subject 1 and 5 had a score of 1 in the pre test. Subject 1 shows a complete reduction of score in the post test and the subject 5 remained unchanged. The reason may be that the focus of the therapy was more towards the items which are responded positively during the initial assessment and those symptoms which were responded negatively were left unhandled. The results suggest that Rational Emotive Behaviour Therapy is again fairly effective in handling undue preoccupation with productivity in subjects with Obsessive Compulsive Personality Disorder.

In the pre test, the subject 2, 5, 6 and 7 in the Control Group II (**Figure IV.2.3.19**) got the maximum score. Subject 1 got a score of 1. Subject 3 and 4 got a score of 0. It can be seen from the graph that the subject 5 shows a complete reduction in the post test and the subject 6 shows a score of 1 in the post test (partial reduction). All the other subjects show no change in their post test scores. Though there was no reduction in the post test in majority of the subjects, it can be seen that one of the patient who was having the maximum score in the pre test shows complete reduction in his score in the post test, which indicate that the combination treatment of both Rational Emotive Behaviour Therapy and medicines can manage the symptom called Undue

Preoccupation with Productivity at least in some subjects with Obsessive Compulsive Personality Disorder. But when we consider the total group of subjects, it is only fairly good in reducing this symptom.

For the item Undue Preoccupation with Productivity among the subjects in the Control Group III (**Figure IV.2.3.20**) 5 of the subjects show a pre test score of 2 and 1 subject shows a pre test score of 1. The subject 4 shows a zero score on both pre test and post test. Only 2 subjects i.e., subject 3 and subject 5 shows a partial reduction in their post test score. The result indicates that again medicine alone in managing this symptom is not worthwhile.

vi) Pedantry and Conventionality

From the graph of the Control Group I (**Figure IV.2.3.21**) it can be seen that only one subject i.e. subject 4 got the maximum score for this item called Pedantry and Conventionality and that too is only in the pre assessment. The subject 1, 2 and 6 got zero score on both occasions. The subjects 3, 5 and 7 got a score of 1 on both Pre and Post assessments. As this symptom being scored positively by only four samples and three of them had given a probable option, this symptom may not be considered as a common symptom for Obsessive Compulsive Personality Disorder. Those entire subjects in the who got a positive score in the pre assessment shows the same score in the post assessment as well, which means that this symptom if un attended with any therapeutic measures will remain as the same in subjects with Obsessive Compulsive Personality Disorder.

Among the Experimental Group (**Figure IV.2.3.22**), only the subject 1 obtained the maximum score for this variable in the pre assessment. The subject 3 and 4 got zero score on both pre and post assessment. The rest of the subjects got a pre score of 1 and subjects 2 and 5 shows a complete reduction of scores in the post test. The subject 6 and 7 shows no change in their post test score. As the initial score of the subjects being only average the efficacy of Rational Emotive Behaviour Therapy in managing this symptom can not be satisfactorily predicted.

On Pedantry and Conventionality among the subjects in the Control Group II, only the subject 4 shows the maximum score in the pre test (**Figure IV.2.3.23**). All the other subjects except for subject 3 show only a score of 1 in the pre test. In the post test the subject 2 and 6 shows

Table IV.2.3.14

Pretest and Post test Scores of each Subject in the Four Groups on the item Pedantry and Conventionality

Subjects	1		2		3		4		5		6		7	
Groups	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	0	0	0	0	1	1	2	1	1	1	0	0	1	1
Experimental Group	2	1	1	0	0	0	0	0	1	0	1	1	1	1
Control Group II	1	1	1	0	0	1	2	1	1	1	1	0	1	0
Control Group III	1	1	1	0	1	1	2	2	1	1	1	0	0	1

Figure IV. 2. 3. 21

Pretest and Posttest Scores of each subject is the Control Group I on the item 'Pedantry and Conventionality'

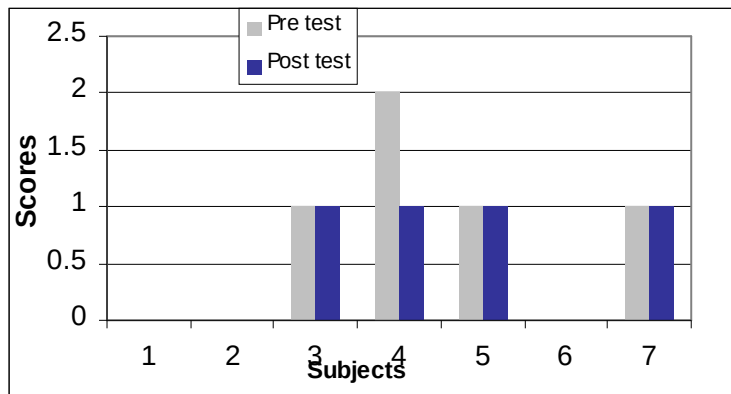


Figure IV. 2. 3. 22

Pretest and Posttest Scores of each subject is the Experimental Group on the item 'Pedantry and Conventionality'

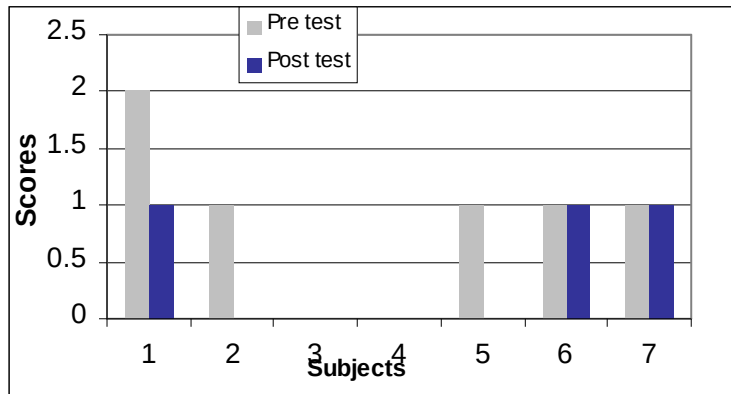


Figure IV. 2. 3. 23

Pretest and Posttest Scores of each subject is the Control Group II on the item 'Pedantry and Conventionality'

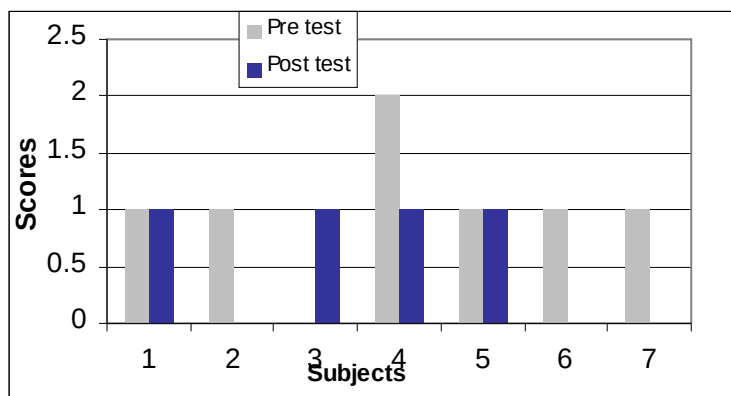
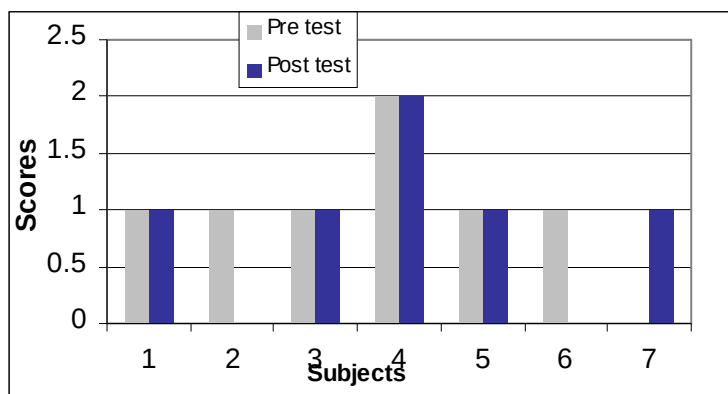


Figure IV. 2. 3. 24

Pretest and Posttest Scores of each subject is the Control Group III on the item 'Pedantry and Conventionality'



Complete reduction, whose scores were 1 in the pre test. The subject 4's score has come down to 1 from 2, in the post test. Subject 1, 5 and 7 shows no change in the post test, they show a score of 1 on both occasions. Here the subject 3 shows a rise in the post test to a score of 1 from a score of 0. Here also the combination of treatment can be predicted as useful in reducing this symptom, in only half of the subjects, which indicate a fairly good efficacy of the combination treatment in managing these symptoms in subjects with Obsessive Compulsive Personality Disorder.

The **Figure IV.2.3.24** shows that 2 subjects in the Control Group III, i.e., subject 2 and subject 6 shows a complete reduction in their post test scores (Their pre test score was 1). The subject 7 shows a post test score of 1 whose pre test score was zero. All the other subjects show the same pre test and post test scores for this item Pedantry and Conventionality which cannot be generalized in all subjects with Obsessive Compulsive Personality Disorder.

vii) Rigidity and stubbornness

The subjects 1, 3, 4 and 5 in the Control Group I (**Figure IV.2.3.25**) got the maximum score of 2 on both pre and post assessments. The subjects 6 and 7 got a score of 1 on both occasions. The subject who got a score of 2 in the post assessment was having no score for this item in the pre assessment. The symptom called rigidity and stubbornness may be considered as a

common symptom as all the subjects except for subject 2, got positive scores. The pre assessment and post assessment scores of six subjects out of seven were same and hence it may be pointed out that if the symptom called rigidity and stubbornness is not addressed with any sort of therapeutic measures, the remains the same forever.

Table IV.2.3.15
Pretest and Post test Scores of each Subject
in the Four Groups on the item Rigidity and Stubbornness

Subjects	1		2		3		4		5		6		7	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	2	2	0	1	2	2	2	2	2	2	1	1	1	1
Experimental Group	2	2	1	0	2	0	0	0	0	0	2	1	1	1
Control Group II	2	2	2	1	2	2	2	0	2	2	1	0	2	0
Control Group III	2	2	2	1	1	2	2	2	2	2	0	1	2	1

Figure IV. 2. 3. 25
Pretest and Posttest Scores of
each subjects in the Control Group I
on the item 'Rigidity and Stubbornness'

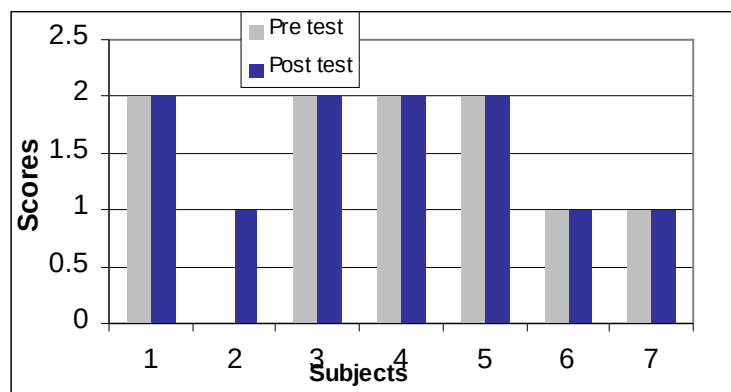


Figure IV. 2. 3. 26

Pretest and Posttest Scores of each subjects in the Experimental Group on the item 'Rigidity and Stubbornness'

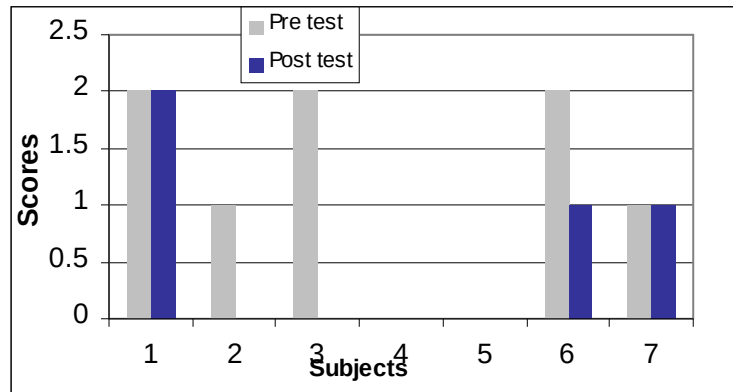


Figure IV. 2. 3. 27

Pretest and Posttest Scores of each subjects in the Control Group II on the item 'Rigidity and Stubbornness'

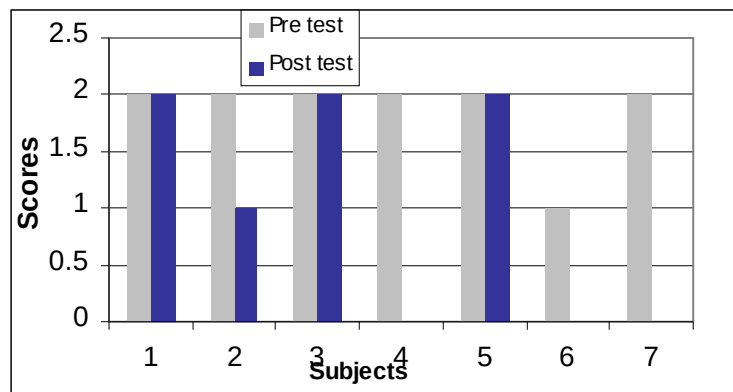
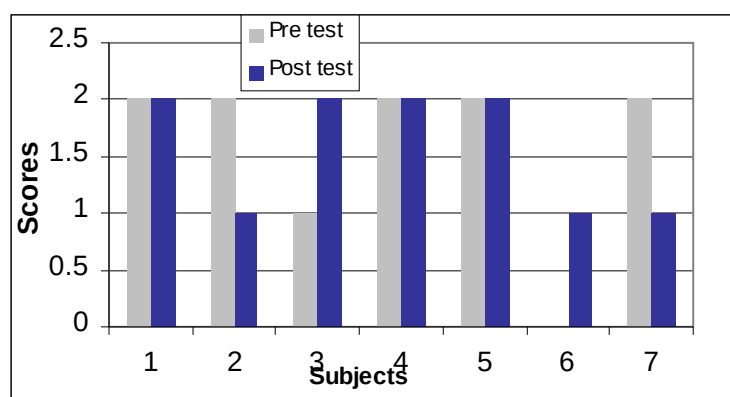


Figure IV. 2. 3. 28

Pretest and Posttest Scores of each subjects in the Control Group III on the item 'Rigidity and Stubbornness'



For the Experimental Group (**Figure IV.2.3.26**) the maximum scores were obtained by three subjects in the pre test. One among them showed complete reduction in the post test score. One showed partial reduction and the next remained unchanged. The subject 4 and 5 had given zero score on both pre and post tests. The subject 2 and 7 have obtained a score of 1 in the post test and the subject 2 showed a complete reduction in the score but the post test score of subject 7 remained unchanged. Rigidity and stubbornness show the resistance to the suggestions and views of others and reluctance to change one's way under reasonable pressure from others to do so. As there was complete reduction in the post test score of two subjects and partial reduction in another two subjects, Rational Emotive Behaviour Therapy may be considered as effective in reducing the symptom-rigidity and stubbornness in subjects with Obsessive Compulsive Personality Disorder.

For the item Rigidity and Stubbornness all the subjects except for the subject 6 in the Control Group II (**Figure IV.2.3.27**) shows as pre test scores of 2 which shows the resistance to suggestions and views of others and reluctant to change one's way under reasonable pressure others to do so. The subject 6 shows a pre test score of 1. 3 subjects out of 7, shows a complete reduction in their post test scores and one subject shows a partial reduction i.e., 2 to 1. 3 of the subjects show no change in their post test scores. All together the combination of Rational Emotive Behaviour Therapy and medicines may be predicted as useful in reducing the symptoms Rigidity

and Stubbornness in subjects with Obsessive Compulsive Personality Disorder

On the item Rigidity and Stubbornness (**Figure IV.2.3.28**), 5 subjects show the maximum score in the pre test and 2 of them show a partial reduction in their post test. Subject 3 shows a pre test score of 1 and in the post test this subject shows a score of 2. Also the subject 6 who got a zero score in the pre assessment shows a score of 1 in the post test. Thus the result indicates towards the futile attempt of giving medicines in the subject with Obsessive Compulsive Personality Disorder particularly in managing the symptom called 'Rigidity and Stubbornness'.

viii) Insistence on doing things own way

The subjects 2, 3 and 5 in the Control Group I (**Figure IV.2.3.29**) got the maximum score in the pre test and among them the subjects 2 and 3 got the same score in the post test. The subject 5 shows a reduction in the post test to a score of 1. The subjects 1, 4 and 7 got a score of 1 on both pre and post assessment. The subject 6 shows no scores on both occasions. The subjects who got the maximum score have frequent unreasonable reluctance to allow others to do things because of the conviction that they will not do them correctly. This some times causes subjective distress or problems. 6 subjects out of 7 shows consistency in their pre and post assessment scores, which suggests that the variable called insistence on doing things own way, are not subject to any change if not intervened with any sort of therapeutic measures.

Among the subjects in the Experimental Group, four subjects out of seven has got the maximum score of 2 in the pretest (**Figure IV.2.3.30**). Two of them, i.e. subject 1 and subject 7 got a score of 1 in the pre test. The subject 3 got a zero score on the pretest. Only the subject 6 shows a complete reduction in the post assessment. All other subjects except for the subject 3 and 1 show a partial reduction in their post test score. The subject 1's post test score remained the same and the subject 3's post test score has increased to a score of 1 which was zero earlier. As only 3 subjects shows reduction in the post test assessment and only one among them shows complete reduction, Rational Emotive Behaviour Therapy can only be said to

be fairly effective in reducing the symptom-insistence on doing things own way in subjects with Obsessive Compulsive Personality Disorder.

