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A HYPNOTHERAPEUTIC APPROACH TO THE TREATMENT OF MYALGIC ENCEPHALOMYELITIS (M.E.)

by

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A HYPNOTHERAPEUTIC APPROACH TO THE TREATMENT OF MYALGIC ENCEPHALOMYELITIS (M.E.)

ABSTRACT

In the absence of a reliable biological marker, much professional and public non-acceptance surrounds the diagnosis of M.E. using the diagnostic criteria formulated by the Centre for Disease Control (CDC) (Fukada et al, 1994) in Atlanta, Georgia, or the Oxford (Sharpe et al (1991)) or Australian (Lloyd et al, 1988) criteria. Research thus far has focused primarily on the etiology of the disease from a medical bias debating whether M.E. is a physical or psychological disease (Hyde, Bastien & Jain, 1992; Hickie, Lloyd & Wakefield, 1992). This Cartesian dichotomy between mind and body is presently challenged by the burgeoning evidence from psychoneuroimmunology and clinical hypnotherapy that mind and body should be conceptualised as interreactive, specifically that emotion drives the body (Rossi, 1994). In practical terms the M.E. patient typically is unable to manage home or employment duties for periods from one to three years, sometimes longer. Medical attention is focused on alleviating symptomatology with limited temporary effect; the sparse attention given to psychological programmes in the literature focuses on cognitive behavioural therapy (Sharpe, 1996), but in practice, purely cognitive interventions suitable for depressed patients are generally ineffectual with M.E. sufferers, especially in the initial stages, because of the organic nature of the disease. (Shepherd, 1996).

This research aims to describe a different therapeutic approach to M.E. using the paradigms and power for change of clinical hypnotherapy:

- i) the chief need in the literature is for an effective therapeutic model for intervention and rehabilitation to the highest possible level of function in the shortest possible time based on
- ii) a study which furthers the understanding of interreactive physiological, cognitive and affective aspects of Myalgic Encephalomyelitis which would be useful to both medical personnel and psychologists.

CHAPTER 1.

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CHAPTER ONE.

DIAGNOSTIC ISSUES AND THE NEED FOR A RE-CONCEPTUALISATION OF MYALGIC ENCEPHALOMYELITIS IN TERMS OF PSYCHONEUROIMMUNOLOGY.

1.i <u>Introduction.</u>

The need to review the diagnostic and conceptualisation problems associated with Myalgic Encephalomyelitis (M.E.) arose for this research therapist from practical issues encountered in initial informal therapeutic intervention with more than 50 referred patients diagnosed as suffering from M.E., otherwise known as Chronic Fatigue Syndrome, (CFS), and more disparagingly in common parlance, as "Yuppie Flu". This <u>de facto</u> pilot study group provided valuable qualitative information about the problems and the experience of M.E. by patients which led to formal research on the therapeutic value of hypnotherapy.

1.ii The initial pilot study.

The group studied refers to the first 50 patients with a diagnosis of M.E. referred to this therapist's practice for help and support. The initial referrals came from two specialist physicians with particular interest in M.E. who expressed a sense of frustration for the following reasons:

- * in diagnosing a disease with no laboratory proof of existence, many of their patients had difficulty accepting the diagnosis of M.E.;
- * these patients and their families found it hard to accept the specialist's prescription for complete bedrest, sometimes deemed necessary for months at a time;
- * the patients experienced strong guilt at the effect their illness and incapacitation had on family members and work colleagues, thus failed to follow recommendations.

Further patients were subsequently referred by general practitioners and support

groups because patients needed information and insight in coping with their severe illness.

The therapeutic approach required specific response to patient need at each visit. A pattern began to emerge: initially the chief need was for information and reassurance to calm the high anxiety; then it became recognised that issues changed as the disease progressed. The value of clinical hypnotherapy in meeting these needs was recognised, and a programme evolved gradually based on patient need at each visit and feedback concerning effectiveness, as well as the therapist's personal experience of the disease patterns which stimulated further research.

Initial patient interviews were open-ended and minimally structured in order to afford the patient free expression of his symptoms and concerns. All initial interviews were audiotaped, carefully studied and full records maintained. Qualitative research methods as recommended by Edwards (1995) were used to focus on common symptomatology and then categorise predisposing, precipitating and maintaining factors in the disease as experienced by patients. The categories of interest began to pinpoint diagnostic and other issues which were in turn helpful in refining a therapeutic framework.

Qualitative information from the larger pilot group as well as findings from a smaller formal research group will be discussed in the following chapters.

2. General diagnostic issues with M.E.

In the South African setting, primary difficulties were experienced in each of the 50 cases of the above pilot study (Welch, 1995) by physicians and/or psychologists, as well as patients in accepting a diagnosis of Myalgic Encephalomyelitis (otherwise Chronic Fatigue Syndrome). This was generally because the professionals were either unaware of existing diagnostic criteria, or rejected them as confusing or inadequate: patients thus distrusted the diagnosis. Further there exists more than one set of medical criteria, and none of these covers the full spectrum of the disease process as experienced by the patient. The

following issues concerning diagnosis will therefore be addressed in this article:

- * the inadequacies of current diagnostic criteria;
- *the need for an interreactive paradigm for explaining the mutiplicity of malfunction in M.E.

As stated above, M.E. is considered by some health professionals to be a medical problem, by others psychological. Neither medical nor psychological criteria can currently independently accommodate the condition, nor does either adequately describe the neuropsychological dysfunction which is one of the most distinctive characteristics of the disease. Because medical and psychological diagnostic criteria are presently mutually exclusive, diagnosis of the condition is made reluctantly, and affective therapeutic intervention is not commonly utilised, or, if used, is found by patients to be ineffectual in helping them deal with what they consider to be the most disturbing aspects of the disease (Shepherd, 1996).

3.i Current medical diagnostic problems.

No unequivocal biological marker for M.E. in viral form has been identified to date. Nevertheless the initial barrage of physical symptoms experienced by a patient is generally first diagnosed medically as a discrete physiological disease according to one of three sets of physical diagnostic criteria. The most commonly utilised in South Africa are those revised by the Centre for Disease Control (CDC) of Atlanta, Georgia (Fukada et al, 1994) which will be fully discussed below. The Oxford criteria drawn up by Sharpe et al (1991) are more general in terms of physical symptoms but specify the psychological conditions that should be excluded prior to diagnosis. The Oxford criteria also distinguish between Chronic Fatigue Syndrome (CFS) and Post-infectious fatigue syndrome (PIFS) as a subtype of CFS. Australian researchers use a third set of criteria with added emphasis on cell-mediated immunity (Lloyd et al, 1988).

3.ii <u>The Centre for Disease Control (CDC) Criteria</u> (Fakuda et al 1994). Diagnosis of M.E. according to the CDC criteria, implies:

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Clinically evaluated, unexplained, persistent or relapsing chronic fatigue that is of new or definite onset (has not been lifelong); is not the result of ongoing exertion; is not substantially relieved by rest; and results in substantial reduction in previous levels of occupational, educational and social, or personal activities;

and

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the concurrent occurrence of four or more of the following symptoms, all of which must have persisted or recurred during six or more consecutive months of illness and must not have predated the fatigue:

- * self-reported impairment in short-term memory or concentration severe enough to cause a substantial reduction in previous levels of occupational, educational, social or personal activities;
- * sore throat
- * tender cervical or axillary lymph nodes
- * muscle pain
- * headaches of a new type, pattern or severity
- * unrefreshing sleep
- * post-exertional malaise lasting more than 24 hours
- * multi-joint pain without swelling or redness.

Many of the above symptoms are plainly suggestive of and common to many viral conditions. The CDC criteria cover of neurological symptoms is limited to memory and concentration problems, sleep disturbance, and headaches all of which could also be symptoms of depression. Clearly finer additional diagnostic features should be considered for differential diagnosis.

3.iii <u>Problems of under- or over-diagnosis of M.E.</u>

Spracklen (1988) in the South African Medical Journal (Vol.74 Nov) recommends

exclusion criteria to address the problem of inappropriate diagnosis of M.E. These criteria are too numerous to make extensive laboratory testing viable.

The danger of either over-diagnosis or under-diagnosis is serious; diagnosis of M.E. from medical history alone might not pick up the finer points of difference between this and other diseases with similar symptoms, e.g. Myasthenia Gravis and Addison's Disease. The diagnosis of Myasthenia Gravis was noted as having erroneously been given three times in the above initial pilot sample of 50 patients in lieu of a diagnosis of M.E.: this was because the diagnosis of M.E. was not acceptable to the neurologist. In each case the medication prescribed, Mestinon, had no effect on the M.E. symptoms.

In a bid to overcome the practical difficulties surrounding initial diagnosis, a checklist approach has been found to be useful (Goldstein, 1994). For purposes of this research a checklist was formulated according to the specific physical, emotional and cognitive dysfunctions observed in work with the pilot sample studied (Welch, 1995) and based on the research of Hyde, Bastien & Jain (1992). In addition to covering the broad spectrum of malfunction for diagnostic purposes, the checklist has the advantage of providing a baseline for monitoring results of therapeutic intervention.

As implied above, the problem of accurate diagnosis of M.E. lies partly in the multiplicity of symptoms reported; improving the accuracy of diagnosis appears not to lie in superficial reductionism of the problem areas, as has occurred in the diagnostic criteria currently in use, but in utilising broad qualitative information for the analysis of patterns which themselves may vary according to time factors. Finely accurate but broadly generated medical and psychological observations are of essential value in diagnosing, understanding and dealing therapeutically with M.E.

Unless a broader perspective and meticulous clinical observations are used, the

clinician risks confusing chronic fatigue patients with Chronic Fatigue Syndrome (CFS or M.E.) patients. Chronic fatigue and Chronic Fatigue Syndrome are recognised as two different diagnoses (Manu, Mathew and Lane, 1988a) as pointed outby Dutton (1994). This point will be discussed in section 4.iii.

3.iv Physiological factors in M.E.(/CFS).

Physical symptomatology has been extensively focused on by Hyde (1992), a noted medical practitioner in the field of M.E.: his work is soundly based on findings from more than 6000 M.E. case studies. Hyde states that the disease process of M.E./CFS most similarly imitates a "hit and run" poliomyelitis infection than any known retro-virus. As in most viral diseases, the most florid picture occurs early; Hyde notes that most M.E. patients are only seen when they reach the late recuperation/early chronic stage and most neurological and physical symptoms are subsiding.

Welch (1995) reports that it would seem from working with the comparatively modest pilot sample of 50 M.E. sufferers, that an important factor apparently not frequently considered by many physicians and psychologists is that this long-term disease has different symptomatology depending on the stage at which the patient presents (Hyde, Bastien & Jain, 1992). When making a diagnosis it is unfortunately frequently difficult to be sure how long the disease has lasted: this consideration is important for both accurate diagnosis and specific interventions, which will be discussed in Chapters 4 - 6.

3.v <u>The apparent stages of M.E.</u> (Hyde, 1992).

Initial stage:

There is a dramatic barrage of symptoms taking 3 weeks to 6 months to develop the full symptom picture.

Recuperation Stage: at 7 - 12 months from onset.

This is characterised by a decrease in number and severity of symptoms, and increasing improvement in physical and mental functioning.

Early Chronic Stage: 1-6 years after onset.

This is an adaptation phase with attempts to regain previous level of function. Relapses occur on over-exertion.

Late Chronic Stage: 6yrs from onset onwards.

The patient lives with the disease, vulnerable but trying to avoid relapses.

3.vi The physical symptoms in Stage 1.

The group of symptoms that initially lead the patient to seek help in the initial florid stage according to Hyde (1992) are simultaneously experienced:

Prolonged general fatigue;

Changes in vital signs, e.g. pulse, heart rate, blood pressure;

Changes in temperature and respiratory rate;

Cutaneous signs, e.g. ghastly pallor, cold feet, hair loss;

Cardiovascular changes;

Opthalmalogic problems;

Genito-urinary changes;

Gastro-enteric changes;

Gross chronic muscle fatigue, particularly in calves, thighs, buttocks, arms and legs;

Orthopedic changes.

Supportive analysis of qualitative information obtained from recorded open-ended clinical interviews by Welch (1995), where symptoms were reported by patients without therapist prompting, resulted in the following entries being included on the Welch diagnostic check-list (Welch 1992) used in the formal research project. The following items were spontaneously reported by over 96% of a group of 50 patients most of whom had no previous knowledge of M.E., or very limited knowledge:

* Unexplained prolonged fatigue, especially 6-24 hours after exercise

- * Muscle pain or easy fatigueability and weakness
- * Joint pain
- * Sore throats different from the influenza pattern
- * Swollen glands, particularly at the back and base of the head
- * Severe headaches
- * Low grade fevers
- * Night sweats
- * Digestive problems and nausea
- * Candida problems
- * Vision problems
- * Disturbed sleep patterns.

This range of symptomatology supports Hyde's description and the CDC criteria, and suggests viral involvement, but it only covers a limited aspect of patient malfunction: it does not touch on cognitive malfunction. However repeated observations would suggest that this physiological involvement is the most necessary but not sufficient distinctive diagnostic criterion in distinguishing M.E. from depression or other illness. According to Abbey & Garfinkel (1991),

"Specific abnormalities in muscle metabolism remain as one of the most persuasive arguments in favour of the existence of CFS as a bona fide discrete disease."

Komaroff & Buchwald (1991) note that the pattern of post-exertional malaise, particularly muscle weakness, distinguishes C.F.S. patients from patients with diseases with clinical similarity to it: "although patients are typically active before the onset of the illness which is usually acute, even modest physical exertion after its onset produces a striking exacerbation of many of the symptoms including fatigue, cognitive malfunction, adenopathy, pharyngitis and fevers."

As described previously, medical practioners faced by a patient with an

overwhelming barrage of symptoms, are generally frustrated by being required to treat symptomatology without diagnostic proof of an identified virus or bacteria; further they are unable to provide a complete cure. Bedrest is universally accepted as initially helpful but has practical limitations over time. When medical interventions fail to show results, the dis-ease is commonly concluded by medical practitioners to be psychosomatic and the patient referred to a psychologist, who also has difficulty applying his/her normal diagnostic categories.

- 4. Psychological diagnostic problems.
- 4.i M.E. is not listed in the DSM-4 (1994).

M.E. is not described as a discreet psychological condition according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-4, 1994) which categorises psychological disorders, although there exists a general assumption in the medical and psychological profession that there are psychosomatic factors in the condition. Nor does the symptomatology or pattern of disease of M.E. fit the criteria for other psychological conditions which it is said to mimic, e.g. conversion disorder, or any of the somatoform disorders.

In conversion disorder, while certain elements of classic primary gain (keeping an overwhelming anxiety out of awareness) is arguable though not immediately identifiable, secondary gain (avoiding a noxious activity) is questionable considering the overwhelming physical and cognitive distress suffered over such a lengthy period. Further, the patient has typically enjoyed great success from the activities now no longer possible, and keeps trying to resume the previously very active lifestyle. One of the chief arguments against conversion disorder is the huge barrage of different symptoms experienced, as opposed to the usual single symptom at any one time in conversion disorder, and the M.E. patient's severe anxiety concerning these complaints rather than the lack of shown concern typical in conversion disorder (DSM-4, 1994.)

None of the somatoform disorder diagnoses fit the condition of M.E.:

hypochondriasis is not appropriate because in M.E. there is genuine distortion of bodily functions that can be clinically measured. Somatization disorder would not be applicable for many reasons particularly since the patient has usually had a history of good health up till the declining phase preceding the M.E. symptoms; in addition, even in the few cases where previous health is questionable, there are insufficient of the 13 symptoms required for diagnosis of somatization disorder (DSM-4, 1994).

4.ii Equating M.E. with depression.

M.E. is most commonly equated with "endogenous depression" by psychologists who believe the patient is somatising depression through the symptoms of M.E. It is supposed that this is so particularly when the patient may seem to lack an emotional vocabulary, or when the patient's culture sanctions against the allowability of emotional states like depression (Katon, Kleinman and Rosen, 1982a). Dutton (1992) presents a critical review of the theoretical and empirical studies of the hypothesised relationship between depression and M.E. as studied by Taerk & Gnam (1994), Manu et al (1988a and b), Kreusi, Dale & Straus (1989), Katon et al (in press), and others, as well as the review of the literature by Abbey and Garfinkel (1991). Dutton (1994) discusses the flaws and restrictions of these studies which will not be further discussed here. He presents the Kuhnian view that a blinkered scientific paradigm (i.e.the depression/somatisation paradigm) once established may so direct scientific attention as to obscure significant symptomatological clues to the true etiology of the disease. It is significant that this may also adversely affect intervention in that a therapist may not make essential dictinctions between the dynamics of commonly experienced depression and the dynamics of M.E.

An important study by Hickie et al (1990) compared 48 carefully diagnosed CSF patients with 48 non-endogenously depressed controls selected from psychiatric services. He concluded that:

[&]quot;When compared to non-endogenously depressed controls, our CSF

patients did not have a similar pre-morbid rate of psychiatric disorder, were significantly less neurotic, and when unwell, neither clinically resembled nor had the psychometric profile of the non-endogenous depressive patients seen in psychiatric settings. Our results suggest that CSF patients are no more psychologically disturbed than members of the general population. There is no evidence from our well-defined sample that CFS is a somatic presentation of an underlying psychological disorder. Our study supports the hypothesis that the current psychological symptoms of patients with CFS are a consequence of the disorder rather than evidence of an antecedent vulnerability."

(Hickie et al, 1990).

Qualitative analysis of the interviews with patients in the initial sample of Welch (1995) support the Hickie findings and show that most M.E. patients do not present with symptoms of depression in the initial phase, or with a personal history of depression, or familial histories of "endogenous depression"; they also deny feeling depressed in the initial phase. It must be stated however that from the evidence of the pilot study (Welch, 1995) and this formal study, that denial of stress factors plays a strong role in the M.E. disease process: M.E. patients seem able to have avoided the depression experience up to the disease onset. Dutton (1992) comments that when depression is experienced later in the M.E. illness, this appears to be reactive to the seriousness of the disease rather than endogenous and causative. It is possible that the seriousness of this disease as experienced by patients with no acceptable explanation or prognosis, may itself be sufficient to cause depression. Medical researchers have been accused of making "the fundamental attribution error" (Nisbett and Ross, 1980) whereby effects are erroneously attributed to personality traits because of insufficient understanding of the impact of the illness and its effects on normal family function.

Other types of evidence from the literature over the past seven years further

describe specific differences between the M.E. patient and the depressive indicated by different types of Minnesota Multiphasic Personality Inventory (MMPI) scores, strong differences in motivation, and in terms of differences in psychoneurological functioning (Komaroff & Buchwald, 1991; Iger 1990; Bastien, 1989; de Luca et al (1995) respectively. Technologically observed differences between M.E. and depression using SPECT scans will be discussed later in this chapter when discussing cognitive dysfunction.

4 iii. <u>Distinguishing between chronic fatigue and Chronic Fatigue Syndrome</u> (CFS).

The error of broadly equating M.E. with depression frequently occurs because of a failure to distinguish "chronic fatigue" from "chronic fatigue syndrome" (CFS). Chronic fatigue is simply feeling tired at least half the time for the preceding month, and can follow viral illness, childbirth, or be a symptom of depression: Chronic Fatigue Syndrome is characterised by the very wide constellation of physical, emotional and cognitive symptoms to be discussed which will be seen to be quite different from depression. Understood as discrete conditions, depression and chronic fatigue have strong symptom overlap, but this is not the case with the complex symptomatology of Chronic Fatigue Syndrome.

4.iv Ineffectual psychological interventions in M.E.

Relatively sparse attention is given in the literature to interventions with M.E. patients by psychologists, though discussions of the need for a holistic approach in nursing care has received attention (Berger, 1993; McCain, 1994). The relatively few interventions reported by psychologists appear to focus on a diagnosis of depression and intervention using cognitive behavioural therapy (Sharpe, 1996).

Qualitative information gained in the pilot study from frustrated therapists dealing with early stage M.E., and even more frustrated patients, confirms that used too early, or used alone, the physical symptoms of M.E. typically fail to respond to cognitive behavioural therapy; this appears to indicate that therapy usually useful for depression is inadequate for M.E. (Shepherd, 1996), especially in the initial

stage, though cognitive restructuring clearly has its place in the therapeutic repertoire at a later stage. Qualitative analysis of M.E. patients' reports on failed therapeutic intervention indicate over 95% (Welch, 1995) believe the therapist is not in tune with their suffering when he treats the case as depression because this fails to touch the organicnature of the symptomatology. Furthermore in the early stages a patient is simply unable to concentrate on, or follow any line of reasoning. The most alarming therapeutic mistakes are also made when exercise to counteract depression is recommended by a therapist at a time when muscle function cannot accommodate this; in this case muscular problems and all other physical symptoms intensify; this is not the case with people suffering from major depression.

4.v Anxiety factors in M.E.

In grappling with the affective factors of M.E. it appeared from qualitative analysis of patient reports that the focus should be turned from depression to patient anxiety: inappropriate focus on depression may account for the poor success rate in dealing psychologically with M.E. Over 95% of M.E. patients in the informal sample of 50 presented with high anxiety in the initial florid stage and also denied feeling depressed prior to their illness. This representation was reflected in the high anxiety yet mild depression ratings obtained from questionnaires used with the original pilot sample, as well as similar scores obtained in Stage 1 patients in the formal study (See Appendix). A pattern of increasing long-term life pressures, high drive, over-extension and exhaustion, preceding deterioration to the physically manifested disease of M.E. was repetitive. The patient typically seen especially in the initial florid stage, is hyperactive, unable to disengage from excessive activity and a pressurised lifestyle, and highly threatened by the severity of malfunction which may force this withdrawal. A close examination of the anxiety dynamics of the pilot sample gathered over time revealed:

- * personal high performance expectation and subsequent high anxiety (96%) in view of the presenting cognitive malfunction;
- * anxieties about relationships and fear of judgement in the home or workplace especially now in the ill state;

* a tendency to high separation anxiety, also exacerbated by circumstances.

Qualitative analysis of the above anxiety issues as found in the informal sample would suggest that identity and relationship is so challenged by the impact of the illness, especially by the sudden experience of immense helplessness, that the regression typical in any severe illness is intensified. Dependency issues come into full focus. The disruption of self-object ties as the patient loses touch with his recognisable and recognised self through the limitations of the disease is in itself a source of high anxiety: the patient must grapple with "Who am I?". Berger (1993) also discusses this issue. Object relations receive full focus as a result of the disease impact. It appears that perhaps longstanding dissatisfactions or insecurities in relationships have been manageable within the personality structure until the onslaught of the disease and the disablement of self. It is the longstanding anxiety and the drive to assert the value of self that may have depleted the immune system over time resulting in non-defence against the disease and the ensuing complex of physiological and emotional distress. It is apparent from observations that anxiety is thus both a primary pre-M.E. condition as well as secondary to the disease.

Taerk and Gnam (1994) have proposed that early object relations have an etiologic relationship to M.E.: this does not answer the question of why the issues suddenly erupt into significance in previously apparently well-adjusted people. Further, the welter of physiological and cognitive malfunction is not mentioned in this study. This leads one to question whether the initial diagnosis of M.E. followed the rigorous pattern desirable for confident diagnosis, or whether there was a confusion between chronic fatigue and chronic fatigue syndrome.

In the pilot sample (Welch, 1995) it was certainly found useful to explore early object relations issues as the key to understanding the seeding of present vulnerabilities concerning threatened relationships and performance anxieties. Pragmatically more important however was the need to restore a sense of control in reaffirming a central and valid identity despite the impact of the illness, and the

enhancement of unquenchable strengths. The effectiveness of the techniques of clinical hypnotherapy in this regard will be discussed fully in the three case studies described in Chapters 4 -6.

5. Cognitive diagnostic issues.

5.i Central Nervous System (CNS) dysfunction.

On presentation, the M.E. patient is generally far more concerned about, and focused on, the incapacitating degree of physical malfunction and the even more alarming degree of cognitive dysfunction experienced, than he is about either being anxious or depressed. It is hypothesised that the cognitive problems are so gross and distinctive that they should become integral to diagnosis of the disease, and essential in discriminating M.E. from endogenous or reactive depression as defined in the DSM-4 criteria: such a focus is also essential for effective therapeutic intervention.

Malfunction is usually so severe that the patient frequently fears a brain tumour may be diagnosed: this malfunction is different from and far more incapacitating than the poor concentration or indecisiveness of major depression. In neuropsychological terms it is accepted that anxiety and depression do affect cognitive processing, not only in terms of motivation as already discussed, but also in terms of attention, speed of processing, memory, and problem solving (Damon, 1986). However the typical far more extensive florid spectrum of malfunction in M.E. is distinctive not only in patient report but as shown by technological devices.

Hyde (1992) identifies the primary cause of disability in the M.E. disease process as an acquired central nervous system dysfunction. This is seen to be a chronic change in the ability of the CNS to process with any dependability, the functions of reception, interpretation, storage and recovery of information, or to programme dependable, normal smooth end-organ response. In 1992, Hyde hypothesised that physiological encephalopathy existed in several of the cortical areas responsible for motor, sensory, cognitive and emotional function; SPECT scans have since been

used extensively in the U.S.A., and in this formal study by Welch (to be discussed in later chapters) to demonstrate low blood perfusion in these areas.

Hyde (1992) states that those deeper levels of CNS function responsible for the co-ordination of function of the major brain areas, and also hormonal function and at times rational value judgement may also be physiologically injured. In particular Hyde believes that there is evidence of sub-cortical injury to the hypothalamic-pituitary end organ axis and also to the limbic system, that area responsible for co-ordination of so many CNS functions and for emotional responses.

5.ii Specific acquired cognitive dysfunction symptomatology.

The following distressing and distinctive profile of dysfunction is usually experienced as one of the most ominous aspects of M.E. by the patient:

- * Dramatically decreased mental energy and concentration;
- * Receptive and expressive dysphasia;
- * Dysfunction of reading comprehension and sequencing, visual discrimination, visual and auditory memory, spatial orientation;
- * Temporary or more permanent loss of verbal and performance I.Q.;
- * Volition dysfunction;
- * Sensory Dysfunction, including tactile, pain, auditory and visual discrimination, and proprioceptive dysfunction;
- * Motor Dysfunction.
- * Seizure activity
- * Hypnagogic dysfunction
- * Sleep and dream disorders
- * Amnesias
- * Emotional dysfunction (Hyde & Jain, 1992)

The similarities of dysfunction, despite the gross differences in degree, between

M.E. and the far milder cognitive processing disability of Attention Deficit Disorder (ADD), is striking. It was of interest to note that over 50% of the subjects in the pilot sample had either personally suffered from ADD or had a family history of the disorder. This raises the possibility that certain thinking styles may be implicated as predisposing variables. This point will be further discussed in Chapter 7.

5.iii Neuropsychological and endocrine system dysfunction.

Several investigators have commented that endocrine and circulatory dysfunction appears to be implicit in the above general dysfunction experienced by the patient (Richardson, 1989).

The following hormonal systems are believed to be physiologically dysfunctional: fluid balance; thyroid stimulating hormone; sexual stimulating hormones; and natural killer cell production (Hyde & Jain, 1992). The fact that this overload of symptomatology is affecting both body and brain function in patients with no previous history of such neurological or endocrine malfunction suggests some extreme impact on the hypothalamic region. Demitrack et al (1994) were amongst the first to discuss the evidence for a disease of the hypothalamic-pituitary-adrenal axis.

Three years later Goldstein (1994) made a particularly strong case for viewing M.E. as a limbic encephalopathy within a disregulated neuroimmune network in genetically predisposed individuals. He believes that most of the symptoms of CFS/M.E. are transduced though the limbic system and can be explained on the basis of disorder of the neuroimmune network. Goldstein hypothesises that the receptors of the limbic system may become inflamed by one of the paraneoplastic encephalomyelitides in cases of M.E., in the same way as the herpes simplex virus-1 can cause sub-clinical infection in the viral receptors in the medial temporal lobe.

He hypothesises that a latent infection or predisposition may be triggered by a

number of possible stimuli: viral, traumatic, post-surgical, toxic, childbirth or severe emotional stress. Any of these stimuli may destabilise the immune system and disregulate the central nervous system, particularly the temperolimbic area. He states that the central fatigue is thus central not peripheral. The hypothalamus which orchestrates the function of the limbic system though neural and hormonal mechanisms, is known to control basal temperature, metabolic rate, autonomic tone, sexual phases, circadian rhythms, immunoregulation and electrolyte balance, i.e. it maintains the body's internal homeostasis which is clearly disturbed by M.E.

The limbic system also mediates both affective and cognitive processes as sensory input from the environment, including the emotional environment, is carried via the paraganglion neurons in the spinal cord and lower brain stem to the limbic area for interpretation and utilisation. Neuropharmacologic agents used generally for the treatment of irritability, panic attacks and other affective disorders are know to target receptors which are more prolific in the limbic system than anywhere else in the brain.

Much information about limbic system function comes from the study of patients with temperolimbic epilepsy (Goldstein, 1994): they show many symptoms in common with M.E. patients. In temperolimbic epilepsy patients, stimulation of the temperolimbic area with an electrode seems to indicate the presence of fatigue receptors in the medial temporal lobe.

Goldstein details the common symptoms of M.E. which he believes are explicable in terms of limbic system dysfunction:

high fatigue;

malfunction of medial-temporal lobe receptors;

fibromyalgia:

disruption of endogenous opoid receptors in

insular and paralimbic areas, and malfunctional projections from limbic

structures to the periacqueductal grey

area of the midbrain tegmentum (part of

the limbic structure).

poor immunoregulation: inflammation of amygdala,

hippocampus, septum and hypothalamus

which alters lymphoid cell number and activation.

sleep disturbances: dist

disregulation of the anterior

hypothalumus and the diagonal band of

Broca, a septal nucleus;

balance disorders:

disturbance of the superior and

posterior temporal lobe responsive to

vestibular stimulation,

tinnitus:

disturbance of connections from the

temporal lobe to the cochlea;

alcohol intolerance

inhibition of NMDA(N-methyl-D-

aspartate receptor activation in

hippocampal neurons;

nasal allergies:

retrograde axonal transport of

mediators secreted by nasal mucosa

into the piriform cortex;

excessive sensitivity to odours: dysregulation of the

piriform cortex

digestive sensitivity:

abnormal reaction of limbic system

to insulin, certain peptides and

amino-acids.

{increased PMS;

disturbance of limbic system where the

{ovarian cysts

highest concentration of estrogen,

{endometriosis

progesterone & metabolites occurs.

{decreased libido

{abnormal temperature control:

all explicable in terms of

{hypesthesias and dyesthesias

limbic encephalopathy

{irritable bowel

in Goldstein's view.

{cardiac arrythmias.

Apart from the seemingly incontrovertible involvement of the limbic system, temporal lobe dysfunction can be hypothesised to be affected in view of the cognitive dysfunction experienced. Poor processing of language as experienced by M.E. patients, e.g. difficulty with word-finding, comprehension of words, auditory memory, spelling, computational skills, clearly implicates the temporal lobes especially at the complex associational level. Furthermore neurological loops such as the Circuit of Papez are known to mediate the areas responsible for both memory and emotion.

5.iv Supportive technological studies.

Studies by Prasher & Findlay (1992) of EEG patterns in M.E. patients showed deficiencies in cognitive processing, e.g. absent or significantly delayed endogenous event-related P-3 potential in a sample of M.E. patients as distinct from Multiple Schlerosis (M.S.) controls. The focus in this study was on the quality of cognitive dysfunction rather than on etiological issues. The researchers compared sensory and cognitive event-related potentials for the two groups. The sensory potentials of the visual, auditory brainstem and median nerve somatosensory systems were found to be unaffected in the M.E. patients, unlike the abnormalities evoked in the M.S. testing. In contrast to those normal sensory potentials in M.E. patients, the authors claim clear evidence from their study that endogenous event-related potential, P3, was either significantly delayed or so diminished as to be labelled as "P3 absent" in the M.E. patients, indicating minimal auditory information processing in the M.E. patients. The psychological processes studied by Prasher & Findlay (1992) required the encoding of stimulus features, the detection of relevant signal by comparison with memory, and execution of response, i.e. attention, stimulus evaluation and memory. The amplitude of P3 also provided an indication of attentional capacity devoted to the task, and could be used to measure speed of target detection. Prasher & Findlay also note that five other studies have confirmed that P3 is normal in patients with depression. It is unfortunate that the above study did not include depressed patients in the sample to provide further comparitive information. Supportive SPECT brain scans would also have strengthened the

findings.

The above information concerning decreased P3 amplitude in M.E. patients is of particular interest in view of the research by Spiegel et al (1985) on the potential of hypnotic suggestion, which is used in the proposed Welch hypnotherapy programme of rehabilitation, to raise (or otherwise alter) evoked potentials.

Information about lowered metabolic blood flow in specific brain regions as seen in Single Photon Emission Computed Tomography (SPECT) brain scans may offer the most convincing technical information about the degree of cognitive dysfunction in M.E. and its differences from depression. Since 1992, QEEG/BEAM scans have been used to investigate the specific abnormalities of M.E. at QSI Medical Corporation;, PET and SPECT scans were used by Lottenberg (1991) at University of California at Irvine. HMPAO SPECT scan investigation by Goldberg & Mena (1992) at UCLA Harbor, California, Hyde & Leveille at Hotel Dieu Hospital in Montreal are credited by editors Hyde, Goldstein & Levine (1992): Schwartz et al (1994) at Brigham and Women's Hospital, Boston, also used SPECT scans to compare M.E. abnormalities with other conditions. Mena & Villaneuva-Meyer (1992) have discussed the detail of patterns of cerebral perfusion illustrated by neuroSPECT in M.E. patients.

An interesting study by Ichise et al, (1992), used HMPAO SPECT scans to show dysfunctional patterns in M.E. patients, both in the resting state and particularly after exercise. In this study, compared with the normal controls, the M.E. group showed significantly lower cortical/cerebellar rCBF ratios throughout multiple regions (p<0.05). The major cerebral regions involved were frontal (63% of M.E. patients) temporal (35%) parietal (53%) and occipital lobes (38%) the rCBF ratios of basal ganglia (40%0) were also reduced.

Details of the brain SPECT scan findings in this study, and their significance will be discussed in Chapter 7. In summary it should be noted that the information

obtained in observed dysfunction and quantification of dysfunction from SPECT brain scans demonstrates neuro-psychologically the lowered functional capacity and decreased perfusion levels apparently responsible for co-existent physiological, cognitive and emotional abnormalities in M.E. patients. Supportive evidence of neurological pathology in M.E. patients has been confirmed by neuropsychometric testing (Bastien, 1992). In her carefully constituted sample, Bastien found a distinctive pattern of low performance on the Wechsler Memory Scale as well as deterioration of I.Q. levels, cognitive and motor dysfunction; neurologic abnormalities were noted on clinical evaluation, MRI scans and neuropsychometric testing. The focal and lateral impairments could not be explained by anxiety or depression alone. (Bastien, 1992).

6. The need for a paradigm to link emotional, physical and cognitive factors. It is clear that recognition of the distinctive observable symptoms of physical and cognitive distress must form the basis of diagnosis of M.E. The emotional features of high anxiety and later reactive depression are as significant but less easily distinguishable from other conditions on presentation. We are challenged by the Cartesian reductionism and linear thinking of an either physical or emotional diagnosis system: effective rehabilitation of the patient in particular needs to be based on an inclusive, interreactive paradigm which also accounts for neurological processing mechanisms. There also needs to be focus on the process of the development and course of M.E. for effective intervention.

6.i The concepts of psychoneuroimmunology.

These concepts are not new to science, but it seems have not been sufficiently applied to the disease of M.E. In 1977 Bower (quoted in Rossi, 1994) hypothesised a more widespread reconceptualisation and interpretation of how mind and body interreact:

"We need a new formulation of this ancient problem, one that does not pre-suppose a formidable gap between the separate realities of mind and body. The entire human body can be viewed as an interlocking network of informational systems - genetic, immunological, hormonal, and so on. These systems each have their own codes, and the transmission of information between systems requires some sort of transducer that allows the code of one system, genetic, say, to be translated into the code of another system - for example, immunological."

(Bower, 1977.)

Following this thinking, Rossi (1994) formulated a theory in neurological terms, called the Transduction of Information. The rehabilitation work to be discussed in later chapters has been grounded in this theory, not only because of its usefulness conceptually in the diagnosis of M.E. but also because of the implications for rehabilitation using clinical hypnotherapy which is used in the formal study to be discussed.

(See the diagram by Rossi, E.L. (1994) included as an appendix.)

6.ii The Rossi paradigm.

Rossi (1994) explains how words, images and emotions are picked up by the body's sensory mechanisms and registered as neural impulses in the cortex. The signal is transduced into hormones at the limbic-hypothalamic-pituitary level in the basal brain, and sent throughout the body to be picked up at receptor sites on all body cells. Once picked up by a cell, the secondary messengers within the cell transmit the messages to the nucleus, where certain genes express themselves by turning on or turning off their messenger ribonucleic acid (mRNA). Appropriate parts of the genetic code are transduced into mRNA which guides the formation of proteins responsible for the formation of cell structure, as well as other enzymes which regulate energy production, informational systems, growth and healing mechanisms.