On the item Insistence on Doing Things Own Way, only two subjects in the Control Group II, (**Figure IV.2.3.31**) show a pre test score of 2 and 3 subjects show a pre test score of only one. The rest of the 3 subjects show a zero score in the pre test. During the post test the subject 3, 6 and 7 have shown a complete reduction in their scores. The subject 1 and 2 shows no change in the post test. Surprisingly

Table IV.2.3.16

Pretest and Post test Scores of each Subject in the Four Groups on the item Insistence on Doing Things Own Way

Subjects	1		2		3		4		5		6		7	
	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test	Pre test	Post test
Control Group I	1	1	2	2	2	2	1	1	2	1	0	0	1	1
Experimental Group	1	1	2	1	0	1	2	2	2	1	2	0	1	1
Control Group II	1	1	2	2	2	0	0	1	0	0	1	0	1	0
Control Group III	2	1	2	2	2	0	1	1	0	0	0	1	2	0

Figure IV. 2. 3. 29

Pretest and Posttest scores of each subjects in the Control Group I on the item 'Insistence on Doing Things own way'

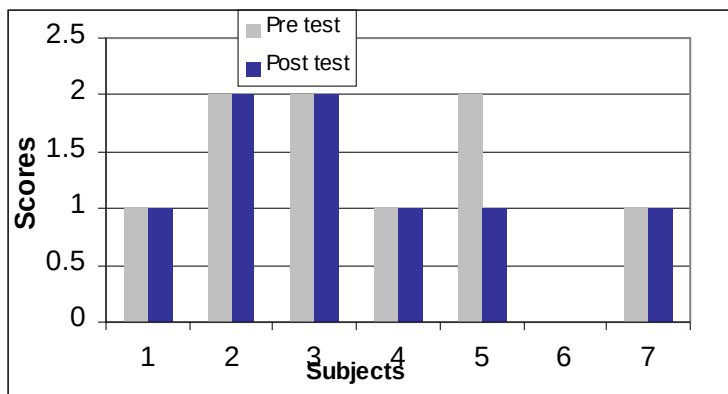


Figure IV. 2. 3. 30

Pretest and Posttest scores of each subjects in the Experimental Group on the item 'Insistence on Doing Things own way'

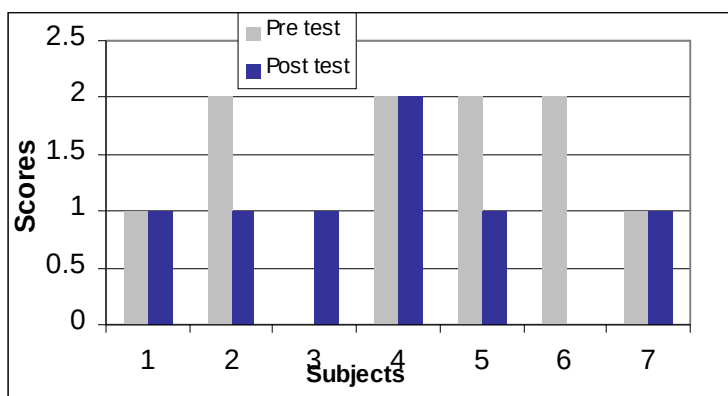


Figure IV. 2. 3. 31

Pretest and Posttest scores of each subjects in the Control Group II on the item 'Insistence on Doing Things own way'

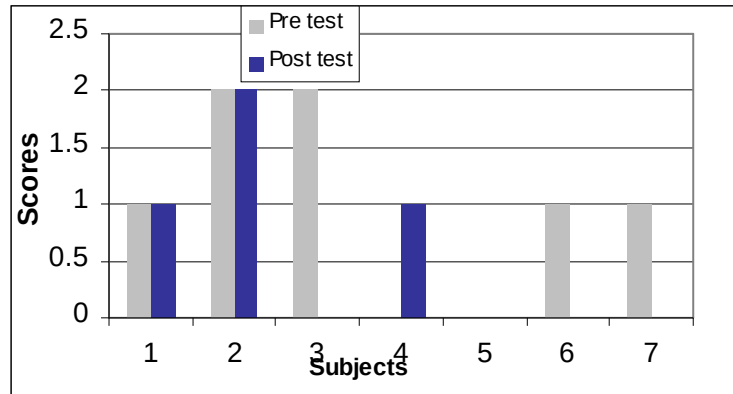
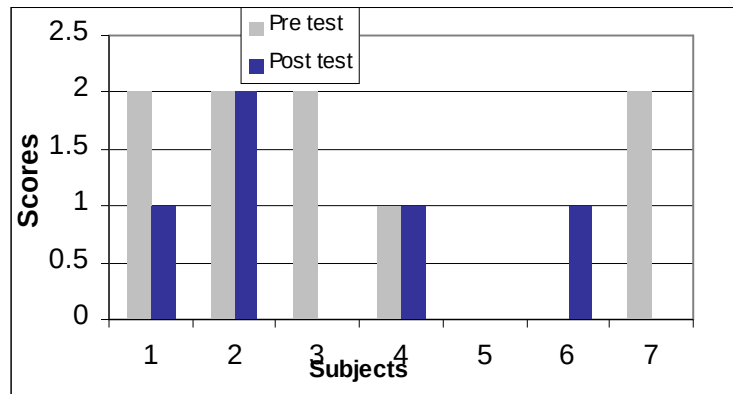


Figure IV. 2. 3. 32

Pretest and Posttest scores of each subjects in the Control Group III on the item 'Insistence on Doing Things own way'



the subject 4 is showing a rise in the post test scores. Here also the combination treatment can only be predicted as fairly good in reducing the symptom called Insistence on Doing Things Own Way in subjects with Obsessive Compulsive Personality Disorder.

Figure IV.2.3.32 shows some effect of medicines in 3 subjects with Obsessive Compulsive Personality Disorder among the Control Group III, in reducing their score on the item, Insistence on Doing Things Own Way. Here 4 subjects got the maximum score of 4. Among them 2 subjects show a complete reduction in their post test scores and 1 subject shows a partial reduction. At the same time the subject 6 shows a post test score of 1, who

was having a pre test score of zero. This shows a fairly good effect of medicines in managing the symptom of Insistence in Doing Things Own Way in subjects with Obsessive Compulsive Personality Disorder.

The findings of the above results are that, firstly the four groups namely the Control Group I, Experimental Group , Control Group II and the Control Group III, when compared using one way ANOVA, it had been found out that no two groups differs in their mean value during the pre test. It indicates that all the four groups are matched in terms of their dimensional score on IPDE during the pre intervention assessment.

It is highly warranted that all the four groups should be matched as the dependent variable which is the diagnosis of Obsessive Compulsive Personality Disorder is a second axis diagnosis. Hence many other first axis conditions such as Obsessive Compulsive Disorder, Generalized Anxiety Disorder, Alcohol and Other Substance Use Disorders, Depression etc., may have contribute to the results in the assessment of subjects with Obsessive Compulsive Personality Disorder. Here cautions were taken in order to exclude subjects with active symptoms of these disorders. Even then the comparison of homogeneous groups only can show the efficacy of the independent variable which is Rational Emotive Behaviour Therapy.

Here the researcher attempted to match these samples on the basis of their scores on IPDE and the attempt was proved to be successful, when the pre test ANOVA result showed no significant difference between the mean of the four groups. Secondly during the post test the researcher found that the four groups differ in their mean values when one way ANOVA was used.

The Experimental Group shows significant difference with Control Group I and Control Group III, which indicates that the researcher's attempt to identify the efficacy of Rational Emotive Behaviour Therapy in reducing the Dimensional score on IPDE is proved when compared to the group which was not administered with any sort of intervention and to the group which was administered only with medicines. So Rational Emotive Behaviour Therapy can undoubtedly be the effective intervention method than medicines in the management of Obsessive Compulsive Personality Disorder.

Though the combination of medicines and Rational Emotive Behaviour Therapy also can produce better results than those who got no intervention (Control Group I), the researcher cannot attribute this efficacy to the medicines as the group which was administered with medicines alone shows no significant difference with that of Control Group I. All together the researcher found that Rational Emotive Behaviour Therapy is an effective system of managing the patients with Obsessive Compulsive Personality Disorder than medicines.

Thirdly the four group's pre test and post test scores where compared using t-test.

Here the researcher found that only the two groups which were administered with Rational Emotive Behaviour Therapy (alone or together with medicines) shows significant difference in their mean values during pre test and post test.

As the pre test and post test comparison of the group which was administered only with medicines shows no significant difference, the researcher can clearly state that only Rational Emotive Behaviour Therapy is significantly effective in managing the symptoms of Obsessive Compulsive Personality Disorder.

Finally the researcher compared the pre test and post test scores of each sample, each item in the IPDE and the total Dimensional score. There were 8 items in the IPDE which represent the symptoms of Obsessive Compulsive Personality Disorder (Table IV.2.3.9). The researcher found that all the subjects in the Control Group I remained unchanged in their diagnosis, when considering the number of criteria met for the diagnosis to be made. (Only those subjects who get a score which is equal to or above 3 in the number of criteria met could be diagnosed definite for Obsessive Compulsive Personality Disorder).

For the Experimental Group the entire subjects except for 1 had changed their diagnosis from definite to negative in their post test phase.

The Control Group II showed a mixed picture but the pendulum was more towards an effective change that 5 subjects changed their score from definite to negative.

Four of the subjects of the Control Group III, who were having definite diagnosis, remained unchanged during the post test. Two of them became negative and one became probable during the post test.

It is observed that for the item Excessive Doubt and Caution none of the samples of the Control Group I showed changes in the post test. All the samples except for 2 of the Experimental Group showed reduction in the post score. None of the sample in the Control Group II showed any change in the post test. For the Control Group III again none of the samples showed any change in the post test, and rather one subject showed an increase in the post test score.

On the item 'Preoccupation with Details' none of the samples of the Control Group I showed reduction in the post test, but one sample had an increase in the post test score. Five samples of the Experimental Group had shown reduction in this item during the post test. Four samples of the Control Group II showed reduction in the post test but there was an increase in the scores of one subject in the post test. None of the samples of the Control Group III showed any change during the post test. Also there was an increase in the post test score of one sample.

Only one sample of the Control Group I showed a reduction in the score for the item 'Perfectionism' during the post test. Five subjects of the Experimental Group had shown reduction in the post test score for this item. Again five subjects of the Control Group II showed reduction in the post test scores. Only three subjects of the Control Group III showed a reduction in the post test and there was an increase in the post test score of one subject as well.

None of the samples of the Control Group I showed reduction in the post test for the item 'Excessive Conscientious and Scrupulousness'. Four subjects of the Experimental Group showed reduction in the post test score and one subject showed an increase in the post test score. There was reduction in the post test score of the four subjects in the Control Group II and

one subject showed an increase in the post test score. Only two subjects of the Control Group III showed a reduction in the post test and the other entire subject remained unchanged during the post test.

B) Analyses of Experimental Group and Control Groups on Hostility

As described earlier the total sample (N=28) with the diagnosis of Obsessive Compulsive Personality Disorder is subdivided into 4, based on the intervention module administered on them, as follows: Control Group I (No intervention is administered), Experimental Group (Rational Emotive Behaviour Therapy is administered), Control Group II (Rational Emotive Behaviour Therapy and medication are administered and Control Group III (Only medication is administered). All the above four groups were administered with Hostility Scale during both Pre and Post intervention phases. The data were analyzed using one way ANOVA. Scheffe test is used to identify the groups which show significant difference.

I. PRE-TEST

The Pretest result and F-values for the Experimental Group and the Control Groups is given in **table IV.2.3.17**. None of the F-value (**table IV.2.3.17**) related to the Overall Hostility and its sub variables for the four groups are found significant at 0.05 level. The **table IV.2.3.18** gives the Mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables.

As and when there was no significant difference between the means of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III, in the hostility score, during the pre assessment, it can be clearly stated that the researcher's attempts to match the four groups became successful.

The significance of making the four groups matched in terms of their hostility is that, Obsessive Compulsive Personality Disorder is an axis II diagnosis and there were many axis I diagnoses which may in variably affect the hostility of the subjects with Obsessive Compulsive Personality Disorder.

The ANOVA results of the pretest scores of the four groups suggest that all the four groups are having more or less similar levels of hostility and

more importantly the four groups are having similar scores on every sub variables of hostility, the differences of which are insignificant.

Table IV.2.3.17

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	23.53	7.84	385.14	16.04	0.48
Guilt	51	17	188.85	7.86	2.16
Cynicism	60.85	20.28	330	13.75	1.47
Criticizing Others	32.10	10.70	363.14	15.13	0.70
Acting Out	37.14	12.38	161.71	6.73	1.83
Projection of Hostility	3.25	1.08	239.42	9.97	0.10
Overall Hostility	7.53	2.51	2706.57	112.77	0.02

Table IV.2.3.18

Mean and SD of (Pre-test) the
Four Groups on Hostility and its Sub- Variables

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self Criticism	7	18.14	2.96	16.28	5.34	17.28	2.75	18.71	4.38
Guilt	7	17.14	3.18	19.57	3.04	20.85	2.91	18.71	1.88
Cynicism	7	20.14	3.97	16.14	4.94	18.28	2.87	19.14	2.54
Criticizing Others	7	19.14	3.84	21.57	5.12	20.42	1.39	21.85	4.18
Acting Out	7	24.42	0.97	24.71	2.75	22.42	3.25	22.14	2.79
Projection of Hostility	7	22.14	3.38	22.28	2.36	21.71	3.25	21.42	3.50
Overall Hostility	7	121.14	9.95	120.57	15.44	121	5.38	122	9.78

The below given are the results of each sub variables of hostility and that of the Overall Hostility of subjects in the four groups.

a) Self Criticism

Hypothesis:

There will be no significant difference between the four groups in the pre test on Self Criticism

The highest mean value for this variable seen 18.14 and the lowest is 16.28. These are the scores of the Control Group III and the Experimental Group respectively. The F-value for this variable is 0.48 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that the four groups are matched in terms of their pre test Self Criticism scores in the hostility scale.

One of the features seen in Obsessive-Compulsive (Obsessive Compulsive) Personality Disorder is that they are inclined to be severely self-critical (DSM-IV, 1994, pp. 669-670).

b) Guilt

Hypothesis:

There will be no significant difference between the four groups in the pre test on Guilt.

The F-value for this variable is 2.16 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group II which is 20.85 and the lowest mean is that of the Control Group I which is 19.07. Here also no two groups differ significantly and hence the differences between the mean values of the four groups are insignificant. So they are assumed to be matched in terms of their score on the variable 'Guilt'.

c) Cynicism

Hypothesis:

There will be no significant difference between the four groups in the pre test on Cynicism.

The F-value for this variable is 1.47, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 20.14, which is for the Control Group I and the lowest mean is 16.14, which is for the Experimental Group. No two groups differ significantly and hence the four groups are assumed to be matched in terms of their score on the variable 'Cynicism'.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the pre test on Criticizing Others.

The F-value for this variable is 0.70 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Control Group III which is 21.85 and the lowest mean is that of the Control Group I which is 19.14. No two groups differ significantly, and hence the groups are considered to be matched in terms of their scores on the variable 'Criticizing Others'.

e) Acting Out

Hypothesis:

There will be no significant difference between the four groups in the pre test on Acting Out.

The F-value for this variable is 1.83, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 24.71, which is for the Experimental Group and the lowest mean is 22.14, which is for the Control Group III. As no two groups differ significantly, the groups are assumed to be matched in terms of their scores on this variable.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the pre test on Projection of Hostility.

The F-value for this variable is 0.10 and is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is for Experimental Group, which is 22.28 and the lowest mean is that of the Control Group III, which 21.42 is. No two groups differ significantly and hence the four groups are assumed to be matched in terms of their scores on this variable.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the pre test on Overall Hostility.

The F-value for total hostility is 0.02 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

This indicates that all the four groups have got more or less same mean score for their Pre intervention assessment on Overall Hostility as well as for its sub variables. Hence it can be claimed that all the four groups are matched in terms of its scores on hostility. In the above table it can be seen that the Control Group III got the highest mean which is 122 and the Experimental Group got the lowest mean which is 120.5. The mean scores demonstrate how much clearly the four groups are matched in terms of their scores on Overall Hostility.

II. POST-TEST

The Posttest result and F-values for the Experimental Group and the Control Groups are given in **Table IV.2.3.19**. The **Table IV.2.3.20** gives the Mean and Standard Deviation of the four groups of their score on Hostility Scale which has got 6 sub variables. The below given are the results of each sub variables of hostility and that of the Overall Hostility of subjects in the four groups.

Table IV.2.3.19

F-values of the Four Groups on Hostility and its Sub- Variables

Variable	Between group		Within group		F-values
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Self Criticism	34.67	11.55	132.28	5.51	2.09
Guilt	129.57	43.19	162.28	6.76	6.38*
Cynicism	1.25	0.41	139.71	5.82	0.07
Criticizing Others	58.96	19.65	182	7.58	2.59
Acting Out	23.53	7.84	279.71	11.65	0.67
Projection of Hostility	402.85	134.28	212	8.83	15.20**
Overall Hostility	1064.85	354.95	1213.14	50.54	7.02**

***significant at 0.01 level*

**significant at 0.05 level*

Table IV.2.3.20

Mean and SD of (Post-test) the Four Groups on Hostility and its Sub- Variables

Variables	No. of Samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Self Criticism	7	18.71	3.19	16.57	1.90	16.28	2.21	18.57	1.81
Guilt	7	18.28	3.49	14	2.08	16.28	1.97	19.71	2.56
Cynicism	7	18.57	1.90	18.42	2.43	18.28	2.43	18.85	2.79
Criticizing Others	7	18.14	3.33	21.14	1.06	19.14	2.60	21.71	3.35
Acting Out	7	21.85	2.34	22.42	5.15	20.42	3.04	20.28	2.28
Projection of Hostility	7	21.71	4.46	12.28	1.25	12.57	2.57	15.71	2.69
Overall Hostility	7	117.28	7.22	104.85	9.40	103	4.83	114.85	6.17

a) Self Criticism

Hypothesis:

There will be no significant difference between the four groups in the post test on Self Criticism.

The highest mean score for this variable is 18.71 and the lowest is 16.28. These are the scores of the Control Group I and the Control Group II

respectively. The F-value for this variable is 2.09, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

No two groups differ significantly in their mean values. The results shows that the introduction of Rational Emotive Behavior Therapy or Pharmacological agents, either alone or together was not sufficient to bring changes in the Self Criticism of subjects with Obsessive Compulsive Personality Disorder. The table IV.2.3.18 shows that mean values of the Experimental Group and the Control Group II are lesser than that of the other two groups. Hence it can be assumed that there was an effect for Rational Emotive Behaviour Therapy in reducing the Self Criticism nature of the subjects, but it could not be proved by statistical methods.

Though the patients with Obsessive Compulsive Personality Disorder often possess high amount of Self Criticism (DSM-IV, 1994, pp. 669-670) the effect of Rational Emotive Behaviour Therapy is found to be insufficient in managing this symptom.

b) Guilt

Hypothesis:

There will be no significant difference between the four groups in the post test on Guilt.

The F-value of the groups for this variable is 6.38, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The highest mean is for Control Group III which is 19.71 and the lowest mean is that of the Experimental Group, which is 14. The Scheffe test shows that the Experimental Group differs significantly from the Control Group I and the Control Group III. No other two groups differ significantly.

This would indicate that the introduction of Rational Emotive Behavior Therapy was effective in reducing the Guilt among the subjects with Obsessive Compulsive Personality Disorder. The mean score of the Control Group II (the group which had been administered with both Rational Emotive Behavior Therapy and Pharmacological Therapy) is 16.28 which is less when compared to the Control Group I and Control Group III, but the difference is not significant enough statistically. This would indicate that the Guilt

associated with excessive conscientiousness and scrupulousness could be managed effectively by the use of Rational Emotive Behaviour Therapy.

In results also shows that for the mean value of the Control Group III is higher than the Control Group I, which indicates that the administration of medicines alone in subjects with Obsessive Compulsive Personality Disorder in reducing their Guilt is insufficient.

c) Cynicism

Hypothesis:

There will be no significant difference between the four groups in the post test on Cynicism.

The F-value of the four groups for this variable is .07, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 18.85, which is for the Control Group III and the lowest mean is 18.28, which is for the Control Group II. No two groups differ significantly in their mean values. The results shows that the introduction of Rational Emotive Behaviour Therapy or Pharmacological agents, either alone or together is not sufficient to bring changes in the Cynicism of subjects with Obsessive Compulsive Personality Disorder. The **table IV.2.3.18** shows that all the four groups were got more or less similar scores on their post test assessment on this variable.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the four groups in the post test on Criticizing Others.

The F-value of the four groups for this variable is 2.59 and is not significant at 0.05 levels. The highest mean is for Control Group III which is 21.71 and the lowest mean is that of the Control Group I, which is 18.14. The results shows that the introduction of Rational Emotive Behaviour Therapy or Pharmacological agents, either alone or together is not sufficient to bring changes in the variable 'Criticizing Others' of subjects with Obsessive Compulsive Personality Disorder. On the other hand there is an increase in the mean values of the Experimental Group and Control Group III.

The **table IV.2.3.18** shows that the Experimental Group and the Control Group III are having higher mean value when compared to the other two groups. This indicates that neither Rational Emotive Behaviour Therapy nor medicines had any impact on the subjects in changing their tendency to criticize others.

e) Acting Out

Hypothesis:

There will be no significant difference between the four groups in the post test on Acting Out.

The F-value for the four groups for this variable is 0.67, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The highest mean is 22.42, which is for the Experimental Group and the lowest mean is 20.28, which is for the Control Group III. This suggests that there will be no significant difference in the Acting Out of hostility among subjects with Obsessive Compulsive Personality Disorder if they are administered with Rational Emotive Behaviour Therapy alone, medicines alone or if administered with both together.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the four groups in the post test on Projection of Hostility.

The F-value of the four groups for this variable is 15.20 and is significant at 0.01 levels. Hence the hypothesis is rejected.

The highest mean is for Control Group I, which is 21.71 and the lowest mean is that of the Experimental Group, which is found to be 12.28. Scheffe test shows that the Control Group I differs significantly from all the other groups. This would indicate that the introduction of Rational Emotive Behavior Therapy and pharmacological agents either alone or together, were significantly been effective in reducing the Projection of Hostility among the subjects with Obsessive Compulsive Personality Disorder.

The mean values of the four groups in their post test in the **table IV.2.3.18** shows that the Experimental Group and the Control Group II are having the lesser scores than the other two groups which indicates the efficacy of Rational Emotive Behaviour Therapy in controlling the Projection of Hostility.

The Control Group III also shows a significant reduction in the mean value (table IV.2.3.18) which indicates the effect of medicines in reducing the Projection of Hostility in subjects with Obsessive Compulsive Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the four groups in the post test on Overall Hostility.

The F-Value of the four groups for Overall Hostility score is 7.02, which is found highly significant at 0.01 levels. Hence the hypothesis is rejected.

On Scheffe test it is observed that the Control Group I differs significantly from the Experimental Group and Control Group II. Also the Control Group II differs significantly from the Control Group III in Overall Hostility in the post test.

Here the Control Group I, which got the highest mean value (117.28), differs significantly in its mean from that of the Experimental Group and the Control Group II. This indicates that Rational Emotive Behaviour Therapy is significantly effective in reducing the Overall Hostility among subjects with Obsessive Compulsive Personality Disorder.

At the same time the group which got Rational Emotive Behaviour Therapy and medicines together also shows significant reduction in Overall Hostility.

But this improvement cannot be attributed to the effect of medicines as there was no significant difference between the mean values of this group and that of the Control Group I.

It can also be seen from the results that Control Group III which was administered with medicines alone, shows significant difference in its mean from that of the Control Group II, in which a combination of both medicines and Rational Emotive Behaviour Therapy was used. This results also emphasis that the effect of medicines in reducing the Overall Hostility in subjects with Obsessive Compulsive Personality Disorder is doubtful.

The inferences are, Rational Emotive Behaviour Therapy is significantly effective in reducing Overall Hostility in subjects with Obsessive Compulsive Personality Disorder. Administration of Rational Emotive Behaviour Therapy combined with medicines is more effective than the administration of only medicines in subjects with Obsessive Compulsive Personality Disorder, in reducing their hostility.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on Hostility is compared using Matched t-test to find out the level of significance in the difference between the scores in their Pre and Post intervention assessment.

1. Control Group I

Here the Pre and Post tests scores of the subjects in the Control Group I on each variables of hostility scale and the Overall Hostility is analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group I.

Table IV.2.3.21

Pretest-Post test Scores of Control Group I on Self Criticism

Group	N	Mean	SD	t- value
Pre test	7	18.14	2.97	-0.51
Post test		18.71	3.2	

The t-test results for the Control Group I between the means in the pre and post intervention assessment on Self Criticism, score shows no significant difference. The obtained t-value is -0.51 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

This shows that the Self Criticism of subjects with Obsessive Compulsive Personality Disorder remains unchanged if it is not treated with any sort of management tools.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group I.

Table IV.2.3.22

Pretest-Post test Scores of Control Group I on Guilt

Group	N	Mean	SD	t- value
Pre test	7	17.14	3.19	-0.71
Post test		18.29	3.49	

The t-test results for the Control Group I between the means in the pre and post intervention assessment on Guilt score shows no significant difference. The obtained t-value is -0.71 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The sense of Guilt in subjects with Obsessive Compulsive Personality Disorder may remain unchanged when no intervention method is administered

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group I.

Table IV.2.3.23

Pretest-Post test Scores of Control Group I on Cynicism

Group	N	Mean	SD	t- value
Pre test	7	20.14	3.97	0.89
Post test		18.57	1.90	

The t-test results for the Control Group between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 0.89 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The subjects with Obsessive Compulsive Personality Disorder does not shows significant change in their Cynicism when no intervention method is applied.

g- Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group I.

Table IV.2.3.24

Pretest-Post test Scores of Control Group I on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	7	19.14	3.85	1.32
Post test		18.14	3.33	

The t-test results for the Control Group between the means in the pre and post intervention assessment on 'Criticizing Others' score shows no significant difference. The obtained t-value is 1.32 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The tendency for Criticizing Others in subjects with Obsessive Compulsive Personality Disorder remains unchanged when it is not attempted to change using any sort of treatment methods.

g- Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group I.

Table IV.2.3.25

Pretest-Post test Scores of Control Group I on Acting Out

Group	N	Mean	SD	t- value
Pre test	7	24.43	0.98	2.27
Post test		21.86	2.34	

The t-test results for the Control Group between the means in the pre and post intervention assessment on 'Acting Out' score shows no significant difference. The obtained t-value is 2.27, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Acting Out of hostility in subjects with Obsessive Compulsive Personality Disorder remains unchanged when no intervention method is applied.

g- Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group I.

Table IV.2.3.26

Pretest-Post test Scores of Control Group I on Guilt

Group	N	Mean	SD	t- value
Pre test	7	22.14	3.38	0.26
Post test		21.71	4.46	

Results for the Control Group I, between the mean values in the pre and post intervention assessment on Projection of Hostility score shows no significant difference. The obtained t-value is 0.26 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

Projection of Hostility remains unchanged in subjects with Obsessive Compulsive Personality Disorder if not applied with any sort of management tool.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group I.

Table IV.2.3.27

Pretest-Post test Scores of Control Group I on Guilt

Group	N	Mean	SD	t- value
Pre test	7	121.14	9.95	1.54
Post test		117.29	7.23	

The t-test results for the Control Group between the means in the pre and post intervention assessment on Overall Hostility score shows no significant difference. The obtained t-value is 1.54, which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The Overall Hostility of subjects with Obsessive Compulsive Personality Disorder remains unchanged when no intervention is administered in them to change the same.

2. Experimental Group

Here the Pre and Post tests scores of the subjects in the Experimental Group on each variable of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Experimental Group.

Table IV.2.3.28

Pretest-Post test Scores of Experimental Group on Self Criticism

Group	N	Mean	SD	t- value
Pre test	7	16.29	5.35	-0.11
Post test		16.57	1.90	

The t-test results for the Experimental Group, between the mean values in the pre and post intervention assessment on 'Self Criticism' score shows no significant difference. The obtained t-value is -0.11 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

No change had been seen among subjects with Obsessive Compulsive Personality Disorder in their Self Criticism even after they were administered with Rational Emotive Behaviour Therapy; rather there was an increase in their post test scores.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Experimental Group.

Table IV.2.3.29

Pretest-Post test Scores of Experimental Group on Guilt

Group	N	Mean	SD	t- value
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Pre test	7	19.57	3.05	3.73**
Post test		14	2.08	

***significant at 0.01 level*

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on 'Guilt' score shows significant difference. The obtained t-value is 3.73, which is significant at 0.01 levels. This would indicate that Rational Emotive Behavior Therapy is effective in reducing the sense of Guilt experienced by the subjects with Obsessive Compulsive Personality Disorder. Hence the hypothesis is rejected.

The significant difference in Guilt between the pre test and post test mean value suggests that there is significant effect for Rational Emotive Behaviour Therapy in reducing the Guilt experienced by the subjects with Obsessive Compulsive Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Experimental Group.

Table IV.2.3.30

Pretest-Post test Scores of Experimental Group on Cynicism

Group	N	Mean	SD	t- value
Pre test	7	16.14	4.95	-1.04
Post test		18.43	2.44	

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is -1.04 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result suggests that there will be no effect for Rational Emotive Behaviour Therapy in reducing the Cynicism of subjects with Obsessive Compulsive Personality Disorder.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Experimental Group.

Table IV.2.3.31**Pretest-Post test Scores of Experimental Group on Criticizing Others**

Group	N	Mean	SD	t- value
Pre test	7	21.57	5.12	0.19
Post test		21.14	1.07	

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on 'Criticizing Others' score shows no significant difference. The obtained t-value is 0.19 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

Criticizing Others in subjects with Obsessive Compulsive Personality Disorder remains unchanged even after they had been administered with Rational Emotive Behaviour Therapy, which shows the insufficiency of this therapy in bringing significant change in this variable.

e) Acting Out**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Experimental Group.

Table IV.2.3.32**Pretest-Post test Scores of Experimental Group on Acting Out**

Group	N	Mean	SD	t- value
Pre test	7	24.71	2.75	0.92
Post test		22.43	5.16	

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on total Hostility score shows no significant deference. The obtained t-value is 0.92 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The Acting Out of hostility among subjects with Obsessive Compulsive Personality Disorder remains unchanged even after when they were administered with Rational Emotive Behaviour Therapy.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Experimental Group.

Table IV.2.3.33

Pretest-Post test Scores of Experimental Group on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	7	22.29	2.36	10.25**
Post test		12.29	1.25	

***significant at 0.01 level*

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 10.25, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This would indicate that Rational Emotive Behavior Therapy is effective in reducing the Projection of Hostility of the subjects with Obsessive Compulsive Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Experimental Group.

Table IV.2.3.34

Pretest-Post test Scores of Control Group I on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	7	120.57	15.45	2.22
Post test		104.85	9.41	

The t-test results for the Experimental Group between the means in the pre and post intervention assessment on Overall Hostility score shows no significant difference. The obtained t-value is 2.22, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The Overall Hostility in subjects with Obsessive Compulsive Personality Disorder remains unchanged even after they had been administered with Rational Emotive Behaviour Therapy.

3. Control Group II

Here the Pre and Post tests scores of the subjects in the Control Group II on each variables of hostility scale and the Overall Hostility is analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group II.

Table IV.2.3.35

Pretest-Post test Scores of Control Group II on Self Criticism

Group	N	Mean	SD	t- value
Pre test	7	17.29	2.75	0.87
Post test		16.29	2.22	

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Self Criticism score shows no significant difference. The obtained t-value is 0.87 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

Here the combination treatment of both Rational Emotive Behaviour Therapy and medicines in subjects with Obsessive Compulsive Personality Disorder in reducing their Self Criticism is found to be in effective.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group II.

Table IV.2.3.36

Pretest-Post test Scores of Control Group II on Guilt

Group	N	Mean	SD	t- value
Pre test	7	20.86	2.91	3.65*
Post test		16.29	1.98	

**significant at 0.05 level*

The t-test results for the Control Group between the means in the pre and post intervention assessment on total Hostility score shows significant difference. The obtained t-value is 3.65, which is significant at 0.05 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Obsessive Compulsive Personality Disorder, that had reduced the level of Guilt to a significant degree.

The same result was seen in the Experimental Group also i.e. when Rational Emotive Behaviour Therapy alone is administered in subjects with Obsessive Compulsive Personality Disorder their score in the sense of Guilt had reduced to a significant level. And as the Control Group III shows no significant reduction of this variable, it can be clearly sate that the effect is due to the administration of Rational Emotive Behaviour Therapy.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group II.

Table IV.2.3.37

Pretest-Post test Scores of Control Group II on Cynicism

Group	N	Mean	SD	t- value
Pre test	7	18.29	2.87	0
Post test		18.29	2.43	

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Cynicism score shows no significant difference. The obtained t-value is 0. Hence the hypothesis is accepted.

The combination treatment of both REBT and medicines shows no effects on reducing the Cynicism in subjects with Obsessive Compulsive Personality Disorder.

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group II.

Table IV.2.3.38

Pretest-Post test Scores of Control Group II on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	7	20.43	1.39	0.99
Post test		19.14	2.61	

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Criticizing Others score shows no significant difference. The obtained t-value is 0.99 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

There was no effect for the combination treatment of both REBT and medicines in reducing the nature of Criticizing Others in subjects with Obsessive Compulsive Personality Disorder.

e) **Acting Out**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group II.

Table IV.2.3.39

Pretest-Post test Scores of Control Group II on Acting Out

Group	N	Mean	SD	t- value
Pre test	7	22.43	3.26	1.1
Post test		20.43	3.05	

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Acting Out score shows no significant difference. The obtained t-value is 1.1 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The Acting Out of hostility in subjects with Obsessive Compulsive Personality Disorder remained unchanged even when a combination treatment of both REBT and medicines is administered in them.

f) **Projection of Hostility**

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group II.

Table IV.2.3.40

Pretest-Post test Scores of Control Group II on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	7	21.71	3.25	4.48**
Post test		12.57	2.57	

***significant at 0.01 level*

The t-test results for the Control Group II between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 4.48, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behavior Therapy along with medicines was administered on subjects with Obsessive Compulsive Personality Disorder, that had reduced the Projection of Hostility to a significant degree. The same result was seen for the Experimental Group and the Control Group III.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group II.

Table IV.2.3.41

Pretest-Post test Scores of Control Group II on Overall Hostility

Group	N	Mean	SD	t- value
Pre test	7	121	5.39	6.08**
Post test		103	4.83	

***significant at 0.01 level*

The t-test results for the Control Group II between the mean values in the pre and post intervention assessment on Overall Hostility score shows significant difference. The obtained t-value is 6.08, which is significant at 0.01 levels. Hence the hypothesis is rejected.

This result indicate that when Rational Emotive Behaviour Therapy along with medicines was administered on subjects with Obsessive Compulsive Personality Disorder, that had reduced the level of Overall Hostility to a significant degree.