An interruption of normal energy production is clearly occurring in M.E. It also

follows that information in memory about a subject's personal stress responses could be re-activated in later similar circumstances, thus explaining habitual psychosomatic symptomatology. (Rossi, 1994).

Diagram 1 (Rossi, 1994) shows how the messenger-molecule receptor system and the classical nervous system operate closely together with most of the organ systems of mind and body. Many of the physiological symptoms of M.E as described by Hyde (1992) are recognisable as stress responses in the Rossi figure (1994). The cognitive distress discussed by Goldstein (1992) is absent, though Rossi further states:

"Theoretically all organs of the autonomic nervous system may be subject to the state dependent encoding of stress and traumatically induced dysfunctions that may be accessed and healed by hypnotherapy."

(Rossi, 1994, p7).

6.iii Supportive psychoneurological research.

A plethora of research in the 1990s supports the hypothesis of the interreaction of emotion, mind and body as could be useful for conceptualising the dis-ease of M.E. Significant to this study:

Bergsma (1994) discusses the interlocking mechanisms of nervous and endocrine systems with the immune system as being significantly influenced by certain behaviours especially psychic or psychosocial stress;

Cacioppo's findings (1994) focus on two factors significant in the M.E, process: acute psychological stressors activate the sympathetic adrenomedullary system across individuals and affect immune function; individuals characterised by high sympathetic cardiac reactivity to acute psychological stressors also show a relative activation of the hypothalamic pituitary adrenocortical system and altered immune function.

Biondi et al (1994) working with a sample of healthy subjects, moved beyond this to test the specific correlation between impact of stress on certain components of the immune system as emotional status varied. Their endocrine evaluation focused on prolactin, cortisol and growth hormone plasma levels; the immunological evaluation assessed T4, T8 and T11 lymphocyte percentages as well as natural killer cell count and activity, all essential features of an efficient immune response; personality and emotional state was assessed using the MMPI, anxiety measures, coping styles and stress impact scales. On retesting after 8 months, characteristics of subtle defensiveness reduction and increased social introversion (suggesting discomforture in the subject) were accompanied by T11 lymphocyte percentage reduction: a positive correlation also existed between prolactin and T4 lymphocyte percentage.

Ballieux (1994) focuses on the fact that stress-induced brain mediated immunoregulation is affected by two outflow pathways: autonomic outflow and neuro-endocrine outflow. He discusses the implications of the interaction effects of chronic and acute stress: this information may provide the clue as to why long-term stress suddenly becomes intolerable as an acute stressor adds its weight. Data also exists to show that the immune system produces neuro-peptides and hormones which release cytokines to keep the brain informed of the status of the immune system activity. Conditioning of the immune system responses has been found to be a significant feature to be understood by the therapist in attempts at rehabilitation in cases of M.E.

6.iv <u>Integrational concepts and implications for intervention.</u>

The theory of Rossi (1994) was concerned with illustrating the emergence of physical symptoms in psychosomatic disease as the result of stress through mind-gene communication. The above studies by Bergsma (1994), Cacioppo (1994), Biondi et al (1994) and Ballieux (1994) further illustrate the effect of stress on the hypothalamic-pituitary- adrenocortical system which in turn has repercussions on the immune system. Is there any connection between the careful descriptions and concepts of Hyde (1992) and Goldstein (1992) of the malfunctions observable in M.E., and the general view taken by Rossi (1994) of interreactive

mechanisms relevant to any psychosomatic disease?

It should be remembered that it is not established, nor necessarily likely, that M.E. is a purely psychosomatic disease, though there are certainly psychosomatic factors. If one considers the interreactive process discussed by Rossi (1994) and the researchers above, and abandons a linear etiological view, it is suggested that Rossi simply looks at the M.E. picture at an earlier stage of the dis-ease where affective factors cause the initial imbalance in the endocrine-immune system. Goldstein (1992) is looking at a later stage where a virus is hypothesised to impact on a disturbed immunoregulatory system. The two views could be seen as synergistic rather than contradictory. According to Rossi's model, once disturbed, the malfunctional limbic system in M.E. cases could produce a good deal of the complex physical and cognitive symptomatology already discussed. This does not discount the additional presence of a long-term virus, allowed into the body by a weak immune system which would account for the remaining symptomatology. This would make the virus an additional and distinctive interreactive variable in the disease process. This possibility will be addressed later in discussion of the results of this formal study.

Whether a distinctive viral marker will be found to exist in M.E. remains to be seen (Phillips, 1992). From the rehabilitation perspective the identification of an encephalytic virus seems in any case to be of less importance than the a-priori task of reducing anxiety and stress in order to restore balance to the hypothalamic-pituitary-endocrine system, thereby both reducing psychosomatic symptomatology and strengthening the immune system to deal with possible viral as well as affective assault. This increases the patient's confidence to deal with physical relapses as friendly warnings of imbalance in his system caused by stress.

The challenge for the therapist in accepting an interreactive mechanism is to study the process in the patient so as to be able to intervene to stop negative energy flow. Hypnotherapy is undeniably a most powerful intervention tool for the purpose. The hypnotherapist is able with patient trust and consent to stimulate the patient's field of emotional energy to utilise stored affective, cognitive and physical memories in order restore a healthier balance. This calls for active patient involvement and responsibility, so that toxic emotional and environmental elements can be identified effectively. This would imply working with sources of ongoing pain, changing cognitive misperceptions and making lifestyle changes where appropriate. The ongoing objective is to offer support while gradually encouraging the patient to resume control of his physical, emotional and cognitive balance.

<u>CHAPTER 1</u> BIBLIOGRAPHY

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CHAPTER TWO

<u>INDEX</u>

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CHAPTER TWO

JUSTIFICATION FOR THE USE OF CLINICAL HYPNOTHERAPY IN M.E.

1. Introduction.

It is important to recognise the theoretical basis which leads to an understanding of why clinical hypnotherapy is especially effective in cases of Myalgic Encephalomyelitis (M.E., or alternatively referred to as Chronic Fatigue Syndrome, i.e. CFS). It is also important to consider the neurological process of hypnosis and therefore its potential for meeting the type of needs patients generally experience in the M.E. disease process. Discussion concerning specific individual affective needs, therapist- patient interaction, and styles of hypnotic technique found useful at different stages of the M.E. disease process will be considered in Chapters 4 - 6.

1.i Definition of hypnosis.

Barber (1994) provides a particularly cogent definition of hypnosis, although he does state that the term hypnosis may mean different things to different people:

"Hypnosis is an altered state of consciousness in which the subject's imagination creates vivid reality from suggestions offered by someone else, by suggestions inferred by environmental cues, or by suggestions initiated by the individual her/himself. This condition allows individuals to be inordinately responsive to such suggestions, so that they are able to alter perceptions, memory and physiological processes, which under ordinary conditions, are not susceptible to conscious control. Hypnosis is a special condition that, for most people, is not a common, everyday occurrence. It might be related to, but is not the same as, reverie or inattentiveness. ... To account for the

effect of suggestions we need to attend to:

- 1) the salutary effect of the subjective experience of the hypnotic state or condition, and
- 2) the healing power of the hypnotherapeutic relationship.

 By understanding the interaction of these two factors, we may understand the phenomenon of hypnosis and its nature as a healing

influence."

(Barber, 1994: 255).

1.ii Multilevel M.E. symptomatology begs multilevel intervention.

Extensive attention was given in Chapter 1 to the malfunction of endocrine and neuropsychological systems known to occur in Myalgic Encephalomyelitis (M.E.). It was argued that psychological and/or physiological stress, and an ongoing high state of central nervous system stimulation have led to immunologic change through the mechanism of hypothalamic-pituitary hormonal upset: whether a viral factor is also present in M.E. or not, there is a psychosomatic aspect to the disease.

The symptoms of disease as experienced by the patient in Stage 1 were fully described in Chapter 1: they spanned a flurry of alarming physiological symptoms including disabling muscle fatigue and low energy, as well as extensive cognitive dysfunction and emotional distress in the form of high anxiety and hyperactivity: these symptoms were found to differ from those found in depression. (See Chapter 1).

Inescapable shock at the impact of the illness, as well as ongoing stress over a multitude of physical, emotional and cognitive discomforts, is experienced by the patient on many levels concurrently: cognitively as helplessness, emotionally as despair, neurochemically as catecholamine depletion and endocrinologically as increased corticosteroid production resulting in lowered immune response.

In therapy a challenge to this multiple level impact is needed. As discussed in Chapter 1, attempting to change cognitions on the conscious level only is totally ineffectual at Stage 1 of the M.E. disease process, partly because reasoning does not comfort the patient's physical distress, partly because concentration is so severely affected that comprehension is inadequate. Similarly, although certain drugs, noteably lilyfluoxetane, are helpful to a degree in the later stages of the illness in improving focus, they cannot be relied on to keep at bay the discomfort of physicalsymptoms or totally eradicate cognitive dysfunction in the initial stages. As stage follows stage in this long-term illness, even as partial healing occurs, the constant reactivation of the M.E. syndrome suggests a process which is failing to respond to normal physiological healing mechanisms either because the patient's wider internal or external environment remains toxic, or because of an ongoing sensitised reaction to a specific physiological or emotional stressor, or all of these.

1 iii The challenges of intervention.

It appears that therapeutic intervention with M.E. patients needs to be able to:

- *provide relief from the distressing symptomatology;
- *to regulate a dysfunctional system if possible at source so as to facilitate natural healing;
- *to reach the ongoing source of distress that provides the negative charge producing ongoing stress;
- *to interrupt the cell memory chain of a recurrent process which holds together the M.E. condition;
- *to reframe the disorder so that the patient can begin to feel a sense of control.

 Clinical hypnosis is hypothesised to be useful in all these areas.

1.iv Claims concerning hypnosis to be discussed.

The following general claims are made about hypnosis:

* hypnosis is a state of arousal different from normal consciousness in which limbic-hypothalamic involvement is central;

-]
- * hypnosis induces a state of suggestibility in a willing patient in which there is a permitted suspension of critical judgment and an increased openness to alternative suggestion; in this state of focused concentration, physical changes can occur as the result of accepted suggestion from the therapist and ideoplastic activation by the patient;
- * hypnosis is a state of consciousness in which cell and emotional memory may be accessed;
- * psychosomatic aspects of disease are state-dependent: the limbic-hypothalamic region plays a central role in processing, encoding and recalling body memory formed in aroused, stressful circumstances; such memories can be accessed, utilised and reframed in hypnosis;
- * a desirable state and sense of internal balance can be learned by the patient and experienced as physical, emotional and cognitive comfort.

These claims and their usefulness in addressing M.E. will be addressed in this chapter.

2. The neurological mechanisms of hypnosis

Copious qualitative anecdotal information is available attesting to physiological changes in particular cases of psychosomatic illness attributed to hypnotic intervention. However it seems useful to examine the neurological mechanisms which occur in hypnosis that are thought to be particularly useful in inducing psycho-neuro-physiological changes in the M.E. patient.

Spiegel & Spiegel (1987) define hypnosis as being at one extreme of a continuum of attention, involving an enhancement in focal concentration with a relative suspension of peripheral awareness: the three components of this focused concentration they define as absorption (i.e. full involvement in a perceptive, imaginative or ideational experience), dissociation (mental separation of components of experience that would normally be processed together) and suggestibility (a willing suspension of critical judgment leading to heightened responsiveness to

available cues).

2.i Electroencephalographic studies.

This area of investigation into hypnosis has long shown specific changes in the electrical activity of the brain that distinguish hypnosis from wakefulness (Barber, 1969; Zanocco, 1970; Spiegel, 1991& Crawford, 1994). Vogel, Broverman & Kleiber (1968) quoted in Barber (1994) focused on slow theta waves occuring in hypnosis. They distinguished two classes of theta wave inhibition: Class 1 low voltage theta, associated with general inactivity, drowsiness and sleep, and higher amplitude Class 11 theta inhibition which represents a selective inactivation of particular responses so that a continuing excitatory state becomes directed or patterned as in focused attention. Both these classes of theta waves are useful to the healing process in M.E. in different ways.

Aladzhalova et al (1976) discarded classical E.E.G. techniques as insufficiently sensitive to record sufficient detail about the delicate changes occurring cortically in hypnosis: this team began to use a different bioelectrical index of brain activity, the very slow brain potentials (VSBP) which they believed could better illustrate functional changes in the state of the brain during hypnosis. VSBP activity has been shown to be connected with higher nervous activity of the hippocampus and the amygdala in humans and animals; both of these areas are known to be strongly affected in the M.E. disease process as shown by the symptomatology of patients as discussed in Chapter 1. VSBP activity has also been shown to have a special role in the processes of regulation of the functional state of the brain structure (Aladzhalova, 1976). It is therefore hypothesised that if the hippocampal function can be regularised through the use of hypnosis, healing may be aided.

Aladzhalova was able to show decasecond waves of potential reflecting a special functional state of the brain making it receptive to hypnotic suggestion. VSBP are subdivided by their periodicity into second, decasecond, minute, decaminute and hour units of measurement. Brain changes from somnolence to deep hypnosis were shown to occur as a sudden dip in the brain wave

pattern, further characterised by changes in duration of the VSBPs until the appearance of a relatively stable stage of decasecond rhythms which increased in intensity during a suggested hallucination.

2.ii <u>Increased amplitudes of cortical event-related potentials.</u>

Amplitude increases in brain waves have been especially revealing in the understanding of hypnosis (Spiegel, 1991). In the study by Barabatz & Lonsdale (1983), analyses of variance of the P3 showed significant induced amplitude increases for weak and strong odours for highly hypnotisable subjects in hypnosis: these were not raised in the waking state. This finding is also significant in its application to M.E.: in Chapter 1 there was focus on the finding that P3 potential was so significantly decreased as to be virtually absent in M.E. patients. In the Barabatz & Lonsdale (1983) study, late components of evoked potentials correlated with attentional changes in response to the hypnotist's suggestions; the increased cortical arousal was assumed to be filtering out incoming messages not to be admitted to full awareness. Barabatz & Lonsdale conclude that the hypnotic subjects appeared to be engaged in cognitive manoeuvres to alter the recognition of environmental stimuli.

2.iii Areas of brain-wave activity involved in hypnosis.

Aladzhalova (1976) found VSBP activity occurred most frequently in the temporal lobes, particularly the right. Arnolds et al(1980) focused particularly on enhanced theta bursts in the hippocampus when a patient was concentrating. Crawford, Pibram et al (1992; 1994) have evidence to implicate the far frontal cortex in regulating the limbic system in the active gating of incoming sensory stimuli, i.e. in increasing the efficiency of focusing attention. It is also significant that this fronto-limbic attentional system is involved in modulating emotionality and comfort-discomfort (Pibram, 1991).

De Benedittus & Sironi (1998) postulated that hypnotic behaviour is mediated at least in part by a dynamic balance of antagonising effects of discrete limbic structures - the amygdala and the

hippocampus, and that the trance state is associated with hippocampal activity, concommitant with a partial inhibition of amygdaloid function. The limbic-hypothalamic dysfunction evident in psychoneurological testing of M.E. patients has been fully discussed in Chapter 1. Again it is hypothesised that if these areas are out of balance in the disease process, attempts to regulate the balance using hypnotherapy are likely to be beneficial. Whether this is done is the challenge for the hypnotherapist.

2.iv Cognitive processing style in hypnosis.

Apart from the brain structures known to respond in hypnosis, the process of clinical hypnotherapy accesses predominantly right brain processing style which differs from predominantly left brain processing used in most academic type learning. In discussing hemispheric function in the brain, it is known that neither hemisphere is mutually exclusive of the other in normal circumstances (Lezac, 1983). The theory of equipotentiality of brain hemispheres does not override the fact however that each hemisphere appears to specialise in dealing with different types of stimuli: the left is logical, analytic, and sequential, and most suited to word processing and verbal argument, while the right is suited to the holistic, integrative processing of matter which is spatially, pictorially or sensorially related. Fortunately right-brain processing is less seriously affected generally in cases of M.E. than left brain and frontal lobe processing which requires language processing and sustained long term focus and concentration which is difficult for M.E. patients. Thus the right brain processes targeted by hypnosis can be more readily used by the therapist for healing purposes.

3. Change possible through hypnosis.

3.i The tool of imagery.

Of particular interest in hypnotherapy is the fact that the right hemisphere is known to be largely responsible for processing imagery. Lezac (1983) discusses in psychoneurological terms how right hemisphere damage affects visualisation, visual imagery, dreaming and visual memory (Lezac, 1983). The vast majority of other research supports the finding that the right hemisphere is the predominant hemisphere in imagery processing (Sheik, 1984) with strong implications for psychotherapy by all schools. In M.E. it has been postulated that ongoing anxiety or fear

concerning some conscious or unconscious threat can indirectly or directly provide a long-term drain on the immune system, which leaves it vulnerable to disease. Emotional experience is retrievable when accessed as visual imagery. In hypnosis which focuses on right brain processing, the therapist can access stored memory through imagery in order to diffuse the power of the anxieties to cause distress. Wilson & Barber (1983) make it clear that imagery is more than pictorial impressions: they suggest that images should be understood as "propositional constructs", i.e. symbolic descriptions which are conceptual in nature. They might be described as "thinking blocks" which guide perceptions. If the concepts are negative in nature, the threat to the system results in the neurochemical stress response, which when it becomes pathological can become destructive. The clinical hypnotherapist can intervene to help the patient replace the negative charge with a more positive emotional energy.

Sheik (1984) notes that the objective of any psychotherapist is in any case to attempt to access and decode the right brain store of negative emotional perceptions and entrain a more suitable right hemispheric environment: this process can be most easily accomplished at the sub-conscious level through hypnosis rather than on the conscious level where defence mechanisms are strongest or the material unavailable.

Through imagery, the hypnotherapist aims first to retrieve dissociated material which is active but not fully recognised as destructive by the patient. By utilising imagery and suggestion it is possible to stimulate new associations in memory and to encourage reconnections. Using hypnosis in M.E. cases has its own particular problems of technique which will be discussed in detail in a later chapter. Suffice it to say that the therapist is usually required to create imagery focusing on sensory factors rather than auditory information since left brain processing mechanisms are less strong than normal. In the M.E. patient one is also concerned not only with personally painful memories carrying a negative charge, but also with body memory of the unpleasant disease symptomatology. By using imagery and visualisation, the therapist can help the patient to reconceptualise the meaning of the dis-ease and the symptoms for him, reframe his attitude to the symptoms, thus decreasing the power of the symptoms over him and increasing

his sense of control over the symptoms. The therapist is further able to train the patient to engage this new sort of processing at will, in order to engage a trophotrophic system in preference to an ergotropic one, as will be discussed in detail below. Specific therapeutic techniques and interventions useful at different stages of M.E. will be discussed in later chapters.

3.ii Neurological changes by through suggested imagery.

Early work by Wink (1961) demonstrated that electrical stimulation of the right hemisphere, such as is produced when engaging in imagery, elevates cerebrospinal fluid levels of serotonin metabolites, the body's natural soothing agents: left hemisphere activation on the other hand led to increased levels of norephinephrine and dopamine metabolites involved in the pattern of immunosuppression and the vulnerability to disease discussed above. Sheik (1984) postulated that if the relationship between the hemispheres is generally one of reciprocal inhibition, activation of the right hemisphere through engaging in imagery might relatively inhibit activation of the left hemisphere, thus protecting the body from catecholamine depletion and low immune system function.

3.iii Physiological responsiveness to stimuli under hypnosis.

Controlled experimental evidence of the increased measurable physiological responsiveness to stimuli under hypnosis has been documented since the well-known study by Black et al (1963). This showed how suggestion was able to alter the clinical manifestations of delayed hypersensitivity under hypnosis: the Mantoux reaction in patients known to be positive reactors was shown to be inhibited by direct suggestion. Nebilitsyn & Gray (1972) found that heart rates of subjects increased during a suggested negative hallucination in hypnosis; Remic (1982) studied increased intracranial pressure during hypnosis. Since skin sensitivities, heart palpitations and decreased cerebral blood flow are all problems in M.E. patients, it is significant that hypnosis can induce changes in these areas.

3.iv The potential of imagery processing.

From the above it can be seen that imagery processing is being recognised as more than a purely

cognitive-emotional process: it seems also to be available to make changes physiologically which could aid the natural process of healing. It can also allow the patient to express perceived distress.

Rossi, (1987) has shown that where there is excellent capacity for hypnosis, or high imaginative talent, an imagined event can be experienced by the body systems in the same way as the real event would be. Thus by becoming deeply absorbed in imagining a burn, burn weals can be formed on the skin especially if that patient has previously suffered an actual burn (Rossi, 1987). The negative creation of burn weals can be matched by the reduction of symptomatology under hypnotic suggestion. There is much anecdotal evidence and clinical description of the healing of warts and tumours by visualisation. Even without prior experience of a diseased state, a good subject can visualise healing occuring in a damaged area and automatically entrain a positive healing response from the mind-body system.

Where there is actual salient cell memory of a negative physical experience, stimulation of the negative memory is even more likely to replicate the physiological effects previously experienced when stimulated by suggestion or stressful situations, particularly in similar circumstances as affective memory stimulates cell memory and the remembered reaction: this triggering occurs at the sub-conscious level though the patient is in a conscious state and aware only of the result. Ewing & McCarthy (1980) also demonstrated the presence of cell memory; they found that the effects of even extremely minor concussion were re-experienced by their subjects under exposure to hypoxic stress. M.E. symptoms in the second and third stages of the disease process are recurrent in response to strong activation by identifiable stressors: the part played by automatic body memory needs to be addressed in therapy.

It is thus demonstrated that a subject is able to instate by imagining (or reinstating an actual cell memory), appropriate neuro-endocrine circumstances for such an experience and the cells of the skin receive and experience the appropriate sensations.

The mind demonstrably has the power both to create negative reactions, and neutralise negative

cell memories and their effects. The potential for screening out negative stimuli and reframing old negative body memories in M.E. patients using hypnosis is clear. It would appear that in M.E. apart from any personal salient negative emotional memories which may exist, the mind has a strong memory of bodily helplessness experienced in the initial stages, and associated with certain activities in particular, e.g. muscle exertion. In a circumstance where exertion is experienced, would it be possible to break the association so that fatigue is not the result? This would seem to be a logical possibility unless a foreign agent (viral perhaps?) were physically, rather than imaginally, lodged in the body or brain ready to be activated physiologically.

Even if it is not possible (which it might be) to defeat an existing virus simply by strengthening the immune system, positive imagery can be used successfully to imagine a healthy body existing in the future. Frederick & Phillips (1992) regularly utilise age progressions with patients suffering from psychosomatic illness. Like Erickson (since 1954), they view these imagined experiences as integrating old negative views and self-images with stronger perceptions of self and more positive possibilities for the future. They note that in their patients, psychosomatic conditions improve significantly, even dramatically when imagined age progressions are routinely used.

3.v State-Dependent Memory Learning Behaviour.

Rossi (1987) hypothesises that all psychosomatic illness is state dependent. To crack the code of physical, emotional and cognitive entrainment, he hypothesises one must return to the emotional and concommitantly to the endocrine state in which the stress was encoded to detoxify the impact of the stressor. The value of hypnosis is that it is able to access right brain memory mechanisms and is thus the perfect vehicle to reprocess body memory and emotional memory stored at the unconscious level.

Rossi (1987) discusses the basic significance of state-dependent memory learning behaviour (SDMLB) during trauma in particular: this complex may be accessed during hypnosis. He suggests that most modern research into memory processes acknowledge two classes of internal

response in memory making:

- * a specific locus of a memory trace on a molecular-cellular-synaptic level; and
- * an involvement of the amygdala and hippocampus of the limbic-hypothalamic region in processing, encoding and recalling the memory trace.

Rossi proposes that the first three stages of the General Adaptation Syndrome (GAS) of Selye (1976) are significant in understanding the mechanism of memory-making: the alarm reaction; the stage of resistance; and the stage of exhaustion. All these stages are recognisable in the M.E. disease process (as hypothesised in Chapter 1). Rossi argues that the alarm stage activates the sympathetic nervous system and the release of epinephrine and nor-epinephrine from the adrenal medullae, known to modulate retention of memory (McGaugh, 1983): learning and memory are acquired in the first stage of the GAS. Initial encoding of psychosomatic symptoms is then seen to be an association between the neural and the hormonal state. Memories of a traumatic time or incident are a complex intertwining of the psychophysiological state associated with the hormone release which is not daily present in everyday life unless a similar hormonal state is provoked by similar sensory-perceptual impressions. Frequent experience of similar stress patterns is reinforcing. Thus according to Rossi, enduring psychosomatic problems are manifestations of the state-bound patterns of the General Adaptation Syndrome.

Both personal salient negative memories, as well as the shocking experience of extreme helplessness experienced in Stage 1 of M.E., can provide trigger mechanisms for the activation of cell memory and the re-experience of well-remembered symptoms. As discussed in Chapter 1 the overwhelming experience of helplessness is highly traumatic for the M.E. patient. Erickson (1902-1980) believed and showed that psychological shocks and traumatic events may be conceptualised as psychoneurophysiological dissociations that can be resolved by "inner re-synthesis" in hypnosis.

Being state dependent, mind-body memory, may perhaps only be accessed when the patient is in an altered state of arousal as in hypnosis. The automaticity of memory loops (described by Rossi

as state-bound patterns of the General Adaptation Syndrome), may then be altered through reframing the connections while the patient is in a receptive cognitive state.

The receptivity of a suggestible state of very slow brain waves in the patient offers the interpersonal opportunity for intervention by the therapist, assuming he has the active permission and co-operation of the patient. However the degree of ideoplasticity in the patient is the unknown intrapsychic factor to be explored and if possible expanded by the therapist's facilitation before healing necessarily occurs. Rossi (1989) points out this distinction between an individual's suggestibility (his ability to be receptive to an impulse from without) and his ideo-plastic faculty (the degree to which his system is able to modify physiological and pathological processes by psychic influence). Perhaps one of the important functions of the therapist is to try to expand the ideoplastic faculty of the patient. This point will be illustrated in the case histories discussed in Chapters 4 - 6.

4. The need for balance.

4.i The potential for creating balance with hypnosis.

From the neurological perspective, having access to a very slow brainwave pattern makes it possible for the therapist to help the patient learn how to instigate a return to a neurological homeostasis at will. The hyperactive pattern with which initial stage M.E. patients present is clearly a driven state where high beta rhythms very rarely, or perhaps very briefly, return to a slower rhythm during the day, and even sleep is disturbed. This diseased state, graphically described by a young patient as "being stuck in go mode" was typical of all patients seen in the initial pilot sample (Welch 1995) and this formal study (Welch 1999); this experience appeared to represent for all patients whatever their idiosyncractic differences, a deterioration from a lifestyle felt previously to be functional. In learning about the concept of normal body rhythms, the patient can be helped to create a healthier sort of balance within his own chosen lifestyle where he willingly makes time for deep rest, the state in which his immune system can recover and his mind and body heal.

On the physical level, by allowing the patient to experience the state of calm wholeness in hypnosis, he is generally motivated to learn how to create and maintain this state for himself on his own: this learning of simple control can bring confidence and calm quite apart from other therapeutic intervention using hypnosis that may be necessary to dissolve affective conflict.

4.ii Natural systems of physiological balance.

The mechanism of neurological balance disturbance was postulated some decades ago by Stoyva et al (1977) based on the Gellhorn Model (1967). To summarise the model, Gellhorn proposed that in normal physical human functioning there exists a balance between ergotropic and trophotropic systems. Ergotropic functioning is characterised by an increase in sympathetic discharges, elevated skeletal muscle tone and cortical excitation of EEG desynchronisation. The trophotropic system is associated with increases in parasympathetic discharges, relaxation of skeletal muscles and lessened cortical arousal, as in sleep. The balance between these two systems can be altered in two different ways:

- * direct stimulation of ergotropic or trophotropic centres in the hypothalamus or other cerebral areas;
- * indirectly altering the activity of the systems through input from the cerebral cortex (hypnosis?), or changing afferent input impinging on the reticular system and hypothalamus.

Muscle relaxation, as occurs in hypnosis, is especially effective in changing proprioceptive input: it results in reduced hypothalamic-cortical discharges, a reduction in peripheral adrenergic activity and dominance of the trophotropic system through reciprocal innervation: this can be understood as the opposite to the defence-alarm reaction typical of the highly anxious hyperactive state.

Stoyva, (1977) states that if the stress response, i.e ergotropicfunction, is triggered frequently enough to prevent the necessary return to resting level, a failure of homeostatic control gradually develops, and the ergotropic mechanisms remain dominant; this gradually drains physical reserves and impacts on immune system function as is hypothesised in cases of M.E.

(See Chapter 1).

4.iii Natural systems of spiritual and emotional balance.

If as has been argued, the body is the expresser of the state of inner neurological and physiological balance whether good or bad, it seems essential to consider the root cause of an imbalance which in psychoneurological terms is hypothesised to be emotional - or spiritual. Jung (1964) made the observation that any patient needing therapy was needing help because of a lack of spiritual input to or connection with, the physical system.

It appears with M.E. patients that two kinds imbalance occur which affect emotional functioning:

- * an imbalance between the spiritual and personal energies, and in some cases an apparent absence of recognised spiritual connectedness to a Source beyond self; and
- * an imbalance between the masculine and feminine aspects of energy.

The above energy springs were not split in ancient cultures. The concept of feeling well physically as a result of being at one with spiritual sources was and is accepted as natural and central. This was recognised by peoples as geographically diverse as the North and South American Indians, the Eastern Taoists, the people of the South Seas, the ancient Nordic peoples and the European Druids as well as the traditional African cultures. (Jung, 1964; Meadows, 1991). There are many similarities across the older civilisations especially where man was more in tune with his natural environment, with regard to the basic concept that the universe, and human life which is a component of all created life, is maintained through the interaction of two great polarities: the active masculine principle which is a source of light energy is expressed similarly in many ancient cultures as Grandfather or Father Sun or Sky, the God; the complementary polarity the formative, life-giving, nurturing feminine, the Earth Mother or Grandmother Earth, the Goddess. Taoists from Eastern countries describe the twin powers of Yin and Yang constantly striving for union while at the same time being opposed, thus establishing the Law of Constant Change. This essential balancing of inner male and female

qualities was important also to the thinking of Jung (1964).

In modern western civilisation, the centrality of a spiritual focus in the life of an individual is not invariate: where there is no space for spirituality, as according to Jung, there is likely to be imbalance. Where religion does play a strong role, the focus is generally on the honouring of the male aspects of God: the feminine face of God goes largely unacknowledged. The recognition of the need for female spiritual energy has become largely confined to Roman Catholicism where the Mother Mary is honoured as an intercessor. The spiritual stature of the female mystic in Christianity has also been unequal to that of male counterparts: the great female mystics such as Julian of Norwich and St Theresa of Avalon have not received the same prominence as their male brothers, and even now the female priest struggles to seek the recognition of the male clergy in serving the Creator. We are far from the North American tradition that the function of the male is to protect and honour the spiritual energy of the female so she may dream and give birth on many creative levels. Western feminist movements have striven for the recognition of female equality with the male: this is not the same as exploring the powerful differences which make for creative balance.

In our modern western society general concepts of personal success, are rooted in maleness: increasing personal control and power through demonstrable achievement as one climbs the hierarchy, particularly in academic or business spheres. The female in our culture who is striving for self- actualisation often feels herself driven to seek recognition in the same ways to prove the acceptibility of the female self. This seems particularly so where the female, for psychological reasons, needs ultimate approval from the male figure. A male still needing the approval of the authoritative father, or male peers, is also driven excessively by the need constantly to demonstrate the achievements of self.

Ideally male and feminine energies should be held in balance without and within both males and females. The ancient concept that typically feminine power is the capacity to be the container, to hold and allow creation over time, where appropriate in a state of chosen and powerful passivity

waiting for the right time, is in opposition to the constantly active male mode of visible achievement in the present immediacy. However if the intrinsically typical feminine energy is not honoured or recognised by society or the female self as valuable, female energy in the woman may be discarded, disregarded and depleted by the assumed driven male mode of visible ongoing productivity.

As will be seen in the case studies to be discussed, the disease of M.E. seems to target the over-achievers, more predominently women than men, and persons who for various reasons have needed desperately to prove themselves. In the cases seen in the pilot sample (Welch, 1995) and this formal study, it is observable that male energy has been totally overstretched at the expense of the female balancers: it appears that in an effort to regain balance, the disease causes the patient's male energies which are strongly involved in left brain processing, to be temporarily dispossessed: in this state the creative associative female energy of right brain processing is more able to be discovered, or re-discovered and re-established for the general good of the total personality: in time, balance with the female's non-threatening male energy can be achieved.

In Ego State hypnotherapeutic terms, the M.E. patient's inner family of ego states has become subject to the total dominance of one or more achievement-orientated states to the detriment of the whole. A balance needs to be negotiated within which will bring about the acknowledgement of all parts involved in maintaining spiritual, emotional, neurological and physical balance and health.

4.iv Inherently unstable neurological balance systems.

Body pathology evolves slowly. The stress response is initially a normal defence mechanism in reaction to what is perceived asphysically dangerous. Balance is regained as the threat disappears. A threat perceived by the personality to be physically, emotionally or spiritually life-threatening, if frequently repeated over a lengthy period becomes habitual and pathological, strongly lodged in body-cell memory. This is particularly dangerous in a patient with an unstable

life-threatening, if frequently repeated over a lengthy period becomes habitual and pathological, strongly lodged in body-cell memory. This is particularly dangerous in a patient with an unstable response system, i.e. one that is inherantly less flexible in returning to homeostasis, possibly due to genetic factors. Stoyva et al (1977) quote Lance (1973) on the above question of inherently unstable systems in patients afflicted with psychosomatic disease. Migraine sufferers show pulsations in the superficial temporal artery larger than those seen in normals. In the case of M.E. patients the incidence of personal or family history of Attention Deficit Disorder (ADD) was noteable in the original pilot sample treated by Welch (1995). The apparent high vulnerability to high anxiety coupled with a cognitive style of broad lateral thinking rather than narrowly focused attention to detail is characteristic in ADD. There is a fine balance between the advantage that is available in the ADD thinking style, and the disadvantage if cognitive control deteriorates beyond a pivotal balance point. Factors of response stereotypy in the patient are also discussed by Stoyva (1977). It seems justifiable to hypothesise that M.E. patients are attacked through their weaker or weakened systems.

It should be noted that even in persons with an inheritantly weak honeostasis balance as described by Stoyva, unless the ergotropic response pattern is frequently triggered in negative social or emotional environments or circumstances, the inherant imbalance is unlikely to cause harm. It is the emotional charge carried which causes the damage rather than the weak balance system per se. It is clear that the social and emotional environmental factors which play their part in initiating, maintaining and reinforcing the pathology of M.E. must be addressed by the hypnotherapist.

One of the values of hypnosis is that the techniques of self-hypnosis can be taught to anyone motivated to learn the technique. The potential of practising regular muscle relaxation which automatically results in changed cerebral input cannot be overemphasised. Efficient re-learning would be characterised by:

*improved ability to maintain neurological homeostasis, i.e. a quicker return to baseline after a stressful incident;

- * better control of cortical triggers, i.e. through changed perceptions of old, destructive experiences, and their associated cognitions;
- * better personal control over social and emotional environments.
- * re-interpretation of stress symptomatology as a friendly reminder to actively negotiate a return to balance, rather than remaining passively terror-struck in the face of impending incapacitation.

4.v <u>Ultradian cycles</u>.

Rossi (1982) has contributed a highly sophisticated development of the concepts of natural balances and the re-establishment of body rhythms which has extremely important significance in the conceptualisation and treatment of M.E. Rossi proposed an ultradian theory of hypnotherapeutic healing based on observations of the hypnotic interventions of Milton H. Erickson (1902 -1980). Rossi's theory linking hypnosis and ultradian cycles proposes firstly that the source of psychosomatic reactions is in stress-induced distortions of the normal periodicity of ultradian cycles. Secondly it proposes that the naturalistic approach to hypnotherapy facilitates healing by permitting a normalisation of these ultradian processes (Rossi, 1982). By ultradian cycles, Rossi means a multioscillatory system of 90 to 120 minute variations in psychophysiological processes. He proposes that there is a natural biological occurrence of a rest phase of the ultradian cycle (in which parasympathetic and right-hemisphere processes have various degrees of dominance) that occurs physiologically every 90 to 150 minutes throughout the 24-hour day.

Dement & Kleitman (1957) initially offered the BRAC hypothesis (Break-Rest-activity cycle) on which Rossi's theory builds. In 1963 Kleitman concluded that the BRAC cycle was an endogenous oscillation of the central nervous system that had profound implications for physiology and behaviour. More recent ultradian cycle research has shown that many common physiologically observable behaviours are cyclical though not occurring in simultaneous cycles throughout a 24-hour cycle: e.g. REM sleep periodicity, the dominance of hemispheric laterality, heart rate, peripheral blood flow, eyeblink and motility, motor response latency, muscle tonicity, sensory-perceptual experience, visual illusion, observing responses, "taking a

break" behaviour (all tabled in Rossi, 1982). All the above phenomena are also naturally observable within the hypnotic experience. Additional physiological behaviours not associated with hypnosis are also being discovered to be cyclical in their occurrence, e.g. the pituitary is only responsive to intermittent releasing hormone stimulation, suggesting that we do not yet fully understand how general a functional biological necessity ultradian cycles may be (Kripke, 1982a).