4. Control Group III

Here the Pre and Post tests scores of the subjects in the Control Group III on each variable of hostility scale and the Overall Hostility are analyzed.

a) Self Criticism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Self Criticism of the Control Group III.

Table IV.2.3.42

Pretest-Post test Scores of Control Group III on Self Criticism

Group	N	Mean	SD	t- value
Pre test	7	18.71	4.39	0.11
Post test		18.57	1.81	

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Self Criticism score shows no significant difference. The obtained t-value is .11 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

The result shows that there may be no effect for medicines in reducing the Self Criticism of subjects with Obsessive Compulsive Personality Disorder.

b) Guilt

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Guilt of the Control Group III.

Table IV.2.3.43

Pretest-Post test Scores of Control Group III on Guilt

Group	N	Mean	SD	t- value
Pre test	7	18.71	1.89	-1.45
Post test		19.71	2.56	

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Guilt score shows no significant difference. The obtained t-value is -1.45 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

Medicines alone are not effective in reducing the sense of Guilt in subjects with Obsessive Compulsive Personality Disorder.

c) Cynicism

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Cynicism of the Control Group III.

Table IV.2.3.44

Pretest-Post test Scores of Control Group III on Cynicism

Group	N	Mean	SD	t- value
Pre test	7	19.14	2.55	-1.45
Post test		18.86	2.79	

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Cynicism score shows no significant deference. The obtained t-value is -1.45 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

Result shows that there is no effect for medicines in reducing Cynicism in subjects with Obsessive Compulsive Personality Disorder

d) Criticizing Others

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Criticizing Others of the Control Group III.

Table IV.2.3.45

Pretest-Post test Scores of Control Group III on Criticizing Others

Group	N	Mean	SD	t- value
Pre test	7	21.86	4.18	0.09
Post test		21.71	3.35	

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Criticizing Others score shows no significant difference. The obtained t-value is .09 which is not significant even at 0.05 levels. Hence the hypothesis is accepted.

There is no effect for medicines in reducing the tendency for Criticizing Others in subject with Obsessive Compulsive Personality Disorder.

e) Acting Out

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Acting Out of the Control Group III.

Table IV.2.3.46

Pretest-Post test Scores of Control Group III on Acting Out

Group	N	Mean	SD	t- value
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Pre test	7	22.14	2.79	1.93
Post test		20.29	2.29	

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Acting Out score shows no significant difference. The obtained t-value is 1.93 which is not significant even at 0.05 levels. Hence the hypothesis is accepted. Result suggests that Acting Out of hostility could not be reduced by using medicines alone.

f) Projection of Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Projection of Hostility of the Control Group III.

Table IV.2.3.47

Pretest-Post test Scores of Control Group III on Projection of Hostility

Group	N	Mean	SD	t- value
Pre test	7	21.43	3.51	3.54*
Post test		15.71	2.69	

***significant at 0.05 level*

The t-test results for the Control Group III between the means in the pre and post intervention assessment on Projection of Hostility score shows significant difference. The obtained t-value is 3.54, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result shows that the medicinal treatment alone is sufficient for reducing the Projection of Hostility among the subjects with Obsessive Compulsive Personality Disorder.

g) Overall Hostility

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Hostility of the Control Group III.

Table IV.2.3.48

Pretest-Post test Scores of Control Group III on Overall Hostility

Group	N	Mean	SD	t- value
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Pre test	7	122	9.18	2.92*
Post test		114.86	6.18	

***significant at 0.05 level*

The t-test results for the Control Group between the means in the pre and post intervention assessment on Overall Hostility score shows significant difference. The obtained t-value is 2.92, which is significant at 0.05 levels. Hence the hypothesis is rejected.

The result shows that the medicinal treatment alone is sufficient for reducing the Overall Hostility among the subjects with Obsessive Compulsive Personality Disorder.

C) Analyses of Experimental Group and Control Groups on Quality of Life

In this section the effectiveness of Rational Emotive Behavior Therapy in improving Quality of Life among samples with Obsessive Compulsive Personality Disorder is examined and discussed.

In this the scores of WHO-QOL scale obtained by the four groups namely the Control Group I, Experimental Group , Control Group II and Control Group III, in the pre and post tests are analyzed using one-way ANOVA. Scheffe test is used to identify the groups which show significant difference.

I. PRE-TEST

The Pretest result and f-values for the Experimental Group and the Control Groups are given in **table IV.2.3.49**

Table IV.2.3.49

F-values of the Four Groups on Quality of Life and its Domains

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	3.65	1.21	72.25	3.01	0.40
Domain II	2.93	0.97	68.94	2.87	0.34
Domain III	2.96	0.98	62	2.58	0.38
Domain IV	6.24	2.08	90.57	3.77	0.55
Domain V	11.48	3.82	86.11	3.58	1.06
Domain VI	8.46	2.82	53.88	2.24	1.25
Overall Quality of Life	26.74	8.91	246.98	10.29	0.86

The results suggest that in the pre test none of the four groups, namely the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents, differs significantly on the mean values of their scores on Quality of Life scale(WHO).

It can also be seen that the four groups shows no significant difference in their means not only to the total score on WHO QOL scale but also to the 6 domains as well. This finding points out that the four groups are matched in terms of their scores on WHO QOL Scale.

Table IV.2.3.50

Mean and SD of (Pre-test) the Four Groups on Quality of Life and its Domains

Variables	no. of samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Domain I	7	9.78	1.46	8.84	2.06	9.33	1.72	9.64	1.63
Domain II	7	6.96	1.70	7.68	2.02	7.63	1.66	7.06	1.30
Domain III	7	7.57	1.61	7.71	1.60	7	1.73	7.85	1.46
Domain IV	7	9.31	1.52	8.76	1.86	9.90	2.41	8.76	7.86
Domain V	7	10.76	1.35	11.50	2.37	10.21	2.15	9.79	1.50
Domain VI	7	11.64	1.42	10.45	2.07	10.85	0.53	10.19	1.53
Overall quality	7	56.05	3.71	54.97	3.87	54.94	2.36	53.31	2.58

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As it has been explained earlier in the chapter III the Quality of Life scale consists of sub scores in six different domains. The results obtained on those domains are illustrated below.

a) Domain I

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain I score of Quality of Life scale.

The F-value found on this variable is 0.40 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 9.78 and that of the Experimental Group, Control Group II and Control Group III are 8.84, 9.33 and 9.64 respectively. The highest mean is that of the Control Group I and the lowest is that of the Experimental Group. No two groups differs significantly on Scheffe test. In short the physical aspects which include pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life of the four groups were matched accordingly.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain II score of Quality of Life scale.

The F-value found on this variable is 0.34, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean of Control Group I on this variable is 6.96 and that of the Experimental Group, Control Group II and Control Group III are 7.68, 7.63 and 7.06 respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group I. the result indicates that the four groups are matched in terms of their score on domain II, which encompasses the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings.

c) Domain III

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain III score of Quality of Life scale.

The F-value found on this variable is 0.38 which is not significant at 0.05 levels. Hence the hypothesis accepted.

The mean of Control Group I on this variable is 7.57 and that of the Experimental Group, Control Group II and Control Group III are 7.71, 7 and 7.85 respectively. The highest mean is that of the Control Group III and the lowest is that of the Control Group II. Hence the domain III, which determines the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, also can said to be matched.

d) Domain IV

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain IV score of Quality of Life scale.

The F-value found on this variable is 0.55 which is not significant at 0.05 levels. Hence the hypothesis accepted.

The mean of Control Group I on this variable is 9.31 and that of the Experimental Group, Control Group II and Control Group III are 8.76, 9.90 and 8.76 respectively. The highest mean is that of the Control Group II and the lowest is that of the Experimental Group. Hence it can be said that the four groups are matched in terms of their score on domain IV of WHO-QOL, which corresponds the social relationship of the individual which includes personal relationships, social supports and sexual activity.

e) Domain V

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain V score of Quality of Life scale.

The F-value found on this variable is 0.38 which is not significant at 0.05 levels. Hence the hypothesis accepted.

The mean of Control Group I on this variable is 10.76 and that of the Experimental Group, Control Group II and Control Group III are 11.50, 10.21 and 9.79 respectively. The highest mean is that of the Experimental Group and the lowest is that of the Control Group III. Hence it can be said that the four groups are matched in terms of their score on domain V of WHO-QOL, which corresponds the environment of the individual which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport.

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the pre test on Domain VI score of Quality of Life scale.

The F-value found on this variable is 0.38 which is not significant at 0.05 levels. Hence the hypothesis accepted.

The mean of Control Group I on this variable is 11.64 and that of the Experimental Group, Control Group II and Control Group III are 10.45, 10.85 and 10.19 respectively. The highest mean is that of the Control Group I and the lowest is that of the Control Group III. Hence the four groups can be said to be matched in terms of their score on the domain VI which is the spirituality including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the pre test on Overall Quality of Life.

The f-value found for the overall Quality of Life for the four groups is 0.86 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The mean value of the Control Group I for the overall Quality of Life is 56.05. The mean value of the Experimental Group, Control Group II and Control Group III are 54.97, 54.94 and 53.31 respectively. The results show that all the form of groups is matched in terms of their scores in the overall Quality of Life.

II. POST-TEST

The below table shows the F-values of the four group namely, the Control Group I, which was not been administered by any sort of therapeutic measures, the Experimental Group in which the samples were administered with only REBT, the Control Group II, which was administered with both pharmacological treatment and REBT and finally the Control Group III which was administered only with pharmacological agents.

Table IV.2.3.52

Mean and SD of (POST TEST) the Four Groups on Quality of Life and its Domains

Variables	No of Samples	Control Group I		Experimental Group		Control Group II		Control Group III	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Domain I	7	8.50	1.83	14.47	1.79	15.23	1.69	10.04	1.15
Domain II	7	7.54	1.37	15.54	1.71	16.34	1.78	9.13	2.13
Domain III	7	7.57	1.51	14.57	1.90	14.85	1.21	8	0.81
Domain IV	7	8.18	1.19	15.42	2.01	16.38	2.63	11.38	2.32
Domain V	7	8.74	1.62	14.5	1.08	16.28	1.03	11.33	1.64
Domain VI	7	10.58	1.73	14.28	0.79	14.55	0.60	13.13	1.87
Overall Quality of Life	7	51.13	2.95	88.80	6.22	93.66	6.47	63.02	3.86

Table IV.2.3.51**F-values of the Four Groups on Quality of Life and its Domains**

Variable	Between group		Within group		F-value
	Sum of squares	Mean Squares	Sum of squares	Mean Squares	
Domain I	228.23	76.07	64.94	2.70	28.11**
Domain II	416.06	138.68	75.47	3.14	44.09**
Domain III	336.96	112.32	48.28	2.01	55.82**
Domain IV	300.98	100.32	106.93	4.45	22.51**
Domain V	235.31	78.43	45.43	1.89	41.43**
Domain VI	69.09	23.03	45.20	1.88	12.22**
Overall Quality of Life	8742.40	2914.13	625.44	26.06	111.82* *

***significant at 0.01 level*

The Post test result and f-values for the Experimental Group and the Control Groups are given in table IV.2.3.51. Mean and SD of (post test) the four groups on Quality of Life and its Domains are given in Table IV.2.3.52.

As it has been explained earlier in the chapter III the Quality of Life scale consists of sub scores in six different domains. The results obtained on those domains in the post test are illustrated below.

a) Domain I

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain I score of Quality of Life scale.

The F-value found on this variable is 28.11, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 8.50 and that of the Experimental Group, Control Group II and Control Group III are 14.47, 15.23 and 10.04 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results of scheffee test suggest that the Control Group I differs significantly from the Experimental Group and the Control Group II. Though there is a mean difference between the Control

Group I and the Control Group III, the difference is not significant enough statistically.

The Control Group III differs significantly from the Experimental Group and the Control Group II as well.

The results suggest that Rational Emotive Behaviour Therapy is significantly effective in improving the physical aspects of Quality of Life which includes pain and discomfort, energy and fatigue and sleep and rest.

b) Domain II

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain II score of Quality of Life scale.

The F-value found on this variable is 44.09, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 7.54 and that of the Experimental Group, Control Group II and Control Group III are 15.54, 16.34 and 9.13 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group differs significantly from the Control Group I and the Control Group III. Though there is a mean difference between the Control Group I and the Control Group III, the difference is not significant enough statistically.

The Control Group II differs significantly from the Control Group I and the Control Group III at 0.01 levels, which shows a high significance of their mean difference.

There was no significant difference between the Experimental Group and the Control Group II. Here the effect of Rational Emotive Behaviour Therapy and the combination treatment of Rational Emotive Behaviour Therapy and medicines are proved to be effective in improving the psychological aspects of Quality of Life which includes the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings. The effect of medicines alone is not

proven as the Control Group III does not shows any significant difference with the Control Group I.

c) Domain III

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain III score of Quality of Life scale.

The F-value found on this variable is 55.82, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 7.57 and that of the Experimental Group, Control Group II and Control Group III are 14.57, 14.85 and 8, respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group differs significantly from the Control Group I and the Control Group III. Though there is a mean difference between the Control Group I and the Control Group III, the difference is not significant enough statistically.

The Control Group II differs significantly from the Control Group I and the Control Group III at 0.01 levels, which shows a high significance of their mean difference.

There was no significant difference between the Experimental Group and the Control Group II. Here also the effect of Rational Emotive Behaviour Therapy and the combination treatment of Rational Emotive Behaviour Therapy and medicines are proved to be effective in improving the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity. The effect of medicines alone is not proven as the Control Group III does not shows any significant difference with the Control Group I.

d) **Domain IV**

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain IV score of Quality of Life scale.

The F-value found on this variable is 22.51, which is significant at 0.01 levels. Hence the hypothesis is rejected.

The mean of Control Group I on this variable is 8.18 and that of the Experimental Group, Control Group II and Control Group III are 15.42, 16.38 and 11.38 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group differs significantly from the Control Group I and the Control Group III. Though there is a mean difference between the Control Group I and the Control Group III, the difference is not significant enough statistically.

The Control Group II differs significantly from the Control Group I and the Control Group III at 0.01 levels, which shows a high significance of their mean difference.

There was no significant difference between the Experimental Group and the Control Group II. Hence it can be concluded Rational Emotive Behaviour Therapy is effective in improving the social relationship of the individuals with Obsessive Compulsive Personality Disorder, which includes personal relationships, social supports and sexual activity.

e) **Domain V**

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain V score of Quality of Life scale.

The F-value found on this variable is 41.43, which is significant at 0.01 levels.

The mean of Control Group I on this variable is 8.74 and that of the Experimental Group, Control Group II and Control Group III are 14.5, 16.28

and 11.33 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group differs significantly from the Control Group I and the Control Group III. The Control Group I differs significantly from the Control Group III.

The Control Group II differs significantly from the Control Group I and the Control Group III at 0.01 levels, which shows a high significance of their mean difference.

There was no significant difference between the Experimental Group and the Control Group II. Hence it can be concluded that there was a significant improvement in the environment of the subjects, which includes physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport when Rational Emotive Behaviour Therapy is introduced alone or together with medicines.

f) Domain VI

Hypothesis:

There will be no significant difference between the four groups in the post test on Domain VI score of Quality of Life scale.

The F-value found on this variable is 12.22, which is significant at 0.01 levels.

The mean of Control Group I on this variable is 10.5814 and that of the Experimental Group, Control Group II and Control Group III are 14.2857, 14.5586 and 13.1329 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group, Control Group II and the Control Group III all differ significantly from the Control Group I.

There was no significant difference between the Experimental Group and the Control Group II. Also there was no significant difference between the Control Group III and the Experimental Group and the Control Group II.

Hence it can be concluded that the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith are also improved by the administration of Rational Emotive Behaviour Therapy.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the four groups in the post test on Overall score of Quality of Life scale.

The F-value found on the total score on WHO-QOL Scale is 111.82, which is significant at 0.01 levels.

The mean of Control Group I on this variable is 51.1376 and that of the Experimental Group, Control Group II and Control Group III are 88.8048, 93.66 and 63.02 respectively. The highest mean is that of the Control Group II and the lowest is that of the Control Group I. The results suggest that the Experimental Group, Control Group II and the Control Group III all differ significantly from the Control Group I.

The Experimental Group and Control Group II differ significantly from the Control Group III. There was no significant difference between the Experimental Group and the Control Group II.

III. Comparison between the Pre-test and Post-test Scores of Each Group.

Under this section the Pretest and Post test scores of the four groups namely the Control Group I, Experimental Group, Control Group II and Control Group III on WHO Quality of Life Scale were compared using Matched t-test to find out the level of significance in the difference.

1) Control Group I

Here the Pre and Post tests scores of the subjects in the Control Group I on each variables of WHO QOL and the overall scores were analyzed.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group I.

Table IV.2.3.53

Pretest-Post test Scores of Control Group I on Domain I

Group	N	Mean	SD	t- value
Pre test	7	9.78	1.46	1.2
Post test		8.51	1.84	

From the above **table IV.2.3.53** it can be seen that the mean of the Control Group I on domain I of the WHO-QOL scale score is 9.78 in the pre test and the same is 8.51 in the post test assessment. The t- value found is 1.2, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life when no intervention is administered.

b) Domain II**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group I.

Table IV.2.3.54

Pretest-Post test Scores of Control Group I on Domain II

Group	N	Mean	SD	t- value
Pre test	7	6.97	1.71	-0.73
Post test		7.54	1.38	

From the above **table IV.2.3.54** it can be seen that the mean of the Control Group I on domain II of the WHO-QOL scale score is 6.97 in the pre test and the same is 7.54 in the post test assessment. The t- value found is -0.73 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain II of WHO-QOL Scale which is the psychological aspect of Quality of

Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings when no intervention is administered.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group I.