Of specific importance in the consideration of the implications of ultradian cycles for M.E. patients is the research of Orr, Hoffman and Hegge (1974) indicating that almost all human subjects showed a stable ultradian cycle when under quiet bed-rest conditions. Extended bed-rest has so far been the most successful prescription of physicians in controlling the florid symptomatology in Phase 1 of the M.E. disease process. When stressed with extended performance tasks, Orr's sample experienced major disruptions in the amplitude and patterning of their ultradian cycles. The histories of all the patients in both the informal pilot group (Welch, 1995) and this formal study (Welch, 1999) reveal they had been over-exerting themselves mentally or physically or both in the period prior to the start of the disease. Psychosomatic-like responses, e.g. heart-rate alterations, ulcers, gastritis, asthma and skin rashes accompanied the continual disruption of ultradian cycles in Orr's sample: the same responses have already been described among M.E. symptoms (Chapter 1). However, Orr et al (1974) concluded that the same stressor produced different behaviours in different subjects, thus there is no simple relationship between a particular stressor and behavioural response.

The uniqueness of the patient's genetic make-up and his life experience demand that in intervention each patient be approached as unique, despite broad general similarities between M.E. patients' experiences.

The basic tenet still holds for each individual. Rossi states:

"Individuals who override and disrupt their own ultradian cycles by ignoring their natural periodic needs for rest

(in any extended performance situation, for example) are thereby setting in motion the basic physiological mechanisms for psychosomatic illness. Most of this self-induced stress could be conceptualised as left-hemisphere processes overriding their ideal balance with right-hemispheric processes associated with parasympathetic functions. Naturalistic therapeutic hypnosis provides a comfortable state wherein these ultradian cycles can simply normalise themselves and thus undercut the processes of psychosomatic illness at their psychophysiological source." (Rossi, 1982, p 26.)

All argument concerning the potential of hypnosis in treating M.E. cannot guarantee effectiveness in therapy. The skill of the therapist is obviously a factor not yet considered in the equation. Specific techniques of hypnotherapy found to be effective will be discussed separately in later chapters.

CHAPTER 2.

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CHAPTER THREE

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CHAPTER 3.

INTERVENTION USING CLINICAL HYPNOTHERAPY WITH MYALGIC ENCEPHALOMYELITIS (M.E.) PATIENTS.

1. Introduction.

This chapter will deal with the technicalities of using hypnotherapy with M.E. patients: this is set against the theoretical and conceptual background provided in the two previous chapters.

2. Choice of hypnotherapeutic method.

2.i. Methods found suitable for M.E.

There are four recognised types of clinical hypnotherapy training given by the South African Society of Clinical Hypnosis (SASCH): Traditional Clinical Hypnosis, Ego State therapy, the Ericksonian model and Medical Hypnoanalysis. Excellent therapeutic gains are possible whichever of the techniques is preferred: the choice of intervention technique in any particular patient's case will depend partly on therapist preference and training, but more importantly on patient need. With the particular population of M.E. patients in this study, it was found most effective to use a combination of Ego State and Ericksonian paradigms against a background of Traditional Clinical Hypnosis. This choice was based on the researched general needs of this M.E. population at different stages of the M.E. disease process, and was found to be sufficiently flexible to address unique personal patient needs.

2.ii Traditional Clinical Hypnosis.

Traditional clinical hypnosis should be understood as the basic form of clinical hypnosis from which other schools of hypnotherapy developed. In order to appreciate the techniques of Traditional hypnosis it is important to recognise its origins. Traditional hypnosis has its roots far in the past: it is a development of the ancient recognition that ritual, direct instruction and indirect storytelling or suggestion can be utilised for healing. Shamans, priests and traditional

healers of both primitive and sophisticated ancient cultures, were the original hypnotherapists. Since then hypnotherapy has absorbed all the additional features that shaped psychotherapy; it reflects the influences of 19th and 20th century psychological giants such as Mesmer, Charcot, Breuer and Freud who began actively to explore the potential of the sub-conscious; Jung contributed an awareness of the collective unconscious. In existential terms, Kierkegaard and Sartre refined the view of man as dynamically evolving, self-directed, self-actualising, adaptive and therefore able to change his destiny; Adler emphasised the creativity of man; Frankl stressed the individual's power to transcend difficulties in his quest to find the meaning of life. In addition, cognitive-behavioural studies yielded basic information on how the brain operates, to which was added more specific neurological information on the process of hypnosis by the researchers discussed in Chapter 2, particularly in the view of this therapist, Rossi (1989) who explored the implications of psychoneuroimmunology and hypnotherapy. All of these learnings have influenced the development

of Traditional Clinical Hypnosis as the basis of all modern hypnotherapy (Fourie, 1998).

Classical hypnoanalysis as used in traditional clinical hypnosis developed out of the classical psychoanalysis model: both sorts of analysis sought to provide frameworks for understanding the development of personality disturbances. The main difference is that hypnoanalytic work is done on the level of the sub-conscious where resistance is minimised and memory easily accessed. With hypnosis, unhealthy transferences, relationship patterns and maladaptive learned responses formed early in life can be recognised and resolved far more quickly and perhaps more thoroughly than in psychoanalysis which takes many years.

With M.E. patients in the early stages, symptomatic relief is an immediate concern. The techniques of pain relief, symptom control and basic relaxation are easily taught as a temporary palliative. Ego strengthening using direct and indirect suggestion as perfected in the form of metaphor and visualisation by Erickson (1980) is a simple early step in the therapeutic process when patient energy is low. Helping the patient re-establish a sense of being in control through using the techniques of self-hypnosis is also highly valuable.

Like cognitive behavioural therapy, Traditional hypnosis aims ultimately to reduce emotional and physical distress by addressing faulty beliefs, but instead of doing this at the conscious level of cognitive processing, Traditional hypnosis examines the memories held at the sub-conscious level in order to challenge them and stimulate different choices. The Traditional model employs regression, where appropriate stages, to reach significant memories, and both direct suggestion and indirect suggestion methods (to be discussed later in this article) to alter the negative way a patient conceptualises his experience of physical or emotional distress. Regression to a significant memory while in hypnosis allows for its exploration at an emotional level where the faulty belief was originally entrained: the emotional charge of the state dependent memory can be more effectively discharged at this level, making more positive energy available to the personality. However this step is only appropriate once the patient is fully stabilised and when sufficient energy becomes available. The change in the emotion associated with the negative experience alters the perception of the experience, which will ultimately cause shifts in the patient's belief system and experience of reality. Such energy shifts are a basic requirement for healing in all psychosomatic disease, including M.E.

Naude (1998) examines in greater detail the process involved in the shift in a belief system, and the ways in which thinking and feeling interreact and produce physiological and mental behaviours as implicit in the concept of psychoneuroimmunology. (See Chapter 1.) Naude hypothesises that "reality" as experienced by any human being has only two components: information and energy. The energy component is emotion. Naude states that there are only two basic emotions or energies, love which is positive, and fear which is negative. Love accepts, frees and facilitates; fear rejects, limits and negates. M.E. is characterised by the low, or non-availability of love energy. Naude describes intelligence as the ability to integrate information from the experience of the five senses into a structure of meaning for that individual: this meaning structure forms that person's belief system. The belief system will include, from a pyramid base, information about environment, typical behaviours, capabilities, values, personal identity and spiritual beliefs. In a bi-directional process, as information and emotional energy interact, thoughts affect feeling and feeling affects thoughts.

A person's belief system according to Naude has as a data-base the memory of experiences. Memory is hidden in the sub-conscious mind: it is memory that dictates any person's reality. A strategically delivered positive direct suggestion from a therapist represents additional information which is introduced into the informational grid of the patient; if sufficiently egosyntonic, the information can be integrated, can alter the belief system, and the associated emotional energy component. Indirect suggestions operate similarly except that the therapist aims to stimulate associational capacity in the patient to generate alternative problem-solving possibilities. Thus all hypnotherapy is intended to stimulate the patient's ability to integrate new information to free up a rigid or stuck system.

If memory creates reality, to change reality, memory needs to change. Since memory is dependent on the emotional state in which it was created (Rossi, 1987), the emotion and the memory can be accessed in hypnosis as in the original experience, and reframed, thus changing both the energy charge and the informational content of the negative thought. According to Naude there are two components to any thought:

- * the modalities, i.e the generally agreed aspects of awareness of the senses, e.g. I am aware of my disease", and
- * the sub-modality which gives qualitative value to the awareness, in positive or negative emotional terms. For example "this <u>destructive</u> disease", is a negative evaluation based on fear; reframing as "this <u>re-constructive</u> dis-ease" entrains positive elements of learning and change.

The energy or emotional component of any thought determines the physiological response of the patient's body in the circumstances. For physical and emotional healing to occur in the long term, the submodality information must be re-interpreted to release negative emotion connected to fear, and convert the energy to a positive form which focuses on love. By using the information of the senses in hypnosis, memories from the informational data base of "destructive experiences" can be accessed and reframed as learning opportunities.

As discussed in Chapter 1, and as will be seen in the later case studies, M.E. subjects in the

initial stages vacillate between the chaos of hyperactivity born of extreme anxiety, and complete catalepsy. As hypothesised in the Theory of Entropy (Naude, 1998) chaos degenerates into apathy. In the case of M.E. patients, the maladaptive energy of fear is overwhelming and paramount; in both the pilot study by Welch (1995) and this formal study, there was in all cases what could be referred to as deprivation neurosis or perceived inadequacy of love. This manifested as fear of rejection by significant others, fear of separation, fear of underachievement or failure, and fear of the loss of conditional love dependent on achievement. Emotional correlates of the fear were at worst "flight" responses i.e. denial in the face of ongoing stress, or the frozen state of physical immobility. Emotions like helplessness and its emotional mate weakness; shame at the weakness and accompanying guilt; terror and anxiety in the face of widespread loss; a sense of rejection over perceived inadequacy, and ensuing loneliness, anguish and sadness were present in all cases. Anger and its accompanying frustration is an energised fight response to the fears, but is nevertheless maladaptive. The therapeutic objective in Traditional hypnotherapy is to work with the non-adaptive entropy of hopelessness, despair and desolation, and move towards the adaptive positive energies based on love which yield serenity, independence, self-love, harmony and joy (Fourie, 1998).

To summarise, the value of the Traditional Model of Hypnotherapy as a basic concept of healing in psychosomatic disease is firstly to provide the psychoneuroimmunology paradigm of physical, emotional, cognitive and spiritual interrelatedness in the patient's personal quest for self-actualisation, spiritual growth and defence against disease. The Traditional Model also provides effective mechanisms for teaching relaxation, pain relief and symptom amelioration. However the seriousness of M.E. as a disabling disease, suggests that more is required in therapy than symptom control or removal: supportive ego-strengthening hypnotherapy is required while the patient learns to change his energy utilisation strategy. Deeper analysis of identity issues and spiritual unease must be resolved before full healing can be experienced.

2.iii Choice of Ego State therapy

The basic reason for the choice of Ego State therapy for M.E. patients by this therapist is that

the ego state paradigm offers useful therapeutic tools for working with patients experiencing or re-experiencing trauma. (Phillips & Frederick, 1995). The M.E. patient, especially when seen at Stage One, is generally severely traumatised physically, cognitively and emotionally by the disease for four reasons:

- * loss of a sense of identity through incapacitation experienced;
- * loss of physical and cognitive function in practical terms;
- * loss of dignity and self-worth occasioned by the non-acceptance by certain professionals of this disease and the implication that the patient is malingering;
- * fear of increasing future total loss of control, occasioned by the common medical prescription of total bed-rest for many months to come: this causes panic.

The sense of confusion, mistrust of self, and experience of rejection, shame, and rage before the judgment of "the professionals" is overwhelmingly traumatic, and perhaps cannot be fully realised by the therapist who is not experientially cognisant of the condition: there is a severe risk that from ignorance even the most well-meaning therapist may trivialise the degree of distress being experienced by the patient. The patient is dissociated from his commonly experienced presentation of self: the patient has lost "himself" (Welch, 1995).

2 iii Significant Ego State features.

Federn (1952), as acknowledged by Watkins and Watkins (1993), conceptualised Ego-State therapy as an energy model of personality. He viewed the ego as an inner gathering, or family, of several egostates or energies within the greater personality. Following Federn, Watkins and Watkins (1979-1993) presented a theoretical base for working with each of these ego states directly. According to the Watkins, these ego states are formed from early childhood on in response to demanding situations in three ways:

- * as an adaptive response to cultural requirements;
- * through introjection of parental or significant transferential figures from important early life events;
- * adaptively to deal with overwhelming trauma.

(Phillips & Frederick, 1995).

Each ego state is thus conceptualised as having its own origin, history, thoughts and feelings and always comes to help the personality. Ego states can also be thought of normally as separated from one another by a semi-permeable membrane implying that energies are connected and constantly shifting between ego states in the healthy personality. Whichever energy state is carrying the most energy at any one time is said to be executive and experienced by the individual as "I" or "the self". With the experience of trauma, one response of the involved ego state may be to dissociate from the family to enable the personality cope with the situation. While this is temporarily helpful at the time of trauma, the dissociation can later become inappropriate for the whole personality. At this stage re-association of dissociated states, can bring about healing of the trauma wounds and greater energy and balance within the personality.

The work of Phillips & Frederick (1995), and Dolan (1994) among others, is mostly associated with Post Traumatic Stress Disorder (PSTD) following sexual abuse. In this type of case, the previously dissociated, isolated traumatised ego-state from the past when activated by memory factors, recreates the original terror and helplessness for the patient in flashbacks. In such cases, it is desirable to make re-connections within the family of the personality: the dissociated state can then be supported in the present without isolation by those capable adult ego-states which are able to be executive and are available to help.

The opposite situation exists in M.E. In ego state terms, capable coping ego states from the patient's past have been superceded in the present by helpless, regressed and limited energies which are not fully admitted or acceptable because they have previously been ignored or shut out.

When an experience of trauma occurs in any patient, that traumatised state <u>is</u> the person's current identity: the patient feels isolated, disempowered and out of relationship with both his inner and outer worlds. The objective of the therapist in any traumatic situation is to bridge the gap between the two separated associational polarities, those of present trauma and previous

non-trauma, so that both can be recognisable and useful at the same time (Dolan, 1994). Previously non-available energy is thus recaptured for use by the patient.

2.iv Application of the concept of energy states to M.E. patients

In the case of M.E. patients, while acknowledging the present dominance of the sick disabled states, the therapist needs to help the patient accept that the generally strong group of states from the past may be standing back and resting, though still available, while something new and important is conveyed by other generally less dominant states in the present. This attitude gives the patient permission to accept the present state of illness without guilt: it reframes the dis-ease as a learning opportunity not previously available. In Ericksonian terms, the therapist can even help the patient see that ultimately a solution may be discovered in the symptom. Further, the emphasis, as in helping abuse trauma patients, is on stabilisation in the present, accepting what is, learning tolerance for the situation while preparing to integrate disturbing features to the point where they no longer have power to harm.

Modern therapeutic intervention in sexual abuse as discussed by Dolan (1994) stresses that the most effective interventions will avoid retraumatisation of the patient. The M.E. patient is feeling so helpless at the initial stage of the illness that the techniques using regressions to previous non-coping situations (even within the Ego State or Traditional frameworks) are thought by this therapist to be highly inappropriate. The methodology of the Medical Model of Hypnoanalysis which utilises regression to the initial sensitising event (often a birth regression), the symptom-producing event and symptom-intensifying events (possibly associated with childhood trauma), is seen by this therapist not only to be inappropriate in terms of the emotional dynamics of M.E., but certainly non-productive especially in the early stages. Further the cognitive/emotive association as tapped in the Word Association Test used in the Medical Hypnoanalysis model appears to be of questionable value when memory is so badly affected by the disease and energy is so low. This model, though certainly appropriate for other patients, has thus been found unsuitable in cases of M.E.

2.v Applicable Eriksonian features in this research.

Ericksonian hypnotherapy refers more to a style of intervention than to a theoretical perspective. In <u>The Essence of the Story</u> (Zeig, 1994), over thirty-two respected Ericksonian contributors had different and particular views on what constituted for them the essence of Ericksonian intervention. Erickson himself said:

"Each person is a unique individual. Hence psychotherapy should be formulated to meet the uniqueness of the individual's needs, rather than tailoring the person to fit the Procrustean bed of a hypothetical theory of human behaviour."

(Zieg, 1994: 1).

The emphasis in more traditional psychotherapies is on fitting the patient into a theoretical perspective in order to understand how his past contributes to his story. In both Ego State and Ericksonian hypnotherapy the focus is on the patient's present self and how to help him move on into his future.

Distinguishing the differences in objectives, therapeutic stances and intervention styles of traditional psychotherapists and those needed by the clinical hypnotherapist in working with M.E. patients seems useful before discussion of case histories. For Gilligan (1994), there is a clear distinction between the aesthetic approach of Ericksonian methods and what he terms fundamentalist approaches of other psychotherapies. By the latter, Gilligan means any of the therapies based on schools of thought with distinct theoretical foundations, e.g. the object relations school, the Jungian school, etc. which follow specific styles of intervention and utilise specific techniques to fit the theory. Erickson himself was totally non-traditional in his interventions: as quoted above, he rejected set theory, frameworks or techniques and sought only to relate to each unique patient in a unique way so that change was generated as quickly and effectively as possible.

2.vi Features of naturalism and utilisation.

Arguably the two most definitive hallmarks of the Ericksonian approach, as discussed by Bliss (1994), are its naturalistic style and the utilisation approach. Zeig (1994) particularly stresses utilisation as a key factor for the Ericksonian therapist. For Erickson it was essential to accept everything the patient was and brought to therapy without judgment, and to utilise these factors to make solutions from the symptoms. The source of the solution was stressed as needing to be found in the patient's self. Zeig (1994) describes the patient's contribution of all he brings to the therapeutic relationship as the gift to the therapist to be used for patient healing. The therapist uses whatever he can from minute observation of verbal and non-verbal information, gift-wraps what he selects with great care and offers it back to the patient repetitively as a solution. Because it is familiar material, attractively presented in patient-syntonic metaphor and language, it is experienced as non-threatening; the offering is tailored to meet the patient's unique needs exactly, thus the implied but open-ended suggestion is likely to be more acceptable and thus more useful to the patient than artificially superimposed interventions. This method is also far more gentle. Gilligan (1994) thus focuses on the artistry of the Ericksonian approach in suggesting its flexibility as an aesthetic alternative to the theoretical rigidity of fundamentalist style intervention.

3. Therapeutic relationship issues.

3.i The type of therapeutic relationship necessary for healing through hypnosis.

Any therapy depends primarily on the initial motivation of the patient to engage in the process of change, even though he may prove to be largely resistant to change. To utilise this initial energy on entering therapy, there needs to be permission and readiness from both patient and therapist to engage in the therapeutic relationship. The efficacy of healing stimulated by this relationship depends not only on what the professional can offer to provide, but more importantly on his allowing the discovery by the patient of what the patient is able to provide to help himself (Courtenay, 1989). Barber (1994) makes the point that the efficacy of suggestion in hypnotherapy depends on both the healing effect of the hypnotic state as well as the healing power of the therapeutic relationship.

The quality of the relationship between patient and therapist in the sort of clinical hypnotherapy to be discussed differs in certain basic ways from the therapeutic relationship in other more traditional psychodynamic therapies using what Gilligan (1994) calls the fundamentalist approach.

3.ii Active therapist involvement in clinical hypnotherapy.

In clinical hypnotherapy, the therapist takes a far more active role than in the fundamentalist approaches. The following section will consider:

- * What is meant by being active? How does an active therapist differ from the therapist being in control of the patient?
- * What sort of therapeutic interaction was found to be effective in the pilot study with M.E. patients by Welch (1995) and this formal study?

3.iii <u>Issues of feared control in the relationship.</u>

Most initial and later stage M.E. patients in both studies by Welch (1995) admitted resisting psychotherapeutic intervention for weeks or months because of a sense of shame at being judged inadequate and personally out of control in needing therapy, and a fear of imposed therapist (mis)diagnosis and therapist control while in the M.E. state of extreme vulnerability, dependency and dyscontrol. By the time such patients are ready to try hypnotherapy they are generally less concerned with being judged or controlled but are desperate for help: this is regrettable but has a positive implication in terms of motivation.

The myths concerning hypnosis also engender the fear that the patient will be totally out of control while in a different level of consciousness and therefore completely under the therapist's power. Thus in hypnotherapy, and with M.E. patients in particular, a sense of trust needs to be established immediately before therapy can start; it has to be made clear that the therapist's aim is not to take control of the patient in order to reorganise his life; nor is the therapist prepared to take control for the patient; the therapist's intervention is aimed at working with the patient to facilitate his resuming control of his own life. This placing of responsibility for change on the

patient is in general reassuring to most ego states of the patient, but can also be frightening to that part which in such a sick, regressed state, feels totally unsure and would prefer "some doctor to fix it": this is a factor not to be ignored. Ongoing gentle reassurance is needed to convince the patient that in hypnosis through exploring his sub-conscious potential he will be able to reconnect with the sources of strength and energy from which he has somehow become disconnected.

3.iv <u>Direct suggestion: control or guidance?</u>

Just how much control is a therapist able to exert? As discussed in Chapter 2, at the sub-conscious level, the brain is more suggestible in hypnotherapy than it is at the conscious level since defence mechanisms are less active; this implies that the therapist must be extremely careful about what sort of impact he might make on the patient, though he can never be sure exactly what impact he does make. The relationship demands heightened responsibility and trust on both sides; in addition there is the confirmed need for rigorous specialist training in hypnotherapy which instils respect for the sub-conscious. The four main schools of hypnotherapy identified above, use suggestion differently for different purposes, e.g. the Medical model which is a highly structured approach, uses direct suggestion with frequency to lead the subconscious attention to symptom engendering or maintaining events; in relief of pain using Traditional hypnosis, direct suggestion is also used to lead the patient away from his discomfort. In these situations the therapist is taking an assertive role though the patient's sub-conscious is well able to resist what is distasteful or unhelpful. Thus outright control is not possible by the therapist against the wishes of the subject. Gentle persuasion however may be more acceptable to a patient and in his interests depending on his situation and personality type. Patients presenting in a state of childlike helplessness, or persons brought up in an authoritarian atmosphere, may initially respond better to direct suggestion before there is sufficient inner growth for the patient to take personal responsibility for choices.

3.v <u>Indirect suggestion.</u>

Erickson himself was not averse to making direct suggestions though often in an indirect way

(Zeig, 1994). He used double binds and open-ended commands when the situation demanded it and would utilise whatever was necessary from what the patient brought with him to achieve change in the patient. In general however the approach to clinical hypnosis favoured by most therapists considering themselves Ericksonian eshews direct suggestion as disrespectful of the autonomy and power of the subconscious mind to make its own reconnections and choices whatever the problem (Zeig, 1994). It is preferred to use indirect suggestion through metaphor and story, aiming to stimulate old and new associations and memories in the patient's sub-conscious mind; the energy stimulated in the patient from his own associational store has the power to generate shifts and changes in behaviour and symptoms. The Ericksonian therapist therefore generally assumes a far less dominant role than the Medical Hypnoanalyst in the relationship with the patient, giving choices even though they be double-binds, at every opportunity.

Sometimes the Ericksonian or Ego State hypnotherapist will follow his patient, sometimes he will lead him depending on what information becomes available. Using Ego State methods, the therapist will work with whatever ego state makes its appearance, ascertaining its role in the patient's life and what assets it brings to help the greater personality. However even when taking the lead with calling out the Ego States, the therapist does not take over control: he is a negotiator. The permission to change comes from the patient's subconscious with which the therapist has formed a respectful relationship. The therapist has the choice of negotiating styles depending on patient needs at any particular time.

3.vi Therapist stance found to be effective in the present study.

Gilligan (1994) expands Bateson's (1979) concept of how therapist and patient interact in the Eriksonian style of therapy. In traditional psychotherapy, it is recognised that what the patient brings into the relationship apart from his desire and motivation for change, is his total present self which is the product of his past and his present experiences, and possibly his negative expectations for the future. Rather than focus on the influence of past on present dynamics, Bateson (1979) conceptualises the total field of the patient's existence over time differently as a

figure and ground concept: Gilligan (1994) prefers the big circle/little circle distinction, i.e. the little circle is the figure and the large circle the ground. This is so on many levels: i.e. the little circle is the conscious mind, the bigger circle the unconscious; in ego state terms, the little circle is the distressed, sick ego state isolated from the larger circle of other competent, capable ego states; the little circle is also the present text of the person in distress, the bigger circle his con-text of total life values, experiences, and social system.

3.vii What does the therapist bring to the relationship?

The therapist's "small circle" might constitute his present willingness to be in this therapeutic relationship with the patient and to offer his energy, ego strength and love; he is ideally able to bring exploratory eagerness to learn from his patient, to lead and/or follow as necessary. His "large circle" would be the broader context of his social or cultural connections, his life skills and experiences; it would encompass the breadth and depths of his professional training, including taught observational skills. It should perhaps also include a sense of being only a small part of a larger healing process naturally operational through sub-conscious energies.

How ego-syntonically the four figure and ground circles of patient and therapist interconnect for the patient and the therapist determines the quality of the therapeutic relationship. Like any relationship, connectedness cannot be imposed but is built up gradually over time through trust and by mutual permission.

Are there therapist boundaries as to what the aesthetic therapist may use from his larger circle? In line with the Ericksonian concept of utilisation, the therapist is able to use personal experience, anecdote, and his own learning through trauma, if this will stimulate hope and movement to or from similar experience for the patient. Since this sort of hypnotic intervention is an aesthetic technique, the only limits on what the therapist may elect to use are set by appropriateness within the relationship, expediency and inner good taste which is the responsibility of the therapist. The healing warmth of the relationship is more significant than

artificial boundary rules for the M.E. patient who has invariably been found to suffer from emotional deprivation as stated above. Hence the richer the life experience the therapist brings, the more he has to offer. In the same way as demand feeding is natural and appropriate to a small baby, so openness has been found to be what is needed by the regressed ego states of the M.E. patient which are able to take what they need from the therapist. For the therapist this can be demanding but not impossible to accommodate, depending on the confidence and sense of centredness in the therapist. The therapist needs to be aware of his connectedness to his own resources (Gilligan, 1994): these he can utilise for the patient. This perspective implies something quite different from remaining separate and objective as taught in other therapy schools.

3.viii Fundamentalist therapist style intervention.

The aesthetic approach of Gilligan (1994) would not be acceptable in fundamentalist thinking where there is an emphasis on boundaries that separate patient and therapist worlds. In traditional therapy the therapist identifies the patient's condition as "out of normal" according to his theoretical perspective. He then seeks to help the patient by remaining steadfastly present but objective in his own "small" circle of his present function, but on the outside of the patient's world, disallowing the patient knowing about his large circle thus maintaining distinct boundaries which the patient must learn to recognise as healthy. Emotional growth is expected to occur slowly, often over many years, as the patient tries to gain insight into his dysfunctional world within and learn "healthy" relationship patterns. He gradually creeps closer and closer to the therapeutically accepted definition of "normalcy" as conflicts from the past are supposedly resolved using the therapist's spectacles to understand what ought to have been and what can be now. The therapist is here in the expert position, observing the patient in his world and monitoring his efforts to rectify the wrongs or misperceptions of the past: the patient is in the dependent role for a long time in the reparenting process.

3.ix Aesthetic therapist technique.

As stated earlier the emphasis in both Ericksonian and Ego State therapy is on pursuing functionality rather than gaining gratuitous insight into the past. Using the two circle model of

Gilligan (1994), the Ericksonian therapist seeks to work with the contents of both the circles relevant to the patient's total Self at the same time, i.e. the contents of the small problematic dysfunctional circle as representing the present, as well as the contents of the bigger circle which represents a connectedness of the patient to a bigger universe containing family, society, humankind, and the ultimate God or Universe, however spiritual connectedness is perceived. The aesthetic therapist style according to Bateson (1979) focuses neither on the figure nor the field alone, but in the interwoven pattern that connects them. The aesthetic approach thus works from the outside in and the inside out simultaneously to utilise all the personally meaningful components of the patient's two circles that can become available to him. There is no blueprint for how to operate using aesthetics because it is not the product of a model, nor a theory, nor does it have a designated set of techniques: it is an art to be learned. The therapist seeks to find and use the unique formula at any one time that is available from the patient in order to empower the patient. This unique formula is generated by the patient's subconscious mind and expressed in terms of observable non-verbal behaviours, related dreams, and language used, to which the therapist must become intimately attuned.

The therapist must learn to tune into the patient's world using finely-honed observational skills; he trusts his own subconscious to tune in to what will help the patient as he joins him in an intensely focused trance experience. If the therapist is prepared to engage with the patient in trance, he can utilise whatever he has from his larger circle which is relevant to the patient's observed needs and condition to stimulate new awareness and connections in the patient that are useful for change.

The Ericksonian hypnotherapist in trusting the patient's subconscious also learns to trust his own. Far from disrespecting his patient's intimate inner subconscious world, the therapist approaches it with humility and esteem as the source of the energy which can heal the patient. This implies a high awareness of responsibility in the therapist. Gilligan (1994) describes the therapist as becoming part of something bigger while maintaining his individual centre. This means letting go of fixed boundaries to feel and follow where the patient leads: there has to be a

sure connectedness of the therapist to his inner self but there is also connectedness to the patient, and to some shared purpose or intent. The experience is a meeting of deep connectedness at the subconscious level between patient and therapist which can generate the energy needed by the patient for change. When this process is effective, both are likely to be aware of a shared spiritual connectedness which taps into a universal healing energy which is greater than either.

The question of whether the therapist is prepared and ready to enter the sort of therapeutic relationship described is a serious one. The interaction is much more demanding and intimate than that experienced in the boundaried fundamentalist approach: it requires more complete involvement, concentration, rigour and compassion than fundamentalist approaches (Gilligan, 1987). However because of the intimate involvement and shared patient-therapist energy, hypnotherapy is immensely powerful in producing change. Whether the therapist is prepared to join the patient in the way described, or offer his ego strength unflinchingly to support him in the inner exploration of sometimes murky waters needs to be answered before engaging a patient in therapy. M.E. patients, particularly in the initial stages of the disease, are particularly demanding because they are so particularly needy, thus the therapist must be ready for such demands. This does not imply that the therapist should expect to be manipulated, but it does probably imply a long and taxing journey with the client seen at this stage and later. Because of the extent of physical, cognitive and emotional malfunction in M.E., clinical hypnotherapy does not seem in the experience of this therapist, to produce a "quick-fix solution" as in many of the Ericksonian case studies. Unless the therapist can guarantee total acceptance of the client's condition without trying to negate or put aside any aspect of it, it is best to refer an M.E. case elsewhere.

There is no question of causing a patient to become permanently dependent, but of gradually introducing him to his own independent potential energy for "living in life" rather than the sense of "dying in life" as expressed by one M.E. patient.

4. Practical applications of clinical hypnosis for M.E.

The prime objective of this formal study as stated previously, is to provide qualitative information for understanding the M.E. patient's needs and perspectives at different stages of the disease process and to suggest useful hypnotherapeutic interventions. For this purpose a descriptive case study approach (Edwards, 1994) will be used in the following chapters. Unlike grounded theory, the goal is not to extract theoretical concepts, but by the use of exemplars, to discover meaning and achieve understanding of patient experience and appropriate responses.

Three case histories and the associated therapeutic strategies used will follow in the next three chapters to describe how the interventions of this therapist changed to match the demands of the first three stages of the M.E. disease process (as fully discussed in Chapter 1).

Quantitative measurements taken during this formal study will be described separately thereafter.

CHAPTER 3.

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CHAPTER FOUR

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CHAPTER FOUR

STAGE 1 INTERVENTION IN THE M.E. PROCESS USING CLINICAL HYPNOTHERAPY: CHERIE (Patient 2 in the quantitative assessment, Chapter 7).

1. Introduction.

1 i General objectives.

This case discussion aims chiefly to highlight typical factors for consideration in beginning hypnotherapy with a Stage 1 Myalgic Encephalomyelitis (M.E.) patient. Careful diagnosis of the disease and the stage of the disease process is essential. Although one may identify common features experienced by patients in general at this stage of the disease, the therapy described must also be specifically tailored to the unique needs of the patient, in this case Cherie. A patient in Stage 1 of the M.E. disease process requires very careful and gentle intervention: the therapy to be described utilises the guidelines for Stage One of the SARI model of Ego State Therapy intervention formulated by Phillips & Frederick, 1995 in Healing the divided self.

1.ii Identifying the current physiological stage of M.E.

As described in Chapter 1, Hyde (1992) defined four stages of the M.E. process as follows: Acute Stage 1.

There is a dramatic barrage of symptoms taking 3 weeks to 6 months to develop the full symptom picture.

Recuperation Stage 2:

7 - 12 months from onset, characterised by a decrease in number and severity of symptoms, and increasing improvement in physical and mental functioning.

Early Chronic Stage 3:

1-6 years after onset. This is an adaptation phase with attempts to regain previous level of function. Relapses occur on over-exertion.

Late Chronic Stage 4:

6 years from onset onwards. The patient lives with the disease, vulnerable but trying to avoid relapses.

1.iii SARI model stages of hypnotherapeutic intervention.

Phillips & Frederick's SARI model (1995) of hypnotherapeutic intervention with traumatised patients is convenient to apply in treating M.E. patients at different stages of the disease process. Only Part 1 (S below) and a limited section of Part 2 (A) of their model are seen to be suitable in Stage 1 of the M.E. disease process, i.e. for the first 6 months of therapy. (See Chapter 1):

- S safety and stabilisation
- A accessing the trauma and related resources.
- R restabilisation and resolving the traumatic experience;
- I integration and the establishing of a new identity

The latter two stages (R and I) are only likely to be accomplished at a later stage by M.E. patients as physical healing progresses.

1.iv Introduction to Cherie.

Cherie was an attractive petite pixie-faced young woman of 23 years, pale-faced but with glossy, dark hair. She was brought to the rooms by her young husband Martin, also in his 20's. Cherie walked with discomfort; Martin seemed protective, supportive and concerned. I knew from the telephonic contact that they were newly married. Cherie had recently completed a Batchelor of Primary Education degree at Training College, and was in her first probationary year as a junior primary teacher, paying off a bursary loan. She had been working exceptionally hard to establish her credibility in her new profession, and had been promised promotion by the Headmistress. However, illness had encroached more and more into her life, forcing her to take sick leave for three months. She had tried to resume work, but had relapsed and been been forced to take further sick leave; she was desperate to keep her position, and to become fit and well so she could return to work to pay off her loan.

1 iv <u>Initial interview: symptom description</u>.

Cherie was interviewed alone. She looked pale with dark rings under her eyes; she reported a severe headache which she said was with her most of the time. She was very obviously unwell, and it seemed her whole body was tender. She was encouraged to make herself more comfortable, her head supported on a cushion while talking to me, her feet up on the couch.

This seeded the idea that Cherie's discomfort was noted and accepted by me, the therapist, but also that she was to be responsible for heeding her body's needs and responding personally and immediately.

Cherie's general practioner had suspected Myalgic Encephalomyelitis after a lengthy period of ill health which had failed to respond to medical intervention; Cherie was due to see a Specialist Physician for his diagnosis a few days after my first meeting with her. Her General Practitioner had also referred Cherie to a psychologist to help her with the confusion, alarm and depression she was experiencing over her downward-spiralling health. Cherie related how angry and rejected she felt that this psychologist had ignored Cherie's symptoms of physical ill health, and had confronted her with a diagnosis of depression and the problems she could expect should her new husband tire of her illness and move out. Cherie felt much worse as a result of that encounter; her distress was increased by the additional fears heaped upon her, and she felt labelled as a fraud. She had vowed never to see a psychologist again but was persuaded to see me by a colleague.

Cherie was suspicious, wary and challenging, wondering how this therapist could help cure such an overpowering physical disease with psychological intervention. She knew very little about Myalgic Encephalomyelitis except that the general practitioner was rather vague about it and the previous psychologist doubted it existed. She wanted information, but was quite sure she did not have any brain disease, in fact she worried lest she was really malingering. All she wanted was a quick cure, and was prepared to work for it. For therapy to commence it was necessary to convince Cherie that whatever the diagnosis of her disease, she had been under considerable stress and her immune system was obviously affected, she could best help herself by learning how to return it to functionality to stop the downward spiral of increasing ill-health. We could do this though deep relaxation and I would teach her self-hypnosis. She needed to learn how to heal herself: this appealed to Cherie's need to be in control. The immune system connection with psychological stress was briefly described (Rossi, 1994). Cherie was reassured that she could learn to intervene to help herself. Most importantly, Cherie was assured that she would learn to deal with the interaction of both physical and emotional factors since it was inadequate and artificial to conceptualise them as unrelated. I stressed that I fully accepted that

she was physically ill while at the same time experiencing cognitive dysfunction, and anxiety and depression over her inability to recover. I declined to talk about the symptomatology of M.E. as I wished Cherie to describe spontaneously what she was experiencing. There was to be as little therapist intervention or structuring as possible in this open-ended interview. The procedings were taped for exact recording of symptomatology.