Table IV.2.3.55

Pretest-Post test Scores of Control Group I on Domain III

Group	N	Mean	SD	t- value
Pre test	7	7.57	1.62	0
Post test		7.57	1.51	

From the above **table IV.2.3.55** it can be seen that the mean of the Control Group I on domain III of the WHO-QOL scale score is 7.57 in the pre test and in the post test assessment. The t- value found is 0. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, has occurred.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group I.

Table IV.2.3.56

Pretest-Post test Scores of Control Group I on Domain IV

Group	N	Mean	SD	t- value
Pre test	7	9.13	1.52	1.44
Post test		8.19	1.19	

From the **table IV.2.3.56** it can be seen that the mean of the Control Group I on domain IV of the WHO-QOL scale score is 9.13 in the pre test and

the same is 8.19 in the post test assessment. The t- value found is 1.44 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when no intervention is administered.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group I.

Table IV.2.3.57

Pretest-Post test Scores of Control Group I on Domain V

Group	N	Mean	SD	t- value
Pre test	7	10.77	1.35	2.12
Post test		8.74	1.63	

From the **table IV.2.3.57** it can be seen that the mean of the Control Group I on domain V of the WHO-QOL scale score is 10.77 in the pre test and the same is 8.74 in the post test assessment. The t- value found is 2.12, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when no intervention is administered.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group I.

Table IV.2.3.58

Pretest-Post test Scores of Control Group I on Domain VI

Group	N	Mean	SD	t- value
Pre test	7	11.65	1.43	1.1
Post test		10.58	1.74	

From the **table IV.2.3.58** it can be seen that the mean of the Control Group I on domain VI of the WHO-QOL scale score is 11.65 in the pre test and the same is 10.58 in the post test assessment. The t- value found is 1.1 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith when no intervention is administered.

To conclude in none of the above mentioned domains of Quality of Life, comparison of the pre test and post test shows significant changes. So it can be predicted that when no intervention method used there will not be any change in any of the aspects which determines the Quality of Life in subjects with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Control Group I.

Table IV.2.3.59

Pretest-Post test Scores of Control Group I on Overall Quality of Life

Group	N	Mean	SD	t-value
Pre test	7	56.05	3.71	2.48
Post test		51.13	2.95	

From the **table IV.2.3.59** it can be seen that the mean of the Control Group I on Total Score on WHO-QOL Scale is 56.05 in the pre test and the same is 51.13 in the post test assessment. The t- value found is 2.48, which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the Overall Quality of Life of WHO-QOL Scale when no intervention is administered.

2) Experimental Group

Here the Pre and Post tests scores of the subjects in the Experimental Group on each variables of hostility scale and the Overall Hostility is analyzed.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Experimental Group.

Table IV.2.3.60

Pretest-Post test Scores of Experimental Group on Domain I

Group	N	Mean	SD	t- value
Pre test	7	8.85	2.07	-4.82*
Post test		14.48	1.79	

**significant at 0.05 level*

From the **table IV.2.3.60** it can be seen that the mean of the Experimental Group on domain I of the WHO-QOL scale score is 8.85 in the pre test and the in the post test assessment it is 14.47. The t- value found is -4.82 which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Rational Emotive Behavior Therapy is administered in patients with Obsessive Compulsive Personality Disorder.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Experimental Group.

Table IV.2.3.61

Pretest-Post test Scores of Experimental Group on Domain II

Group	N	Mean	SD	t- value
Pre test	7	7.69	2.02	-7.37**
Post test		15.54	1.71	

***significant at 0.01 level*

The **table IV.2.3.61** shows that the mean of the Experimental Group on domain II of the WHO-QOL scale score is 7.68 in the pre test and is 15.54 in the post test assessment. The t- value found is -7.37 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, when Rational Emotive Behavior Therapy is administered, in patients with Obsessive Compulsive Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Experimental Group.

Table IV.2.3.62

Pretest-Post test Scores of Experimental Group on Domain III

Group	N	Mean	SD	t- value
Pre test	7	7.71	1.60	-5.52**
Post test		14.57	1.90	

***significant at 0.01 level*

The **table IV.2.3.62** shows that the mean of the Experimental Group on domain III of the WHO-QOL scale score is 7.71 in the pre test and is 14.57 in the post test assessment. The t- value found is -5.52 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Rational Emotive Behavior Therapy is administered, in patients with Obsessive Compulsive Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Experimental Group.

Table IV.2.3.63

Pretest-Post test Scores of Experimental Group on Domain IV

Group	N	Mean	SD	t- value
Pre test	7	8.76	1.86	-5.56**
Post test		15.43	2.02	

***significant at 0.01 level*

The **table IV.2.3.63** shows that the mean of the Experimental Group on domain IV of the WHO-QOL scale score is 8.76 in the pre test and is 15.43 in the post test assessment. The t- value found is -5.56 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Rational Emotive Behavior Therapy is administered, in patients with Obsessive Compulsive Personality Disorder.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Experimental Group.

Table IV.2.3.64

Pretest-Post test Scores of Experimental Group on Domain V

Group	N	Mean	SD	t- value
Pre test	7	11.50	2.37	-3.42*
Post test		14	1.08	

**significant at 0.05 level*

The **table IV.2.3.64** shows that the mean of the Experimental Group on domain V of the WHO-QOL scale score is 11.50 in the pre test and is 14 in the post test assessment. The t- value found is -3.42 which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when Rational Emotive Behavior Therapy is administered, in patients with Obsessive Compulsive Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Experimental Group.

Table IV.2.3.65

Pretest-Post test Scores of Experimental Group on Domain VI

Group	N	Mean	SD	t- value
pre test	7	10.46	2.07	-4.48**
post test		14.29	0.79	

***significant at 0.01 level*

The **table IV.2.3.65** shows that the mean of the Experimental Group on domain VI of the WHO-QOL scale score is 10.45 in the pre test and is 14.28 in the post test assessment. The t-value found is -4.48 which is significant at 0.01levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale when Rational Emotive Behavior Therapy is administered in patients with Obsessive Compulsive Personality Disorder. The inference is

that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Rational Emotive Behavior Therapy is administered in patients with Obsessive Compulsive Personality Disorder.

To conclude, all the above mentioned domains of Quality of Life are showing statistically significant improvement in the post test assessment. So it can be predicted that when Rational Emotive Behaviour Therapy is used there will be significant change in all the aspects, which determines the Quality of Life, in subjects with Obsessive Compulsive Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Experimental Group.

Table IV.2.3.66

Pretest-Post test Scores of Experimental Group on Overall Quality of Life

Group	N	Mean	SD	t- value
Pre test	7	54.97	3.87	-9.91**
Post test		88.80	6.22	

***significant at 0.01 level*

From the **table IV.2.3.66** it can be seen that the mean of the Experimental Group on Total Score on WHO-QOL Scale is 54.97 in the pre test and the same is 88.80 in the post test assessment. The t- value found is - 9.91 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the total score of WHO-QOL Scale when Rational Emotive Behavior Therapy is administered.

3) Control Group II

Here the Pre and Post tests scores of the subjects in the Control Group I on each variables of WHO QOL and the overall Quality of Life.

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group II.

Table IV.2.3.67

Pretest-Post test Scores of Control Group II on Domain I

Group	N	Mean	SD	t- value
Pre test	7	9.33	1.72	-9.21**
Post test		15.24	1.69	

***significant at 0.01 level*

From the **table IV.2.3.67** it can be seen that the mean of the Control Group II on domain I on WHO-QOL Scale is 9.33 in the pre test and the same is 15.23 in the post test assessment. The t- value found is -9.21 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain I of WHO-QOL Scale which encompasses the physical aspects including pain and discomfort, energy and fatigue and sleep and rest, of Quality of Life, when Rational Emotive Behaviour Therapy along with Medicines, is administered in patients with Obsessive Compulsive Personality Disorder.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group II.

Table IV.2.3.68

Pretest-Post test Scores of Control Group II on Domain II

Group	N	Mean	SD	t- value
Pre test	7	7.63	1.67	-11.65**
Post test		16.34	1.78	

***significant at 0.01 level*

The **table IV.2.3.68** shows that the mean of the Control Group II on domain II on WHO-QOL Scale is 7.63 in the pre test and the same is 16.34 in the post test assessment. The t- value found is -11.65 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain II of WHO-QOL Scale, which is the psychological aspect of Quality of Life including the positive feeling, thinking, learning, memory and concentration, self- esteem, bodily image and appearance and negative feelings, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Obsessive Compulsive Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group II.

Table IV.2.3.69

Pretest-Post test Scores of Control Group II on Domain III

Group	N	Mean	SD	t- value
Pre test	7	7	1.72	-7.97
Post test		14.86	1.22	

***significant at 0.01 level*

The **table IV.2.3.69** shows that the mean of the Control Group II on domain III on WHO-QOL Scale is 7 in the pre test and the same is 14.85 in the post test assessment. The t- value found is -7.97 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain III of WHO-QOL Scale determining the level of independence including the mobility, activities of daily living, dependence on medication or treatments and work capacity, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Obsessive Compulsive Personality Disorder.

d) Domain IV

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group II.

Table IV.2.3.70

Pretest-Post test Scores of Control Group II on Domain IV

Group	N	Mean	SD	t- value
Pre test	7	9.90	2.41	-7.25**
Post test		16.38	2.64	

***significant at 0.01 level*

The **table IV.2.3.70** shows that the mean of the Control Group II on domain IV on WHO-QOL Scale is 9.90 in the pre test and the same is 16.38 in the post test assessment. The t- value found is -7.25 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale i.e. the social relationship which includes personal relationships, social supports and sexual activity, when Rational Emotive Behaviour Therapy along with Medicines is administered, in patients with Obsessive Compulsive Personality Disorder.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group II.

Table IV.2.3.71

Pretest-Post test Scores of Control Group II on Domain V

Group	N	Mean	SD	t- value
Pre test	7	10.22	2.16	-5.86**
Post test		16.28	1.04	

***significant at 0.01 level*

The **table IV.2.3.71** shows that the mean of the Control Group II on domain V on WHO-QOL Scale is 10.21 in the pre test and the same is 16.28

in the post test assessment. The t- value found is -5.86 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain V of WHO-QOL Scale that is the physical safety and security, home environment, financial resources, health and social care: acceptability and quality, opportunity for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environments and transport, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Obsessive Compulsive Personality Disorder.

f) Domain VI

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group II.

Table IV.2.3.72

Pretest-Post test Scores of Control Group II on Domain VI

Group	N	Mean	SD	t- value
Pre test	7	10.86	0.54	-10.86**
Post test		14.56	0.61	

***significant at 0.01 level*

The **table IV.2.3.72** shows that the mean of the Control Group II on domain VI on WHO-QOL Scale is 10.85 in the pre test and the same is 14.55 in the post test assessment. The t- value found is -10.86 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale determining the spiritual aspects of Quality of Life including the spiritual connection, meaning and purpose of life, experience of awe and wonder, wholeness and integration, spiritual strength, inner peace, hope and optimism and faith, when Rational Emotive Behaviour Therapy along with Medicines, is administered, in patients with Paranoid Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Control Group II.

Table IV.2.3.73

Pretest-Post test Scores of Control Group II on Domain VI

Group	N	Mean	SD	t- value
Pre test	7	54.94	2.36	-17.71**
Post test		93.66	6.47	

***significant at 0.01 level*

From the **table IV.2.3.73** it can be seen that the mean of the Control Group II on Total Score on WHO-QOL Scale is 54.94 in the pre test and the same is 93.66 in the post test assessment. The t- value found is -17.71 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the total score of WHO-QOL Scale when Rational Emotive Behavior Therapy is administered along with pharmacological treatment.

To conclude, all the above mentioned domains of Quality of Life and the overall Quality of Life are showing statistically significant improvement in the post test assessment. So it can be predicted that Rational Emotive Behaviour Therapy when used in combination with medicines, there will be significant change in all the aspects, which determines the Quality of Life, in subjects with Obsessive Compulsive Personality Disorder.

4. Control Group III

a) Domain I

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain I of the Control Group III.

Table IV.2.3.74

Pretest-Post test Scores of Control Group III on Domain I

Group	N	Mean	SD	t- value
Pre test	7	9.65	1.64	-0.5
Post test		10.05	1.16	

From the **table IV.2.3.74** it can be seen that the mean of the Control Group III on domain I on WHO-QOL Scale is 9.64 in the pre test and the same is 10.04 in the post test assessment. The t- value found is -0.5 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain I of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

b) Domain II

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain II of the Control Group III.

Table IV.2.3.75

Pretest-Post test Scores of Control Group III on Domain II

Group	N	Mean	SD	t- value
Pre test	7	7.07	1.30	-1.89
Post test		9.13	2.14	

From the **table IV.2.3.75** it can be seen that the mean of the Control Group III on domain II on WHO-QOL Scale is 7.06 in the pre test and the same is 9.13 in the post test assessment. The t- value found is -1.89 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain II of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

c) Domain III

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain III of the Control Group III.

Table IV.2.3.76

Pretest-Post test Scores of Control Group III on Domain III

Group	N	Mean	SD	t- value
Pre test	7	7.86	1.46	-0.21
Post test		8	0.82	

From the **table IV.2.3.76** it can be seen that the mean of the Control Group III on domain III on WHO-QOL Scale is 7.85 in the pre test and the same is 8 in the post test assessment. The t- value found is -0.21 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain III of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

d) Domain IV**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain IV of the Control Group III.

Table IV.2.3.77

Pretest-Post test Scores of Control Group III on Domain IV

Group	N	Mean	SD	t- value
Pre test	7	8.76	1.86	-3.61*
Post test		11.38	2.32	

**significant at 0.05 level*

From the **table IV.2.3.77** it can be seen that the mean of the Control Group III on domain IV on WHO-QOL Scale is 8.76 in the pre test and the same is 11.38 in the post test assessment. The t- value found is -3.61 which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain IV of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

e) Domain V

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Domain V of the Control Group III.

Table IV.2.3.78

Pretest-Post test Scores of Control Group III on Domain V

Group	N	Mean	SD	t- value
Pre test	7	9.79	1.5	-2.19
Post test		11.33	1.64	

From the **table IV.2.3.78** it can be seen that the mean of the Control Group III on domain V on WHO-QOL Scale is 9.79 in the pre test and the same is 11.33 in the post test assessment. The t- value found is -2.19 which is not significant at 0.05 levels. Hence the hypothesis is accepted.

The inference is that there will not be any significant change in the domain V of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

f) Domain VI**Hypothesis:**

There will be no significant difference between the Pre and Post tests scores on Domain VI of the Control Group III.

Table IV.2.3.79

Pretest-Post test Scores of Control Group III on Domain VI

Group	N	Mean	SD	t- value
Pre test	7	10.19	1.54	-2.45*
Post test		13.13	1.87	

**significant at 0.05 level*

From the **table IV.2.3.79** it can be seen that the mean of the Control Group III on domain VI on WHO-QOL Scale is 10.19 in the pre test and the same is 13.13 in the post test assessment. The t- value found is -2.45 which is significant at 0.05 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the domain VI of WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

g) Overall Quality of Life

Hypothesis:

There will be no significant difference between the Pre and Post tests scores on Overall Quality of Life of the Control Group III.

Table IV.2.3.80

Pretest-Post test Scores of Control Group III on Overall Quality of Life

Group	N	Mean	SD	t- value
pre test	7	53.31	2.58	-7.35**
post test		63.02	3.86	

***significant at 0.01 level*

From the **table IV.2.3.80** it can be seen that the mean of the Control Group III on Total Score on WHO-QOL Scale is 53.31 in the pre test and the same is 63.02 in the post test assessment. The t- value found is -7.35 which is significant at 0.01 levels. Hence the hypothesis is rejected.

The inference is that there will be significant change in the Total Score on WHO-QOL Scale when pharmacological treatment is administered alone in patients with Obsessive Compulsive Personality Disorder.

Rational Emotive Behavior Therapy was effective in lifting the Quality of Life among patients with Obsessive Compulsive Personality Disorder.

The efficacy of using pharmacological agents along with Rational Emotive Behavior Therapy was as equal as using Rational Emotive Behavior Therapy alone in lifting the Quality of Life among patients with Obsessive Compulsive Personality Disorder.⁷

Administration of pharmacological agents alone in patients with Obsessive Compulsive Personality Disorder is not significantly effective in lifting the Quality of Life as compared to group which was not administered with any sort of management technique.

Chapter V

RESUME OF THE STUDY

Summary

Conclusions of the Study

Implications of the Study

Limitations of the Study

Suggestions for Further Research

V.1. Summary

The present study was primarily aimed at finding out the efficacy of Rational Emotive Behaviour Therapy in dealing with the patients with Personality Disorders. The reviews suggested about the difficulties of getting subjects with Personality Disorders in clinical population for prolonged psychotherapy treatment (Davidson and Tyrer, 2000). Hence it was essential to find out the availability of subjects with Personality Disorder of different possible kinds. For that reason the present study was conducted in two parts, the first part focused on finding out the prevalence rate of Personality Disorder in clinical population. It was a retrospective analysis of case records of patients who attended the psychiatry unit of a general hospital over a period of six years. The results of this part suggested that histrionic Personality Disorder is the most prevalent Personality Disorder in the clinical population which follows the paranoid, borderline, avoidant and obsessive compulsive Personality Disorder subsequently. From these the researcher had selected paranoid, borderline and obsessive compulsive Personality Disorder, for further research in the second part. The rationale for selecting these Personality Disorders was primarily that these Personality Disorders represents each cluster in the DSM IV classification of Personality Disorder and the reviews prominently points out that these Personality Disorders are those which produces the maximum impairment to the subject in all realms of his or her life.