Cherie: I sleep all the time and can't get myself going, especially in the morning; I try to rouse myself to say goodbye to Martin, but then I fall asleep again until about 10 a.m. Eventually I drag myself into some comfortable clothes because tight ones hurt, but then I fall asleep again in the lounge, and I lie there on and off for most of the day. I battle to get up and do housework because I hate my house looking a mess, but my muscles feel so heavy, and I get burning cramps if I try to pick up the birdcage or make the bed. I can't stand for long, I get so dizzy, as if I'm not in touch with reality. The headaches are the worst thing, and the back of my neck and shoulders hurt and ache, and I have difficulty moving my neck. The glands at the back of my neck are swollen, and I have these awful night sweats when the bed gets absolutely drenched; then I wake up and Martin changes the sheets. I also have these permanently freezing hands and feet

And I battle with my eyes: I can't stand the bright lights, and the radio - it's always too loud; I'm so sensitive to sound now and I can't bear any loud bangs. I've always been an allergic person; I've had hayfever since childhood and asthma in Standard 8, but I had it all under control for the last three years until I got sick. Now I seem to be allergic to everything. My eyes burn and sting, and I feel fluey with sore skin and it gets itchy and creepy, and I've got so many bruises on my legs.

And as for my memory, I feel really stupid. I have to write down any telephone number I'm given or else I just can't remember it. And I can't read a book or even link ideas together. I used to be so sharp at logic, but not now; now I even battle to watch T.V and understand it. My sequencing is so poor and I can't seem to join in conversation it makes me so tired. I'd rather just listen and then I'd prefer it if it was just Martin. Really I'd prefer there to be no talking. I get so mixed up, I even mix up my words and say the wrong thing.

"And nausea- I have awful nausea morning and afternoon. I definitely can't eat chocolate or drink coffee, and I can't take alcohol now. And sugar makes me sick, and I get a very swollen tummy from something - I'm not eating very well, especially in the day, but I'm better at night. I've lost weight too, which is strange because I usually go from about 48kg when I'm working to about 53/54kg in the holidays.

My dreams are terribly vivid too, at night and if I sleep during the day; if I wake up I feel swimming and dizzy, and I walk into things, I'm terribly clumsy now.

Therapist: "How do you feel emotionally, Cherie?"

Cherie: I seem to cry so much. I'm not as depressed as I felt before - it's this headache that I can't do anything about. The doctor gave me Mipradol for it. I feel so sensitive, I know I am over-reacting and it's ridiculous, but I'm always cross or in tears. I know I'm defensive and I'm 'specially bad when I'm tired. And I can't switch off and I can't relax.

Therapist: How has this affected your marriage? You haven't been married very long.

Cherie: Our relationship is better than ever before now: we can really talk to each other and Martin is very supportive. Sexually I want him to love me and hold me and stay close, but I haven't often the energy to make love - it's the other way round now. Before it was me who had to encourage him to let go and make love spontaneously. I used to feel he wasn't there for me when I felt like it. But we talked about it. At first he couldn't talk much about sex because that wasn't done in his family. Now that I can't respond, we'll have to start all over again when I am better. He is terrified that I will become pregnant, specially since I'm so forgetful now and I once forgot my pill.

But he really loves me, and supports me and helps me. And I know I can depend on him. Actually I suppose it is terrible but I expect him to be there for me. Even when I get angry and irritable and unreasonable for nothing, he is patient and tells me "That is the illness talking; I know it's not the real you."

Therapist: And what is the real you like. Cherie?

Cherie: When I'm well I'm cheerful, and loving and warm and happy. And I'm cheeky too, and very active and a high achiever. I don't want to get lazy and dull. And I don't even know if there really is anything wrong with me, or whether I'm bluffing.

Therapist: What worries you most right now?

Cherie: That I don't know when I'll get better.

All I want to do is wake up with a zest for life again, I want to get back to my job again, yes, but most of all I just want to feel better, and I feel terrible."

Cherie fulfilled all the Centre for Disease Control (CDC) of Atlanta criteria for M.E. (Fukada et al. 1994) as well as the more extensive Welch (1992) criteria for this formal study: physical, emotional and cognitive dysfunction are all believed necessary to be present for the diagnosis of M.E. (See Chapter 1.) A Specialist Physician with particular interest in this condition independently diagnosed Myalgic Encephalomyelitis three days later.

1.vi The early course of the disease.

Cherie's description of how her illness began and progressed is typical in most respects of the patients seen in this formal study and the pilot study (Welch, 1995). (See Chapter 1). Cherie had been unwell since contracting a virus diagnosed as glandular fever in her fourth year at College in 1993. Recovery had been painfully slow and inadequate; she had been off the course for the final term and had missed three months of the requisite practice teaching and some examinations. However she graduated with honours. She had become engaged to the son of a lecturer and was disturbed by certain whispers that the special dispensation she had been given because of her illness was a personal favour.

Cherie felt so ill at the end of the year she felt she wanted to run away; suicide

crossed her thoughts at one time. It was thought her depression and low health were a reaction to contraceptive pills she had started taking five months previously; the prescription was changed, but she felt worse. She experienced panic attacks. Bronchitis, flu type complaints and bladder problems increased.

After graduating in 1994, Cherie left home to start her new post in a strange city: she boarded with her grandparents. She appeared to improve at the beginning of 1995; she was due to be married in March that year. Two weeks prior to the wedding, Cherie contracted severe bronchitis again, her glands became swollen, and it was recommended the wedding be postponed as she was very ill. Too many arrangements had been made to cancel easily, so the ceremony went ahead.

Cherie's health became progressively worse after the marriage. Apart from pharmaceutical treatment prescribed for the various physical symptoms, since July 1994 she had in turn been prescribed Eglanol, Reactivan and Zoloft to help the psychological distress; none had been significantly effective.

1 vii Initial questionnaire ratings.

For this formal study, it had been decided to extend the subjective information available from therapy sessions by using norm-based measures and self-report questionnaires: the results of this aspect of the study will be fully discussed in Chapter 7. With reference to Cherie, she was asked to complete four questionnaires on her current affective status at home at her leisure to establish baseline functioning: such tasks are energy and time consuming for the M.E. patient who may require help with writing answers. Her scores on these measures before the commencement of therapy will be quoted for interest, though as has been stated, qualitative information was considered more important than quantitative scores especially at this stage.

* Affective measures.

	Percentage score
State Anxiety (Spielberger, 1980)	100
Trait Anxiety (Spielberger, 1980)	100
Depression (Beck, 1967)	43 (moderate)
Symptom checklist (Welch, 1992)	98
Home coping (Welch, 1992: unpublished)	10
Work coping (Welch, 1992: unpublished)	0

Cherie was too anxious, weak and ill in the first month of therapy to consider the scheduling of a SPECT brain scan and the accompanying Wechsler-R subtests also necessary as objective measures for this formal study. This part of the investigation would be organised six weeks after commencing therapy.

2. Early therapeutic objectives.

From the initial interview described above, immediate therapeutic objectives were suggested, even before further factual information was available:

- * Establishing trust and confidence in this therapist.
- * Creating motivation for self-healing.
- * Teaching practical self-care strategies.
- * Initiating a calm relaxed state for immune system recovery.
- * Dealing with the disintegrated concept of self.

2.i Building trust in the therapist.

Stage 1 of the SARI model of Ego State therapy (Phillips & Frederick, 1995) focuses on the necessity to build a safety network for the patient as the prime goal of Stage 1 intervention. Whatever represents danger and insecurity for the patient must be patiently and carefully secured before there can be any advance into the emotional causes of trauma involved in the final spiralling down to the acute symptomatology typical of the initial acute stage of M.E. Thus the first objective with Cherie was to build a relationship of trust.

2 ii Instilling confidence in the patient.

It was also essential to establish the confidence in this patient that her symptomatology was understood and could be treated: i.e. there was a need to establish whether a diagnosis of M.E. was appropriate, and if so the sub-goals of intervention.

2.iii Seeding the need to begin self-healing.

It was essential early in therapy to empower the patient to take responsibility for and engage in self-healing practices. Cognitive understanding of the concepts of psychoneuroimmunology and its effects in terms of physiological symptoms recognisable in the disease process of M.E. was useful here. (See Chapter 1.)

2.iv Introducing the goal of adjusting lifestyle.

The necessity to establish the possibility of allowing at least temporary changes in lifestyle in order to cope with the illness and empower the immune system to fight back was important from the beginning. The idea of longterm lifestyle changes could have been too overwhelming a concept early on and would likely have been resisted, but to this patient desperate to become well, the acceptance of permission to engage in temporary change for an important cause was finally accepted: the illness in any case had precipitated unwelcome changes.

2.v Early symptom relief.

Beginning work on ameliorating where possible the physiological, cognitive and affective symptoms using hypnotherapy and self-hypnosis would be essential to instil belief in the therapeutic process. There was little likelihood that much relief could be effected cognitively at this stage: instilling the idea that complete rest initially would reduce symptomatology and be beneficial, and conveying permission for such rest and time out was difficult in this typically "A type" personality.

2.vii Setting the goal of re-integrating disintegrated parts.

In Ego State terms (see Chapter 3), there needed to be reassurance to the inner

parts of Cheric that had "lost themselves" and felt alienated that the therapist was aware of a disintegrated concept of self. However the gradual work of reintegration would only begin to be appropriate in Stages 3 and 4 of the SARI model, once safety had been established and traumatic issues addressed.

3. Early practical issues before hypnosis.

3.i Creating a social support structure.

In order to create a strong safety network for the patient, an adequate emotional and practical support system must be organised before beginning hypnotherapeutic intervention. The prime caregiver, Cherie's husband Martin, had to be engaged in the healing process for support and encouragement. Since Cherie was not able physically to attend to normal household duties, suitable alternative support systems had to be arranged. This involved a joint meeting with Martin to provide understanding of the disease process, to explain the nature of help necessary, to seed reassurance, and to explore interpersonal angers generated by the disease's impact on the couple's functioning. Permission to accept the status quo of the M.E. illness from a professional is usually essential before the patient or family can focus on rebuilding health.

3.ii Self-feeding.

All of the M.E. patients seen to date have shown evidence of experiencing mild to severe perceived emotional deprivation at some stage in the formative years: then the M.E. disease process threatens the loss of everything important to the patient. To seed the importance of personal responsibility for the care of self, Cherie was from the beginning encouraged to become aware of positive ways she could help protect and provide for herself. Beginning on the practical physical level instilled confidence. The simple diet plan suggested to Cherie was adapted from the original circulated by a diabetic clinic. (See Appendix: Suggested M E Diet). It concentrates on familiar, easy-to-prepare simple foods from carefully balanced food groups. It has been found in practice to be easily digested and tolerated by M.E. patients in the samples.

The emphasis on natural foods, simplicity, fresh ingredients, easy preparation and easy digestion primarily aims to avoid irritant or "toxic" substances known to be indigestible to M.E. patients. In this respect it is similar to many "detoxification" diets, but differs in that there is no suggestion of harsh deprivation, rather an encouragement to listen to the body and observe what it can digest most easily. This also provides a specific focus for action by the patient in adjusting to present special needs. Not only is this practical involvement useful in helping M.E. patients regain some sense of effective control over the illness, but it seeds concepts of identifying and avoiding toxicity on every level, whether environmental or in relationships, and the importance of self-love demonstrated in careful eating, sorely lacking among all M.E. sufferers in both this formal and the pilot samples. The diet sheet aims to provide simple healthy guidelines for a patient as opposed to the myriad harsh high exclusion diets, exorbitantly expensive multiple oral remedies. and ethically questionable intensive antibiotic treatments commonly pedalled to desperate patients who, in the experience of this therapist, become worse with such harsh treatment.

3.iii Issues of hospitalisation.

Cherie had not been hospitalised by the physician thus the emotional impact of such an experience was not an issue to be dealt with. Where possible it has been found preferable with M.E. patients to seed the idea of being able to cope at home provided support exists, without excessive medication which the patient's system seems unable to tolerate.

3.iv "Alternative" therapies.

In the patient samples under discussion it was noted that "alternative"interventions like reflexology and aromatherapy, although possibly rousing or comforting at a later stage, cannot be tolerated by exhausted, ill patients in the initial stages of the disease. This was also true for Cherie: she had an equally high sensitivity to pharmacological drugs which were only tolerated in very low dosages.

It should be noted that although the hypnotherapist aims to stimulate the patient to establish a better comfort zone while attempting to stabilise the condition, initial acceptance of the symptoms in hypnotherapy opens the way for understanding the message of the weak ego states: the emphasis is thus not on masking the symptomatology, but on utilising it until it is no longer necessary.

3.v Wechsler Memory Scale and SPECT Brain Scan testing.

For the purposes of this formal study, further objective measurements of cognitive dysfunction in M.E. patients needed to be obtained using the Single Photon Emission Computed Tomography (SPECT) scan and Wechsler Memory Scale-Revised (WMS-R) instruments as soon as possible after the diagnosis of M.E. by a Specialist Physician. (See Chapter 7 for detailed discussion.) As explained in Chapter 1. the SPECT scan which measures metabolic blood flow in the brain is able to discriminate patterns in the brains of M.E. patients as different from those typical of depression and other pathological emotional states (Mena & Villaneuva-Meyer, 1992; Schwartz et al, 1993). While it is agreed (Schwartz, 1993) that interpretation of this scan material cannot yet be used with total confidence for definitive diagnosis of M.E., the scan was thought to be useful for comparing preand post-therapy conditions. Similarly, the revised Wechsler Memory Scale (WMS-R) has been shown to discriminate memory retention patterns of M.E. patients as typically different from those of depressed patients (Bastien, 1992). For this formal study therefore SPECT brain scan and WMS-R provided baseline information on functionality, and subsequent information about the effects of therapy.

In Cherie's case, the initial brain SPECT scan taken six weeks after commencing therapy showed pathological perfusion patterns. Use of the WMS-R also showed significant deficits in respect of short term auditory verbal memory in particular.

* Cognitive functioning ((Wechsler Memory Scale Revised, 1987).

	Percentile ranks
Verbal memory	9
Logical memory 1	8
Logical memory 2	27
Digit span forwards	82
Digit span backwards	74

* SPECT brain scan results.

The initial SPECT scan of Cherie taken at the time of the above cognitive testing, showed significantly low perfusion in certain areas as the following initial report by the Specialist Radiologist states:

"Multiple focal areas of moderately diminished activity are noted involving the following sites:

Both temporal, tempero-parietal and insular regions;

Bilateral parietal and parafalcine parietal, occipital and early frontal cortex (more marked on the left side)."

* Cortex-cerebellum ratios: first scan.

These ratios represent a quantification of the photographic information on the SPECT scan, thus are truly objective measures: ratios of <0.85 are considered abnormal. (See Chapter 7 for detail.)

	Right	Left hemisphere
Lateral frontal lobe:	0.78	0.94
Temporal parietal:	0.72	0.86
Lateral-parietal:	0.87	0.88
Superior-parietal:	0.76	0.85
Parieto-occipital	0.83	0.84

In Cherie's case the SPECT and WMS-R information would prove to be particularly useful in supporting her case for medical boarding at a later stage, and for claiming

coverage for fees from her Medical Aid Fund. The SPECT procedure thus provided visible and quantitative evidence of cognitive dysfunction for patient, family and employers, allowing the patient to begin the healing process with diminished guilt. However, in general interventions with M.E. patients, SPECT scans at present are too costly for common use.

4. On commencing hypnotherapy.

4.i Long-term hypnotherapeutic objective

Techniques of Traditional. Ericksonian and Ego State hypnotherapy would all be used according to Cherie's needs (See Chapter 3). From an Ericksonian perspective, planning long-term and short-term hypnotherapeutic goals was found to be helpful even though, in Ericksonian terms, each therapy session would have its own therapy goals, utilising whatever Cherie brought to it (Geary, 1997). Using Ericksonian terminology, trance phenomena regularly observed in Cherie suggested the following desirable therapeutic movements towards change:

- * from the hyperactivity and agitation of high anxiety to greater calm and relaxation to achieve better neurological balance (see Chapter 2):
- * also from physical catalepsy to increased energy;
- * from age regression (helplessness) to age progression;
- * from negative hallucination (not seeing existing positives available) to positive hallucination (seeing choices);
- * from hypersensitivity (in physical distress)to analgesia.
- * from dissociation (of unavailable ego state parts) to re-association.

Even more important than achieving the above therapeutic movement would be the ongoing seeding of hope for the future.

Structuring and planning therapy using the SARI model of Ego State hypnotherapeutic intervention with traumatised patients, Phillips & Frederick (1995) suggest, as described previously, that safety and stabilisation, and accessing patient strengths are the chief objectives in Stage 1 intervention. The ego states of

the M.E. patient can be said to have been traumatised in terms of ongoing bodily illness and weakness, emotional and interpersonal non-coping, and an inability to perform at work. All of these disintegrated aspects of a previously well-functioning personality would need therapeutic stabilisation before later probing the causes of trauma and effecting re-integration of the non-functional parts.

4.ii <u>Unconditional acceptance of the M.E. experience.</u>

Therapy actually began within minutes of meeting Cherie in seeking to establish trust and raising expectations that she could and would be taught to intervene to help heal herself. Increasing trust and confidence would have to be built up over time, but initially it was necessary to demonstrate that it was possible to accept her phenomenological experience of her condition unconditionally. This was essential to reverse the rejection and negative state of distrust engendered by a previous negative therapist. There was also Cherie's guilt and confusion that the messages she was receiving from her body were apparently not real to others. Embarrassment at taking up professional time with a supposedly trivial, imaginary condition indicated a break-down of self-esteem. Cherie needed ego-strengthening to initiate the possibility of self-healing, and a deliberate negating of the fear of therapist control.

4.iii <u>Utilisation of the symptomatology.</u>

It seemed extremely important that Cherie's symptomatology be accepted in the Ericksonian tradition of utilisation as a valuable gift to empower the therapist to empower Cherie. She was reassured after the recital of symptoms that every one she had described was documented in the literature, and familiar to the therapist, and would be valuable in therapy: her body was giving messages through the symptoms which only she could feel, and to which she could learn to respond. Any further symptoms that occurred would also be welcome as coming to help the greater personality. By this approach the therapist was seeding future therapeutic techniques of making friends with the enemy in order to negotiate with it for Cherie's control in becoming an active protagonist. Cherie came to recognise herself

as the essential provider of information from her symptoms, and also her dreams, which only she could access.

It was necessary constantly to monitor drops in energy levels in Cherie as in all M.E. patients. The energy required to recount her story left Cherie exhausted, but she obviously felt empowered by the realisation of her centrality in directing the healing process. The concept of choosing to use available energy wisely and only for positive gain was seeded.

4.iv Introduction to hypnosis.

It was important to introduce hypnosis for deep relaxation and pain control as early as possible not only to ease symptomatology bu also to reinforce concepts of personal control and self-healing. Cherie was initially operating on a cognitive level, needing information. This would be the starting point for linking mind, emotional and body processes in an unthreatening way. The flurry of neural and cognitive malfunction had frightened her badly, particularly since the symptoms had been beyond either her General Practitioner's or her personal control. Learning how to control the body through the mind would demonstrate to her that the right-brain functions at the subconscious level could still function effectively in hypnosis despite the left brain type dysfunction at the conscious level.

Theoretical concepts of psychoneuroimmunology were presented in the form of Rossi's theory of the Transduction of Information (1994). The sketches of Rossi's model (Rossi, 1994) make it easier for a patient with low concentration levels to recognise many physical symptoms which are stress-related and further to realise that it is imperative to halt deterioration at a deeper cell level before further more permanent damage can occur. The simplicity of the concept of healing through relaxation has profound appeal to a patient whose energy levels have dropped excessively low.

Careful exploration of the myths about hypnosis is even more important with an

M.E. patient than any other, as the fear of "losing one's mind" is paramount due to the cognitive dysfunction. The frightening impact of acute phase M.E. is experienced as particularly terrifying to the patient since M.E. patients generally are high achievers with powerful self and cognitive control mechanisms. It is this fact that has enabled them to suppress stressful material though denial for most of their lives until energy levels drop so dramatically owing to illness that denial is no longer possible and symptomatology flares. Not only is the patient out of touch with his usual coping mechanisms but he feels lost without the recognisable strong ego states which are generally dominant. Foreign, dependent, overwhelmed ego states are driving. Berger (1993) describes this problem as a disruption of self-object ties.

4.v Level of trance available.

Hypnotic trance can be valuable at any level. Erickson himself was interested in the very light, common everyday trance; medical hypnoanalysts tend to work at a deeper trance level. However the hypnotic state is dependent on the subject's ability to concentrate attention. It is essential to realise that concentration is very limited with the M.E. patient, thus a relatively light level of trance was first experienced by Cherie, similar to the hypnotic experience of children. The patient typically tends to "lose the therapist" periodically, thus sessions should be short in Stage 1. It is clear that because of energy factors, in Stage 1 the therapist must be prepared to carry the bulk of the interaction encouraging the patient to follow. Kinaesthetic cues invariably appear to be more useful in establishing concentrated attention, than the auditory or visual modalities, which can be utilised later.

4 vi Cherie's first experience of trance.

Cherie demonstrated good visual hypnotic talent in her first experience. Slow progressive relaxation was selected, and as each muscle group relaxed she was encouraged to tune into the way pain and discomfort dissolved. With the whole body fully relaxed, Cherie was asked to imagine slipping inside herself to find the central protective ego state of Cherie with whom she felt she had lost contact. She described this part unexpectedly as a pink satin ribbon, usually fresh and beautiful

but presently faded, tatty, frayed and unattractive. Nevertheless the presence of this part was acknowledged, and its function of tying together and connecting all parts of Cherie over 23 years. Reassurance was given that the ribbon had power to regenerate its gloss and sheen, and this would occur in due course when energy became available. Ego strengthening was done, and post-hypnotic suggestions given to practise the relaxation at least once every day for pain control and regeneration of the immune system.

Immediate feedback was that Cherie had enjoyed the experience which had provided a respite from her distress; her terrible headache had temporarily disappeared in trance, though it re-surfaced subsequently in the conscious state. This good experience of trance generated confidence in her personal talent which was reinforced. Only the glands at the base of Cherie's neck had remained uncomfortable as they pressed against the chair. A modified position for future experiences was devised using pillows to reduce pressure. Self-hypnosis was taught and Cherie was given a relaxation tape to use at home to reduce the strain of generating the trance state unaided. Cherie was a model patient and reported using the technique faithfully however bad a day she experienced: commitment and determination were obviously strong.

4.vii Teaching self-hypnosis to deal with pain.

Apart from learning techniques for progressive relaxation as described above, Cherie was taught techniques of pain control common to Traditional hypnosis. Starting with progressive relaxation Cherie was encouraged to make her way to her own previously described cool, beautiful shady garden, with grassy lawns and a soothing water feature where she could lie back and relax. While relaxed she was to visualise the computer station in her brain. She was taught to identify the switch which could diminish the intensity of the headache, or the nausea, or limb discomfort that distressed her, read the number on the dial and then switch it down gradually to a more manageable level of her selection. After doing this she was encouraged to focus her attention on the garden and the beautiful music playing

in the background: she had suggested Brahms Air on the G string and other quiet melodic pieces. These simple techniques of switching down the pain as well as diverting the attention from pain are elementary Traditional Hypnosis techniques of pain control which Cherie found exceptionally useful even though relief was only temporary while in trance and for a short while afterwards.

5. Exploration of relationship resources and dynamics.

5.i Cherie's family.

So as to further to explore Cherie's resources from her "large circle" (Gilligan, 1994: Thesis Chapter 3) as regards family and social ties, a session was given over to an open-ended unstructured description of her family and work circumstances, what Cherie saw as important was flagged in the therapist's notes for utilisation.

Cherie's earliest memory was of herself before the age of three years with her family on a bridge overlooking a railway line; she felt secure and happy but could recollect nothing more about the incident.

Cherie's mother, then 46 years of age, was described as a warm, loving, accepting, physically demonstrative housewife, who had not chosen full-time employment despite her B.A. Honours Degree in Psychology. She loved children, was leader of a Brownie pack and has always had a close supportive relationship with Cherie. Unfortunately now that they could have provided much-needed support, Cherie's parents were currently living in another province.

Relationship with her father was difficult for Cherie; she found it hard to talk to him except about business. As a child she had experienced him as absent. As a pupil, Dad had been diagnosed as dyslexic and was harshly treated by his father on this account which apparently led to low self-confidence. Dad developed an alcohol problem, and was very rarely present at functions to support Cherie.

She had confronted her father over the absences and alcohol issues when, at the age of 20, a long-term relationship with a boyfriend had ended; in response to her accusation that Dad had never been there for her, he apparently took stock and had not taken alcohol since. Cherie currently respected him more for his strong-mindedness.

Cherie's brother Darren was reputedly a brilliant mathematician though he did not put his mind to working. Cherie achieved excellently but through dedicated hard work. She was jealous that father favoured Darren, and the sibling relationship only improved when Cherie went overseas with him for two months as a young adult. Cherie had apparently developed a high need to be an achiever in order to equal Darren and attract Father's attention. Father took scant notice of her achievements however, even when she achieved the highest possible award in guiding, the Founder's Award Diamond Challenge and Gold Shield.

Academically Cherie had achieved well despite, or because of, Dad's lack of interest; she obtained a first class Matriculation certificate, and was Dux of her High School. However, in the Matric examinations she had suffered "a breakdown" from "pushing too hard" and had missed the biology paper.

Cherie rated herself as sociable; she attended several different schools, made friends easily and was voted likeable because of her cheeky way and sense of humour. She was made a prefect and house captain in her last year, and was intensely involved in all school activities; she claimed she had never taken time off. but nevertheless had enjoyed the involvement. Cherie had a few casual boyfriends before a 6-year relationship which only broke up in her second year at College.

At College Cherie again became over-involved in academics, sport and guiding. The degree course she had chosen she found extremely demanding because of

her spread of commitments, and as stated above, became ill in the 4th year and was unable to complete her practical teaching requirements.

Cherie had been extremely close to her maternal grandparents. She particularly idolised her grandfather, a medical doctor. Before she left to stay with them when ill in her 4th year, her mother revealed that Grandfather had sexually traumatised mother as a child but grandmother had no knowledge of this. Cherie was given no details. Thereafter she could not relate to grandfather.

Marriage to Martin occurred in less than favourable circumstances as noted above: Cherie had not been well since the wedding.

5.ii Significant characteristics noticed among M.E. patients.

Characteristics from this history and also found commonly among M.E. patients in this formal study and the pilot study by Welch (1995) (Chapter 1):

- * Significant adults are perceived to be critical and demanding but emotionally unavailable: the dominant male or authority figures in Cherie's life had proved untrustworthy;
- * "Overachievement" occurs in an attempt to gain recognition from an emotionally distant parent/authority figure or significant other;
- * Consequent apparent guilt and fear over taking time-out away from work or responsibilities are noteable: Cherie had learned to equate achievement with recognition/approval;
- * Unmet dependency needs: while the strong part of Cherie was admired, weaker behaviour was unacceptable.
- * A family history of Attention Deficit Disorder is frequently mentioned: such a genetically inherited trait may have pre-disposed Cherie neurologically to a hyperactive behavioural style which flared in the M.E disease process.

5.iii Apparently available ego states.

In Ericksonian and Ego State terms, utilising the "big-circle" information

above, suggested certain significant ego states with whom to make initial contact:

- * an overwhelmed and sad, regressed ego state uncertain of support;
- * an introjected critical, non-appreciative, driving state;
- * a guilty, confused. demeaned state;
- * a hyperactive part
- * a perky, cheery part.

5.iv Utilising history information to call out ego states.

With M.E. patients, who invariably have very low energy though high motivation available for therapeutic work, it has been found useful to utilise in the Ericksonian sense, feeling states observed to be present in the patient as ego states. They can be called out by the therapist on being observed, e.g. tears identify a sad part; the part can then be asked what name is preferred using the Ego State therapy technique. This approach can often provide an easy entry point for the identification of ego states, and avoids losing therapeutic opportunity, momentum and patient energy. It seems valid to distinguish this utilisation of carefully observed behaviour from the false establishment of introjects in the patient engineered by a therapist to suit his theory.

5.v Increases in distress as the disease peaks.

One of the difficulties encountered with M.E. patients is that emotional distress can initially increase as the physical and cognitive symptomatology manifests fully over a six month period from onset. A worsening of hypoperfusion in the brain is also revealed in some of the brain SPECT scans (see Chapter 7) This worsening of symptoms is not therefore thought to be due to the uncovering of hidden trauma as in Post Traumatic Stress Disorder (PTSD) if the therapist is proceding cautiously, but the permitted abandonment of previously rigid defence mechanisms may well be involved. The fact that symptoms do tend to worsen initially merely emphasises the need for slow, safe steps and much reassurance in the initial stage of M.E. therapy. In addition to the worsening of

symptoms, external pressures for coping in daily life continue. often becoming more complex as time goes on. This demands ongoing therapeutic support and solution-stimulation for each new situation. The therapist is thus engaged in a slower ongoing support role as ego state issues are uncovered gently, rather than in a faster-moving uncovering process in Medical Hypnoanalysis.

5.vi Loss of employment.

After approximately the fifth session of therapy, Cherie reported increasing distress and anxiety over how the school authorities were responding to her illness, implying she was a hypochondriac. As her anxiety increased, her condition deteriorated. Apart from the physical pain and low energy, cognitive malfunction was severe; Cherie's difficulties with comprehension, word-finding, calculation and even short term concentration would have made it impossible to teach. The Headmistress was more concerned about her lack of a teacher than Cherie's health, despite the fact that Cherie had worked exceptionally hard and had been a school asset while well. The Parent Body who paid her salary, were increasingly disbelieving that she was ill, and demanded reassurance that she would be back at her post in the new year. Her colleagues and friends saw her less often and became increasingly uninterested in her; she had fewer and fewer visitors and felt bewildered and hurt by the isolation after being so active and social. To her horror, she could not even remember the names of her pupils when shown a class photograph by a colleague.

It became clear that Cherie would not be ready to teach by the deadline set for the next school term. A medical specialist's report and my psychological report together with the results of the Wechsler Memory Scale were communicated to the Headmistress, but a decision had been taken: Cherie was pressured to resign.

With creditable assertiveness Cherie refused to do this and requested the parent body to terminate her services if this were their decision. She felt angry, and also hurt that she was punished and unappreciated. Her confidence disintegrated, she feared she would never teach again. There was also a legal complication that she would not be able to repay the loan in terms of service as she was bound to do. In this circumstance, the supplying of Cherie's SPECT scan to the authorities eased the demands temporarily, though the debt still remained

The pain of the displacement of a normally competent, effective ego state on rejection from the work force, even if temporarily, is a common and difficult issue that invariably must be addressed with M.E. patients who usually cannot be employed for a year or longer.

5.vii Dealing with the pain of rejection.

After relating the above intolerable situation. Cherie felt too ill and exhausted to engage in extensive Ego State therapy though it might have been desirable to engage with the academically successful ego state for reassurance. Instead when deeply relaxed, her present sorrow, hurt, pain and anger were acknowledged. Cherie was encouraged to visualise a protest march of angry and hurt feelings roused by all the rejections since her illness; it was suggested she take the salute and silently greet each representative incident as it filed past by raising a finger, thus recognising its presence, empathising with it. and acknowledging that it had every reason to be present in protest. Silent tears indicated the healing abreaction which was later reported to have decreased her feelings of guilt and sadness.

After the procession had passed, Cherie was encouraged to let them go; she was then able to relax deeply. The currently dominant weak sick state was acknowledged as being present as it had also come to be of help to the greater personality. The post-hypnotic suggestion was given for Cherie's central protective ego state to send us dreams when the time was right for her to explore the message of the illness. This request was felt necessary to prevent

Cherie feeling that she might be overwhelmed with too much distress for her energy levels to handle. Cherie returned to consciousness feeling less burdened.

6. Dreamwork.

6.i Indications of readiness to proceed.

Five very clear dreams were subsequently offered by the sub-conscious for further work as a response to the post-hypnotic suggestion: their content was easily understood by Cherie, but more importantly, they signalled that the time was right to move into working with negativities blocking her energies. The time was now ripe to address relationship issues not previously acknowledged.

The signalled readiness of the unconscious to begin "work" in earnest was recognised as Stage 2 of emotional readiness in the SARI model: uncovering and addressing the trauma. Cherie was ready to regress to incidents and factors of distress.

Working with Cherie's dreams as a gift from the unconscious was intended to acknowledge:

*that the sub-conscious knew what issues to deal with and would raise them when appropriate;

* that Cherie had within her the resources to deal with her difficulties.

6.ii <u>Dreams linking achievement to acceptance.</u>

In the first three dreams to be discussed, Cherie recognised that love and acceptance by authority figures had clearly over the years become dependent on high quality performance. Low achievement/ incompetence was equated with rejection.

*"I was at school teaching from a wheelchair. Although I'm normally endlessly patient, I was yelling at the children. Our Head of Department appeared to say I would be fired because of my attitude; everything was wrong at school, my work was poor and I was quite incompetent."

*I was at the bottom of a staircase trying to climb it on roller blades but I could make absolutely no progress

*"I had a terrible fight with my mother: she told me I should simply 'pull myself together'. I stormed out and later tried to phone my mother, but she put the phone down. My overwhelming feeling on waking was, 'She does not love me.'"

6.iii Addressing dream material in hypnosis.

Permission was granted by the unconscious to speak with the ego states who understood Cherie's distress. It was established that these dreams were coming from the sad, regressed ego state presently executive, who felt completely misunderstood, rejected and unloved in her helplessness and unproductiveness. The therapist called any ego states who could help. The first addressed was an adult ego state, Teacher, who really understood children and their feelings. This part agreed to care for the confused child part of Cherie even though "the teacher" was not available for executive duty "on the outside". The loving introjected part of Mother was also called to give reassurance that she would never stop loving Cherie warmly, even though she might not always understand her. She would also help Cherie to be loving to self instead of impatient.

Achiever also came forward; this part although currently "on sabbatical" had been present since Cherie was 3 years old and her brother had gone to nursery school: she desperately wanted to go too. Achiever felt the same envy when her brother Darren started primary school. When questioned about whether there was an incompetent part in Cherie's internal family, this was denied. Achiever could however remember Cherie's annoyance that her school report was never seen to be as special by her father as her brother Darren's. Achiever commented that she had come to help Cherie "work like a slave" to show them that she was exceptional too: she was annoyed that all this had been in vain. We thanked Achiever but asked her to refrain from such efforts in the

meanwhile since Cherie was too unwell for such demands. Achiever's support would be most welcome later but perhaps present demands on Cherie's energy store might be more reasonable. Cherie emerged from hypnosis much comforted by the interactions.

6.iv The baby dream.

Cherie believed she was currently irritating and sexually uninteresting to her husband; she therefore felt blocked about falling pregnant. Her dream showed Cherie the vague outline of a baby which she longed to hold but could not reach. At the most obvious level the normal longing of a newly-married young woman to conceive a child to love, was being thwarted by her illness. making her feel even more inadequate and frustrated. On a different level, this dream was also utilised to reframe the needs of her own inner regressed child state.

6.v Identifying with Cherie's helpless baby part.

Baby simply cried when asked what was the matter. In discussing this dream with the other adult ego states, they all noted with sorrow how inadequate nurturing had been for Cherie's internal child both from her father when she was younger, and in her present ill state. The states agreed to share in the parenting so that the baby would be properly cared for in its present helplessness. An extended period was given to visualising the nurturing parts in turn rocking Cherie's helpless Baby state, comforting it, providing the softest cradle, responding to it when it cried, never becoming impatient, etc. The need was clearly to gentle the baby in hypnosis to reduce its high anxiety.

Thereafter the Young Wife Cherie was encouraged in an age progression to see herself as really competent to take over the task of caring for self and her own baby some months into the future.

6.vi Separation anxiety dreams and ego state interventions.

The following dream of significance at this time reflected fear of rejection by

significant males.

"Martin left for work, saying he was not interested in coming home any more. He went to live with his brother and was seen telling his friends how awful his wife was."

The family of ego states were consulted to see whether anyone supported Martin's behaviour. Only the critical part took his side: the Responsible part, the nurturing Teacher and the introjected Mother part all believed that Martin was spoilt and unused to being thwarted, that he was petulant and throwing a tantrum because circumstances were difficult. They suggested he be given a hug, and felt confident he would grow up to be more supportive. Much reassurance of support was needed for Baby at this stage which felt totally terrified that Martin might disappear. The validity of the advice by Cherie's inner ego states, was reinforced at the sub-conscious and later at the conscious level.

The "Martin dream" was the sub-conscious warning precursor to serious relationship difficulties between Cherie and Martin. Separation anxiety is a common circumstance in M.E. while the total personality is regressed and feels unattractive sexually and unworthy. Because of Cherie's history of perceived loss in relationships with significant males, she had up till now in her marriage accepted docilely whatever Martin suggested for fear of his anger and rejection. She needed to be sure her inner parts would care for her no matter what happened in the relationship.

Just before Christmas Martin expressed his anger and disappointment over Cherie's slow recovery, wondering if he wished to stay with her in these circumstances. Cherie was not contributing financially which meant thay might have to sell their house; she was also dull and boring now she was ill and a normal social life was impossible.