IPDE-ICD-10 was the tool which used to identify the subjects with Personality Disorder in the second part. The selected samples of each Personality Disorders were randomly assigned to the four groups namely the Control Group I, Experimental Group, Control Group II and the Control Group III. All the subjects in all the groups were administered with Brief Psychiatric Rating Scale initially along with IPDE ICD-10, in order to rule out those with other active psychiatric symptoms. Multiphasic Hostility Inventory and WHO-Quality of Life Scale were also administered in the subjects during the pre-intervention phase. The Control Group I was administered with no intervention method. The Experimental Group was administered with Rational Emotive Behaviour Therapy alone, the Control Group II was administered with Rational

Emotive Behaviour Therapy and medicines and finally the Control Group III was administered with medicines alone.

After a period of six months for each subject from their initial assessment, the date which varies for every subject, a post intervention assessment was done. For the Experimental Group and the Control Group II, the groups which were administered with Rational Emotive Behaviour Therapy alone or together with medicines, the six months implies a completion of fifteen therapeutic sessions. During the post intervention assessment all the subjects in all the groups were administered with IPDE ICD-10 –Interview Schedule for corresponding Personality Disorders, Multiphasic Hostility Inventory and WHO-Quality of Life Scale.

During the analysis the pre test scores of the subjects in each of the four groups were compared using ANOVA to find out how far the four groups are matched in terms of their pretest scores on every variable.

Post test score of the subjects in the four groups for every variable, were done in order to find out significant difference between the groups in their corresponding variable.

The pretest and post test scores of each group on each variable were compared using t-test in order to find out the efficacy of the independent variables.

The individual scores of every subject in the pre test and post tests on each item of IPDE-ICD 10 for every Personality Disorder type were compared using graphs so that the results could be more comprehensive.

V.2.Conclusions of the study

Part I

1. Majority of the patients (81.89 %) with Personality Disorder in the clinical population were presented with other co-morbid conditions.
2. Cluster B Personality Disorders were the most prevalent one in clinical population.
3. Histrionic Personality Disorder was the most prevalent Personality Disorder with 32.06% in Psychiatric Setting. Then Paranoid, Borderline, Avoidant and Obsessive Compulsive Personality Disorders come subsequently. Narcissistic Personality Disorder was found to be the least one with 0.2%.
4. Depressive Disorder (47.29%) was the most prevalent co-morbid condition with Personality Disorders.
5. Personality Disorders are more prevalent in the age range between 26 and 35.
6. Females are the most prevalent gender who present with Personality Disorder.

Part II

7. Rational Emotive Behaviour Therapy, medicines and the combination of both, all are equally effective in the treatment of Paranoid Personality Disorder.
8. Rational Emotive Behaviour Therapy is effective in the management of Paranoid Personality Disorder.
9. The combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in the management of Paranoid Personality Disorder.
10. Pharmacological therapy is effective in the management of Paranoid Personality Disorder.
11. REBT+ Medicines is more effective than medicines alone in the management of Self-Criticism, Projection of Hostility and Overall Hostility in subjects with Paranoid Personality Disorder.

12. Rational Emotive Behaviour Therapy alone is more effective than no treatments in the management of Overall Hostility in subjects with Paranoid Personality Disorder.
13. Rational Emotive Behaviour Therapy is effective in the management of sense of Guilt and Acting Out of hostility in subjects with Paranoid Personality Disorder.
14. REBT+ Medicines is effective in the management of Self-criticism, Criticizing Others, Acting Out, Projection of Hostility and Overall Hostility in subjects with Paranoid Personality Disorder.
15. Medicines are effective in the management of Criticizing Others, Acting Out, Projection of Hostility and Overall Hostility in subjects with Paranoid Personality Disorder.
16. Rational Emotive Behaviour Therapy is more effective than medicines in improving the physical aspects of Quality of Life in subjects with Paranoid Personality Disorder.
17. Rational Emotive Behaviour Therapy, REBT+ Medicines and Medicines alone are effective in improving the psychological aspects of Quality of Life in subjects with Paranoid Personality Disorder.
18. REBT+ Medicines is more effective than medicines alone in improving psychological aspects of Quality of Life in subjects with Paranoid Personality Disorder.
19. Rational Emotive Behaviour Therapy and REBT+ Medicines are equally effective than no treatment in improving the level of independence in subjects with Paranoid Personality Disorder.
20. Rational Emotive Behaviour Therapy, REBT+ Medicines and Medicines alone are effective than no treatment in improving the Social Relationships in individuals with Paranoid Personality Disorder.
21. Rational Emotive Behaviour Therapy and REBT+ Medicines are more effective than Medicines alone in improving the Social Relationships in individuals with Paranoid Personality Disorder.

22. Rational Emotive Behaviour Therapy, REBT+ Medicines and Medicines alone are equally effective than no treatment in improving the environmental aspects of Quality of Life in subjects with Paranoid Personality Disorder.
23. Rational Emotive Behaviour Therapy, REBT+ Medicines and Medicines alone are effective than no treatment in improving the spirituality in individuals with Paranoid Personality Disorder.
24. Rational Emotive Behaviour Therapy and REBT+ Medicines are more effective than Medicines alone in improving the spirituality in individuals with Paranoid Personality Disorder.
25. Rational Emotive Behaviour Therapy is effective in improving all the domains of Quality of Life in subjects with Paranoid Personality Disorder.
26. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in improving all the domains of Quality of Life in subjects with Paranoid Personality Disorder.
27. Medicines are effective in improving the psychological, level of independence, social relations and spirituality in subjects with Paranoid Personality Disorder.
28. Rational Emotive Behaviour Therapy is more effective in reducing the symptoms of Borderline Personality Disorder than medicines and no treatment.
29. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in the treatment of Borderline Personality Disorder than medicines and no treatment.
30. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in managing the Acting Out of hostility and Overall Hostility than Rational Emotive Behaviour Therapy alone, medicines alone and no treatment in subjects with Borderline Personality Disorder.

31. Rational Emotive Behaviour Therapy, Rational Emotive Behaviour Therapy + medicines and medicines alone all are effective in reducing the Overall Hostility than no treatment in subjects with Borderline Personality Disorder.
32. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in managing the Self Criticism than, medicines alone and no treatment in subjects with Borderline Personality Disorder.
33. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in managing the Guilt and Cynicism of hostility than Rational Emotive Behaviour Therapy alone, and no treatment in subjects with Borderline Personality Disorder.
34. Medicines are more effective than Rational Emotive Behaviour Therapy alone or no treatment in managing the Guilt in subjects with Borderline Personality Disorder.
35. Medicines are more effective than no treatment in managing the Cynicism and Projection of Hostility in subjects with Borderline Personality Disorder.
36. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in managing the Projection of Hostility than no treatment in subjects with Borderline Personality Disorder.
37. Rational Emotive Behaviour Therapy alone and Rational Emotive Behaviour Therapy +medicines are effective in improving all the domains of Quality of Life than no treatment in subjects with Borderline Personality Disorder.
38. Rational Emotive Behaviour Therapy alone and Rational Emotive Behaviour Therapy +medicines are effective in improving all the domains of Quality of Life except for spirituality, than using medicines alone in subjects with Borderline Personality Disorder.

39. Rational Emotive Behaviour Therapy alone is effective in improving all the domains of Quality of Life including overall Quality of Life in subjects with Borderline Personality Disorder.
40. Rational Emotive Behaviour Therapy + Medicines is effective in improving all the domains of Quality of Life including overall Quality of Life in subjects with Borderline Personality Disorder.
41. Pharmacological treatment alone is effective in improving all the domains of Quality of Life including overall Quality of Life except the level of independence in subjects with Borderline Personality Disorder.
42. Rational Emotive Behaviour Therapy is more effective in reducing the symptoms of Obsessive Compulsive Personality Disorder than medicines and no treatment.
43. Combination treatment of Rational Emotive Behaviour Therapy and Medicines is more effective in the treatment of Obsessive Compulsive Personality Disorder than no treatment.
44. Rational Emotive Behaviour Therapy is more effective in reducing the Guilt than medicines in subjects with Obsessive Compulsive Personality Disorder.
45. Rational Emotive Behaviour Therapy is more effective in reducing the Guilt, Projection of Hostility and Overall Hostility than no treatment, in subjects with Obsessive Compulsive Personality Disorder.
46. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in reducing the Projection of Hostility and Overall Hostility, than no treatment, in subjects with Obsessive Compulsive Personality Disorder.
47. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in reducing the Overall Hostility, than medicines, in subjects with Obsessive Compulsive Personality Disorder.

48. Pharmacological treatment is effective in reducing the Projection of Hostility than no treatment in subjects with Obsessive Compulsive Personality Disorder.
49. Rational Emotive Behaviour Therapy alone is effective in reducing the Guilt and Projection of Hostility in subjects with Obsessive Compulsive Personality Disorder.
50. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in reducing the Guilt and Projection of Hostility in subjects with Obsessive Compulsive Personality Disorder.
51. Pharmacological treatment alone is effective in reducing Projection of Hostility and Overall Hostility in subjects with Obsessive Compulsive Personality Disorder.
52. Rational Emotive Behaviour Therapy is more effective than no treatment in improving all the domains of Quality of Life and the overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.
53. Rational Emotive Behaviour Therapy is more effective than medicines in improving all the domains and the overall Quality of Life except for domain VI (spirituality) in subjects with Obsessive Compulsive Personality Disorder.
54. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective than no treatment in improving all the domains of Quality of Life and the overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.
55. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective than medicines in improving all the domains and the overall Quality of Life except for domain VI (spirituality) in subjects with Obsessive Compulsive Personality Disorder.
56. Medicines used are effective than no treatment in improving domain V, domain VI and overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.

57. Rational Emotive Behaviour Therapy alone is effective in improving all the domains of Quality of Life and overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.
58. Combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in improving all the domains of Quality of Life and overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.
59. Pharmacological treatment alone is effective in improving the domains IV, V, VI and overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder.

V.3. Implications of the study

Extensive research in finding out the therapeutic out come of Personality Disorders are taking place universally as these disorders are highly dysfunctional and damaging to the other co-morbid conditions as well.

Here the present research focuses on three distinctive Personality Disorders such as Paranoid Personality Disorder, Borderline Personality Disorder and Obsessive Compulsive Personality Disorder. Rational Emotive Behaviour Therapy was the therapeutic approach used in treating these Personality Disorders. Rational Emotive Behaviour Therapy is one of the well accepted cognitive approaches in psychotherapy. The effect of Rational Emotive Behaviour Therapy in reducing one negative variable namely Hostility and the improvement of one positive variable namely Quality of Life were also focused in the study other than the symptoms of Personality Disorders.

Rational Emotive Behaviour Therapy was found effective when combined with medicines in reducing the symptoms of Paranoid Personality Disorder. The pharmacological treatment also found to have some effect in reducing the symptoms. Rational Emotive Behaviour Therapy alone is not satisfactorily produced desirable results but had effects in reducing the symptoms.

Many sub variables of Hostility such as Guilt, Acting-Out of Hostility and Overall Hostility were found to be reduced as a result of implementing

Rational Emotive Behaviour Therapy in Paranoid Personality Disorder patients. Rational Emotive Behaviour Therapy when combined with medicines the patients showed better results in reducing Self-criticism, Guilt, Criticizing Others, Acting Out, Projection of Hostility and the Overall Hostility. The medicines alone also showed its efficacy in reducing Criticizing Others, Acting Out, Projection of Hostility and Overall Hostility.

Rational Emotive Behaviour Therapy is found to be effective in improving the physical, psychological, Level of Independence, Environmental, Social Relations and the Spiritual aspects of Quality of Life in these patients. The above mentioned variables encompass all the domains of Quality of Life. In short Rational Emotive Behaviour Therapy is effective in improving all the domains of Quality of Life in patients with Paranoid Personality Disorder.

Rational Emotive Behaviour Therapy when combined with medicines the same results were obtained. But when medicines alone were introduced the effects were not seen in two domains. They are the physical aspects of Quality of Life and social relations. Hence the effects seen in the patients who were administered with Rational Emotive Behaviour Therapy and medicines together may be the result of Rational Emotive Behaviour Therapy alone at least for these two variables.

In Borderline Personality Disorder Rational Emotive Behaviour Therapy when used alone or in combination with medicines effective reductions were seen in the symptoms of the disorder. The same result was absent when medicines were administered alone. Here also the effect in the combination treatment can be attributed to Rational Emotive Behaviour Therapy alone. Hence it can be stated that Rational Emotive Behaviour Therapy is an effective tool in treating the Borderline Personality Disorder patients.

Rational Emotive Behaviour Therapy found to be effective in reducing the Self Criticism, Guilt, Criticizing Others, Projection of Hostility and Overall Hostility in subjects with Borderline Personality Disorder. The combination treatment of Rational Emotive Behaviour Therapy and medicines is effective in reducing the Self Criticism, Guilt, Criticizing Others, Projection of Hostility and Overall Hostility in these subjects. Medicines which are used in the patients with this Personality Disorder were found effective in reducing the

Criticizing Others, Acting Out of hostility, Projection of Hostility and Overall Hostility.

Rational Emotive Behaviour Therapy alone is effective in improving all the domains and overall Quality of Life except for the environmental aspects of Quality of Life in subjects with Borderline Personality Disorder. The combination treatment of both Rational Emotive Behaviour Therapy and medicines are effective in bringing improvement in all the domains of Quality of Life. It was also inferred that the medicines used are effective in improving all the domains of Quality of Life except for the level of independence in patients with Borderline Personality Disorder. It has effectiveness in improving the overall Quality of Life also. The inference is that Rational Emotive Behaviour Therapy alone, Rational Emotive Behaviour Therapy and medicines and medicines alone, all intervention modes are capable of bringing improvement in the Quality of Life in patients with Borderline Personality Disorder.

In Obsessive Compulsive Personality Disorder Rational Emotive Behaviour Therapy is found to be effective in reducing the symptoms, when compared to the groups either which was administered with medicine alone or with no treatment at all. It is also found that the combination treatment is better than using medicines alone in bringing the desirable results. These findings indicate the effect of Rational Emotive Behaviour Therapy in dealing with the symptoms of Obsessive Compulsive Personality Disorder.

Rational Emotive Behaviour Therapy alone is effective in reducing the Guilt in subjects when compared to the group which was administered with medicines alone. The same effect was seen in reducing Guilt, Projection of Hostility, and Overall Hostility in the subjects when compared to the group which received no treatment.

It is also seen that the group which was administered with the combination treatment of medicines and Rational Emotive Behaviour Therapy significantly reduces the Project of Hostility and overall Hostility, when compared to the group which received no treatments. The same effect is seen when this group is compared to the group which received only medium in reducing overall Hostility.

The treatment with medicines alone was also found effective in reducing the Projection of Hostility than no treatment in subjects with Obsessive Compulsive Personality Disorder.

Rational Emotive Behaviour Therapy alone is found effective in reducing Guilt and Projection of Hostility in subjects with Obsessive Compulsive Personality Disorder.

The combination treatment of both Rational Emotive Behaviour Therapy and medicines found effective in reducing the Guilt and Projection of Hostility in these subjects. Medicine was also found to have the same positive effect on projection of Hostility and Overall Hostility.

Rational Emotive Behaviour Therapy is effective in improving the overall Quality of Life and all its domains in subjects with Obsessive Compulsive Personality Disorder, when compared to the group which received no treatment. The same result obtained except for the Domain VI (Spirituality) when compared to the group which received only medicine.

Similar results were obtained when the group which received the combination treatment of Rational Emotive Behaviour Therapy and medicines were compared to the groups which received no treatment and the group which received medicines alone.

Medicines alone are also effective in improving the Domain V, Domain VI and Overall Quality of Life in subjects with Obsessive Compulsive Personality Disorder when compared to the group which received no treatment. Rational Emotive Therapy alone and the combination of it with medicines both are effective in improving the Overall Quality of Life and all its Domains. Medicines alone is effective in improving the Domain IV, V, VI and the overall Quality of Life in Subjects with Obsessive Compulsive Personality Disorder.

V.4. Limitations of the study

Personality Disorder are highly complex disorders which manifest in wide variety of behaviours of the patients and coexist with some other mental disorders and hence often finds difficulty to get patients with sole diagnosis of Personality Disorders in clinical population. That is the reason why the study consists of only limited number of sample in each group.

Secondly the patients with Personality Disorder often exhibit poor complains after therapy and finds it difficult to engage them to the complete process of therapy.

The pre-test post-test period was set as six months as it find difficult to extend further. But for assuring the improvement in such patients for complete remission may need extended period such as one or two year follow-ups which was not done in this study. Though the post test results after a period of six months show significant improvement, the consistency and sustainability of this improvement can only be ascertain by further follow-ups and reassessment, which is highly difficult in patients with Personality Disorders.

The study was conducted in both out patient and in patient of psychiatric settings. But the comparison between the two groups was not done, as the number of samples was very limited and varied.

Care had been taken to avoid samples with active symptoms of other psychiatric conditions. But the latent manifestations of other co-morbid condition may have affected the Control Groups and Experimental Group to be set homogenous and that may be the reason, during Pretest analysis some variables in some groups shows that they are not matched. More cautious and careful attempts should have employed to control such variables that interfere with the results.

The study was conducted in three distinctive Personality Disorders, in order to find out the efficacy of Rational Emotive Behaviour Therapy. But the comparison between the three Experimental Groups were not executed so that it may have found out that in which Personality Disorder Rational Emotive Behaviour Therapy is more effective.

Finally the age groups of the samples were from 20 to 48 which is very long range and as the sample size was very limited, the age wise classification and comparison were not possible.

V.5. Suggestions for Further Research

As mentioned in the limitations of the study there were no long term follow up in the study. Further research can be done in finding out the long term sustainability and consistency in the improvement of the patients with Personality Disorders. Cross comparison of the groups with different Personality Disorders may be carried out to find out in which Personality Disorder Rational Emotive Behaviour Therapy is more effective.