Following this report by Cherie, a meeting of her strong ego states was called in hypnosis. After a period spent in ego strengthening, the Wise Old Ego State was called to affirm Cherie's worth. It confirmed that Cherie was of infinitely more value for herself than as a breadwinner and that she would find the strength to endure this phase with the support of the internal family of parts whatever Martin chose to do. Additional parts capable of supporting Cherie were identified as Determination, Courage. Sense of Humour and Religious Faith. The Wise Old Part understood that Martin clearly had a problem about taking on adult responsibilities in a mature fashion; he was behaving like a spoilt child, so Cherie had no need to take on guilt over his words, however much regret she felt.

A second serious row transpired after Martin had insisted that Cherie accompany him to drive the heavy farm vehicle home over the muddy farm roads while he drove a second another vehicle. Cherie was extremely unwell on this day and protested that she did not have the strength in her arms, nor did it feel safe for her to drive. Martin told her how useless she was and suggested she go home to her parents as he did not want her any more; he needed a break. Martin refused to see any professional about Cherie's condition; he was of the opinion she was being "mothered" too much and her condition being exacerbated.

Cherie's comment "Martin is not a very caring person anyway" was surprising. It was possible to use Cherie's hurt, sense of betrayal, anxiety and fear as an affect bridge to transport her back to the first time she was rejected when feeling ill. She initially described a scene before she went to school when her father sent her out of the room because her ongoing coughing was irritating him; the second scene remembered was when the Class Two teacher sent her out, also because of her coughing which she could not control. On both occasions Cherie was upset and hurt because it was not her fault: on the second occasion she also recalled acute embarrassment. The relationship to her present

situation with Martin were recognised. It was clearly necessary to break the automatic reaction to these memories. The Young Wife was brought into each scene in turn to comfort the child, assure her it was not her fault, and explain that adults sometimes have problems with irritation because of their own faulty dynamics. The Young Wife ego state was subsequently reinforced, and reassured that she was now competent to care for Cherie's health whether or not others were caring or irritated; she could also now make personal choices about the best answers to temporary problems. Cherie was assured that never again would anyone have the power to send her out or away, that she could now choose whether she wished to leave and for how long. Since no-one could force her out, she could choose calmly and logically in her own time whether a break away from Martin at her mother's house might be healthy all round, and for how long she would go if she chose this. Ego strengthening was repeated.

6.vii A traditional hypnosis technique for self-preservation.

Cherie was also taught at this time a simple traditional hypnosis technique of visualising erecting a perspex shield around herself when necessary to protect herself from the hurtful attitudes or arrows of others regarding her disease. While being able to see and hear, she would thus be able to separate the problems that belonged to Martin as he faced this disease, from the problems she was learning to deal with. This simple strategy helped Cherie withdraw with positive intent from anxiety-provoking situations she could not change; it also helped her deliberately preserve her energy for her own healing.

7. Premature end to therapy?

Four months after commencing therapy, Cherie appeared to have moved into Stage 2 of the M.E. process, the recuperation stage. This was approximately 7 months after the onset of the M.E. symptoms. Her physical symptoms were decreasing in severity and cognitive function was improving, though she was still far from well. Cherie still needed extensive rest to avoid a serious relapse, but she felt more in control of her world.

She and Martin chose to accept a career move for Martin which removed them to a distant farming community. Therapy unfortunately had to be discontinued though occasional telephonic contact was maintained.

8. Re-assessment.

Cherie only had 4 months of hypnotherapy because of the unexpected relocation, but she had made great progress in this time. She was only able to travel to town for a follow-up assessment 2 years later. The quantitative comparison of scores on norm-based tests given to subjects in this study will be addressed fully in Chapters 7 and 8. A brief a comparison of Cherie's scores and SPECT results before and after therapy is summarised as follows:

8.i Affective measures:

	Before therapy	After
	Percentage	Percentage
State Anxiety (Spielberger, 1980)	100	10
Trait Anxiety (Spielberger, 1980)	100	35
Depression (Beck, 1967)	43 (mod)	20 (nil)
Symptom Checklist (Welch, 1992)	98	70
Home coping (Welch, 1992)	10	95
Work coping (Welch, 1992)	0	80

8.ii Cognitive functioning (Wechsler Memory Scale Revised, 1987).

	Before therapy	After
	Percentile 1	anks
Verbal memory	9	31
Logical memory l	8	41
Logical memory 2	27	45
Digit span forwards	82	43
Digit span backwards	74	74

8.iii Brain SPECT scan results:

Before therapy.

"Multiple focal areas of moderately diminished activity are noted involving the following sites:

Both temporal, tempero-parietal and insular regions,

Bilateral parietal and parafalcine parietal, occipital and early frontal cortex (more marked on the left side).

After only 4 months therapy interrupted by translocation (2 years after diagnosis)

"The previous scan was available for comparison. The appearance of the temporal lobes has not changed. There is less diminished activity in the temperoparietal region when compared with the previous scan. The parafalcine areas previously described are also less impressive.

Comment.

There has been an overall improvement since the previous examination."

8. iv Cortex-cerebellum ratios (before and after therapy).

	1st scan.		<u>2n</u>	d scan.
	Right	Left hemisphere	Right	Left
Lateral frontal lobe:	0.78	0.94	0.85	0.93
Temporal parietal:	0.72	0.86	0.82	0.79
Lateral-parietal:	0.87	0.88	0.87	0.74
Superior-parietal:	0.76	<u>0.85</u>	0.74	0.77
Parieto-occipital	0.83	0.84	0.73	0.79

The ratios calculated by the Principal Physicist differ slightly from the reports of the Specialist Radiologists. According to the above figures, Cherie was still incapicitated by hypoperfusion in the brain despite excellent improvement in coping with her lifestyle.

9. Postscript.

Telephonic contact made with Cherie 4 years after the disease onset found Cherie much happier in her marriage and managing her circumstances. She had by now a young baby of 6 months who kept her very busy but she also had domestic help in the home. While Cherie had not been able to return to full time teaching, she was employed on a flexitime part-time basis advising on pre-school education for disdvantaged rural children: this involved travelling. but hours of attendance were at her discretion. Remuneration from this employment was going towards the repayment of her outstanding loan to the education department.

Cherie reported she had more energy than previously but was susceptible to unforseen as well as understood relapses to M.E. symptomatology. She stated she was managing her energy reserves well in the circumstances.

CHAPTER 4.
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CHAPTER FIVE.

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CHAPTER FIVE.

STAGE 2 INTERVENTION IN THE M.E. PROCESS USING CLINICAL

HYPNOTHERAPY: JEAN (Patient 5 in the quantitative assessment, Chapter 7).

1. Introduction.

1 i Objectives

This case discussion aims chiefly to focus on the typical shift from therapeutic intervention concerning issues relevant to the acute Stage 1 of the M.E. disease process, to issues and interventions found useful in Stage 2, i.e. the recuperative stage of M.E. It seems necessary for the sake of clarity in distinguishing the differences between Stages 1 and 2, to describe the initial and typical sorts of symptoms, concerns and therapeutic issues in Stage 1 as experienced by this patient, Jean, before proceding to describe Stage 2 therapy.

Lii Resume of the different stages of the M.E. disease process.

As described in Chapter 1, Hyde (1992) defined four stages of the M.E. process as follows:

Stage 1;

There is a dramatic barrage of symptoms taking 3 weeks to 6 months to develop the full symptom picture.

Recuperation Stage 2:

7 - 12 months from onset, characterised by a decrease in number and severity of symptoms, and increasing improvement in physical and mental functioning.

Early Chronic Stage 3:

1-6 years after onset.

This is an adaptation phase with attempts to regain previous level of function. Relapses occur on over-exertion.

Late Chronic Stage 4:

6 years from onset onwards. The patient lives with the disease, vulnerable but trying to avoid relapses.

Liii) The beginning of Stage 1 of M.E. for Jean.

Jean was a 44 year-old senior lecturer at a large University. She had a Ph.D. degree and a highly responsible post in her Department. For the past eighteen months she had been experiencing a downward spiraling in health which had made it increasingly difficult for her to perform in her post. Although M.E. had been diagnosed by a specialist physician eight months prior to commencing therapy, Jean had denied the diagnosis and only commenced therapy out of desperation when she could no longer cope physically or emotionally.

Liv Events preceding and precipitating Jean's physical illness.

Jean had been involved in an exceptionally busy six-month period at work including the strain of driving long distances over bad roads in rural areas which had been dangerous and anxiety-provoking in an unsettled political climate. She had in addition been heavily involved in a demanding conference. Then followed three traumatic deaths: two of her close friends died in tragic circumstances, and Jean's very old dog became ill and died after her house was fumigated, which caused deep grief and guilt.

1.v Early physical and neurological symptoms before diagnosis

- * a viral infection like flu;
- * increasingly severe ear problems and hearing difficulties;
- * concentration problems;
- * unrelenting fatigue;
- * muscle weakness.

Despite an increasing range of symptoms and ill health, Jean had continued doggedly at work. The full-blown array of symptoms had emerged gradually and finally clearly tallied with the expanded M.E. criteria for diagnosis suggested by Welch (1999) in Chapter 1. A medical diagnosis of the disease was given by a Specialist Physician with a particular interest in M.E. Jean had been referred for psychotherapy because she could not accept his diagnosis and was experiencing great guilt and anxiety about her condition.

Lvi Case history.

Jean presented as a slight, pale, frail-looking woman, so apparently fragile as to resemble a delicate bird; she was so thin and exhausted-looking, and her eyes so dark-ringed that there was no refuting the fact she was seriously ill.

Jean was single, and lived alone with her two large, highly pedigreed dogs who were as dear to her as children. She also owned a prize Arabian stallion: horse-riding was her passion and she was an expert ornithologist. A maid worked for her once a week only. Jean's married sister was a busy young mother with one young child, and was expecting another. Her brother was in a stable gay relationship but in another province. Family bonds were fond between the siblings but there was restricted practical support. Jean's parents lived in another city. They were now aged, infirm and increasingly demanding; they were of no help to Jean in her present illness, only increasing her anxiety by their excessive reaction to her condition. She felt unavailable to them and therefore guilty.

Jean had always felt less pretty and less lovable than her sister who was five years younger and whom father idolised: her brother was three years younger and she remembers jealousy at their births, envying both for the extra attention they seemed to obtain.

Jean: "I did not have a father when I was young. My mother and father have never loved each other: she only married him to escape the army in England. Their relationship was cold all along. Mother was very angry about this evil ogre who gave her no praise or support. She used to tell me all about her empty relationship - quite inappropriately. We were brought up by her to hate him for it, and thought our father was very selfish and cold: now that I am older I can appreciate him more because he knows what he likes and wants: he is an architect and an artist and still plays golf. But then we learned that all men were terrible. and sex was sterile. I had to be my mother's confidente or else she would have disliked me more."

Jean was a timid little girl, also constantly criticised by her mother as a "terrible child". Jean remembered her saying constantly: "For goodness sake sit up straight and tuck your chin in... Your hair is awful and you are so pale!" Jean equated pale with ugly and remembers her mother's words "You must wear rouge to school to look better".

Over the years Jean's mother became increasingly manipulative, constantly complaining of ill-health to gain attention: Jean felt a need to stand by supportively and respond. Both Jean and her sister were determined not to become hypochondriacs like mother, hence Jean deliberately ignored ill health and learned never to complain.

Jean also took on the role of protecting her younger brother whom "father hated": she carried the "secret" of his being gay because it would cause too much trouble in the family: she still carried this burden and worry about parental reaction to the truth about her brother.

Jean had been in four adult relationships from the age of 33 years, all with married men with whom she had worked; in all cases she appeared to have been taken advantage of emotionally in her need for love, and was in each case ultimately abandoned when the relationship endangered her partner's marriage. Jean felt she was constantly giving, but received nothing long-term in return. She related her sadness in therapy without emotion showing only exhaustion.

As a child, Jean remembers the family moved ten times: "We lived in horrible houses without gardens and always messy". When she was 5 years old, Mum helped Dad at the office, and the lonely child roamed the neighbourhood. She began school in a convent where she remembers the nuns as cruel. She hated school and was sick every morning "from nerves": nevertheless she did well academically. Her mother praised her for her achievements: Jean became increasingly afraid of losing her position as top of the class, and thus losing all authority figure recognition. Despite battling with each change of school and syllabus, Jean continued to excel academically especially in statistics and biological science, and finally qualified with a Ph.D. Cum Laude. She had also been involved in research before her present lecturing post: despite all this Jean has "never felt an expert at anything". She was known to be a tireless and dependable staff member, and was again taken advantage of in the load she carried.

When first seen, Jean had been battling for more than a year to keep up with her work at University, finding it increasingly difficult to fulfil her duties, and becoming more and more

exhausted. The harder she found it, the more relentlessly she pushed herself to maintain her high standards. The demands of the Masters' students were very heavy, but the large first year classes were particularly onerous because the students were unruly and Jean had not the energy to take control. She had taken sick leave and returned several times, each return spiraling her down lower till she was completely unable to drive to work even when her timetable was cut. Her Department Head was an unsympathetic and arrogant man whom she despised for his lack of integrity; he was a hard taskmaster and highly critical of her. This Department Head criticised Jean's sick absences, so she took the barest minimum of days, battling to keep working. She was aware of her increasing cognitive dyscontrol, carelessness and inability to remember duties and deadlines. A close colleague who professed to be a friend merely increased Jean's distress by her repeated demonstration of her easy efficiency compared with how little Jean was managing. Jean's work environment became ever-increasingly toxic. Jean gradually used up all her sick leave, as well as a large amount of accumulated paid leave. She moved progressively from full paid leave to half pay before M.E. was finally diagnosed seven months after she had first become ill. She was put off work for a further 3 months. Still unable to accept the diagnosis of M.E. which seemed like an admission of dyscontrol, Jean would try to prove she was not really ill; she would drag herself out of bed in an attempt to walk her energetic dogs, or even climb onto her beloved horse to ride a short distance. Each of these attempts left her much worse than before, terrified by the effects of her activity, and feeling guilty over her recklessness. To her dismay she could not control overwhelming urges to hyperactivity when they occurred despite her knowing that her body was obviously in an alarmingly weak state.

1.vii <u>Initial objective assessment.</u>

As stated in the previous case description, for this formal study, observations and qualitative information obtained in therapy sessions were extended by using norm-based measures and self-report questionnaires: the full procedural description and discussion of quantitative findings will be presented in Chapter 7.

For the purpose of this case study, Jean's scores on these measures at the commencement of therapy will be quoted for interest, though qualitative information was considered the more important especially at this stage.

* Affective measures used.	Percentage score
State Anxiety (Spielberger, 1980)	99
Trait Anxiety (Spielberger, 1980)	100
Depression (Beck, 1967)	57 (severe)
Symptom checklist. (Welch, 1992)	100
Home coping (Welch, 1992)	0
Work coping (Welch, 1992)	0

* Cognitive functioning (Wechsler Memory Scale Revised, 1987).

	Percentile ranks.
Verbal memory	25
Logical memory 1	33
Logical memory 2	37
Digit span forwards	64
Digit span backwards	<

* SPECT brain scan findings.

The initial SPECT scan taken at the same stage (9 months after medical diagnosis) showed significantly low perfusion in certain areas as the following report from the primary specialist radiologist involved with the SPECT readings states:

"There is mild to moderate decreased activity indicating diminished cortical perfusion at the following sites:

bilateral frontal, parietal and occipital cortex (more pronounced on the left);

left lateral parietal cortex;

left temporal lobe (only minimal asymmetry).

* Cortex-cerebellum ratios: first scan.

As stated in Chapter 4, these ratios represent a quantification of the photographic information on the SPECT scan, thus are truly objective measures: ratios of <0.85 are

considered abnormal. (See Chapter 7 for detail.)

1st scan.

	Right	Left hemisphere
Fronto-parietal	0.82	<u>0.74</u>
Superior-parietal:	<u>0.72</u>	0.69
Parieto-occipital	<u>0.86</u>	0.87

Jean commenced hypnotherapy 8 months after initial medical diagnosis which itself occurred 7 months after her experiencing illness. Her alarmingly poor physical condition was only too evident at clinical appointments and would worsen before it began to improve. It would take 13 months (i.e. the maximum time estimated by Hyde and Jain, 1992) for Jean to recover sufficiently from the initial acute stage and a diagnosis of M.E. by a physician, to the recuperation stage. It would take five months of supportive Stage 1 type therapy before Jean could be said to have reached the level of stability where one could investigate traumatic emotional issues. Earlier diagnosis of M.E. would certainly have reduced physical and affective deterioration and energy depletion.

The initial Stage 1 intervention was particularly elongated for Jean for several reasons:

- * she had deteriorated so badly in health before a diagnosis was made thus her energy for therapeutic response was limited:
- * she could not immediately accept the diagnosis of M.E. when it was made and therefore could not immediately take responsibility for her part in the healing.
- * she lacked an adequate social support system to share the strain of the illness.

2. Resume of Stage 1 therapy content.

2.i The need for comparisons.

As stated previously, this resume is intended to clarify the qualitative difference between the issues of Stages 1 and 2, and the degree of recovery necessary before embarking on Stage 2 which advances to a qualitatively different style of therapy.

2.ii Jean's chief concerns.

Jean was primarily distressed by her physical and mental helplessness and vulnerability. She experienced most of the M.E. symptoms typical of Stage 1 (see Chapter 2) but muscle pains, discomfort and digestive problems plagued her virtually constantly. She was very weak and bedridden most of the time. It was extremely difficult to feed and care for herself, or her dogs, thus she was not eating properly and becoming even thinner and more fragile. The spectre of unemployment loomed and she was terrified of being alone, helpless and without financial prospects.

2 iii Stabilisation requirements using the SAR1 model

(Phillips & Frederick, 1995).

Stabilisation, the essential first step described in the SARI model, and re-stabilisation were required again and again as an urgent necessity in the early unstable acute phase. Practical issues of safety had also to be addressed immediately: until this was done anxiety could not be reduced in any way. Stabilisation in Jean's case was concerned with:

- * establishing trust that a support structure could be mobilised to care for her;
- * having Jean accept her temporarily diseased state so she could continue the healing process instead of sabotaging it;
- * stimulating hope that a means would be found for financial survival.3.

Establishing an adequate support structure.

<u>Jean's sister</u> was approached by this therapist to buy provisions and organise frozen soups and soft foods that Jean could manage to reheat. The love and attention her sister showed was important proof that Jean was loved and deserving: this was used when Jean was strong enough for affective issues to be addressed. Unfortunately it was difficult for her sister to sustain this involvement.

Jean's parents were persuaded by her sister to reduce the pressure on Jean.

<u>Jean herself</u> was encouraged to abandon perfectionistic housekeeping and allow the maid to cope without supervision while Jean simply rested.

Neighbours were approached to walk the dogs so she could rest.

Colleagues unfortunately displayed a typical dwindling of support for Jean in her absence

from the workplace. They could not be counted on as a regular part of her support structure now that she was no longer useful to them: this increased her sense of abandonment which required addressing therapeutically. Jean was encouraged to reconceptualise this loss of friends as a possible useful circumstance since she had not the energy to entertain visitors: she also needed quietness in order to recover. As she abandoned the need to please others for recognition, Jean learned both to trust herself to cope alone most of the time and ask for help when essential without shame.

4. Accepting the disease.

4.i Accepting objective evidence.

Since Jean was an academic she desperately needed proof of her illness before she could accept it, especially in view of her family dynamics and colleagues' attitudes. The concepts of psychoneuroimmunology she could accept with ease because of her physiology training. Her brain SPECT scan yielded extremely sombre but convincing additional information that perfusion levels in the brain were seriously affected. The Wechsler Memory Test yielded corroborative proof of what was incontrovertible to any observer: Jean she was totally incapable of working as a lecturer for the present. She could at last accept cognitively the diagnosis of M.E. and work towards recovery.

4.ii Persuasion for acceptance through hypnotherapy.

* Ego strengthening and love.

Hypnotherapy was initially limited by restricted concentration capacity. In line with her safety needs, as recommended in the SARI model (Phillips & Fredericks. 1995?), ego strengthening was her chief requirement at this stage. Very gentle therapist involvement was all Jean could tolerate initially. Jean had enormous need to experience from the therapist and to give herself the love and attention she had not received to date.

* Progressive relaxation and self-hypnosis.

Jean learned progressive relaxation easily and she practised it regularly and responsibly for pain relief and symptom control. She learned techniques for visualising internal healing; this was extended to changing the colour and therefore the intensity of her pain allowing her to

feel interactive in the healing process. Jean showed excellent hypnotic talent and responded well to age progression and post-hypnotic suggestion.

*Permission from ego states to heal and care for self.

Extensive interactive ego-state therapy was too demanding for Jean initially: however it seemed necessary to gain basic permission from the inner ego states to accept the diseased state on an emotional level and begin helping it. This was a slow and patient process because the only sub-conscious reponse she could manage at this stage was finger signaling in response to questions addressed to ego states by the therapist. Her ego state which cared for her animals so efficiently was urged indirectly to teach this caring to Jean's sick ego state as an immediate need and responsibility. Appeals were also made to other harshly critical introjects that she be given time off to care for self for the good of the greater personality.

* Post-hypnotic suggestion to dream for healing.

The help of the sub-conscious was sought to furnish dreams we could use in therapy for healing. Jean had been experiencing the terrifying nightmares typical of M.E.: these were reframed as expression from her sub-conscious of her present nightmare illness. With her acknowledgment of this, more detailed imaginative symbolic dreams were produced which supplied rich leads into sub-conscious processing.

5. Negotiating financial issues.

Each of the hurdles to be described was an alarming and draining hurdle for Jean.

* Negotiating with the university.

Financial pressure and long-term monetary issues were sources of high anxiety which had to be tackled in the initial phase. The SPECT scan and Wechsler results were used to motivate for Jean to be boarded by the University. The Department Head made this extremely awkward and unpleasant as he did not wish to lose her. He exerted pressure, procrastinated and became obstructive, further distressing Jean. Finally her application for boarding was accepted..

* Negotiating with the insurance company.

Jean's insurance company then refused to accept proof of her disablement as a lecturer. Much negotiation and documented evidence needed to be accumulated by this therapist before she was finally paid out enough to live on monthly, but with conditions attached. Again she felt doubted and suspected of malingering, but was learning to ignore the responses born of ignorance.

* Negotiating with the Medical Aid.

Medical Aid benefits for psychotherapy were ridiculously low in comparison with psychiatric benefits and totally inadequate for long-term support: Jean required weekly therapy sessions initially. The battle by this therapist successfully to negotiate suitable changes took many months and extended beyond Phase 1: the strain of this burden on Jean was inestimable though fees were reduced as necessary.

- 6. Stage 2: The Recuperation Phase.
- 6.i General patterns.

According to Hyde and Jain (1992) this phase would be characterised by evidence of slow stabilisation of physical symptoms, a pattern of advance and relapse, and gradually emerging energy.

Once the most pressing practical issues had been addressed, Jean could discard her lifestyle anxieties and attend to taking control of her life. After 5 months of patient support, Jean was able to take on more of the management of her household organisation although she was still seriously limited physically. She was encouraged to pay meticulous attention to her nutritional and rest needs as a priority. She learned not to feel obliged to respond to the needs of others when her needs were more important, e.g. she could ignore a telephone ringing if she were resting. She began to organise a system where she could eat small amounts frequently and more regularly; the fact that she felt better reinforced the possibility of self-healing.

General stabilisation became more evident: relapses were still frequent but physical

symptoms less intense; extraordinary fatigue and muscle weakness were her chief difficulties. Jean now knew what excessive activities precipitated relapses and was more in control of preventing hyperactive behaviours to keep her balance; even when there was no logical reason for a relapse she could accept it with greater equanimity, knowing that she could stabilise herself again and regain an equilibrium with adequate disciplined attention to rest and self-care: she was committed to learn from every experience. Jean began to recognise that negative affective factors sapped even more energy than physical over-exertion. She had need of immense patient support, and learned to ignore the criticism of others who could not understand her illness: she was learning to erect boundaries to protect herself from negativity on the outside and make herself stronger.

It was at this stage that Jean took a short holiday at her brother's home. She returned to report that she was able to read books once more and she wanted to start fabric painting. More creative energy was obviously available and it appeared she was ready to begin working more intensively at accessing traumatic negative experiences in order to defuse them.

6.ii Objectives in Stage 2.

- * Continued therapeutic support, but constant empowerment of the patient to take control of the disease process.
- * Continued monitoring of physical symptoms and learning to relate these to daily experiences in constructing a coping lifestyle.
- * Intensive focused work with the longterm and present emotional issues draining energy.
- 6.iii <u>Using the SARI model: accessing trauma and strengths.</u> (Phillips & Frederick, 1995) As Jean had lost cognitive functionality and her colleagues drifted away, she felt not only abandoned by her chief support system, but her academic identity was felt to have become null and void. It was necessary to deal initially with:
- * perceived loss of the academic part of her.
- * past deprivation in expected love situations;

* past and present experiences of abandonment.

It is important to note that at this stage the M.E. patient has insufficient energy to respond extensively verbally in ego state therapy. The therapist has to work hard and intensively as facilitator, interpreter and questioner; patient responses are frequently ideo-motor and ideo-sensory, which signals the involvement of the sub-conscious but demands high therapist concentration. There needs to be a careful balance between stronger directive involvement and gentler non-directive therapist intervention. Easy and excessive tiring is a factor that must be constantly considered: progress is slow but often intense. Ego strengthening is paramount in this phase, especially as past trauma is uncovered.

* Negotiating with the achiever part.

Using ego state therapy it was possible for Jean to feel her achiever part and discover it was not dead but simply resting unobtrusively for a while in order for the whole personality to recover and learn something. She was reassured it would come back into prominence later. Questioned as to why it had opted out at this stage, it stated it was providing an opportunity for a weak, unloved part to express itself. Jean was finally able to accept the fact that she would achieve again and that an important part of her was not irretrievably lost: she could finally let the academic identity slip temporarily into the background and discover what other parts had to offer in this experience and for her life ahead.

* Accessing the intention and needs of the helpless sick part.

The helpless sick part was given extensive attention in hypnosis to compensate for all deprivation experienced before: other parts, especially her nurturing loving adult part which cared so well for her animals, and the responsible part that could discern what was necessary, were engaged to help teach Jean how to take care of herself as a permanent responsibility. The attention that had previously only been focused outwards, shifted focus to the inside. Since Jean had come to understand why the sick part had had to take centre stage: she learned to start taking greater responsibility for caring for herself physically and emotionally to make possible a return to a new lease of adult life. Other affective issues to be addressed, included:

* the pattern of allowing herself to be used emotionally and overworked cognitively in order

to buy love and respect;

- * limiting the "victim" syndrome, and refusing to accept others' blame. Jean needed to understand at the emotional level that the fact that she had been repeatedly "abandoned" when she wanted to be loved was not because she was unlovable but because others had deficiencies which she had generously made good;
- * issues of present loneliness.

* Regression to deal with abandonment, rejection and anger.

Jean was able to access her sad, unloved, rejected parts through regression once she was a little stronger, there was a great deal of work in accessing the trauma caused by all the rejections and abandonments in her life, involving both parent figures and later lovers and friends. Each incident remembered by sub-conscious had to be worked through separately, with extensive ego-strengthening and support. The Silent Abreaction Technique (Watkins, 1997) was used for much of this, since Jean was so weak physically that too much talking was exhausting. The therapist had to participate fully providing extra energy so that she could fully feel the anger, allowing it as justifiable and confronting those responsible in her inner space without the feared annihilation. The little girl part was finally able to express her anger to her father about his absence when she was a child and they needed him, and to mother to complain about how little nurturing she had received and how much she was expected to give, how unfair it was that she could not be a little girl. The sisters of the little girl part also came forward to object as older parts to the men in her life who had used her so shamelessly. Jean was finally also able to confront even her Head of Department in trance and express her views about him and his work.

The abreactions that accompanied this work indicated that the resentment and anger were being addressed and expressed inwardly: the feelings were also worked through again on the conscious level with the therapist. Some of the dreams that accompanied this phase were reassurance of the inner work being done: the dreams portrayed the men in the most absurd and comical of sexual circumstances unable to help themselves, while Jean looked on amused, and for once detached. The humour of the situations her lovers experienced was exploited fully and was definitely healing.

Evidence of changing dynamics also came through when Jean's male lodger, who occupied the other side of her semi-detached house, began to cause problems, antagonising her dogs, damaging her interleading gate, etc. Previously she would have turned a blind eye though fuming because the income from a lodger was important financially. Now Jean confronted this man with his inappropriateness, and finally when there was no change, suggested his lease was up. This victory of assertiveness was celebrated in trance and out: the inner parts had decided that Jean would never again accept manipulation or poor treatment by another male, or female connected to her. What is more Jean elected to reserve the space the lodger had previously occupied for herself. She would decide how to use it when a need arose: meanwhile it felt good to have enough space to grow.

* Welcoming the artistic part.

As Jean was able to release her academic part from performing, a creative, artistic part which she recognised as a newcomer waiting in the wings or previously unacknowledged, made its appearance. Jean began to use her limited energised phases, an hour at a time, to paint birds on fabric. Her academic training was being used in a different way, as though her achiever part was reassuring her of background presence. She started receiving orders for her work: with this came the challenge to manage her energy without sacrificing self. The pleasure the artistic part brought to Jean was delightful to observe. This new talent helped Jean feel she was earning again albeit in a most limited fashion. In conversations with this part Jean recognised that had she never been ill she would never have discovered this talent.

Nevertheless she had to learn to limit the over-extension of herself in this direction as part of energy management and creating balance in her life. An interesting side-effect was that in trance, Jean recognised this part as a positive genetic gift from her father; it helped her gain insight into his dynamics thus helping improve their relationship. There was much work to be done in integrating "good father" and "bad father".

* Resolving guilt.

A critical part first began to complain in therapy because Jean was changing her response to the demands of others, especially her parents, and was becoming selfish. The difference between selfishness and self-caring had to be negotiated with this part in trance before Jean felt comfortable focusing strongly on her own present needs. The critical part also complained because Jean was sometimes well enough to paint but not well enough to lecture students. This stern part, apparently a parental introject, would not allow her total enjoyment of her painting. It was heard in trance that this part had taught her to work hard at school and in her job, so now taking time off to paint seemed irresponsible and wasteful. After further negotiations, Jean was able to accept the permission given to explore her creativity "responsibly" since it could also lead to a new source of income: having fun while "working became a new possibility.

As Jean's creativity took on the role of a "saving grace" in her healing, the truth of the belief that cancer, as well as other auto-immune diseases, may be caused by a blockage of creativity (Zelling, 1995) became meaningful. Blocked creativity is frequently a feature that contributes to stress in M.E. patients.

* Comforting the lonely part.

One of the most difficult issues to deal with was that Jean still lacked the physical energy for resuming social interaction on any scale. Attempts at organising a week-end away with sister or a close friend, although delightful, ended in complete exhaustion; overlong visits also tired her excessively and the M.E. symptoms reappeared. This was explored in trance and was seen not to be a punishment but a challenge and learning opportunity to manage energy more carefully. Integration into social groups that shared common interests was initially impossible physically, though yearned for emotionally. Through meeting her lonely part in therapy, Jean was encouraged to explore the benefits of aloneness in order to know this part of self better; she learned that aloneness was often necessary for important learning, and different from the loneliness of supposed non-acceptance or rejection. When she was feeling better she enjoyed her aloneness; when depressed, it overwhelmed her. Jean began to learn when she must ask for family support to avoid this overwhelm.

In the process of accepting aloneness, Jean was able to negotiate a new way of relating to her family. Initially she would agree unflinchingly to all their requests: this included fetching and carrying for her parents, as well as standing in for her sister although she had all facilities

and an extremely comfortable, affluent lifestyle. Jean initially complied even though she felt extraordinarily ill partly because of her innate sense of responsibility to and for others, partly through fear of their anger and rejection. Jean now began learning to consider herself in the equation and organise and limit her responses according to time and energy factors which she could manage. As stated above, she could also ask for the help she was required to provide.

* Utilising dream symbolism.

At this time, Jean's dreams also reflected a process of adjustment. She had many dreams of taking her family on holiday with her, initially having them all squeezed into the same room; in later dreams, although they slept separately, they chose the best and most comfortable rooms in the hotel, while she was left with "poky little storerooms with no doors, hard mattresses and nasty crocheted blankets". Gradually Jean began to report going for holiday breaks alone, having large, airy, spacious private rooms in trees with wonderful views. The richness and pointedness of Jean's dreams excited her and reassured her she was learning how to change her life.

7. Re-assessment.

7.i Therapist observations

Despite making rapid progress in dealing with affective hurdles from the past and present, Jean made disproportionately slow progress in physical terms. After a year of therapy she still experienced frequent relapses and alarming dips of fatigue and muscle weakness which limited her artistic work and caused her disappointment and despondency. Jean had been placed on Prozac by her Physician soon after diagnosis because of her reactive depression to her physical and emotional helplessness and fear of the future, as well as her difficulty accepting this disease in her life. The Prozac had no discernable effect during the acute phase of illness. In the recovery phase, the drug certainly helped her to process better cognitively. She was encouraged to continue taking it while she stabilised though she wished to stop the drug as soon as possible. Absolutely no change occurred in physical symptoms while on the drug, though she felt stronger coping with her difficulties. At one stage, Jean cut the initial dosage of 1 tablet per day to a half, then attempted to cut it further but with disastrous

results of relapse and depression. She reverted to the initial dosage which she came to accept was helpful temporarily. She also found aromatherapy and reflexology administered by her sister to be extremely soothing, doubtless because of the focused attention, time and loving touch which she needed and hereby received from her sister. Her sister also encouraged Jean to try certain homeopathic remedies none of which was felt or seen to be notably effective.

7 ii Objective measures of improvement.

Although therapy goals were assessed each session (Zeig, 1985), reassessment of treatment gains was necessary in accordance with the research design. (See Chapters 7 and 8 for detail of quantitative findings.) A second formal assessment was, according to the design, initially intended to follow after 7 months of therapy. A SPECT scan conducted 8 months after the first showed clearly that a fuller disease spectrum was now evident as predicted by Hyde & Jain (1992). According to the scan Jean's condition had deteriorated, but Jean had made gains in affective coping and even cognitive control.

* Affective measures	Before therapy	After 8 months	
	Percentage	Percentage	
State Anxiety (Spielberger, 1980)	99	87	
Trait Anxiety (Spielberger, 1980)	100	89	
Depression (Beck, 1967)	57(severe)	14(nil)	
Symptom checklist (Welch, 1992)	100	88	
Home coping (Welch, 1992)	0	60	
Work coping (Welch, 1992)	0	60	

* Cognitive functioning (Wechsler Memory Scale Revised, 1987).

	Percentile ranks		
Verbal memory 25	93		
Logical memory 1 33	93		
Logical memory 2 37	96		
Digit span forwards 64	99		
Digit span backwards <1	81		

* SPECT scan results.

Before therapy.

"There is mild to moderate decreased activity indicating diminished cortical perfusion at the following sites:

bilateral frontal, parietal and occipital cortex (more pronounced on the left);

left lateral parietal cortex;

left temporal lobe (only minimal asymmetry)".

Second scan after 8 months' therapy.

"When compared with the previous examination (8 months ago) there has been progression of lowered perfusion and there is now marked decreased activity in the parafalcine cortex (predominantly in the parietal lobe).

There is moderate but more extensive hypoperfusion of the lateral parietal lobe of the left hemisphere. Left temporal lobe activity is also moderately reduced."

* Cortex-cerebellum ratios (Before therapy and 8 months later.)

	1st scan.		2nd scan.	
	Right Le	eft hemisphere	Right	<u>Left</u>
Fronto-parietal	0.82	0.74	0.80	0.76
Superior-parietal:	0.72	0.69	0.63	0.62
Parieto-occipital	0.86	0.87	0.77	0.79

8. Reviewing the objective scores.

Therapist and patient reviewed the situation in and out of trance. It was agreed necessary to explore any avenues left untouched, but accepted that sub-conscious would provide information and opportunities when appropriate.

8.i <u>Discussion of results on the conscious level.</u>

From the scores it appeared that coping skills at home and in her own new self-employed working situation had risen strongly: Jean was producing a limited but steady output of painted shirts and tablecloths for orders and managing energy levels more effectively.

Anxiety had dropped according to assessment scores, but Jean still showed strong

vulnerability in this area. Depression according to the scores, was now apparently so low as to be inconsequential: in practice we knew depression recurred as a reaction to relapses. physical symptoms had reduced in range and severity, but relapses still occurred though with decreasing frequency. Some relapses could be traced as related to excess physical or emotional strain, or severe environmental conditions e.g. severe heat conditions, long-distance travel, bumpy roads. Other relapses were inexplicable despite Jean's efforts to care for self.

The second SPECT scan disappointingly showed even lower levels of blood perfusion in the brain than previously: it seemed wise that Jean should be checked once again by the specialist physician, but no other specific disease pathology could be detected.

In summary, at this stage of the process it seemed that the physical aspects of the disease were diminishing at a far slower rate than emotional dis-ease. Coping skills and self esteem were improving impressively with clinical hypnosis.

8.i Reviewing the situation with the subconscious in hypnosis.

*. Transference issues: martyr or victim?

It had been agreed on the conscious level that the chief requirement from the therapist was strong support, and gentle patience as Jean gathered her strength and expanded her spirit. The query of possible dependency in therapy was raised in trance as Jean's Sick Part was once again asked for answers. Jean was especially anxious she should not become a martyr like her mother, thus Sick Part was asked specifically if it were a victim part. The part responded that it was not; it had been entrusted with a spiritual development opportunity for Jean despite the discomfort of ongoing disease symptoms. Sick Part believed Jean's Spiritual Part had made enormous gains, and was still striding ahead in learning from the disease experience; once her soul had learned sufficient for present purposes she would no longer require serious symptoms to teach or guard her. This was reminiscent of the statement by Naude (1998) in discussing Psycho-neuro-immunology (PNI), that the missing link in most healing programmes is the preceding "S" factor for spiritual, which should precede P in the PNI formula. Naude suggests that the more complete formula for holistic healing should be

SPNI (Spiritual-psycho-neuro-immunology.) We need to understand that the spirit needs to be whole before healing can be complete.

Jean's achiever part assured her it had maintained a watching brief in the community of parts to make sure that no negative martyr part had been or would be allowed entry. It commented that Jean was now far less dependent in emotional terms than she had ever been, because she could state her needs to significant others when she could not cope alone. However she was still unavoidably dependent physically because she was weak. The achiever part acknowledged how successfully Jean was addressing her needs in self-caring and self-hypnosis.

Jean was reassured by this interaction with her inner parts. As a demonstration of her confidence in self to manage, she cut therapy sessions to once a fortnight.

9. The impact of change.

9.i Jean's cognitive awareness of change.

On the conscious level, Jean knew that her coping mechanisms had improved dramatically: what energy she had, she was managing better. She continued her patient, unforced application to her painting commitments and now knew how much she could do without relapsing. Self care was more responsible and response to her bodily needs was now appropriate: she knew this cognitively, and felt this control emotionally: the affective test results had confirmed change here.

The most important change was that Jean learned to like and respect both her past and presently evolving total self more. She grew to accept herself as she was, having let go of Mother's valuation and expectations of her. She knew she was less critical of self and others, and less demanding. Jean saw herself as softer, gentler more accepting in every way. She identified this process as spiritual or soul growth made possible by this period of time-out due to her illness.

Jean now trusted the validity of sub-conscious processing mechanisms quite different from the logical thought processes in which she had been trained. Her insight into the meaning of her dreams deepened impressively and she continued to use self-hypnosis, mostly daily though sometimes less regularly, as a relaxation inducer.

Despite the above positive valuation of the changes that had occurred, Jean was still impatient to feel really well: this was expressed in trance as a worry about her youth passing her by. The motivation to speed up the process was utilised in trance. Ego strengthening and age progressions were intensified now that Jean could recognise improvements in body function and progress made. Comparisons in trance between past and present feeling states and functioning were reassuring to her.

An important aspect of trance work with M.E, patients is addressing the fear of relapse. With Jean, we called on the unconscious Body Part that had established an automatic cell memory activation system which had built up during the disease: prior to its onset, automatic stress responses had surely also been encoded in the cells. Permission to change the relentless nature of these automatic reaction loops now that the necessary learning in caring for Body had been internalised was granted by Body Part through automatic responses from the nervous system experienced by Jean as trembling in the hands. Jean's inner community of parts was encouraged to take up different options in future, i.e. respond to body signals for rest before relapse set in.

9.ii Practical plans for activating further change.

- * Gradually over the next year as the regression to acute symptoms became fewer and good phases without distressing symptoms lasted longer, Jean was encouraged to chart the good and bad patches on her calendar. The physical and emotional chart she kept at this stage interested and encouraged her to see that she could take charge.
- * Jean was now encouraged to try starting gentle and limited walking exercise once or twice a week when possible. She also took short rides on her horse occasionally.
- * A "Joy Plan" was embarked upon. We began to work on planning a future programme of spaced, easy activities and breaks which Jean would enjoy and which were easily manageable

on her own. A few weeks after this planning discussion, Jean reported noticing that she could work from morning into the afternoon without desperate aching to rest. In fact she had needed to remind herself of the discipline of pacing herself to avoid repercussions. Jean commented that "the world was feeling brighter" and she "could see the colours". She was now interested in the challenges of orders for new designs not previously produced, rather than finding this a threat to energy levels. Jean also attended two sessions of a ceramics course which had excited her: the work she had produced was beautiful. Now for the first time Jean felt the energy available to join a group of art students likely to share her interests: social energy was returning. At the same time Jean started visiting friends, rather than waiting hopefully for visits. She looked prettier than I had ever seen her, fuller in the face and more robust. It was evident she might be moving out of Phase 2 into Phase 3, though therapy was far from over.

10. Postscript.

3 years later, Jean had changed her lifestyle considerably. She had shown great courage in opening up a fabric painting and ceramics business: she used every means possible to conserve and manage her energy effectively. Therapy continued as a support mechanism since Jean was still not well physically though she "felt better" in terms of ego strength.

Because the second SPECT scan had shown a deterioration, a third scan was done (beyond the confines of the formal study) after 3 years of therapy. The radiologist's report reads::

"On comparison with the second scan of 27 November 1996, there has been an improvement and no significant variation of cortical activity is noted. The scan overall is now within normal limits."

However, the cortex-cerebellum ratios from this third SPECT scan showed further deterioration since the previous scan 33 months earlier. All three results are quoted:

	2nd scan.		3rd scan.		
<u>Right</u>	<u>Left</u>	Right	<u>Left</u>	Right	<u>Left</u>
0.82	0.74	0.80	<u>0.76</u>	<u>0.77</u>	<u>0.72</u>
0.72	0.69	0.63	<u>0.62</u>	0.62	<u>0.62</u>
0.86	0.87	0.77	<u>0.79</u>	<u>0.74</u>	0.73
	0.82 0.72	Right Left 0.82 0.74 0.72 0.69	Right Left Right 0.82 0.74 0.80 0.72 0.69 0.63	Right Left Right Left 0.82 0.74 0.80 0.76 0.72 0.69 0.63 0.62	Right Left Right Left Right 0.82 0.74 0.80 0.76 0.77 0.72 0.69 0.63 0.62 0.62

The deterioration gives cause for concern: investigation and therapy will continue.

<u>CHAPTER 5.</u> <u>BIBLIOGRAPHY.</u>

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CHAPTER SIX

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CHAPTER SIX.

STAGE 3 INTERVENTION IN THE M.E. PROCESS USING CLINICAL

HYPNOTHERAPY: TONI (Patient 1 in the quantitative assessment, Chapter 7.)

1.i. Introduction.

In terms of physical recovery, Stage 3 of the M.E. is a gradual progression from Stage 2 as discussed by Hyde (1992). (See Chapter 1).

Hyde describes Stage 3 in physical terms as the early Chronic Stage occurring 1-6 years after onset with the following characteristics: it is an adaptation phase with attempts to regain previous level of function; relapses occur on over-exertion.

1.ii General therapeutic objective of Stage 3 intervention.

The goal of Stage 3 therapy is to help the patient regain as far as possible a level of function acceptable to him/her while avoiding relapses.

In order to distinguish therapeutic readiness and applications suitable in Phase 3, it is necessary to summarise what preceded in interventions at Stage 1 and 2 with this patient.

Liii Siting the case.

Toni was 37 years of age, an involved and able Afrikaans-speaking teacher from a very large local secondary school; she was in charge of the highest level of mathematical instruction at the school, i.e. Matriculation mathmatics, and was the regular producer of the school dramatics. Toni was married to Ronald: there were no children from this marriage, though Toni had raised Ronald's daughter since she was 2 years old, i.e. for the past 17 years of her relationship with Ronald. Toni was passionately attached to her three cats, a talkative cockatiel and animals in general.

2 i <u>Initial impressions on starting therapy.</u>

On first meeting, Toni appeared as a tall, very thin young woman, 37 years of age, white-faced, gaunt, dark hair lank and tied back, visibly extremely ill and exhausted. She walked in slowly, helped by her husband who seemed supportive. Toni was stooped, unable to stand without aid for long because she became so giddy, neither could she sit upright; she

was more comfortable lying on a couch, head well supported by cushions, the curtains behind her head drawn; she could not tolerate bright light, and suffered from recurrent severe headaches. The increase of fatigue as we interacted could clearly be guaged by obviously increasing exhaustion showing in her face; concentration span was limited by fatigue levels. as was speech. She was fluent in both English and Afrikaans, having married an English-speaker. Therapeutic interaction was in both these languages whichever came most easily to her: at times she could only listen, as there was no energy for word-finding. Empathy was immediate but Toni at this stage could not be called attractive. One year after the initial meeting, Toni was to bring in a photograph taken during an earlier aerobics championship which showed the deterioration from her earlier form: the photograph showed a physically exceptionally attractive young woman, lithe-bodied, shapely, glowing with obvious health and vitality, limbs controlled and graceful, undeniably and frankly glamorous. The full impact of what Toni believed she had lost, and what her husband claimed he had lost was then clear.

2.ii <u>Toni's personal situation preceding her physical illness.</u>

Prior to her illness Toni and her husband were highly involved in aerobics training at their local gymnasium. Practice sessions had increased from 4 times weekly to every day. Toni felt the exercise kept her fit and relaxed and she felt good after it. In preparation for an aerobics marathon, she had increased training to 3 sessions daily. During the marathon contest in the school holidays Toni taxed her energy resources for 3 hours continuously: "I just carried on and on". That weekend the couple spent visiting her mother's seaside home. On the Sunday she woke up, extremely dizzy and exhausted, with very "fuzzy vision". The symptoms lasted 5 days: she then consulted her General Practitioner with complaints of being completely off-balance, spatially confused and with blurred vision. There was a decrease in memory and concentration, as well as libido. Toni was referred to an ENT specialist to investigate balance problems. No pathology was detected. An audiologist found spontaneous nyastygmus, a condition which could have existed previously, but etiology and reason for present impact was unknown. Toni tried returning to work but the symptoms continued, and she felt increasingly ill: she was granted sick-leave for three weeks. Toni was referred to a neurologist: an MRI scan report found "a normal MRI brain and posterior fossa."

Concerned about the Matriculation pupils in her charge, Toni again tried returning to work, but again could not continue. Subsequently Toni was referred to 5 different medical professionals including a neurologist and a psychiatrist. None was unable to diagnose her symptoms. Toni felt a fraud because of the absence of irrefutable diagnostic test evidence, yet her symptoms were persistent and increasing. At school eyebrows were raised. Toni normally enjoyed teaching and felt guilty about her absence. Not only did she feel she had abandoned her Matriculation mathematics pupils, but she was unable to take on the annual school drama production; the headmaster was displeased. At home, Toni dreaded the visits of colleagues who relayed school gossip, and conveyed resentment that she was malingering at their expense. She was encouraged " to snap out of it" which only increased her anxiety. Extremely high state and trait anxiety were evident (Spielberger, 1980).

At the initial meeting, Toni's chief concern was that I would accept her present illness as "real". M.E /CFS was suspected, but Toni had not then been ill for six months as stipulated in the CDC (Atlanta) diagnostic criteria (Shepherd, 1994). A wide range of diagnostic tests had already proved unremarkable. Referred to a Specialist Physician with particular interest in M.E., Toni was put off work for 4 months longer till the next January school term, and advised to take a complete physical and mental rest; she was given Immunoglobulin injections to boost her immune system and also placed on Prozac to combat the depressive symptoms she was now experiencing. By the January 1993, Toni was worse; she had not benefited from the Prozac medication and was still unable to return to work: she was recommended to take sick leave for a further 3 months, and M.E. was then diagnosed.

2.iii Physical illness preceding the M.E. disease process.

- * Glandular fever in 1987;
- * German measles also in 1987;
- * Severe "flu" in May 1992. Toni did not treat this seriously, returning to work after 4 days; the malaise from it persisted; despite this Toni persisted in her aerobics involvement, culminating in the initial acute attack of dizziness and related symptoms above.

- 2.iv Physical symptoms reported on commencing therapy.(c/f symptoms discussed by Hyde, 1992; Goldstein, 1994 (Chapter 1).
- * excessive sleeping during the day;
- * very limited physical energy,
- * terrifying nightmares at night;
- * abnormally severe headaches;
- * unsustainable concentration;
- * severely impaired short term memory;
- * verbal difficulties with comprehension, word-finding and motor aspects of speech;
- * dyscalculia
- * uncontrollable giddiness which meant she had to lie down most of the day; travelling by car was nightmarish for the excessive dizzyness it produced even lying down with eyes closed.
- * muscle weakness so severe she could not walk without support.
- * nausea;
- * candida;
- * freezing extremities;
- * increasing weight loss.

Toni was finally boarded on medical grounds by the end of May, 1993.

2.v <u>Family history</u> (This was partly related in an open-ended interviews over several sessions because of Toni's fatigue, was partly recalled in regressions under hypnosis, and came partly from information in an unsolicited, highly insightful letter from Toni's mother.)

Toni's father was a weak, ineffectual, work-shy figure frequently in debt. He was jealous of his wife's attention to his only child and so neglected Toni emotionally according to mother's letter. Toni recalled she despised her father for his inappropriate behaviours. She remembered flagrant and obscene urinating in front of her and the family maid, and other sexual displays: mother confidentially also related obscene and degrading sexual demands. No overt sexual abuse of Toni was ever discovered in regressions despite the implicit emotional abuse (Hartman, 1995), and the example of her mother tolerating despicable behaviour for many years.

Toni's father would also fly into rages. In a later regression in Stage 2 of therapy, Toni regressed to a ten year old girl, and relived being sent to her room for a cheeky response. She escaped through the window; her father spotted her and pursued her round the house with a bread knife, threatening to kill her. Toni's terror in abreaction was intense.

Toni's father was an impulsive and reckless driver, often under the influence of alcohol. Toni also regressed later in Stage 2 to an argument between her parents in the car: father suddenly brought the car to a screeching halt which caused her to be flung in terror from the car into a ditch. "I can't remember if it was sore, but I know I was blue from knee to ankle." Already affective responses were dissociated from somatic memory. Toni's legs were so badly bruised she could not walk or escape from the scene.

Toni's father underwent psychiatric treatment, and was diagnosed as schizophrenic when Toni was 13 years old. At this stage her parents divorced. This brought immense relief to Toni: she and her mother lived alone for some years until mother was remarried to a kindly and gentle man whom Toni accepted as her "real" father. Their relationship was excellent, continuing into adulthood until his death in the early stages of the onset of M.E. in Toni.

Toni's mother was a strong, dominant, intelligent woman with a University degree in librarianship. She loved Toni deeply but taught her strict behavioural limits, and stern emotional denial and control of feelings. Toni would also later regress in Stage 2 therapy to a small weeping child with mother saying: "Be strong: go to your room and cry there on your own if you must". Tears were taught to be weak. Toni loved her mother dearly but found her even in adulthood to be exceedingly controlling.

Toni remembered her maternal grandparents with particular affection and respect: grandfather had served as the town mayor and was highly esteemed. The maternal side of Toni's family was clearly culturally and educationally more evolved than the paternal side.

At school and at college Toni was an achiever, excelling academically and passing top of her class in her Teacher Training qualifications. She earned respect and the expression of warmth

through achievement.

At 20 years of age while still a student, Toni met her present husband, Ronald, a divorced man with a two-year old daughter Bridget. This was Toni's first heterosexual relationship, and it continued for 11 years before they married. The courtship vacillated between romantic gestures and Ronald's affairs with other women while Toni cared for his child. Toni took responsibility for her future step-daughter Bridget with whom she interacted lovingly and responsibly as if with her own child. Bridget subsequently proved to be totally dyscontrolled despite the attention lavished on her. From description it seems Bridget suffered severely from Attention Deficit Disorder, in common with her father Ronald. Both exhibited symptoms of behavioural, cognitive and emotional dyscontrol, with unpredictable mood swings, impulsive acting out, disregard for the truth in the stories they told, violent verbal assaults when threatened and difficulty controlling alcohol intake. Bridget joined the army briefly: while there she reported, as a projection, that her step-mother had drinking problems. This accusation distressed Toni excessively when it was investigated by disciplinary counsellors. Bridget left the army unable to accept the discipline. Thereafter she had difficulty keeping employment, and she moved from relationship to relationship, falling pregnant by each man. Bridget tried to manipulate her father and Toni to care for her and her babies each time work or a relationship ended. The relationship between Toni and Bridget became increasingly fraught with difficulty: Toni did not on entering therapy have the energy to refuse her manipulations especially since this caused altercations with Ronald. Toni dreaded any telephone or physical contact with Bridget who now had the power to terrorise her.

Toni's relationship with Ronald was currently unsatisfying: he would appear supportive when he brought Toni to therapy, but apparently would attack her verbally as soon as they were alone. He was a boiler-maker by trade. Clearly he had been proud of Toni's achievements and standing at the school and her ability to handle his child. He was now verbally abusive and critical from frustration, especially over her present helplessness and inability to work. He would shout and curse her relentlessly at home and his behaviour was unrefined and disgusting to Toni. Ronald's friends and relations were ill-mannered and culturally bereft:

Toni had little in common with their coarseness. She experienced their company as toxic.

Parallels, and emotional connections between the behaviour of Toni's father and her husband were evident. Memory links and physical responses would need investigating.

2.vi Summary of Toni's relationship difficulties preceding M.E.

- * Bridget's ability to terrorise her stepmother and Toni's difficulty in protecting herself.
- * Increasing criticism and verbal abuse from Toni's dyscontrolled husband concerning her non-coping with his daughter and her current inability to manage the home.
- * Difficulty with boundaries between herself and her caring but controlling mother.

3. Resume of Stage 1 therapeutic interventions.

(c/f Stage 1 interventions, SARI model of Phillips & Frederick, 1995).

3.i Limitations of the general physical condition.

Toni was indisputably seriously physically ill for the first eighteen months of therapy. She was unable to move much from her bed because of severe exhaustion and muscle pain, serious giddiness when she stood or sat up, and severe photophobia. She slept much of the day. High anxiety and depression were clearly factors though no objective measures could be used for some months because of the severity of physical symptoms. No physician was able to help her obtain relief despite hospitalisations, and various medications which she seemed unable to tolerate in her weakness. She obtained deep relief in hypnosis which made no demands at that stage but provided a safe place to rest till she was ready to heal.

3.ii Objective assessment measures early in Stage 1.

As explained in the previous case studies, for this formal study, observations and qualitative information obtained in therapy sessions was extended by using norm-based measures and self-report questionnaires: the full results of this aspect of the study will be discussed in Chapter 7. Toni's scores on these measures at the commencement of therapy will be quoted for interest, though qualitative information was considered more important than quantitative scores especially at this stage.

* Affective measures.	Percentage score
State Anxiety (Spielberger, 1980)	100
Trait Anxiety (Spielberger, 1980)	100
Depression (Beck, 1967)	43 (moderate)
Symptom Checklist (Welch, 1992)	100
Home coping (Welch, 1992)	0
Work coping (Welch, 1992)	0

* Cognitive functioning (Wechsler Memory Scale Revised, 1987).

	Percentile ranks
Verbal memory	16
Logical memory 1	24
Logical memory 2	33
Digit span forwards	81
Digit span backwards	92

* SPECT brain scan results.

The initial SPECT scan taken at the same stage showed significantly low perfusion in certain areas as the following specialist radiologist's report states:

"Focal areas of marked decreased activity indicating diminished cortical perfusion are noted involving:

- * left temporal lobe extending to the insular cortex;
- * bilateral parafalcine parieto-occipital cortex with marked decreased activity predominantly in the parietal lobe;
- * bilateral tempero-parietal and fronto-parietal cortex.

* Cortex-cerebellum ratios (first SPECT scan.)

As stated in previous chapters, these ratios represent a quantification of the photographic information on the SPECT scan, thus are truly objective measures: ratios of <0.85 are considered abnormal. (See Chapter 7 for detail.)

	Right	Left hemisphere
Lateral frontal lobe:	0.81	0.90
Fronto-parietal:	0.85	0.89
Lateral-parietal:	<u>0.82</u>	0.86
Temporal:	0.85	0.91
Superior-parietal:	0.72	0.69
Parieto-occipital	0.77	<u>0.72</u>

3.iii Stage 1 therapeutic objective: establishing safety for Toni.

(Stage 1 of the SARI model, Phillips & Frederick, 1995).

As described in the two previous case histories (see chapters 4 and 5), establishing safety was the first essential before meaningful therapy could begin. Toni needed to be able to establish trust and confidence in this therapist after previous rejection by numerous medical practitioners. Furthermore arrangements for her physical care needed to be set up as she could not cope on her own. Release from previous teaching responsibilities would also contribute to her peace of mind, as would organising a new financial support system.

3.iv <u>Intervention on a practical level.</u>

It was essential to establish a reliable home support system since Toni was not able even to lift her head for any length of time. While certain medical personnel would recommend hospitalisation in this circumstance, it seemed better to start immediately helping Toni to establish that she could take control, even if indirectly, in her home.

This necessitated contacting those who could support Toni.

A meeting was arranged with Toni's husband, offering him support, information and ideas on how to help share the home load. Ronald was invited to discuss what he could contribute: negotiation was needed to persuade him to take on household duties. Despite promises, his help was reluctant. His confusion, embarrassment and anger over her illness caused Toni ongoing distress: he had great difficulty accepting her need for therapy which appeared to threaten him.

Toni's mother was contacted telephonically with ideas and suggestions for supporting Toni lovingly without overwhelming her. Her chief contribution was to be in her regular phone calls which broke Toni's isolation, and in the short weekend holidays she provided much later in therapy which created a change of scene.

Toni was fortunate to enjoy the close friendship of three remarkable women friends who were to share shopping duties, food preparation and provided transportation for Toni for many months. Their unconditional support was an integral and invaluable part of her healing. Toni's simple, unsophisticated but devoted maid also supplied an unquestioning and unfailing source of quiet care and reassurance.

It should be mentioned how important Toni's pets were to her for their company and unconditional love during this initial phase of complete helplessness. Pet therapy was undoubtedly important in relation to Toni's personal dynamics.

As with the two previous patients described (Chapters 4 and 5), Toni was obviously unable to work and it was necessary to initiate boarding issues with her school and negotiate with insurance bodies by supplying the necessary documentation and objective evidence of her disease.

3.v <u>Intervention using hypnosis.</u>

Apart from the support network established for her, Toni also had to learn to love and care for herself.

* Self-hypnosis.

Of chief importance was the teaching of self-hypnosis to imply that Toni would have to become responsible for initiating a calm relaxed state of mind and body for immune system recovery. Toni mastered self-hypnosis easily and used it regularly to bring about inner peace and quiet.

* Beginning ego state therapy.

Deep relaxation and ego strengthening were all that could be utilised initially: nevertheless Toni gained deep relief from her physical symptoms and confusion. She showed excellent

talent for trance despite the cognitive strain of concentrating attention.

Very gentle Ego State hypnotherapy was initiated with Toni when the deep relaxation had begun to counteract her high anxiety: she learned first to locate the Inner Strength within her which had been such an integral supporter in all her achievements in the past and would help her through this crisis. Through ongoing ego strengthening, the disintegrated array of parts within her personality were reassured as a group of increasing harmony and re-integration when Toni was ready.

It was necessary to negotiate with Toni's sub-conscious mind for initial motivation and also permission for self to begin the daunting healing process. Once obtained, one of the earliest tasks was to help Toni recognise and accept her Enraged Part who felt so angry and out of control. This part was finding it impossible to accept the severe illness since Toni had been taught that such weaknesses was unacceptable. This part was angered at the disease for causing this unaccustomed helplessness. While acknowledging its protective purpose, the Enraged Part had to be persuaded to let go and stop fighting the process so that the pain Toni had experienced for many years could be addressed and healing could begin.

The Enraged Part was also angry at people from whom Toni had expected help, but who had discounted her and demeaned her. Fury was directed firstly at the medical fraternity and colleagues for their disbelief and abandonment. The Part was most enraged at Ronald for his unacceptance of Toni's illness and his verbal abuse rather than loving support despite all she had lavished on him and his daughter while she was well. It was angriest at Bridget for turning on Toni after years of warm love.

* Using visualisation:

For self-defence and establishing boundaries.

The Enraged Part was taught to provide an affective defence mechanism for Toni. She learned to visualise a protective perspex shield which she could raise or lower by depressing her foot: this protected her from verbal onslaughts so she could deflect them without harm to herself. This protective devise was equally successful against her husband's verbal abuse, the behaviour of his crude brother, and his immature but offensive nephew. This was the

beginning of her learning that she could created boundaries for her own protection and conserve her own spirit within.

For facilitating healing and pain control.

Visualisation was also used to imagine inner healing taking place as the immune system, cells, muscles and tissues strengthened during relaxation. The technique was useful to create a break during the trance session from the muscle pain Toni was plagued with most of the time: unfortunately pain built up again gradually out of trance but the temporary relief was worth Toni's efforts.

4. Resume of Stage 2 interventions.

This work began approximately 9 to 12 months into therapy (c/f Stage 2 of the SARI model, Phillips & Fredericks, 1995.)

4.i The need to access trauma

It was clear from the history that there was a deep need to explore many issues from Toni's childhood that had inflicted deep pain and led to negative concepts of self. It also seemed important to investigate whether any of the ongoing and exhausting physical symptoms experienced in M.E. were being maintained because of neural links of body memory associated with past trauma.

4.ii Ongoing issues in therapy.

* Toni's initial defensive dissociation of any emotion.

Toni was aware that externally she gave the impression of being cold, and hard: in her good friend Tilani's words, "Toni blyk so hard soos 'n spyker". (Toni appears to be as hard as a nail.) However this protective veneer built up in response to early teaching by her mother, belied an exceptionally loving nature. Toni would need to get in touch with whom she really was and drop the masks she had been wearing to please others.

* Low self-esteem.

Toni had as a young girl been insecure until she found acknowledgment through her academic achievements. When through illness she invoked the displeasure and criticism of authority figures, her self-esteem became severely dented. In her family situation, Toni also suffered constant disparagement by Ronald, his family and friends who projected their own

inadequacies. Toni was made to feel different, unacceptable and, in her present sick state, useless. This last barb was repeated daily by Ronald in his inability to deal with her illness. Toni thus experienced excessive vulnerability to criticism and difficulty defending her uniqueness; she was susceptible to domination and manipulation in her deep need for respect and love. Against this background Toni had great difficulty using assertiveness as opposed to aggression in resolving unacceptable relationship and social issues. It appeared that what she needed was to be helped to become aware of her own soul, its needs and fineness, and of her deep value in her own right as a person of exceptional beauty, potential and likeability.

* Separation anxiety:

Separation anxiety apparently began with the absence of a loving relationship with her biological father, who was emotionally immature and absent from her in her early life: this engendered an emptiness and longing and insecurity which left Toni unfulfilled and anxious as a lttle girl. She was re-experiencing these emotions in her present relationship with Ronald. There was also the model of her mother's struggle to tolerate unacceptable behaviour from Toni's father, and the difficulties in the wrenching decision to leave him against her own family's moral code when Toni was 13 years old. Toni felt great fear that Ronald would leave her, or engage in an extra-marital affair while she was ill. There was also the likelihood that she feared leaving Ronald.

4.iii Accessing strengths using ego state therapy in Stage 2.

Among the dependable, strong parts initially accessed for support during Toni's struggle to become well were those identified by the therapist, and acknowledged by Toni, during interaction in therapy and from the information that came from her relating her life history. The valuable parts identified and accessed were:

- * Toni's achiever part;
- * her intelligent, organiser part;
- * her creative, dramatic expressor part;
- * her loving, nurturing part which made such a good teacher and step-mother, and cared so well for her pets.

All these parts agreed to become more active on Toni's behalf. It should be noted that at times

Toni was so weak she could not personally recognise strengths: she therefore was encouraged to "borrow the therapist's spectacles" to enable her to recognise them more clearly.

The emphasis on her existing strengths which had currently been sitting back exhausted was introduced to raise and activate self-esteem.

4.iv Entering the symptoms and the use of somatic bridging.

Toni's talented dramatic Expresser Part was approached to help interpret the symbolic significance, if any, of the symptoms displayed by her body. Toni's body ego state was acknowledged in trance as a highly expressive part of her with much information to share about her dis-ease. It was honoured as essentially beautiful and strong, but presently trying to indicate particular problem areas blocking healing. Permission was given by the unconscious to follow the symptom signals wherever they led.

*Utilising uncontrollable tears.

A symptom of uncontrollable and frequent tearing common to most M.E. patients was helpful in assisting Toni to start integrating her split- off emotions. The tears would roll down Toni's face in many circumstances, both in trance and in her daily life. This did not usually occur when she was distressed but more commonly when someone was kind to her. Using the tears in trance as a somatic and affect bridge (Watkins, 1997) Toni regressed to the childhood incident of being sent to her room when she wanted to cry: she cried for her mother to comfort her with kindness. She could not experience closeness to her mother if she were sad. Toni's adult nurturing part was called in to comfort the sad child, and to reconceptualise tears as indicators of deep sensitivity ("fyngevoeligheid"), not indicators of weakness. All the reasons for Toni's present sadness could then be explored and validated. The tears were reframed as healing body fluid that could now wash away old pain. Visualisations of tears releasing old pain and initiating new healing were most helpful to Toni.

*Utilising dizziness and headache.

The anxious child part of Toni hid for eleven months before trusting sufficiently to interact in trance. Nevertheless its right to bide its time was acknowledged. At first, as stated above, the reticence seemed to suggest Toni may have suffered traumatising sexual abuse, although none

of the family of parts acknowledged emotional abuse.

Toni's anxious part was finally accessed through a somatic bridge using her present dizziness. Toni regressed to the scene described previously of a small child lurching left and right in the back of the family car as her father careered crazily down the road: the impact of hitting a tree and being flung out was experienced somatically as both a terrifying giddiness and a serious headache: emotionally she needed to run away from this dangerous parent though she could not because she was badly bruised and could not escape.

The same anxious part and responses were present as a somatic bridge was activated to the image of her father chasing her around the housewith the bread knife. Toni's responsible and kindly adult parenting part was accessed to comfort and soothe the terrified child. Toni gained insight into the link her brain had made between present neurological symptom of dizziness in M.E., and her childhood experiences of dizziness linked to fear of father. Toni gained insight into the fact that her child part also experienced fear and anxiety similarly in the present when her husband or family members attacked her verbally and criticised her as "no good and useless". She regressed to a time when her mother, fearful of Toni learning idle work-shy habits from her father, had given her a hiding for asking to stay home from school. It seemed the seeded fear of "becoming just like your father" was activated by the forced inactivity of M.E.

Fear was also activated in present circumstances because her weak muscles made it impossible for her to run away; she both wanted to run away from her home circumstances yet feared to because of the consequences. The nurturing adult part of Toni was able to reassure the anxious child that the adult was competent to deal with insulting adults in a way Toni's child could not. The initial traumatic incidents were thus released of negative charge and a start was made on empowering the adult Toni. It should be noted that the hypnosis was able to release the negative charge previously attached to the symptoms, but was not sufficient to eradicate neurological symptoms of the M.E.: the benefit of the regressions was that the negative energy of fear symbolically attached to similar bodily memories from the past could be released, so that symptoms could be reframed as "friendly reminders of over-exertion"

or emotional threat" in the present rather than feared "bogey-men from the past".

*Utilising temperature changes

Temperature fluctuations were often experienced by Toni. Body Part and Dramatic Interpreter explored these bodily sensations to access affective memories that might be associated with the temperature changes. Toni accessed the chilling emotions of extreme loneliness and the heated rage of disassociated anger. Learning to feel again in safety, and acknowledging split-off affect was necessarily the first stage in being able to express feelings to defend self.

*Utilising the jaw clamp.

On two occasions Toni was hospitalised by a psychiatrist because of an increasing state of panic associated with an uncontrollable jaw clamp. In trance, Toni was able to follow the process experienced by her jaw and to associate this symptom with occasions when she was overwhelmingly angry but chose to remain silent. The jaw part of body was protecting her from expressing what might prove to be dangerous emotion. She had reason to fear her repressed anger: one day she reported in shock that she had seized a kitchen knife in anger at Ronald's taunts, intending to kill him though she only cut his arm. Old images of her father and his pursuing her with a knife haunted her. Sub-conscious was employed to help her use visualisation of "limited release of steam at intervals from her pressure cooker" as a more suitable safety measure in case the lid blew. Gradually Toni learned slowly to express true feelings assertively at the time of occurrence to the person who occasioned them, thus preventing blow-up or somatisation of her feelings in unpleasant symptoms. The dissonance experienced previously in trying to be what she was expected to be rather than maintaining the integrity of her true self could start to dissipate.

4.v Addressing issues of self-worth.

Years of accepting denigration and insults from the males in her family had led to an increasingly diminishing sense of self-worth in Toni. A welcome image of a supportive inner presence was one day encountered unexpectedly in hypnotic trance in the form of an introject of Toni's dignified grandfather. He assured the vulnerable Anxious Part and its adult nurturing

Protector Part that Toni did not need to accept these crude behaviours: she was worthy of respect and a better way of life similar to the one he had lived. This strong grandfather introject was of crucial importance to Toni as she struggled to contact her inner soul, and to identify who she really was and her purpose in this life. Grandfather Part was significant in raising Toni's self-esteem. An adult part subsequently took on the task of learning how to become assertive rather than uselessly aggressive and to remove Toni from offensive persons and situations in a way the child could not have done. This sense of inner support increased Toni's sense of control despite the physical dyscontrol. Toni was learning to create safe personal boundaries on the outside too.

4.vi Exploring Toni's obsession with achievement.

Toni's inner parts were asked about her need to achieve in order to buy love or respect. The achiever part regressed to a small child who felt a desperate need to please a mother with very high standards and needs for affirmation. Toni's need for approval through dutiful actions had made her an easy target for manipulation, especially when her mother's second husband died and she became lonely. Bridget also manipulated Toni, insisting on her right to return home each time she became jobless despite all the distress her wantonness caused in the family. The pressures exerted by these close relatives caused helpless dread in Toni until she learned she had the personal responsibility to consider her own needs as well as those of others, and the right to refuse if she chose. Other authority figures who had manipulated Toni were recognised in trance as school principals and her Head of Department. All these authority figures had recognised Toni would strain herself to her limits to excel in any task she undertook: her success gained both their approval, and more work for Toni, till she became seriously overloaded. Toni recognised in trance that she had learned to use over-exertion as a means to avoid or escape anxiety over displeasing.

4.vii <u>Utilising dreams</u>.

As discussed in previous chapters, the value of utilising the offerings of the subconscious in dream form cannot be over emphasised. This represents uncontaminated, involuntary information concerning pertinent issues available for and presently awaiting attention, thus helping direct therapy effectively. Moreover the part played by the patient in furnishing the

information for therapy encourages the necessary acceptance of the patient being in control of the process. Toni had the talent to dream extensively and illuminatingly. Her Dramatic Expressor Part was approached to utilise this natural mechanism and Toni was encouraged to write down all dreams it provided for regular consideration in therapy sessions. The part gathered brilliantly relevant dreams from the subconscious which provided extensive guidance during therapy. This approach enabled the therapist to approach very gently issues which were extremely sensitive in Toni's ill state.

Three recurring dream series will be described:

* The helplessness and danger dreams.

Toni would be back at her training college or the first school where she taught: she was lost, clambering over scaffolding, fearing a fall; she could not find an exit, nor recognise anyone she knew. Usually she was being chased by a destructive pursuer or someone was trying to kill her cats. Toni was aware in the dream that she did not wish to be back there in the past, but in her adult house. Toni could explore the idea that old support structures were unavailable and inadequate, and that and that there was danger in her present helpless state: she could accept that her present task was to establish the security of a mature adult house where she could be safe.

* Empowerment dreams: snakes.

Toni was unusual in that she was fond of snakes, as she was of all creatures. In her dream Toni was in a beautiful garden with colourful snakes: curiously at this time Toni also found real snakes in her garden. She was not afraid either in the dream or reality but intrigued. Discussion of Jungian issues of synchronicity and symbolic sexual, healing and empowering associations with snakes from many ancient cultures were richly productive in encouraging Toni.

* Vehicle dreams.

In actuality, Toni's car was old and unreliable. In her dreams it would break down, be smashed in an accident or by falling debris, yet miraculously she was unhurt. One of Toni's ambitions was intriguingly to become a female pilot. In one dream a Tiger Moth fell from the sky near her, but she was uninjured. In another very positive phase of therapy, Toni's car sprouted wings and began to fly with Toni at the cockpit controls. All Toni's dreams furnished

rich material for deepening her insight and her willingness to repair her life so she could "fly". Natural age progressions into an empowered future as supplied by the subconscious were strongly reinforced in therapy.

4. viii Therapeutic progress at the end of Stage 2.

Toni had slowly gained insight into old strangleholds: she had learned to express anger appropriately over past and present manipulation and abuse: she began exercising her right to choose what she would do and refuse what was unreasonable: this helped her establish reasonable daily goals without a false sense of duty to others whom she might disappoint. Slowly Toni was regaining her sense of control over her life despite her husband's ongoing and increasing criticism.

Physically Toni was regaining strength as she learned to organise the way she could use her slowly increasing energy levels. Unfortunately although Toni's sense of affective control had altered dramatically, she still experienced a distressing recurrence of many of the same physiological symptoms. Dizziness and muscle weakness had decreased in severity but still occurred on over-exertion. These symptoms were now simply accepted as temporary helpful messengers to control activity levels: they were devoid of previous fearful associations.