The co relational analysis between the improvement in the Personality Disorder symptoms and the other variables such as hostility and Quality of Life may also be carried out to find out the relative changes of these variables. Further research in each Personality Disorders may be carried out to separately to make the research more comprehensive to that Personality Disorder for example analyzing depression and suicidality in Borderline Personality Disorder, Obsessive Compulsive Disorder in Obsessive Compulsive Personality Disorder or infidelity ideas in Paranoid Personality Disorder etc.

Statistical analysis considering each symptom of each Personality Disorder may be carried out to determine the symptoms that were improved significantly due to the implementation of Rational Emotive Behaviour Therapy, in the Experimental Group.

Age wise, gender wise and in and out patient wise classification and analysis can be done in order to determine the groups among these shows more improvement due to the administration of Rational Emotive Behaviour Therapy.

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APPENDICES

THE BRIEF PSYCHIATRIC RATING SCALE (BPRS)

The form consists of 18-symptom constructs, each to be rated on a 7-point scale of severity, ranging from "not present" to "extremely severe". If a specific symptom is not rated mark "0" = Not Assessed. Enter the score for the description which best describes the patient's condition.

- 0 = not assessed
- 1 = not present
- 2 = very mild
- 3 = mild
- 4 = moderate
- 5 = moderately severe
- 6 = severe
- 7 = extremely severe

1. _____ **Somatic Concern:** Degree of concern over present bodily health. Rate the degree to which physical health is perceived as a problem by the patient, whether complaints have a realistic basis or not.
2. _____ **Anxiety:** Worry, fear, or overconcern for present or future. Rate solely on the basis of verbal report of patient's own subjective experiences. Do not infer anxiety from physical signs or from neurotic defense mechanism.
3. _____ **Emotional Withdrawal:** Deficiency in relating to the interviewer and to the interview situation. Rate only the degree to which the patient gives the impression of failing to be in emotional contact with other people in the interview situation.
4. _____ **Conceptual Disorganization:** Degree to which the thought processes are confused, disconnected, or disorganized. Rate on the basis of integration of the verbal products of the patient; do not rate on the basis of patient's subjective impression of his own level of functioning.
5. _____ **Guilt Feelings:** Overconcern or remorse for past behaviour. Rate on the basis of the patient's subjective experiences of guilt as evidenced by verbal report with appropriate affect; do not infer guilt feelings from depression, anxiety, or neurotic defences.

6. _____ **Tension:** Physical and motor manifestations of tension, nervousness, and heightened activation level. Tension should be rated solely on the basis of physical signs and motor behaviour and not on the basis of subjective experiences of tension reported by the patient.
7. _____ **Mannerisms and Posturing:** Unusual and unnatural motor behaviour, the type of motor behaviour which causes certain mental patients to stand out in a crowd of normal people. Rate only abnormality of movements; do not rate simple heightened motor activity here.
8. _____ **Grandiosity:** Exaggerated self-opinion, conviction of unusual ability or powers. Rate only on the basis of patient's statements about himself or self in relation to others, not on the basis of his demeanor in the interview situation.
9. _____ **Depressive Mood:** Despondency in mood, sadness. Rate only degree of despondency; do not rate on the basis of inferences concerning depression based upon general retardation and somatic complaints.
10. _____ **Hostility:** Animosity, contempt, belligerence, disdain for other people outside the interview situation. Rate solely on the basis of the verbal report of feelings and actions of the patient toward others; do not infer hostility from neurotic defences, anxiety, or somatic complaints. Rate attitude toward interviewer under "uncooperativeness".
11. _____ **Suspiciousness:** Belief, delusional or otherwise, that others have now or have had in the past, malicious or discriminatory intent toward the patient. On the basis of verbal report, rate only those suspicious which are currently held whether they concern past or present circumstances.
12. _____ **Hallucinatory Behaviour:** Perceptions without normal external stimulus correspondence. Rate only those experiences which are reported to have occurred within the last week and which are described as distinctly different from the thought and imagery processes of normal people.
13. _____ **Motor Retardation:** Reduction in energy level evidenced by slowed movements. Rate on the basis of observed behaviour of the patient only: do not rate on the basis of patient's subjective impression of own energy level.
14. _____ **Uncooperativeness:** Evidence of resistance, unfriendliness, resentment, and lack of readiness to cooperate with interviewer. Rate only on the basis of the patient's attitude and responses to the interviewer,

and interview situation; do not rate on the basis of reported resentment or uncooperativeness outside the interview situation.

15. _____ **Unusual Thought Content:** Unusual, odd, strange, or bizarre thought content, Rate here the degree of unusualness, not the degree of disorganization of thought processes.
16. _____ **Blunted Affect:** Reduced emotional tone, apparent lack of normal feeling or involvement.
17. _____ **Excitement:** Heightened emotional tone, agitation, increased reactivity.
18. _____ **Disorientation:** Confusion or lack of proper association for person, place, or time.

IPDE-ICD-10 SCREENING QUESTIONNAIRE

Last Name	First name	Middle I.	Date
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Directions

- The purpose of this questionnaire is to learn what type of person you have been during the **past five years**.
- Please do not skip any items. If you are not sure of an answer, select the one - TRUE or FALSE - which is **more likely** to be correct. There is no time limit, but do not spend too much time thinking about the answer to any single statement.
- When the answer is TRUE, **circle** the letter T. When the answer is FALSE, **circle** the letter F.

1.	I usually get fun and enjoyment out of life	T	F
2.	I don't react well when someone offends me.	T	F
3.	I'm not fussy about little details.	T	F
4.	I can't decide what kind of person I want to be	T	F
5.	I show my feelings for everyone to see.	T	F
6.	I let others make my big decisions for me.	T	F
7.	I usually feel tense or nervous.	T	F
8.	I almost never get angry about anything.	T	F
9.	I go to extremes to try to keep people from leaving me.	T	F
10.	I'm a very cautious person.	T	F
11.	I've never been arrested	T	F
12.	People think I'm cold and detached.	T	F
13.	I get into very intense relationships that don't last.	T	F
14.	Most people are fair and honest with me.	T	F
15.	I find it hard to disagree with people if I depend on them a lot.	T	F
16.	I feel awkward or out of place in social situations.	T	F
17.	I'm too easily influenced by what goes on around me.	T	F
18.	I usually feel bad when I hurt or mistreat someone.	T	F
19.	I argue or fight when people try to stop me from doing what I want.	T	F

- | | | | |
|-----|---|---|---|
| 20. | At times I've refused to hold a job, even when I was expected to. | T | F |
| 21. | When I'm praised or criticised I don't show others my reaction. | T | F |
| 22. | I've held grudges against people for years. | T | F |
| 23. | I spend too much time trying to do things perfectly. | T | F |
| 24. | People often make fun of me behind my back. | T | F |
| 25. | I've never threatened suicide or injured myself on purpose. | T | F |
| 26. | My feelings are like the weather; they're always changing. | T | F |
| 27. | I fight for my rights even when it annoys people | T | F |
| 28. | I like to dress so I stand out in a crowd | T | F |
| 29. | I will lie or con someone if it serves my purpose. | T | F |
| 30. | I don't stick with a plan if I don't get results right away. | T | F |
| 31. | I have little or no desire to have sex with anyone. | T | F |
| 32. | People think I'm too strict about rules and regulations. | T | F |
| 33. | I usually feel uncomfortable or helpless when I'm alone. | T | F |
| 34. | I won't get involved with people until I'm certain they like me. | T | F |
| 35. | I would rather not be the centre of attention. | T | F |
| 36. | I think my spouse (or lover) may be unfaithful to me. | T | F |
| 37. | Sometimes I get so angry I break or smash things. | T | F |
| 38. | I've had close friendships that lasted a long time. | T | F |
| 39. | I worry a lot that people may not like me. | T | F |
| 40. | I often feel "empty" inside. | T | F |
| 41. | I work so hard I don't have time left for anything else. | T | F |
| 42. | I worry about being left alone and having to care for myself. | T | F |
| 43. | A lot of things seem dangerous to me that don't bother most people. | T | F |
| 44. | I have a reputation for being a flirt. | T | F |
| 45. | I don't ask favours from people I depend on a lot. | T | F |
| 46. | I prefer activities that I can do by myself. | T | F |
| 47. | I lose my temper and get into physical fights. | T | F |
| 48. | People think I'm too stiff or formal. | T | F |
| 49. | I often seek advice or reassurance about everyday decisions. | T | F |
| 50. | I keep to myself even when there are other people around. | T | F |
| 51. | It's hard for me to stay out of trouble. | T | F |
| 52. | I'm convinced there's a conspiracy behind many things in the world. | T | F |
| 53. | I'm very moody. | T | F |
| 54. | It's hard for me to get used to a new way of doing things. | T | F |
| 55. | Most people think I'm a strange person. | T | F |

- | | | | |
|-----|---|---|---|
| 56. | I take chances and do reckless things. | T | F |
| 57. | Everyone needs a friend or two to be happy. | T | F |
| 58. | I'm more interested in my own thoughts than what goes on around me. | T | F |
| 59. | I usually try to get people to do things my way. | T | F |

IPDE ICD-10 MODULE INTERVIEW SCHEDULE

- | | | | | | | | | |
|----|---|---|---|---|----|---|---|---|
| 1. | 0 | 1 | 2 | ? | NA | 0 | 1 | 2 |
|----|---|---|---|---|----|---|---|---|
- Undue preoccupation with productivity to the exclusion of pleasure and interpersonal relationships**
Anankastic: 5
-

Do you spend so much time working that you don't have time left for anything else?

If yes: Tell me about it.

Do you spend so much time working that you (also) neglect other people?

If yes: Tel me about it

The examiner should be alert to the use of rationalizations to defend the behaviour. The fact that work itself may be pleasurable to the subject should not influence the scoring. There is no requirement that the subject actually enjoy the work, although that is often the case. Personal ambition, high economic aspirations, or inefficient use of time, are also unacceptable excuses. Exoneration due to economic necessity should be extended only when supported by convincing explanations. Allowance should be made for short-term, unusual circumstances, e.g., physicians in training who have little or no control over their work schedule. Avoidance of interpersonal relationships or leisure activities for reasons other than devotion to work is not within the scope of the criterion.

2. Undue preoccupation with work that usually prevent any significant pursuit of both leisure activities and interpersonal relationships.

1. Undue preoccupation with work that usually occasionally prevents any significant pursuit of both leisure activities and interpersonal relationships.

Undue preoccupation with work that usually prevents any significant pursuit of either leisure activities or interpersonal relationships.

0. Denied or rarely or never leads to exclusion of leisure activities or interpersonal relationships.
-

2. 0 1 2 ? 0 1 2
Perfectionism that interferes with task completion.
Anankastic: 3

Are you more of a perfectionists than almost anyone you know?
If yes: Does it slow you down a lot or prevent you from getting things done on time?
If yes: Tell me about it.

Many subjects view themselves as perfectionist, but do not have the trait to a pronounced degree or to the extent that it significantly interferes with their functioning. It is particularly important to verify that three is an effect on task completion or productivity.

2. Perfectionism frequently prevents the completion of work, or interferes with productivity.
1. Perfectionism occasionally prevents the completion of work, or interfered with productivity.
0. Denied or rarely or never prevents the completion of work, or interferes with productivity.

3. 0 1 2 ? 0 1 2

Preoccupation with details, rules, lists, order, organization, or schedule.

Anankastic: 2

Are you fussy about little details?

If yes: Do you spend much more time on them than you really have to?

If yes: Does that prevent you from getting as much work done as you're expected to do?

Do you spend so much time scheduling or organizing things that you don't have time left to do the job you're really supposed to do?

If yes: Tell me about it.

The subject is so concerned with the method or details of accomplishing a task or objective, that they almost become an end in themselves, consuming much more time and effort than is necessary, and thereby preventing the task from being accomplished, or markedly prolonging the time required to achieve the objective. The subject need not display all of the features enumerated in the criterion.

2. Convincing evidence supported by examples that the behaviour frequently interferes with reasonable expectations of productivity.

1. Convincing evidence supported by examples that the behaviour occasionally interferes with reasonable expectations of productivity.

0. Convincing evidence supported by examples that the behaviour occasionally interferes with reasonable expectations of productivity.

0. Denied, rare, or the consequence are insignificant.

4. 0 1 2 ? NA 0 1 2

Avoidance of occupational activities that involve significant interpersonal contact, because of fear of criticism, disapproval or rejection.

Anxious [avoidant]: 6 (partial)

Do you usually try to avoid jobs or things you have to do at work (school), that bring you into contact with other people?

If yes: Give me some examples.

Why do you think you do that?

The criterion is not so readily applicable to housewives/homemakers and ordinarily should be scored NA with them. They have an opportunity to qualify on the other half of the criterion (21, avoidance of social activities). "Significant interpersonal contact" in this context means that the subject would likely be engaged in conversation with others. It does not refer to the mere physical presence of others in the same building or work area. The reason for the avoidance must be fear of criticism, disapproval or rejection.

2. Almost always avoids jobs or work (school) assignments that involve significant interpersonal contact. Subject provides one or more of these as the primary reason: fear of criticism, disapproval or rejection.

Often avoids jobs or work (school) assignments that involve significant interpersonal contact. Subject provides one or more of these as the primary reason; fear of criticism, disapproval or rejection.

1.

Almost always avoids jobs or work (school) assignments that involve significant interpersonal contact. Subject acknowledges one or more of the three reasons, but insists that they are not the primary reason.

0. Denied, infrequent, not supported by convincing examples, or avoidance is due to their reasons.

5. 0 1 2 ? 0 1 2

Disturbances in and uncertainty about self-image

Emotionally unstable; borderline type: 1 (partial)

Do you think one of your problems is that you're not sure what kind of person you are?

If yes: How does that affect your life?

Do you behave as though you don't know what to expect of yourself?

If yes: Are you so different with different people or in different situations that you don't behave like the same person?

If yes: Give me some examples.

If no: Have others told you that you're like that?

If yes: Why do you think they've said that?

In this context 'uncertainty about self-image' may manifest itself in different ways, any one of which, if obviously present, is sufficient for a positive score. Subjects may be uncertain about what kind of person they are, because their behaviour is so different at various times or with different people, that they do not know what to expect of themselves. Their behaviour may be inconsistent, erratic, or contradictory. Or they may be chameleon like and take on the identity or personality of the particular person they are with at the moment. It is not necessary that subjects acknowledge or be aware that this is the source of distress or problems. Strikingly different behavior or views of oneself confined to discrete episodes of illness are not within the scope of the criterion. However, changes in self-image or erratic behaviour indicative of an inconsistent sense of self, may be counted when they occur in conjunction with chronic anxiety or chronic depression.

2. Obvious and well documented persistent uncertainty about self-image, as described above.
 1. Probable but less well documented persistent uncertainty about self-image, as described above.
 0. Absent, doubtful, or not well supported by examples.
-

6. 0 1 2 ? 0 1 2

Disturbances in and uncertainty about aims

Emotionally unstable; Borderline type: 1 (Partial)

What would you like to accomplish during your life?

Do your ideas about this change often?

If Yes; Tell me about it.

Not asked of housewives/homemakers, adolescents, students, and those who have never or almost never worked.

Do you often wonder whether you've made the right choice of job or career?

If Yes. How does that affect you?

Asked only of housewives/homemakers.

Do you often wonder whether you've made the right choice in becoming a housewife/homemaker?

If Yes: How does that affect you.

Adolescents, students, and those who have never or almost never worked.

Have you made up your mind about what kind of job or career you would like to have?

If no: How does that affect you?

The requirements for this criterion may be fulfilled in any one of several different ways. Subjects may report that they cannot decide about their long-term goals or career choice, and that this has an obvious effect on the way they lead their life. They may deny that they are uncertain about them, but it may be obvious from their behaviour, which is characterized by persistently erratic, or fluctuating consideration or selection of strikingly different careers or long-term goals. Persons 30 years of age or older who have embarked on a career path (when one is available to them), or insist that they have no idea at all about what their long-term goals are, should receive a score of 2. The criterion should be scored conservatively with adolescents and not usually given to them.

2. Obvious and well documented persistent uncertainty about long term goals or career choice.
 1. Probable but less well documented or persistent uncertainty about long-term goals or career choice.
 0. Absent, doubtful, or not supported by convincing examples.
-

7. 0 1 2 ? 0 1 2

Disturbances in and uncertainty about internal preferences

Emotionally unstable; Borderline type: 1 (partial)

Do you have trouble deciding what's important in life?

If yes; How does that affect you or the way you live your life?

Do you have trouble deciding what's morally right and wrong?

If yes; How does that affect you or the way you live your life?

In this context "internal preferences" refers both to issues of ethics and morality ("right and wrong") and to values (what is important in life). For a positive score both are not required. Subjects may qualify for either in two ways. They may report that they are so uncertain about internal preferences, that it causes subjective distress or problems in social; or occupational functioning. Or they may, with or without acknowledgement or awareness of any uncertainty, demonstrate the phenomenon by extremely erratic or inconsistent behavior indicative of uncertain values.

1. Obvious and well documented persistent uncertainty about internal preferences as described above.
 2. Probable but less well documented or persistent uncertainly about internal preferences as described above.
 0. Absent, doubtful, or not well supported by examples.
-

9. 0 1 2 ? 0 1 2

Feelings of excessive doubt and caution
Anankastic

Do you have a lot of doubts about things?

If yes: Does that upset you or cause any problems for you?

If yes: Tell me about it.

Are you very cautious and afraid of making a mistake?

If yes: Does that bother you or cause any problems for you?

If yes: Give me some examples of what you mean.