4.ix Objective re-assessment.

Therapy proceded at its own momentum based on patient needs which set new goals for each session (Zeig, 1985). However in accordance with the research design for this thesis, a second formal assessment was arranged during Stage 2 therapy. 9 months after commencing therapy a second set of objective assessment measures were again employed. (See Chapter 7 for detail.)

A brief a comparison of the findings at the first and second objective assessments follows:

* Affective measures	Before therapy	After 8 months
	Percentage	Percentage
State Anxiety (Spielberger, 1980)	100	55
Trait Anxiety (Spielberger, 1980)	100	78
Depression (Beck, 1967)	43(mod)	5 (nil)
Symptom checklist (Welch, 1992)	100	59
Home coping (Welch, 1992)	0	80
Work coping (Welch, 1992)	0	80

* Cognitive functioning (Wechsler Memory Scale Revised, 1987)

	Before therapy	After 8 months
	Percentile ra	<u>nks</u>
Verbal memory	25	93
Logical memory 1	33	93
Logical memory 2	37	96
Digit span forwards	64	99
Digit span backwards	<1	81

* Brain SPECT scan results:

On commencing therapy.

"Focal areas of marked decreased activity indicating diminished cortical perfusion are noted involving:

left temporal lobe extending to the insular cortex;

bilateral parafalcine parieto-occipital cortex with marked decreased activity predominantly in the parietal lobe;

bilateral tempero-parietal and fronto-parietal cortex".

After 8 mths therapy (12 months after diagnosis).

"When compared with the previous examination (9 months ago) there has been significant improvement however diminished activity is still noted in the parafalcine parieto-occipital region and lateral aspects of parietal lobes. The temporal lobe activity is now symmetrical".

* Cortex-cerebellum ratios.

	1st scan.		2nd scan.		
	Right	Left hemisphere	<u>Right</u>	<u>Left</u>	
Lateral frontal lobe:	0.81	0.90	0.79	0.91	
Fronto-parietal:	0.85	0.89	0.78	0.90	
Lateral-parietal:	0.82	0.86	0.80	0.89	
Temporal:	0.85	0.91	0.78	0.90	
Superior-parietal:	0.72	0.69	<u>0.65</u>	0.67	
Parieto-occipital	0.77	<u>0.72</u>	0.77	0.72	

5. Stage 3 therapy.

(c/f Stages 3 & 4 of the SARI model, Phillips & Fredericks, 1995.)
This stage was reached approximately 3 years after commencing therapy.

5 i General therapeutic issues at this stage.

Dealing with the affective issues on Toni's life in hypnosis begun in Stage 2 of therapy would be continued into Stage 3 with increasing exploration and consolidation of areas of inner growth.

Work on the practical issues of rehabilitation can only be commenced once a certain degree of physical stamina is established in the patient. Approximately 3 years after commencing hypnotherapy Toni felt herself ready to resume some aspects of rebuilding a relatively normal lifestyle, and to feel she could start becoming productive once again. This was a phase of gradual re-absorption into a "normal" life, which demanded ongoing available support. Gradually Toni would become increasingly less dependent on this therapist support: fortnightly sessions gradually would be replaced, when she indicated readiness, by monthly sessions, and finally Toni would make odd appointments only when she felt the need for reassurance or ego strengthening.

The need unconditionally to pace and follow the patient (Phillips and Fredericks, 1995; Gilligan, 1994) especially at this stage of return to normal function cannot be

over-emphasised. Unlimited patience and ego strengthening are required as the therapist plays a role of observing apparent readiness, supporting it without forcing it, reinforcing efforts to advance and providing a holding frame for attempts and failures to resume activity. It is of prime importance that the client sets her own pace of adaptive progress: any pressure to move faster causes panic, retreat and possibly regression.

Practical issues to be targeted in Stage 3 included:

- * the increase of physical stamina;
- * resumption of household duties and social interaction;.
- * resumption of old or new cultural interests;
- * regaining of earning capacity;
- * increase of muscle strength;
- * assessment of Toni's marriage circumstances.

5.ii Observing and utilising an increase in physical stamina.

Readiness for practical re-involvement in normal activity of Phase 3 work was recognised as Toni began to report increasing availability of physical strength, though she initially lacked the confidence to use it fearing a relapse. At this stage, rebuilding of confidence in trance is an essential task following the long experience of genuine physical helplessness.

- * First Toni experimented with walking unaided to her neighbour's house with stops to rest: gradually she reported she could do this without excessive dizziness.
- * She also reported she could water some of her plants on certain days without undue distress.
- * Approximations towards driving a car.

Ego strengthening was used to support unsolicited progressive desensitisation first of all to being driven in a car. Toni progressed from lying on the back seat, eyes closed, to sitting in the front seat of the car; the symbolic significance of this was explored in trance and ratified. At first Toni closed her eyes, but when she experienced no distress, she could open her eyes provided she looked straight ahead. Later she only became uncontrollably dizzy when Ronald drove too fast: she realised she would have greater control driving her car alone than with him beside her. Her confidence increased to the point where she finally dared to drive her old car,

first to the local shopping centre and then to therapy, carrying her trusty old maid along for moral support. This feat and its symbolic significance of regaining control of her life, was celebrated in therapy as a supreme victory. Toni now chose not to drive if Ronald was in the passenger seat of the car: she realised his criticism disempowered her thus she deliberately avoided it.

5.iii Resuming household duties and social activities.

Toni gradually became able to shop on a limited scale. Initially she could only manage to select very few items before the bending and walking caused dizziness and fatigue to overwhelm her; nevertheless her dogged perseverence was laudable. Every small advance was reinforeed with ego-strengthening in trance: it was necessary to counter-balance the ongoing accusations by Ronald that she was useless. The inner parts of self were staunch in supporting this very slow and painstaking progress. Toni now also became able to prepare an evening meal most days if she rested adequately beforehand and paid adequate attention to step-wise, unhurried preparation. Unfortunately Ronald did not appreciate this as hard-won progress: he accepted her efforts as his due and criticised ferociously if he were displeased. Despite this the advance was supported in trance by Toni's inner parts as excellent progress.

Nearly three years after commencing therapy Toni was able to attend simple social functions like a barbecue with friends for about three hours provided she rested well in advance. She could also enjoy week-end visits to her mother's seaside home and could now make decisions about when she would arrive and leave despite mother's entreaties to stay longer.

5.iv Resuming previous cultural interests.

Toni's creative part was a strong ally in therapy at this time helping her explore new possibilities. One day she announced she had agreed to produce a small amateur dramatic performance at the local suburb hall. Friends had approached her to help them knowing her experience and skill. She felt sufficiently empowered to agree provided we worked together to assess how she would manage.

Utilising Rossi's ideas of body rhythms (Rossi, 1982), was very helpful to Toni at this time.

She would prepare for each rehearsal by resting in advance, using self-hypnosis, and even taking time out to use breathing exercises when necessary to calm herself before starting. Toni knew she had proved she could drive to the venue, manage for three hours of rehearsal time and drive home. Once stage work commenced, Toni's creative part became absorbed and she felt herself to be competent, creative and in control once again: more importantly she felt the respect of those she was training, which counteracted Ronald's discrediting, and increased her ego strength. Invariably she was fatigued the next day, but this no longer frightened her; she simply prepared for the next rehearsal by resting and reaching in to her inner self. The dramatic production was highly successful: the benefit to Toni was even more significant. Hypnosis in the fortnightly sessions reinforced all progress and supported every part involved in turn. Toni was subsequently to produce two other shows at intervals before terminating therapy: each production was accepted as proof for self that she was moving into a new space. In her dramatic work, Toni could recognise her achiever part working within the supportive structures she was able to set.

5.v Regaining earning capacity.

In this period the suggestion was also made in trance that Toni might start taking private pupils for extra Maths lessons. It took some months for sub-conscious to respond to this post-hypnotic suggestions. The lessons with the first pupil taken on by Toni had to be carefully scheduled, i.e. twice a week to start, and only in the afternoons as Toni still need to begin her days slowly. Teaching a pupil with low confidence raised her own confidence levels. To her delight she found she was now able to tackle even difficult mathematical problems, sometimes on the spot, if not in her own time later: this would have been impossible at the start of the M.E. process. Toni started to trust that her old skills had not deserted her. She increased her pupil load from one to two and later to three pupils carefully balancing the timing of lessons. The pupils made excellent improvements at school: soon Toni was confident enough to take on Matriculation level students once again. Working one-to-one was manageable in terms of energy expenditure. Because of her teaching success, Toni was approached to do relief teaching at her old school: this she comfortably refused, knowing her energy resources could not be managed or extended that way. As Toni began to earn limited pocket-money, she realised she was not wholly financially dependent on Ronald. With

constant encouragement in trance, Toni finally furnished a special private "teaching room" with a suitable desk and chairs and new curtains: this was again celebrated in therapy as opening up a new room in her life for expansion.

5.vi Increasing muscle strength.

In this phase, Toni initiated the intention to start training her body back to fitness in ways she had known before her illness. With encouragement she made contact with her old aerobics instructor to devise a muscle strengthening programme. It was agreed that the instructor and this therapist would work as a team to explore this new avenue. Despite this instructor's caring support once or twice a week for ten minutes only, Toni could not progress beyond simple stretching exercises without creating excessive muscle fatigue and general relapse. She was distressed, but consoled in trance that body wanted her to do this differently. Age progression in trance produced a visualisation of Toni graceful and strong out there in the future.

Reflexology and acupuncture had been tried intermittently by Toni but without demonstrable or perceived success: clearly Toni still had work to do before the symptoms could become irrelevant. Still determined to increase body strength, Toni attend a nearby gymnasium where the caring owner supervised simple walking exercises on the treadmill. This too became unsustainable on an increasing basis, though the kindly attention and care shown by this gentleman suggested to Toni that she was seen to be attractive, appealing and worth attention.

Finally Toni accepted in trance that perhaps these "artificial" means of strengthening self were unsuitable: the suggestion was offered that perhaps her sub-conscious was indicating she also needed to address the regaining of strength within her marriage relationship. Toni was encouraged to walk short distances with Ronald at the beachfront: he was accepting and supportive. She found she could walk for 10 minutes at this time before observing the "stop signals" from her body. This confidence to explore her body's limits was built up in trance, as was the confidence in her control in determining her limits.

7. Re-assessing the marriage circumstances.

The enjoyment of physical and renewed sexual activity with Ronald eased relationship tensions as Toni simultaneously learned increasingly how to interact with him without being overwhelmed or dominated. Toni gradually began to see herself as presently physically and emotionally vulnerable, but overall as the stronger marriage partner: she saw herself as both a necessary support and on occasion a threat to her less able husband. Gradually Toni could start facing the choices at her disposal concerning the relationship with Ronald. Separation anxiety issues had been explored since therapy began though the possibilities of separation or divorce from her husband were too threatening to deal with as options until Stage 3 of therapy. Since becoming ill Toni had realised that Ronald's emotional maltreatment of her constituted affective toxicity to which she responded somatically. Nevertheless she had invested many years in the marriage and there had been good times. Feeling helpless initially she feared Ronald's repeated threats to leave her because she was "so useless and ugly". Toni was now able to deal more closely with her choices in the relationship; she realised she could choose to leave Ronald since she no longer needed to accept his behaviours or chosen lifestyle, or she could agree to stay with him, creating changes by altering her responses to his behaviour. In trance she explored the positives in the relationship that had kept them together despite all difficulties. She could also explore her losses should she move out. Toni was not yet well enough to contemplate separation at this stage: it was clear that her sub-conscious needed time to work with the difficult issues: she needed to be able to make a decision about staying in or leaving the relationship from a position of strength.

At this time Toni opted to work intensively on changing her behaviours in response to Ronald's undesirable habits. This phase of marriage guidance work in and out of hypnosis brought rich gains for Toni and a sense of her own inner strength and ability to choose. However despite deep insights gained about the causes of Ronald's behaviour including poorly controlled physical problems with blood pressure and diabetes, as well as his emotional learnings from his family in boyhood, and present projections of anxiety, Toni could not altogether protect herself from the hurt of his uncontrolled and vicious verbal abuse in response to work stresses or his frustration over her "uselessness" and continued physical weakness. It should be noted that despite all this progress, Toni was not symptom-free. She

was learning a new balancing act taking control of the disease patterns so she could fulfil some useful purpose in her life. Ronald's verbal insults continued although she learned how to distance herself better from their impact. Most times Toni could identify her physical relapses as following either uncontrolled energy usage, or verbal abuse from her husband. She knew that there were still decisions to be made concerning her marriage before she would feel fully free to live as her true self.

Toni was encouraged by her inner parts in therapy and in dreams to take the odd trips away from home on her own. Apparently because of his own insecurities, Ronald proved unable, despite promises, to complete the repairs on Toni's motor vehicle: she recognised she was kept dependent by this need to borrow Ronald's car to keep appointments, nevertheless Toni complicitly accepted the situation. Despite now being more financially independent, she avoided having her car repaired by any other mechanic.

The problem was addressed in trance. The first step was to help Toni gain confidence by exploring through visualisation how it would be should she leave her husband: the possibility of a trial separation was raised which felt less threatening to her than divorce. Toni began to look at the costs of flats and properties, and she thought about localities where she would feel comfortable.

At this time persons in her support system began overtly to question why Toni remained with a man who treated her with so little respect. Finally Toni booked an air ticket for an extended holiday with close friends in another province. Synchroniously an elderly church friend introduced her son, a mechanic, who undertook to repair Toni's car. The dream prognoses were apparently approaching fulfilment.

8. <u>Termination of therapy</u>.

At this stage, Toni made no further therapy appointments. Follow-up information was that she believed herself strong enough to cope within her marriage at that time, though she realised she might later chose to leave Ronald. She was enjoying her private maths teaching and achieving excellent results with her pupils. Toni stated she was happy where she was and

comfortable within herself. She was aware that inner growth, precipitated by the onset of M.E., would continue within her as an ongoing process of which she was no longer afraid. Postscript.

Six months after the above entry, Toni began investigating the pros and cons of divorce since there had been no change in her husband's demeaning behaviour. Slowly she assessed her situation and made plans for the changes to come: she wished the parting to be as free from acrimony as possible.

In the interval, her remedial mathematics teaching business had flourished: she was able to enjoy an easy morning and work with pupils in the afternoons.

Toni also reported she had taken a flight with a pilot friend in a microlight aircraft with great enjoyment and no signs of vertigo. Her motor vehicle had been repaired and she looked forward with confidence to a new future as a single woman.

CHAPTER 6.

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CHAPTER SEVEN.

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CHAPTER SEVEN.

QUANTITATIVE AND QUALITATIVE RESEARCH PROCEDURES AND FINDINGS.

1. Introduction.

1.i Resume of research goals.

This research was undertaken primarily in order to develop a stage-related rehabilitation programme to be used for Myalgic Encephalomyelitis (M.E.) patients employing the techniques of Traditional, Ericksonian and Ego State clinical hypnotherapy. The programme was grounded in a re-conceptualisation of the dynamics of the M.E. disease process according to the paradigm of psychoneuroimmunology.

The secondary objective of the study was threefold:

- * to ascertain whether regions of hypoperfusion concommitant with neurological dysfunction could be identified by using SPECT scans together with neuropsychological assessment measures;
- * to compare behaviours in the subject group, before and after clinical hypnotherapy to assess hypothesised improvement in quantitative terms;
- * to compare the status of M.E. patients after 7 months of clinical hypnotherapy with the status of M.E. patients who had not had any psychotherapy.

This chapter will present results of information obtained from the assessment battery.

2 Group organisation for quantitative testing.

<u>N.B.</u> In this assessment, the term "control group" does not refer to normal patients without pathology: it refers instead to patients diagnosed with M.E. who have not had hypnotherapy.

2.i Subject and control group constitution.

The two groups constituted, i.e. the subjects and the controls, each comprised 5 Caucasian diagnosed M.E. patients between 20 and 58 years of age: two patients in each group were in the 20 to 30 year age group: three patients in each group were between 40 and 58 years of

age: one male patient was recruited for each group: the remainder were females.

2.ii Group A

This comprised M.E. patients who welcomed psychotherapeutic intervention: they were randomly included in the study on its initiation as the first five patients referred for therapy by one of two Specialist Physicians with a particular interest in the disease.

2.iii Group B

These M.E. patients had also been diagnosed by one of the same two Physicians and referred at random for the control group: these patients had declined psychotherapeutic intervention. They were matched with the sample patients as far as possible with regard to the above described categories and existing social support system.

- 3. Methodology and treatment.
- 3.i Quantitative measures employed.

The battery designed was intended to measure:

- * affective status
- * physiological symptomatology
- * coping capacity
- * cognitive malfunction.

Initial baseline and later post-treatment functionality of each sample patient was assessed using:

- * norm-based measures;
- * subjective patient report measures;
- * Single Photon Emission Computed Tomography (SPECT) brain scan imaging.

The specific instruments used were:

- 3.ii Norm-based measures of affective state:
- * State and Trait Anxiety Inventory (Spielberger, 1980);
- * Beck Depression Inventory (Beck, 1967).

- 3.iii Norm-based measures of cognitive functioning:
- * Selected subtests from Weschler Memory Scale-Revised (WMS-R)(Wechsler, 1987).
- 3.iv Subjective patient report measures of symptoms and coping:
- * Symptom Checklist (Welch, 1992: unpublished. See Appendix);
- * Coping with M.E. (Welch, 1992: unpublished. See Appendix).

Later statistical comparison using these two tests was facilitated by assigning simple numerical value to responses to the Welch questionnaires. On the first assessment, the check lists were completed by the research therapist at the commencement of therapy from audio recordings of information revealed by the patient at the first open-ended interview and following few therapy sessions: on the second follow-up assessment the checklists were completed by the patients.

3.v Brain SPECT scan imaging.

Staff of the Department of Medical Physics at King Edward V Hospital, Durban, were responsible for the technical administration of these scans. Computerised scores of degree of dysfunction noted at the time of the scan were calculated by the Principal Physicist of the Department. These quantitative scores were additive to the subjective interpretation of the scans by two senior Specialist Radiologists with special interest in brain pathology, who were based at other institutions.

In the case of the subject group who selected hypnotherapeutic intervention, one scan was obtained at the commencement of therapy and a comparative scan was taken at least 7 months afterwards: for controls who had not had therapy, only one scan was possible with the condition that this was taken at least 7 months after diagnosis.

In all cases the Logical Memory subtest from the Wechsler Memory Scale-Revised (WMS-R) (Wechsler, 1987) was used at a specific time in the scan procedure. This arrangement sought, as far as possible, to keep constant the variable of cognitive activity measured across all participants at the time of scanning.

The Logical Memory results were part of a larger set of neuropsychological tests from the

WMS-R battery administered while the scan was in progress to test a wider range of cognitive function. The attention and concentration subtests of the WMS-R were used to prime cognitive arousal in the patient: the Ceretec was then administered at the beginning of the first Logical Memory subtest. The dye is absorbed within 2 minutes, thus only the perfusion levels current at the time of the Ceretec injection and concurrent testing of Logical Memory would be reflected on the SPECT scan due to the particular effects of the Ceretec medium used for the technology. The scan information thus reflects the specific effects of this type of memory activity on brain perfusion levels, but the general state of perfusion in the brain at the time of testing is also reflected.

In neuropsychological terms, the SPECT scan information was intended to provide information in image form about blood perfusion levels in the brain related to a specific cognitive activity found difficult by M.E. patients. It was hoped to make possible two comparisons:

- * in the subject group, between images taken before therapy and seven months after commencement to assess possible benefits from hypnotherapy;
- * between the subject and control group at least 7 months after diagnosis to assess possible differences over time with and without therapy.

It was also was intended to see how far the finer information available from the neuropsychological testing using Wechsler subtests would be reflected in terms of low perfusion levels in the SPECT scans.

- 4. <u>Testing procedures.</u>
- 4.i Group A: therapy subject group.
- * Pre-therapy assessment.

Subjective information.

The following inventories named above were used to define the patient's subjective view of physical and cognitive symptoms, coping capacity and affective state:

Symptom checklist (Welch, 1992: unpublished)

Coping with M.E. (Welch, 1992: unpublished)

State and Trait Anxiety Inventory (Spielberger, 1980); Beck Depression Inventory (Beck, 1967).

Objective assessment

Cognitive dysfunction was measured using brain SPECT scan imaging, and the immediate and delayed recall, and digit-span subtests of the Weschler Memory Scale-Revised (Wechsler, 1987). The Verbal Memory 1 subtest was administered immediately after the injection of the dye Ceretec so that the SPECT results would relate directly to this cognitive testing as stated above.

* Hypnotherapy intervention phase

Therapeutic intervention using traditional, Ericksonian and Ego-State hypnotherapy was initially given for at least 6 months by the researcher. (Therapy would be continued after the 7-months re-assessment in all sample patients but one who was translocated.)

* Re-assessment.

Re-assessment was conducted at least 7 months after diagnosis and commencement of therapy using the same measures as for the first assessment. Difficulties in implementing and maintaining this time variable across all patients will be discussed later.

4.ii Group B: Non-therapy control group assessment.

The 5 members of this group had all had a medical diagnosis of M.E. but no psychotherapeutic intervention of any type. Members were each assessed once on entry to the testing programme, using the same battery as used for the patient subject group, i.e. the inventories, normed tests and SPECT scans, to assess physical and emotional rehabilitation and coping capacity without therapy. The results were to be compared to the second subject group results.

5. Brain SPECT scan testing and results.

The wider objective of including brain SPECT scans in the testing procedure was to ascertain whether "visual evidence" in imaged photographic form could be obtained to

validate patient report of symptoms experienced in M.E.; in addition as stated above, it was hoped the SPECT scans would also correspond to information obtained by psychoneurological testing using the Wechsler Memory Test-Revised (Wechsler, 1987) and the other self-report measures listed above.

5.i Hypothesised areas of low perfusion.

Research by Hyde & Jain (1992) described the primary cause of disability in the M.E. disease process as an acquired central nervous system dysfunction in areas responsible for reception, interpretation, storage and recovery of information, as well as motor, sensory and emotional function. Sub-cortical injury to the hypothalamic, pituitary, limbic function was also implicated. Goldstein (1994) reinforced the suspected involvement of tempero-limbic dysfunction.

Integration of the information concerning different aspects of dysfunction described in the literature by the above authors in particular, led to the formulation of the extended diagnostic procedure suggested by Welch (1995) and the final symptom checklist used in this study (Welch, 1992). (See Chapter 1.) From the symptoms observed by this therapist in M.E. patients in the pilot and formal study, as well as those described in the literature (see Chapter 1), it was hypothesised, following the neuropsychological diagnostic guidelines of Lezac (1983) and Walsh (1987) that, broadly speaking, many of the following symptoms areas might show on SPECT brain scans as regions of low perfusion, depending on the sensitivity of the SPECT instrumentation:

Dramatically decreased mental energy & concentration over 6 months volition dysfunction poor motor planning

Frontal lobe

Reticular Activating System (RAS)

sleep and dream disorders

Anterior hypothalumus band of Broca/septal nucleus

poor	immunoregulation
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hippocampus, amygdala septum, hypothalamus (alteration in lymphoid cell number & activation).

temporary or more permanent loss of verbal and performance I.Q.

global, but both temporal lobes mainly;

receptive and expressive dysphasia dysfunction of reading comprehension sequencing, auditory memory left temporal; hippocampus; associational areas;

visual discrimination, visual and spatial orientation, balance disorders

right temporal lobe superior & posterior temporal lobe

tinnitus

temporal lobe/ cochlea connection

motor dysfunction

parietal lobe, pre-frontal region, motor nuclei in R.A.S

sensory dysfunction, including tactile & pain awareness, auditory & visual discrimination & reasoning

parietal/occipital/temporal lobes posterior association cortex

proprioceptive dysfunction, fibromyalgia

opoid receptors insular & paralimbic mid brain tegmentum areas

emotional dysfunction, inappropriate reactions

limbic system; pseudo-bulbar pathways;

alcohol intolerance

inhibition of NMDA(N-methyl-D-aspartate receptors in hippocampal neurons

excessive thirst, obesity, temperature control,

hypothalamus

low sexual arousal, nasal allergies:

excessive sensitivity to odours:

dysregulated piriform cortex

digestive sensitivity:

abnormal limbic system reaction to insulin, some peptides & amino acids

increased pre-menstrual syndrome, ovarian cysts, endometriosis, decreased libido limbic system (high estrogen/ progesterone sites)

abnormal temperature control hypesthesias & dyesthesias irritable bowel, cardiac arythmias.

limbic system (Goldstein, 1994)

Summarising the above, the reticular activating system, hypothalamus, basal ganglia, left and right temporal lobes and limbic system, frontal, parietal, and occipital regions are all strongly implicated in the florid symptom picture delineated above and discussed in detail in Chapter 1.

5.ii Radiological reports and quantified cortex-cerebellum ratios

Two respected senior Specialist Radiologists with particular experience in the reading of brain scans had undertaken to report on the brain SPECT scans for this study: they had no prior information about M.E. symptomatology, or individual patients.

In addition, as an independent assessment, the Principal Physicist of the Department of

Medical Physics at King Edward V Hospital, where the scans were performed, undertook to furnish this study with quantitative analysis of the Brain SPECT scans by calculating Cortex-Cerebellum Ratios of the areas of low perfusion detected: he also had no prior patient or M.E. information.

SPECT scans as utilised at the present level of technological development by radiologists cannot be used to diagnose M.E. in the way Altzheimer's Disease, and other deteriorating brain conditions can be diagnosed. This is because M.E. symptoms are hypothesised to indicate shifting levels of dysfunction rather than irreversibly deteriorating damage or decay. It was agreed however by the Radiologists, that under controlled conditions as pertained in the application of the SPECT technology detailed in Section 3.v above, areas of poor perfusion noted could yield the following:

- * information about which areas, if any, were hypoperfused;
- * significantly detected areas observed in the first scans of the subject group could usefully be compared to the same areas in the second scans of the subject group to note changes over time.
- * the comparison with control patients who had not had hypnotherapy would be of interest.

A deviation of more than 15% perfusion from maximum was agreed by both radiologists to indicate true dysfunction as opposed to a chance result from nuisance variables.

(It should be noted that this decision as regards cut-off points to distinguish normality from abnormality in this study does not preclude the fact that lowered perfusion at other lesser levels, e.g. 10%, may nevertheless indicate cognitive dysfunction in the neurological process: finer technological instruments may later be able to discern serious dysfunction which may occur at <15% hypoperfusion.)

The Principal Physicist involved in determining cortex-cerebellum ratios, an internationally recognised system of measurement, decided independently on the

following criteria for discriminating normal from abnormal ratios:

* normal range:

1.0 - 0.85

* areas of suspicion:

0.85 - 0.80

* diminished perfusion:

0.80 - 0.75

* severe reduction:

< 0.75

Both the radiological reports, and the independently calculated quantitative ratios, are quoted for each of the patients for comparison: the abnormal and suspicious ratios are underlined below for clarity. (A full table of Cortex-Cerebellum Ratios also appears as an Appendix for fuller perusal.)

Brief commentary will also be given in this section by this research-therapist linking the radiological reports and cortex-cerebellum ratios to qualitative information concerning each individual patient's level of function and coping behaviour (See Appendices, and case studies in Chapters 4 - 6 for detailed information.)

An integrated and broader view of the hypoperfusion and associated cognitive dysfunction as seen generally across both subject and control groups in the study will follow in Section 6 below. Detailed neuropsychological commentary on the known effects of dysfunction in certain specific cerebral regions in relation to the SPECT scan results obtained in this study will also be more fully discussed in Section 6.

The reference source for all comments on behaviours linked to dysfunction in specific cerebral areas is Lezac (1983). The Wechsler Memory Test-Revised (Wechsler, 1987) will be referred to as WMS-R.

SUBJECT GROUP (Diagnosed M.E. patients with hypnotherapy).

Patient 1: (See Chapter 6 for full case history).

Radiologist's reports.

On commencing therapy.

"Focal areas of marked decreased activity indicating diminished cortical perfusion are

noted involving:

- * left temporal lobe extending to the insular cortex;
- * bilateral parafalcine parieto-occipital cortex with marked decreased activity redominantly in the parietal lobe;
- * bilateral tempero-parietal and fronto-parietal cortex."

After 8 mths therapy (12 months after diagnosis).

"When compared with the previous examination (9 months ago) there has been significant improvement however diminished activity is still noted in the parafalcine parieto-occipital region and lateral aspects of parietal lobes. The temporal lobe activity is now symmetrical."

Cortex-cerebellum ratios.

	1st scan.		2nd scan.	
	Right	Left hemisphere	Right	<u>Left</u>
Lateral frontal lobe:	0.81	0.90	0.79	0.91
Fronto-parietal:	0.85	0.89	0.78	0.90
Lateral-parietal:	0.82	0.86	0.80	0.89
Temporal:	0.85	0.91	0.78	0.90
Superior-parietal:	0.72	0.69	0.65	0.67
Parieto-occipital	0.77	0.72	0.77	0.72

Comment.

The specific complaints of this patient at commencement of therapy are detailed in a full case study in Chapter 6: the most serious are summarised below illustrating the match between behaviours and regions of hypoperfusion specified in the cortex-cerebellum ratios above.

frontal and limbic regions

^{*} excessive sleeping during the day

^{*}low arousal

^{*} very limited physical energy

* uncontrollable giddine	iess	ddines	gidd	le	lał	ol	ntr	ico	uı	*
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right fronto-parietal and parietal-occipital regions frontal lobe; hippocampus

* terrifying nightmares

parietal lobe

* freezing body extremities;

lateral frontal, fronto-parietal,

* severe muscle weakness

lateral-parietal regions

* difficulty walking

* difficulty with motor aspects of speech;

*concentration difficulties

frontal lobe and right hemisphere

dysfunction in general.

* dyscalculia

left and right parieto-occipital and

occipital cortex

* severely impaired short term memory

left temporal lobe

(severe consequences even with

minor dysfunction)

* verbal difficulties with comprehension,

following conversations, word-finding

right temporal lobe

The effects of temporal lobe dysfunction, and frontal lobe under-arousal on verbal processing was also shown in the Verbal Memory subtest of the Wechsler Memory Scale -Revised (WMS-R): this patient scored at the 16th percentile rank initially, then at the 25th percentile rank at the second assessment. By contrast Digital Memory which does not require as much verbal processing, integration of information or concentration, scored in both assessments between the 77th and 94th percentiles.

In summary, the significant hypoperfusion in this patient of superior parietal lobe, frontal lobe and the posterior association area is noted. The first is strongly implicated in motor movement; the frontal lobe is in general responsible for arousal, affective and motivational states, and maintaining effector links with the motor and sensory systems: the posterior association cortex mediates all behaviour involving vision, touch, body

awareness, verbal comprehension, spatial localisation and complex intellectual functions e.g. mathematics that depend on visuo-spatial experience. (Lezac, 1983).

It is noted that hypoperfusion as indicated by the cortex-cerebellum ratios, is worse in almost all regions at the time of the second scan taken 8 months after the first. This phenomenon has been noted in several patients in the pilot and formal studies. It is believed that the full spectrum of symptomatology can take up to 6 months to develop in Stage 1 of the M.E. disease process: in addition the degree of severity often appears to worsen before the stabilisation of Stage 2. (See Chapter 1.)

Patient 2:

Radiologist's report.

On commencing therapy.

"Multiple focal areas of moderately diminished activity are noted involving the following sites:

Both temporal, tempero-parietal and insular regions;

Bilateral parietal and parafalcine parietal, occipital

and early frontal cortex (more marked on the left side)."

After only 4 months therapy interrupted by translocation.(2 years after diagnosis)

"The previous scan was available for comparison. The appearance of the temporal lobes has not changed. There is less diminished activity in the temperoparietal region when compared with the previous scan. The parafalcine areas previously described are also less impressive.

Note: There has been an overall improvement since the previous examination."

Cortex-cerebellum ratios

	1st scan.		2nd scan.		
	Right Le	ft hemisphere	Right	<u>Left</u>	
Lateral frontal lobe:	<u>0.78</u>	0.94	<u>0.85</u>	0.93	
Temporal parietal:	0.72	0.86	0.82	0.79	
Lateral-parietal:	0.87	0.88	0.87	0.74	
— ··· ·					

Superior-parietal:	0.76	<u>0.85</u>	<u>0.74</u>	0.77
Parieto-occipital	0.83	0.84	<u>0.73</u>	<u>0.7</u>

Comment.

(See full case study of this patient in Chapter 4).

The range and location of hypoperfusion is similar to that noted in Patient 1 above. This patient experienced the common wide spectrum of symptoms typical of M.E.: in particular she complained of extremely low energy levels (frontal lobe), extreme difficulty with muscular weakness and pain (frontal and superior-parietal lobes), visual attention and focusing (left and right parieto-occipital lobes); language processing and comprehension difficulties (left and right temporal lobes).

Verbal Memory rankings on the Wechsler Memory Scale -Revised (9th and 31st percentile ranks) are significantly weaker than digital memory rankings (43 to 82): the latter have a lower language (temporal lobe) involvement and require less concentration (frontal lobe and right hemisphere processing) for integration of verbal information).

In the first scan of this patient, right hemisphere function is in all statistically significant areas seen to be worse than left hemisphere function. By the time of the second scan two years later, left hemisphere involvement has deteriorated over all areas according to the cortex-cerebellum ratios. (There are contradictory comments in the radiological reports.) The reason for the changes are unknown: it is moreover noted in chapter 4 that the patient was at this stage far more in control of the disease and her life in general though still experiencing setbacks and severe limitations in terms of available energy.

Patient 3

Radiologist's report.

On commencing therapy.

"The variation of activity in both parafalcine regions of the hemispheres is less than 15% and is thus within normal limits. No significant perfusion defects are noted of the cerebral or cerebellar regions and there is no asymmetry."

After 7 months' therapy (2 years after diagnosis)

There is an area of relative decreased perfusion in the right frontal region not previously noted. There has been no other interval change and the rest of the scan is within normal limits."

Cortex-cerebellum ratios.

	lst scan.		2nd scan.	
	Right Le	ft hemisphere	Right	<u>Left</u>
Superior fronto-parietal	0.78	0.77	0.77	0.77
Temporal parietal:	0.77	0.84	0.78	0.85
Superior-parietal:	0.70	0.73	0.74	0.77
Parieto-occipital	0.72	0.71	0.73	0.71
,				

Comment.

Regions of hypoperfusion are again similar to those of the two previous subjects.

This patient shows seriously low cortex-cerebellum ratios despite a history of excellent academic attainment. Verbal processing and memory were again significant problems, as evidenced in low fronto-parietal and temporal-parietal ratios. Verbal memory scores on the WMS-R were also weak (6th percentile on initial assessment). Visual-spatial difficulties are reflected in the low parieto-occipital ratios for both hemispheres: Digital Memory Backwards scores. (largely implicating parieto-occipital and frontal lobe involvement) scored on the 47th percentile, and were lower than those of most other participants in the study.

Extreme difficulty with motor movement is again reflected in hypoperfusion of the superior-parietal and superior fronto-parietal regions.

Very little shift in degree of hypoperfusion can be seen after 7 months despite excellent adaptation of lifestyle and commitment to coping with the disease.

[&]quot;Comparison is made with the examination of 12/09/97.

Patient 4.

Radiologist's report.

On commencing therapy.

"Focal areas of mild decreased activity corresponding with diminished cortical perfusion are noted involving:

left temporal lobe

parafalcine parietal-occipital region bilaterally

left lateral parietal cortex".

After 12 months therapy (5 years after diagnosis).

"The previous examination of May '96 was available for comparison. The previously described diminished perfusion in the left temporal lobe has improved and the appearance is noe symmetrical with the right temporal lobe. A focus of diminished perfusion in the right parieto-occipital region now present has not been noted in the previous examination.

The diminished activity in the parafalcine parieto-occipital regions demonstrates a variation of less than 15% and the significance of this is questionable.

Note There has been some change with an area of focal hypoperfusion now noted in the right parieto-occipital region."

Cortex-cerebellum ratios.

	<u>lst scan.</u>		2nd scan.	
	Right Left h	<u>emisphere</u>	<u>Right</u>	<u>Left</u>
Superior fronto-parietal	0.87	0.83	<u>0.82</u>	0.87
Lateral frontal lobe:	0.89	0.95	0.94	0.92
Lateral-fronto-parietal:	0.83	0.88	0.79	0.87
Temporal parietal:	0.83	0.91	0.85	0.93
Superior-parietal:	0.77	0.78	0.78	0.78
Parieto-occipital	<u>0.84</u>	0.90	<u>0.78</u>	<u>0.85</u>

Comment

This patient exhibits a wide range of regional hypoperfusion. This intellectually gifted

man had held a post as senior Town-Planner: he was subsequently incapacitated by exceedingly low energy levels (fronto-parietal regions), severe difficulty with locomotion (superior-parietal and fronto-parietal regions) and difficulties in language processing (right temporal lobe) which prevented his continuing in his post. Seriously limited in terms of earning potential he experienced severe depression, both primary and secondary (lateral frontal lobe).