If the preceding item (8) was scored 1 or 2, the subject should be questioned carefully to establish that the reason for the excessive doubt is not solely the dependent's need for advice and reassurance from others. Caution is reflected by exceptional concerns about physical security is not within the scope of the criterion. For a 2 score there must be evidence of both doubt and caution, and indications that they are sometimes a source of distress or problems.

2. Frequently shows excessive doubt and caution, and this sometimes causes distress or problems in social or occupational functioning.

1. Frequently shows excessive doubt and caution, but not both, and this sometimes causes distress or problems in social or occupational functioning.

Occasionally shows excessive doubt and caution, and this sometimes causes distress or problems in social or occupational functioning.

0. Denied rare, or examples unconvincing.

14. 0 1 2 ? 0 1 2

Excessive conscientiousness and scrupulousness

Anankastic: 4

Are morals and ethics much more important to you than they are to most people?

If yes: Including people from your own background or religion?

If yes: Give me some examples of what you mean

Are you (also) very concerned about rules and regulations?

If yes; Give me some examples.

Are you so strict or conscientious that you spend a lot of time worrying whether you have broken and rules or done something wrong?

If yes: Give me some examples.

If no: Have people accused you of being too strict or rigid about what's right and wrong?

If yes: Why do you think they've said that?

It is not uncommon for people to view themselves as conscientious or subscribing to a higher morality than others. This is insufficient grounds for a positive rating. There must be evidence of an excessive concern about rules, ethics, morality, or matters of right and wrong. This may express itself in extreme rigidity and inflexibility about such matters, undue concern or preoccupation with doing what is right, or excessive worrying about having broken rules or done something immoral or unethical. It is not necessary that subjects impose their scrupulosity or rigidity on others. It is particularly important to view the subject's behaviour within the context of their cultural background and religious beliefs or allegiances. Religious individuals should be judged in relation to others of the same sect, and scored positively only if members of the same religion would also view them as scrupulous or inflexible. The criterion should not be scored positively if the behaviour is present only during isolated episodes of depression or obsessive – compulsive disorder.

2. Usually is over conscientious, scrupulous, and inflexible about matters of morality, ethics, or values.

1. Occasionally is over conscientious, scrupulous, and inflexible about matters of morality, ethics, or values.

0. Denied rate, confined to isolated episodes of depression or obsessive – compulsive disorder, or not supported by convincing examples.

25. 0 1 2 ? 0 1 2

Disturbances in and uncertainly about internal preferences
Emotionally unstable; Borderline type: 1 (partial)

Do you have a lot of trouble deciding what type of friends you should have?

If yes: Does that have an effect on your life or cause any problems for you?

If yes: Give me some examples

Does the kind of people you have friends keep changing?

If yes: Tell me about it.

This aspect of the criterion is met when subjects report that they are so uncertain about what type of friends they desire, that this causes significant distress or problems in their relations with others. A positive score is also given when subjects describe frequent or erratic changes in the type of friends they have, even if they don't acknowledge uncertainty about type of friends they have, even if they don't acknowledge uncertainty about type of friends to have. Doubt about whether to have particular person as a friend is not within the scope of the criterion, unless it is a particular instance of the more general uncertainty about the type of friends to have.

2. Obvious and well documented persistent uncertainty about type of friends to have, as described above.

1. Probable but less well documented persistent uncertainly about type of friends to have, as described above.

0. Absent, doubtful, or not well documented by examples.

26. 0 1 2 ? 0 1 2
Liability to become involved in intense and unstable relationships often leading to emotional crises
Emotionally unstable; Borderline type:2

Do you get into intense and stormy relationships with other people with lots of ups and down? mean where your feelings about them run "hot" and "cold" or change from one extreme to the other.

If yes: In those relationships do you often find yourself alternating between admiring and despising the same person?

If yes: Give me some examples.

In how many different relationships has this happened?

For a positive score three features must be present instability, strong feelings, and alternation between over idealization and devaluation. The latter does not require continuous switching from over idealization to devaluation. If the other requirements are met, it does not matter whether the behaviour is confined to specific types of relationships, e.g., those with parents, members of the opposite sex, etc.

2. Examples illustrating a pattern of unstable and intense relationships (more than one or two) characterized by alternating between the extremes of over idealization and devaluation.

1. Examples illustrating that one or two relationships were unstable, intense and characterised by alternating between the extremes of over idealization and devaluation.

0. Denied or not supported by convincing examples.

27. 0 1 2 ? 0 1 2

Unreasonable insistence by the individual that others submit to exactly his or her way of doing things, or unreasonable reluctance to allow others to do things.

Anankastic: 8

Do you often insist that people do things exactly your way?

If yes: Does that cause any problems for you or for others?

If yes: Tell me about it.

Are you reluctant to let people do things, because you're convinced that they won't do them your way?

If yes; Does that cause any problems for you or for them?

If yes: Tell me about it.

For a positive score the behaviour must cause subjective distress or problems.

Frequent insistence that others submit to exactly his or her way of doing things. This sometimes causes subjective distress or problems.

2. Frequent unreasonable reluctance to allow others to do things because of the conviction that they will not do them correctly. This sometimes causes subjective distress or problems.

Occasional unreasonable reluctance to allow others to do things because of the conviction that they will not do them correctly. This sometimes causes subjective distress or problems.

0. Denied, does not cause distress or problems, or not supported by convincing examples.

28. 0 1 2 ? 0 1 2

Rigidity and stubbornness

Anankastic: 7

Are you very stubborn and set in your ways?

If yes: Give me some examples of what you mean.

Does this upset you or cause any problems?

If no: Have people ever accused you to being that way?

If yes: Why do think they have?

Resistance to the suggestions and views of others, and a reluctance to change one's ways under reasonable pressure from others to do so, should be taken as evidence of rigidity and stubbornness. For a positive score there should be indications that this sometimes leads to subjective distress or social or occupational problems.

- 2. Frequent rigidity and stubbornness that sometimes leads to subjective distress or social or occupational problems
 - 1. Occasional rigidity and stubbornness that sometimes leads to subjective distress or social or occupational problems
 - 0. Denied, not associated with subjective distress or social or occupational problems.
-

31. 0 1 2 ? 0 1 2

A combative and tenacious sense of personal rights out of keeping with the actual situation

Paranoid : 4

Do you insist on standing up for you right?

If yes: Do you do this even when it means getting into a confrontation and arguing about something that many people would ignore?

If yes: Give me some examples.

If no: Have people ever accused you to being like that?

If yes: Why do think they have?

Argumentative or disagreeable behaviour is not within the scope of the criterion, unless it occurs within the context of subjects defending in an exaggerated or inappropriate fashion what they perceive to be their rights.

2. Frequent displays a combative and tenacious sense of personal rights out of keeping with the actual situation.
 1. Occasionally displays a combative and tenacious sense of personal right out of keeping with the actual situation.
 0. Denied, rare, or not supported by convincing examples.
-

34. 0 1 2 ? 0 1 2

Tendency to bear grudges persistently, e.g., refusal to forgive insults injuries, or slights

Paranoid: 2

Have you ever held a grudge or taken a long time to forgive someone?

If yes : Tell me about it.

Did you try to avoid or refuse to talk to the person?

How long did you continue to act that way?

Has this ever happened with anyone else?

If yes; With how many people?

As evidence of a grudge the subject should either try to avoid or refuse to speak to the person for more than a year. For a score of 2 there should be evidence of grudges against more than one or two peoples. The examples should establish that the reaction is obviously disproportionate. For example, a grudge against a parent responsible for child abuse or incest would not warrant a positive score.

2. Has born persistent grudges, i.e., has been unforgiving of insults, injuries, or slights against several people.
 1. Has born persistent grudges, i.e., has been unforgiving of insults, injuries, or slights against several people.
 0. Denied or not supported by example.
-

35. 0 1 2 ? 0 1 2

Suspiciousness and a pervasive tendency to distort experience by misconstruing the neutral or friendly actions of others as hostile or contemptuous

Paranoid: 3

Has it been your experience that people often try to use you or take advantage of you?

If yes: Give me some examples.

In rating this criterion also consider subject's behaviour during interview

Affirmative replies to the questions that assess this criterion require considerable probing and judgement on the part of the examiner, because there must be an assessment of the possible reality basis of the subject's reported experiences. Too much emphasis should not be given to accounts of isolated incidents. The focus should be on identifying a characteristic attitude on the part of the subject, suggesting an orientation or set toward the expectation of exploitation or harm. The subject's approach to the interview itself may be taken into consideration in the scoring, but should never be the sole basis for a score of 2.

1. Frequently expects, without sufficient basis, to be exploited or harmed by others.

Denied, but evident in interview.

0 Denied, rare, or not supported by convincing examples.

36. 0 1 2 ? 0 1 2

Persistent self-referential attitude, associated particularly with excessive self-importance

Paranoid : 6

When you enter a room full of people do you often wonder whether they might be talking about you, or even making unflattering remarks about you?

If yes: Give me some examples.

When you're in a public place or walking down the street, do you often wonder whether people might be looking at you, talking about you, or even making fun of you?

If yes; Give me some examples.

It is uncommon for people to experience fleeting self-referential ideas when they first enter a large social gathering, particularly one involving unfamiliar people. Such behaviour should not be considered within the scope of the criterion. There should be indications that the ideas are more than momentary. If it appears that they may be of delusional proportions, the subject should be questioned carefully, since delusions of reference are excluded.

- 2. Frequently experiences ideas of reference.
 - 1. Occasionally experiences ideas of reference.
 - 0. Denied, rare, not supported by convincing examples, or delusional in nature.
-

38. 0 1 2 ? 0 1 2

Excessive sensitivity to sensitivity to setbacks and rebuffs

Paranoid : 1

Are you easily slighted or offended?

If yes: Tell me about it.

When you are slighted or offended, do you sometimes have too strong a reaction?

If yes: Give me some examples.

How do you react when things don't go your way?

For a positive score the subject's examples should establish the presence of a characteristic inclination toward being slighted in situations where most people would not especially feel that way; or of reacting excessively to actual slights. This may occur as a consequence of what others say or fail to say, or what they do or fail to do. For a 2 score there must also be evidence of similar behaviour in response to setbacks, i.e., things not going one's way.

2. Frequent is easily slighted, or reacts excessively to actual slights.

Also displays similar behaviour in response to setbacks.

Occasionally is easily slighted, or reacts excessively to actual slights.

Also displays similar behaviour in response to setbacks. Frequently is

1. easily slighted, or reacts excessively to actual slights, but not to setbacks.

Frequently is easily slighted, or reacts excessively to actual slights, but not to setbacks.

0. Denied, rare, or not supported by convincing examples.

45. 0 1 2 ? 0 1 2

Chronic feelings of emptiness

Emotionally unstable; Borderline type: 5

Do you often feel empty inside

If yes: Does that upset you or cause any problems for you?

If yes: Tell me about it.

For a positive score there must be evidence that the emptiness is obviously distressing to the subject or leads to maladaptive behaviour, e.g., substance abuse, self-mutilation, suicidal gestures, impulsive sexual activity, etc.

2. Frequent feelings of emptiness that are obviously distressing or sometimes lead to maladaptive behavior.
 1. Occasional feelings of emptiness that is obviously distressing or sometimes lead to maladaptive behaviour.
 0. Denied, rare, or not associated with obvious distress or maladaptive behaviour.
-

48. 0 1 2 ? 0 1 2

Excessive efforts to avoid abandonment

Emotionally unstable; Borderline type : 3

Do you ever find yourself frantically trying to stop someone close to you from leaving you?

If yes: Give me some examples.

Unlike the previous Dependent item (47), which concerns preoccupation with fears of being left alone to care for oneself, this has to do with efforts on the part of the subject to avoid real or imagined abandonment. The efforts should be associated with obvious feelings of anxiety or agitation.

- 2. Frequent frantic efforts to avoid real or imagined abandonment.
 - 1. Occasional frantic efforts to avoid real or imagined abandonment.
 - 0. Denied, rare, occurs only in association with suicidal or self mutilating behaviour, or not supported by examples.
-

55. 0 1 2 ? 0 1 2

Recurrent suspicions, without justification, regarding sexual fidelity of spouse or sexual partner
Paranoid: 5

The examiner should exercise discretion about inquiring about sexual behaviour in certain cultures. Where this might be inappropriate, the item should be scored?

Asked only of those who have never been married.

Have you ever had sexual relations with anyone?

If no: Circle NA and go to 56.

Have you ever been concerned about whether a sexual partner was unfaithful to you?

If yes: Tell me about it

For a score of 2 there should be admission of more than brief, transient concerns about the sexual fidelity of one's spouse or partner. Subjects who admit to frequent suspicions, but what insist that it is justified, should be questioned very carefully. When in doubt the possible reality basis of their account, the criterion should not be scored positively, unless there is evidence from other sources that the suspicious are pathological.

- 2. On a number of different occasions or with a number of different partners was obviously very concerned about fidelity, with no apparent justification.
 - 1. On one or two occasions was obviously very concerned about fidelity, with no apparent justification.
 - 0. Denied, rare, insignificant, or not supported by subject's account.
-

56. 0 1 2 ? 0 1 2

**Disturbances in and uncertainty about internal preferences
(including sexual)**

Emotionally unstable; Borderline type : 1 (partial)

The examiner should exercise discretion about inquiring about sexual behaviour in certain cultures. Where this might be inappropriate, the item, should be scored?

Have you ever been uncertain whether you prefer a sexual relationship with a man or a woman?

If yes; Tell me about it.

Does this ever upset you or cause any problems for you?

If yes: Tell me about it.

Homosexuality or bisexuality as such are not within the scope of the criterion unless they are associated with significant doubt or uncertainty about one's sexual orientation. This doubt or uncertainty causes subjective distress or problems with others.

2. Has considerable doubt or uncertainty about sexual orientation.
This frequently causes subjective distress:

1. Has considerable doubt or uncertainty about sexual orientation.
This sometimes causes subjective distress.

0. Denied, rare, does not cause subjective distress, or not supported by subject's account.

57 0 1 2 ? 0 1 2

Preoccupation with unsubstantiated "conspiratorial" explanations of events either immediate to the patient or in the world at large

Paranoid: 7

Do you spend time thinking about the possibility that there may be some kind of conspiracy going on around you or in the world at large?

If yes: Does this bother you have any effect on your life?

If yes: Tell me about it.

This should be scored conservatively. Passing suspicions or abstract ideas with little or no impact on the subject's behaviour are not within the scope of the criterion. For a positive score there should be a definite preoccupation that either produces emotional distress or has an obvious influence on the subject's behaviour. If people rather than events are the focus of the "conspiracy," then more than one person must be in communications between or among them.

2. Often preoccupied with unsubstantiated conspiratorial explanations. This sometimes produces emotional distress or has an obvious influence on the subject's behaviour.

1. Occasionally preoccupied with unsubstantiated conspiratorial explanations. This sometimes produces emotional distress or has an obvious influence on the subject's behaviour.

0. Denied, rare, does not cause distress or influence behaviour, or not supported by subject's description.

58. 0 1 2 ? 0 1 2

Marked tendency to act unexpectedly and without consideration of the consequences.

Emotionally unstable; Impulsive type : 1

Some people have a habit of doing things suddenly or unexpectedly without giving any thoughts to what might happen. Are you like that?

If yes: What kind of things have you done?

This refers to the consequences of acting suddenly or unexpectedly on impulsive. It is scored positively only if the subject can produce convincing examples of problems that have arisen or could have arisen as a result of this tendency.

- 2. Frequently acts and unexpectedly on impulse. This sometimes causes problems or could cause problems.
 - 1. Occasionally acts suddenly and unexpectedly impulse. This sometimes causes problems or could cause problems.
 - 0. Denied, rare, or not supported by convincing examples.
-

0 1 2 ? 0 1 2

Recurrent threats or acts of self-harm
Emotionally unstable; Borderline type : 4

Have you ever threatened to commit suicide?

If yes: How many times?

Tell me about it.

Have you ever actually made a suicide attempt or gesture?

If yes; How many times?

Tell me about it.

Have you ever deliberately cut yourself, smashed your fist through a window, burned yourself, or hurt yourself in some other way (not counting suicide attempts or gestures)?

If yes: Tell me about it.

There mere sharing of one's suicidal thoughts with another person does not ordinarily constitute a threat. There must be communication of an intent to commit suicide. The motivate for making the threat is irrelevant. Suicidal gestures are counted whether or not they were serious or accompanied by a genuine wish to die. L Acts of self-harm include wrist cutting, deliberately breaking glass with one's body, burning oneself, head banging, and other deliberate forms of self-injury of a no suicidal nature.

1. On several occasions engaged in suicidal threats, gestures, or acts of self-harm.
 2. Once or twice engaged in suicidal threats, gestures, or acts of self harm.
 0. Denied.
-

65 0 1 2 ? 0 1 2
Excessive pedantry and adherence to social conventions.
Anankastic: 6

66 0 1 2 ? 0 1 2
**Marked insensitivity to prevailing social norms and conventions;
disregard for such norms and conventions is unintentional**
Schizoid: 9
Rate such phenomena as unkempt appearance, bizarre dress,
unusual mannerisms, and talking to oneself. When in doubt about the
possible role of depression or intentionally rebellious or nonconformist
behaviour, do not score 2.

67 0 1 2 ? 0 1 2
**Display of emotional coldness, detachment, or flattened
affectivity**
Schizoid: 2
Rate unchanging facial expression. Monotonous or unvarying vocal
inflection, lack of expressive gestures, maintenance of a rigid,
unchanging posture, poor eye contact, lack of apparent interest in
examiner, failure to smile when almost everyone would. When in
doubt about the presence or significance of these phenomena,
including the possible role of psychotropic medications or depression,
do not score 2.