On the Wechsler Verbal Memory Scale, this patient scored on the 2nd percentile rank on the first assessment and the 7th percentile rank on the second assessment reflecting poor concentration and verbal processing as well as high anxiety. Digital Memory which does not require much language processing, complex integration of material, or concentration, was high on both assessments (+/- 90th percentile: see Appendix on Cognitive Functioning.)

As with previous patients, some perfusion levels had improved by the second scan 1 year after the first, some had deteriorated.

Patient 5. (See Chapter 5 for detailed case history)

Radiologist's report.

On commencing therapy.

"There is mild to moderate decreased activity indicating diminished cortical perfusion at the following sites:

bilateral frontal, parietal and occipital cortex (more pronounced on the left); left lateral parietal cortex;

left temporal lobe (only minimal asymmetry)."

After 8 months' therapy.

"When compared with the previous examination (8 months ago) there has been progression of lowered perfusion and there is now marked decreased activity in the parafalcine cortex (predominantly in the parietal lobe).

There is moderate but more extensive hypoperfusion of the lateral parietal lobe of the left hemisphere. Left temporal lobe activity is also moderately reduced."

Cortex-cerebellum ratios

	1st scan.		2nd scan.	
	Right Left	hemisphere	Right	<u>Left</u>
Fronto-parietal	0.82	<u>0.74</u>	<u>0.80</u>	0.76
Superior-parietal:	<u>0.72</u>	0.69	0.63	<u>0.62</u>
Parieto-occipital	0.86	0.87	<u>0.77</u>	0.79

Comment.

The most serious ongoing limitation for this patient was extremely low energy levels and great difficulty walking or standing for extended periods. Superior-parietal hypoperfusion is noted to drop seriously to levels as low as 0.62. Parietal lobe involvement is the region most strongly implicated in this case.

Temporal lobe involvement did not reach statistical significance in the cortex-cerebellum ratios above. On the WMS-R, verbal memory (25th percentile rank) and visuo-spatial memory in the digits backwards subtest (<1st percentile) were very weak on the first assessment. However these improved on the second assessment to percentile ranks between 81st and 99th, suggesting that low arousal and concentration (frontal regions) were likely to be responsible for the initial poor scores rather than temporal lobe dysfunction which did not reach statistical significance.

CONTROL GROUP (Diagnosed M.E. patients without hypnotherapy).

Single scans were obtained: the results would be compared with second scans in subject group. These patients were only seen on one occasion by the research-therapist for assessment.

Patient 6.

Radiologist's Report.

10 years after diagnosis.

"The fluctuation of parafalcine cortical activity in both hemispheres is less than 15% and

this is of questionable significance. No other focal areas of decreased perfusion are noted in the rest of the brain scan."

Cortex-cerebellum ratios.

	Single scan	
	Right	Left hemisphere
Superior frontal lobe:	0.78	0.85
Temporal parietal:	0.82	0.87
Lateral-parietal:	<u>0.85</u>	0.87
Superior-parietal:	0.74	<u>0.72</u>
Parieto-occipital	0.89	0.87

Comment.

This patient was only seen once. Her interview and questionnaire responses indicated she lived a very limited life and still experienced 80% of the symptoms associated with M.E. 10 years after diagnosis. Significant superior-parietal lobe hypoperfusion (affecting locomotion), frontal lobe hypoperfusion (affecting forward planning, arousal and motor function), and extensive parietal occipital hypoperfusion) support her claims of dysfunction.

Right and left temporal lobe hypoperfusion reflected her comprehension difficulties. Verbal Memory using the WMS-R ranked on the 1st percentile suggesting not only temporal lobe difficulties but also frontal lobe problems with arousal and concentration implicating both.

Patient 7.

Radiologist's report.

10 years after diagnosis

There is relative decreased activity in the left frontal lobe in addition to mild asymmetry (up to 15%) of temporal lobe activity with relative decreased activity on the left side.

Cortex-cerebellum ratios.

	Single scan.	
	Right	Left hemisphere
Superior frontal lobe:	0.86	0.73
Fronto-parietal:	<u>0.74</u>	0.78
Lateral-parietal:	0.80	0.81
Superior-parietal:	0.72	0.69
Parieto-occipital	0.85	0.79

Comment.

This patient was able to work part-time as a bookkeeper but had very low energy levels (frontal lobe involvement) difficulty walking or climbing steps (superior-parietal), and severe verbal memory difficulties.

Verbal Memory on the WMS-R rated on the 9th percentile. Low left frontal lobe perfusion appears to be strongly implicated here in poor auditory memory. Digital auditory rote memory forwards (involving limited verbal processing, less information load and integration requirement, and lower concentration) rated on the 81st percentile.

Visuo-spatial memory in Digits Backwards obtained 3rd percentile rating perhaps reflecting poor parieto-occipital ratios in both hemispheres as well as left frontal lobe hypoperfusion.

Patient 8.

Radiologist's report.

Relative hypoactivity noted symmetrically in the parafalcine cortex is written in normal limits.

No significant focal area of hypo-perfusion or any asymmetry is noted.

Cortex-cerebellum ratios

	Single scan.	
	Right	Left hemisphere
Superior frontal lobe:	<u>0.76</u>	<u>0.77</u>
Fronto-parietal:	<u>0.79</u>	0.80
Temporal-parietal:	0.77	0.83
Lateral parietal:	0.82	0.84
Superior-parietal:	0.72	0.67
Parieto-occipital	0.69	0.73

Comment.

Despite the findings of the radiologist report, some seriously low cortex-cerebellum ratios are given above. This patient experiences difficulty maintaining stamina, and experiences excessive motor fatigue (frontal and superior-parietal lobe involvement) despite a high enthusiasm and drive to regain her strength and health.

She also describes difficulties with planning, impulsivity and controlling hyperactivity (supporting the picture of frontal lobe hypoperfusion above).

On the WMS-R, verbal memory (predominantly left temporal lobe involvement) scored on the 66th percentile while visuo-spatial memory in digits backwards scored on the 3rd percentile. This latter problem is reflected in serious right parieto-occipital lobe hypoperfusion.

Patient 9.

Radiologist's report.

8 years after diagnosis.

"There is relative decreased activity in both parafalcine regions more prominent in the right hemisphere, and also of the right fronto-parietal cortex. No other asymmetry is noted."

Cortex-cerebellum ratios

Single scan.

	Right	Left hemisphere
Superior frontal lobe:	0.74	0.76
Fronto-parietal:	0.73	0.69
Lateral parietal:	0.72	0.74
Superior-parietal:	0.57	0.59
Parieto-occipital	<u>0.76</u>	0.79

Comment.

This patient formerly held a highly responsible and demanding position as an Executive Secretary and personal assistant to a prestigious General Manager. She is currently unable to hold down any employment position and lives a very simple life alone, distanced from her family who cannot accept her condition. The above ratios confirm her disablement: there is serious hypoperfusion especially in the superior-parietal region affecting motor movement. Both right and left frontal regions are weak, suggesting low arousal and concentration capacity. This patient now struggles with short term verbal memory (5th percentile on the WMS-R) and retention over a longer period is particularly problematic (5th percentile). Surprisingly temporal lobe hypoperfusion is not evident from the cortex-cerebellum ratios though frontal lobe hypoperfusion is serious. Digital memory which is less dependent on either verbal processing or concentration because of lower memory load and integrational demands rates on the 51st percentile both forwards and backwards.

Patient 10.

Radiologist's report.

I year after diagnosis.

"No significant perfusion defects are noted of the cerebral or cerebellar hemispheres.

There is some focal variation, i.e. right frontal and also parafalcine cortex, but this does not exceed 10% and can be considered within normal limits."

Cortex-cerebellum ratios.

	Single scan.	
	Right	Left hemisphere
Superior frontal lobe:	0.86	0.83
Fronto-parietal:	0.82	0.82
Lateral parietal:	0.77	0.78
Superior-parietal:	<u>0.73</u>	<u>0.74</u>
Parieto-occipital	0.82	0.83

Comment.

This control group patient is a young student. Her chief difficulties are with arousal and maintaining either physical or mental stamina (note left superior frontal ratio of 0.83 above): this limits her progress academically. Strongest areas of deficit are the lateral and superior parietal lobes involved in the management of motor function. Depression is also thought to be strongly implicated in her profile though it was strongly denied and rated as nil on the Beck Depression Inventory scores: frontal lobe hypoperfusion may be involved.

The temporal lobe ratio did not reach statistical significance in this case: similarly auditory Verbal Memory as tested on WMS-R rated on the 50th percentile, which is adequate although far lower than might be expected from her academic potential. Rote auditory Digital Memory Forwards rated on the 99th percentile, whereas visuo-spatial memory in Digits Backwards of the WMS-R was on the 26th percentile: this is reflected in the parieto-occipital hypoperfusion ratios of 0.82 and 0.83 above.

5.iii Comparison between qualitative and quantitative SPECT results.

Both radiological reports and ratio procedures utilised the same basic cut-off point (0.85) between normality and abnormality. Results are similar, though from the quantified ratios the focus on hypoperfusion becomes sharper and it is easier to see and compare commonest areas affected. It is noted that the ratios detected more areas of statistically significant hypoperfusion than were mentioned in the reports, especially in

the second scans and in the control group. The radiological reports therefore frequently indicated normality whereas the ratios from the same scans detected significant and often serious hypoperfusion. Perhaps the ratio procedure has the capacity to distinguish more finely and accurately areas of low blood flow which are less clearly detected by the naked eye of the radiologist. The two sorts of information are intended to be seen as mutually supportive.

6. Neuropsychological implication of dysfunction from hypoperfusion.
In considering cortex-cerebellar ratios from the SPECT scans, reference will be made to the symptoms reported by patients in the open-ended interviews conducted in the clinical setting (see Chapters 4 - 6 for case studies) and recorded on the patient symptom checklists (see Appendix Affective Factors).

Much of the literature on neuropsychological functioning to be quoted concerns brain lesions and their consequent abnormalities. It is hypothesised that severe hypoperfusion in a particular cerebral region of the brain would bring about similar dysfunctional behaviour to that produced by a lesion in that region.

6.i Hemispheric differences.

It is of interest in comparing the quantitative ratios above to note that the right hemisphere appears to be slightly more seriously affected in most patients that the left, though hypoperfusion occurs in both hemispheres. Numerous studies have concluded that neither hemisphere is exclusively involved in mediating any one function.

However, cerebral blood flow studies, e.g. by Larsen et al (1978) and Ojemann, (1978), have demonstrated that the left hemisphere is dominant, though by no means exclusively involved, in verbal function, including reading, writing, understanding speech, speaking and verbal memory. The right hemisphere dominates the processing of information that is predominantly non-verbal, i.e. the processing and storage of data about shapes and forms, spatial orientation, perspective, copying and drawing of representative pictures or designs, etc.

However right hemisphere processing also affects speech. a predominantly left brain activity, as described by Lezac (1983): patients with right hemisphere lesions may be fluent in speech, though they are often verbose, illogical, showing difficulty generalising or making sound judgments. Similarly there may be problems ordering, organising or making sense of complex verbal material, even jokes (Lezac, 1983). These difficulties were frequently mentioned by M.E. patients in this study.

A very significant factor concerning right brain dominance comes from the studies of Heilman & Van Den Abell (1979) who report that reaction times mediated by the right hemisphere are faster than those mediated by the left: these findings have been interpreted as reflecting a right hemisphere dominance for the regulating of attention, a major area of difficulty for M.E. patients.

6.ii Regions of hypoperfusion.

All patients in the study, both subjects and even controls scanned 10 years after diagnosis, showed statistically significant hypoperfusion in the following regions:

- * <u>superior-parietal</u>: all patients registered hypoperfusion between 0.57 and 0.78 in both hemispheres on all scans taken even 10 years after diagnosis.
- * parieto-occipital: all patients registered hypoperfusion but the degree of hypoperfusion was slightly less uniform, i.e. between 0.69 and 0.89 over all participants;
- * frontal lobe hypoperfusion was statistically significant in all patients.
- * <u>Temporal lobe</u> hypoperfusion, particularly in the temporal-parietal region, occurred to a statistically significant degree in 4 of the 5 subjects.

It is interesting to compare these results with those from the study by Ichise et al (1992) mentioned in Chapter 1. This used HMPAO SPECT scans to show dysfunctional patterns in M.E. patients, both in the resting state and particularly after exercise. Compared with normal controls, the M.E. group showed significantly lower cortical-cerebellar rCBF ratios throughout multiple regions (p<0.05). The major cerebral regions involved were frontal (63% of M.E. patients), temporal (35%), parietal (53%) and

occipital lobes (38%): the rCBF ratios of the basal ganglia (40%) were also reduced.

6.iii Posterior association cortex involvement.

The dominant range of involvement is seen to be in the posterior association cortex.

This area extends

"from the longitudinal fissure separating the two hemispheres laterally to the areas adjacent to and just above the temporal lobe where temporal, occipital and parietal elements co-mingle. These association areas include much of the parietal and occipital lobes and some temporal association areas. Functionally they are the site of cortical mediation for all behaviour involving vision, touch, body awareness, verbal comprehension, spatial localisation and for complex intellectual functions of mathematical reasoning rooted in visuo-spatial experience."

(Lezac, 1983 p 67).

The most significant of the cortex-cerebellum ratios occurred in the superior-parietal region. This is of particular interest in the study of the motor dysfunction and muscle abnormalities which are integral to the diagnosis of M.E./ CFS. Abbey & Garfinkel (1991) state:

"Specific abnormalities in muscle metabolism remain as one of the most persuasive arguments in favour of the existence of CFS as a bona fide discrete disease."

The detailed elaboration of the complexities of cortex, cerebellum, spinal cord and muscle involvement in motor movement is beyond the confines of this study. In respect of cortical involvement, suffice it to say that the specificity of cortical structures in mediating any behaviour is not clear-cut or limited, and most cortical areas are involved to some degree in mediating any complex behaviour through complex feedback loops. Cells subserving a particular function are highly concentrated in one area thinning out and overlapping into adjacent regions. Of the cortical cells serving voluntary movement,

only 40% are situated in the primary motor cortex, whereas 20% are situated in the primary sensory area. i.e. the parietal lobe. Primary sensory cells also overlap into the primary motor area. (Lezac. 1983). This seems to be so because the neurons in sensory areas are needed to feed back information about motor involvement in order to integrate and refine the raw motor movement. Clearly this process has been interrupted in M.E.

Defects from left hemisphere dysfunction in the posterior association cortex. The most prominent damage of lesions of the left parieto-tempero-occipital region described by Russell (1963) usually involve fluent aphasia characterised by incomprehension, jargon speech and apparent unawareness of communication difficulty. Russell states that even very small cortical lesions of this area can have widespread and devastating consequences for verbal behaviour. This may have implications for the degree of hypoperfusion compatible with cognitive dysfunction in evaluating brain SPECT scans.

Defects arising from left hemisphere involvement of the tempero-parietal regions specifically implicate difficulties with short-term verbal memory. This process was specifically tested in the Wechsler Memory subtests selected. (See results in Appendix "Cognitive Dysfunction.") M.E. patients previously strongly able verbally as evidenced by their high achievement records and employment positions, are seen to be functioning in the below average range.

Even non-verbal memory tasks can be affected by verbal memory loss when there is no recourse to verbal memory self-talk aids (Butters et al. 1970). Posterior temporal lobe involvement is implicated in retrieval of information, and difficulties of word-finding. Difficulties recalling words and the disruption this causes to fluent speech is a common complaint of M.E. patients: there is also difficulty with remembering lists of words and new verbal learning, as also evidenced in the WMS-R test results of this thesis. The hippocampus is known to be a major component of the memory system in passing new information into long-term storage (Thompson, 1976). This region is thought to be significantly involved in the M.E. disease process, (see Chapter 1) particularly because

of the disturbance of emotional behaviour which follows dysfunction of this area: this includes mood alteration, obsessional thinking, hallucinations (lurid nightmares in M.E.?) and perceptual distortion in the experiencing of pain, M.E. patients discussed all these features in describing symptoms. However hypoperfusion of this small region could not be distinguished with certainty using the brain SPECT scan technology.

Acalculia and agraphia generally appear in association with other communication disabilities due to disruption within the posterior association cortex (Hecaen, 1962). Writing disabilities can occur with involvement of the tempero-parietal region especially if one of the other lobes is involved as well (Marcie & Hecaen, 1979)

The above problems were among those described by M.E. patients in this study.

Defects from right hemisphere dysfunction in the posterior association cortex. The parietal occipital lobe is largely responsible for visuo-spatial function and the processes dependent on sight, visual attention perception and memory. Intimate feedback loops connect this information to left brain regions responsible for language. For example, in reading, defects of visual recognition or organisation of letters are as much likely to cause difficulties as language processing problems per se. Difficulties associated with parietal lobe dysfunction include constructional difficulties, copying designs, drawing, difficulties in ordering thinking and sequencing speech as well as comprehending the relatedness of complex speech structures and clauses also arise as a result of right brain parietal dysfunction. Patients in then study also reported difficulty with long-term planning.

Many of the perceptual disorders of the right posterior association cortex are related to the phenomenon of sensory inattention described by Walsh (1978b). This is an inability to perceive several stimuli experienced in different locations simultaneously. This may account for the difficulty patients describe in paying attention to conversation in a crowded room.

Considering the strong quantitative indication of hypoperfusion in the posterior

associational area it is unfortunate that the observed and related difficulties patients had with losing their way and visual-motor integration that the visual memory subtests of the Wechsler Memory Scale Revised (1987) could not be employed. This was because the design of the study sought to capture dysfunction simultaneously on the SPECT scan and WMS-R tests. It was therefore practically impossible to include the testing of visuo-spatial concepts.

6.vi Frontal lobe involvement

All patients in the study showed a degree of frontal lobe hypoperfusion. The frontal lobe is the site of interconnections and feedback loops between the major sensory and motor systems. Damage or dysfunction in this area can be understood as disrupting the connective network between the sensory system of the posterior cortex, the limbic memory system with connections to sub-cortical regions involved in arousal, affective and motivational states, and the effector mechanisms of the motor system (Lezac, 1983). Basic arousal and energy availability as well as "difficulties with starting", e.g. decreased spontaneity of behaviour or movement, decreased initial rate of behaviour especially walking, and "difficulties stopping" e.g. braking impulsive behaviour and overreaction, are major difficulties for the M.E. patient.

7. Conclusions from SPECT scan testing.

The objective of the quantitative aspect of the study was threefold, as previously stated:

- * to ascertain whether regions of hypoperfusion concommitant with neurological dysfunction could be identified by using SPECT scans together with neuropsychological assessment measures;
- * to compare behaviours in the subject group, before and after clinical hypnotherapy to assess hypothesised improvement in quantitative terms;
- * to compare the status of M.E. patients after clinical hypnotherapy with the status of M.E. patients who had not had any psychotherapy.

7.i The illustration of regions of dysfunction.

The first of the above objectives was met.

- * The SPECT scans of each of the subject group patients did show, as hypothesised. that to a large extent patient complaints of severe cognitive and physiological dysfunction could be matched by visual displays of hypoperfusion in areas known to be responsible for that particular dysfunctional process (Lezac, 1983). Neuropsychological tests measuring cognitive dysfunction particularly in language processing also revealed deterioration in the same areas of processing as will be shown later.
- * As hypothesised and discussed in section 5 above, the SPECT scans showed significantly decreased activity indicating diminished blood perfusion (<85%) which matches poor cognitive or motor performance in the regions detailed below, though not all patients exhibited deficiencies in all the same areas or at the same time in the disease process:

posterior association cortex was widely involved;

<u>superior-parietal region</u>: the most significant region of hypoperfusion in all patients in the study.

parieto-occipital region: statistically significant hypoperfusion in all patients in the study in at least one hemisphere.

frontal lobe hypoperfusion was statistically significant in all patients.

temporal lobe hypoperfusion, particularly in the temporal-parietal region, occurred to a statistically significant degree in 4 of the 5 subjects tested up to 3 years post-diagnosis, and in 2 controls tested up to 10 years post diagnosis.

* All of the control group patients were tested at least 4 years after the onset of illness, and in 4 of the 5 cases they were tested 5 to 10 years after diagnosis. The radiological reports differed in findings from the cortex-cerebellum ratios: the former described some hypoperfusion within the 10% -15% region considered within normal limits in some of the patients in this control group. Quantitative cortex-cerebellum ratios by contrast detected statistically significant hypoperfusion that was far more significant in all of the regions distinguished above in all of the controls, even at this later stage in the disease process. More seriously still, affective information from these patients in the norm-based and self-report measures to be discussed below, would indicate they were still either

largely or partially non-functional in practical terms (See neuropsychological test results below.)

* Certain areas hypothesised earlier to be strongly involved in the malfunction experienced in M.E. could not be identified by the brain SPECT scan technology currently available:

the reticular activating system (RAS)

the hypothalamus

the limbic system

the basal ganglia.

It is probable that a decade from now more advances technologically especially in the field of Magnetic Resonance Imaging (MRI) scans will make possible detection of neurotransmitter processes and deficiencies in these very finely distinguished regions not currently discernable by the present technology. For the present, more is known about neuropsychological functioning than can be shown by the SPECT scan machinery.

7.ii Observations of subject group changes over time.

The SPECT scan technology provided a useful vehicle for this second research objective.

- * Areas of hypoperfusion were not all discernable in the first scan taken 7 months after commencement of therapy. With 3 patients, low perfusion was clearly evident in the first scans taken, in the remaining 2 patients low perfusion became apparent by the second scan testing, as much as 2 to 5 years after diagnosis. New areas of low perfusion, or worsening degrees of low perfusion were noted in 3 of the second scans, indicating slow development of the full symptom spectrum, and/or different areas of low perfusion appearing over an extended period after diagnosis: it should be remembered that in all cases, diagnosis of M.E. often occurred long after the first onset of symptomatology.
- * In all cases in the subject group, an abnormal degree of low perfusion was still evident 2 years after diagnosis.

* In no case was there evidence of deterioration of M.E. into a more serious pathological condition, e.g. dementia, once the full disease spectrum had "bloomed". In this study, from the time of the "full-blown" disease spectrum, hypoperfusion as seen on the scans gradually improved to within normal limits (<15%) over a period of up to 3 years, depending on the severity of the condition, in the subject group of therapy patients.

(In practical terms, it should be noted, pockets of lowered cognitive functioning were generally reported as persisting to a greater or lesser extent even after this 3 year time period long after the SPECT scan was considered to be within "normal" limits. Vulnerability to a recurrence of other M.E symptoms was also reported, though the pattern was far less flagrant than in the acute stage and occurred only occasionally.)

7.iii Comparing the subject and control groups.

Certain extremely interesting information was obtained from testing these two groups as separate entities, however direct comparison between the 2 groups as to the effects of hypnotherapy cannot be made with confidence because of difficulties encountered in holding certain variables constant. Nevertheless the observations of patterns of hypoperfusion over an extended time period are themselves significant and would merit further long term studies in this area.

* Difficulties of exact matching of variables.

Despite the ideal of careful matching of patients in as many respects as possible in the subject and control groups, it was predictably impossible to match them equally in respect of phenomenological factors such as degree of damaged self-esteem prior to therapy, ego strength available to counter the disease, attitudes to the disease process, and support system dynamics, all of which are intimately involved in the healing process.

Time factors related to the disease process affected the timing plan of the research design which was extremely difficult to hold constant. In both groups of de facto M.E. patients, responsibility for the emotional and physical health of patients had to take precedence over a research design.

There were:

- * variations in the length of time between symptom onset and medical diagnosis of M.E. in both subject and control groups;
- * individual variations in time taken for full symptom spectrum development;
- * individual differences in time taken to work through the stages of the disease process which varied according to disease severity, ego strength, age factors as well as circumstance differences.

Interestingly, the very fact of this inexactitude in time factor matching, provided an opportunity to observe the brain function of M.E. patients after a longer time interval than originally intended.

* Timing factors:

Within the subject group.

All patients in the subject group were seen in the acute stage of the disease process which was far earlier than controls who were in theearly or late chronic stage: this was beyond control as discussed below.

Although the first scan of subjects was taken as soon as possible after commencement of therapy, this timing in no case co-incided with the onset of illness as stated above. It was thus not possible to guage with accuracy the time of onset of illness or beginning of improvement related to this. All subject group patients had already been ill for many months before a diagnosis of M.E.

It was necessary in terms of the design to include a cognitive operation at the time of the SPECT scan. At the commencement of therapy all the patients in the subject group were too seriously ill to make any attempt at cognitive testing: the first scan could generally therefore only be arranged on average 1 month or longer after commencing therapy. Subsequently, when the second scan was due at least 6 months after commencing therapy, most of the patients had clearly made too little shift in the disease process to make re-testing meaningful. Where this was attempted seven weeks after

commencement, SPECT results indicated it was too soon to observe neurological changes in the scans although coping mechanisms were undoubtedly improved and performance anxiety had reduced.

Another difficulty that affected timing schedules was that two patients relocated unexpectedly and thus could not be present for a second scan exactly 7 months after the first: they had to be retested approximately one year after the first scan because of distance factors and difficulty in travelling.

Within the control group.

Patients in this group had resisted therapeutic intervention because they denied that there was any emotional factor involved in the disease process: they had sought purely medical resolution to their illness. All of the patients who finally made up the control group, had thus struggled for years with the illness: they saw the brain SPECT scan as an opportunity finally to find out more neurological information about M.E. Because of their resistance to therapy, there had been no opportunity for obtaining an initial scan immediately after diagnosis: in any case, as with the subject group, diagnosis had in no case coincided with the onset of the disease symptomatology. Since only one SPECT scan was available from controls, this information was to be compared to that from the second subject scans. It should be noted that the control group brain scan information was obtained several years after disease onset; the second set of subject group information was obtained several months after diagnosis.

8. <u>Statistical results of affective and cognitive assessment.</u>

All the raw scores obtained from the assessment battery described earlier were expressed as percentages to facilitate comparisons and statistical measurement.

8.i <u>Assessing individual improvement over time.</u>

In the subject group, this was done using a simple comparison of pre-test and post-test scores. The information reflected solely and specifically the change experienced by each

patient individually between the first and second assessments. Every patient who received hypnotherapy in the subject group was shown to have improved dramatically in terms of reduced anxiety and depression scores and increased scores in terms of home and work coping, and physical symptom reduction. (See Appendix for individual scores.) From subjective patient feedback, this improvement was experienced as mastering the M.E. condition, and thus reducing previous limitations.

8.ii Statistical procedures: choice of non-parametric tests.

To obtain statistical measures of change, non-parametric measures were used in view of the fact that the sample was small (five subjects and five controls). It was decided to use exact test procedures rather than normal tabled approximations to obtain more accurate results.

8.iii Research questions.

For clarity, the 2 different research questions to be considered statistically will be re-stated:

* Within the subject group of patients in therapy.

In the sample of diagnosed M.E. patients receiving clinical hypnotherapy it was of interest to see whether there was a statistically significant difference in the sample between emotional status and cognitive performance before therapeutic intervention and after intervention in certain distinctive key areas. (See Chapter 1 for argument concerning these areas of weakness.) Since this sample data was paired and dependent, to test whether there was true difference in medians pre- and post-test, the Wilcoxin Signed-Rank Test (Chase & Brown, 1992) was used.

* Between the 2 groups of patients with and without therapy.

Despite the small sample, the status of diagnosed M.E. patients who had received therapy was to be compared at least 7 months after commencement of intervention with the emotional status and cognitive performance in the same key areas, of M.E. patients diagnosed at least 7 months previously who had not had therapy. For this purpose, the Mann-Whitney U-Test (Chase & Brown, 1992) was used to compare two independent

population medians in each of the key areas. The format of the statistical testing is described below.

9. Paired scores within the subject group.

The Wilcoxin Signed-Rank test was used to compare the medians in the same population considered on two occasions, i.e. the patients who had had at least 6 months therapy, before and after commencement of intervention. The following data is considered in two parts:

Variables i (State Anxiety);
ii (Trait Anxiety);
iii (Depression);
iv (Symptom Spectrum).

The scores on the pre-tests of the above variables i - iv are expected to be higher than scores on the post-tests, i.e. lower scores indicate better coping.

Variables
v (Home coping);
vi (Work coping);
vii (Verbal Memory);
viii (Logical Memory 1);
ix (Logical Memory 2);
x (Digit Span Forwards);
xi (Digit Span Backwards).

In this section the scores on the pre-tests of the above variables v - xi are expected to be lower than scores on the post-tests, i.e. higher scores indicate better coping.

9.i Processing variables i to iv.

It was hypothesised that scores on the pre-tests (xi) would be higher than scores on the post-tests (xii). The difference under consideration is post-test scores minus pre-test scores, i.e.

(d = post-test minus pre-test)Ho: Md = 0

Ha: Md < 0

The statistic T+= the sum of positive difference.

For n = 5, the critical values are 0 and 2 at 5% and 10% levels of significance respectively (Stoker Statistical Tables, 1977).

<u>Variable</u> :	<u>T+ Value</u>	<u>Decision</u>
i. State anxiety	2	Reject Ho at 10% level
ii. Trait	0	Reject Ho at 5% level
iii. Depression	0	Reject Ho at 5% level
iv. Symptom spectrum	m 0	Reject Ho at 5% level.

9.ii Processing variables v to xi.

It was hypothesised that for the following variables v - xi, scores on the pre-test (x1) would be lower than scores on the post-test (x2), i.e.:

Ho: Md = 0

Ha: Md > 0

The statistic is T- = sum of the ranks of negative differences.

We reject Ho if T- is less than or equal to the critical value, i.e. 0 or 2 at the 5% and 10% levels respectively.

Variable:	Value of T-	<u>Decision</u>
v Home coping	0	Reject Ho at 5% level
vi Work coping	0	Reject Ho at 5% level
vii Verbal memory	0	Reject Ho at 5% level
viii Logical mem.1	0	Reject Ho at 5% level
ix Logical mem.2	0	Reject Ho at 5% level
x Digit span forwards	s. 7	Do not reject Ho.
xi Digit span backwar		Do not reject Ho.

10. Comparing two independent groups, i.e. subjects and controls.

M.E. patients who had therapy were compared at least 7 months after commencement of intervention with M.E. patients who had not had therapy. Again the data will be

considered in two parts:

```
*Variables: i (State Anxiety);
ii (Trait Anxiety);
iii (Depression);
iv (Symptom Spectrum).
```

Subject scores post-therapy are expected to be lower than control scores post-therapy:

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i.e. lower scores indicate better coping.*Variables:v (Home coping);vi (Work coping);
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vii (Verbal Memory);

viii (Logical Memory 1);

ix (Logical Memory 2);

x (Digit Span Forwards);

xi (Digit Span Backwards).

In this section subject scores post-therapy are expected to be higher than control scores post-therapy: i.e. higher scores indicate better coping.

Using the Mann-Whitney U-Test to compare the two population medians, all subjects (x) and controls (y) were ranked and the ranks summed. Ux and Uy were then used to compare the medians of each group.

10.i Processing variables i to iv.

Ho: Mdx = Mdy

 $Ha: Mdx \le Mdy$

Ui was used as the test statistic.

The levels of significance chosen were 0.05 and 0.1 respectively.

The same tables (Stoker, 1977) gave the following critical values:

0.05: The critical value for a one-tailed test if n1 = 5, & n2 = 5 is 4. 0.1: The critical value for a one-tailed test if n1 = 5, & n2 = 5 is 5.

Variable:	Signif. level	Table value:	Value of Ui:	<u>Decision</u>
i State anxiety	0.1	5	4.5	Reject Ho
ii Trait anxiety	0.1	5	8.5	Retain Ho
iii Depression	0.1	5	7	Retain Ho
iv Symptom	0.1	5	4	Reject Ho
retention	<i>0.1</i>			
retention				

10.ii Processing variables v to xi.

Ho: Mdx = Mdy

Ha: Mdx > Mdy

Uii was used as the test statistic since control scores were anticipated to be lower than subjects' scores.

The levels of significance chosen were 0.05 and 0.1 respectively.

Using the Stoker (1977) tables, the following values were obtained:

0.025 The critical value for a one-tailed test if n1 = 5, & n2 = 5 is 2.

0.05: The critical value for a one-tailed test if n1 = 5, & n2 = 5 is 4.

0.1: The critical value for a one-tailed test if n1 = 5, & n2 = 5 is 5.

Varia	able	Level of signif.	Table value	Value of Uii	<u>Decision</u>
	Home coping	0.025	2	0	Reject Ho
	, 0	0.05	4	0	Reject Ho
vi V	Work coping	0.10	5	4.5	Retain Ho
	Logical memory. I	0.10	5	6.5	Reject Ho
	Digit span forwar		5	9.5	Retain Ho

11. <u>Integrating statistical and qualitative findings</u>.

11.i Perceptions of improvement.

The most valuable measurement of change to the patient is that perceived by him subjectively. This is unrelated to statistics: it is experienced as a personal recognition of

improved function and the availability of new choices which allow a return to a normal lifestyle. The patients who had had therapy were able to look back and feel the differences between their experiences before and after therapy. This change occurs gradually, and subjective qualitative information from the patient should clearly be tracked and constantly re-evaluated at each therapeutic session: the process of change is ongoing without predictable limits.

In addition to patient perception of change, there is also the pattern of positive progression which can be observed through the eyes of the therapist. This utilises the therapist's subjective assessment of signs observed from outside the patient: this information of change also has value, but perhaps more to other therapists, although patients find the therapist's reported observations of improvement encouraging. Shifts which appear to be typical in marking the stages of the M.E. disease process, despite the obvious phenomenological uniqueness of each patient, have already been described in the 3 case studies in previous chapters.

The information from quantified scores of changes in behaviour has the additive value of increasing credibility, especially if the results support intuitive perceptions of progress.

Because the objective of the study was chiefly to describe qualitative interventions, limitations were placed on the size of the project. In addition, the expensive SPECT brain scan procedure used placed limits on the numbers that could be accommodated and the time available for the project. While the size of this research sample precludes the generalising of quantitative findings, trends are observable and supported by qualitative experience.

In this study, it was gratifying to note that all patients in the subject group personally perceived significant and strong improvement particularly in terms of home coping, new work coping styles, and physiological symptom reduction in therapy. Apart from patient report, this is also reflected in the statistics. It is medically generally supposed that in any disease process that does not kill, a measure of natural healing can be expected to occur

over time unless this is somehow prevented. However, even in this small group, differences between sample and control groups suggest that complete healing does not necessarily automatically occur in M.E. patients even many years after diagnosis, though time does bring improvement in the condition. Disease patterns are apparently maintained to a more or less paralysing degree, especially if not addressed by effective therapy.

11.ii Linking statistical results to hypnotic interventions.

As has already been stated, in the subject group, in purely arithmetical terms from the comparison of <u>individual</u> scores before and after six months therapy, it can be seen that all M.E. patients who had therapy made significant improvements in all areas tested 7 months after commencement of intervention. (See Appendix.)

It can also be seen that 7 months after commencement of therapy, there is statistically significant improvement of the subject group as a whole in all affective and cognitive areas assessed except for digital memory. However it was found in practice in therapy that fully to address the underlying dynamics of the energy loss implicit in anxiety and depression would take far longer than 7 months of treatment: with the most serious cases therapy would continue for as long as 3 years, though general emotional independence was in all subjects finally achieved.

Tested only 7 months after the commencement of therapy, statistically significant difference between subject and control groups was nevertheless demonstrated in certain areas, viz. in state anxiety, symptom spectrum reduction, home and work coping capacity and logical memory after a time lapse.

Differences between the groups could not be demonstrated with statistical significance 7 months after commencing therapy in the following areas: depression, trait anxiety, immediate verbal memory and digit span memory.

On analysis of the above statistical results it is thought that it would have been

preferable to schedule the retesting phase of the subject group to a later date, as has already been discussed. 7 months after commencing therapy, (8-12 months after diagnosis) most subject patients were only coming out of Stage 1 of the disease process (see Chapter 1), and had not been able to deal with more than better coping mechanisms and reducing anxiety. These improvements are reflected with significance in the statistics.

Contrary to anecdotal blanket claims that hypnotherapy can and perhaps should produce healing in 15 to 20 sessions, it was found that patients seen in the first stage of M.E. would require far longer than this to regain strength and health because of the degree of intra-psychic damage causing the ongoing stress, as well as the physical deterioration that had occurred. As discussed previously, in assessing M.E. patient needs, too little attention has so far been focused on the disease stage the presenting M.E. patient has reached. Patience and time are both essential to accompany the subject slowly on the gradual healing process. It was found in practice that M.E. patients would follow the stage/time healing patterns indicated by Hyde & Jain (1992). It is not surprising therefore, that the statistics do not discriminate significantly between subjects and controls in terms of trait anxiety and depression 7 months after starting therapy. With hindsight, and the benefit of therapeutic experience, it would have been preferable to retest all participants 2 years after diagnosis had there been access to a wider range of controls available to make such selection possible. By that stage, affect issues would certainly have been better covered in hypnotherapy with the subject group. It is thought that this more equal matching of the groups in terms of time since diagnosis, would have provided a wider range of statistically significant results.

The fact that there was, despite early re-testing, individual and group overall improvement in affective measures in the subject group, shows statistically that emotional healing had begun but was far from complete at the time of retesting.

Detailed examination follows of the factors that did and did not reach statistical significance after 7 months in discriminating the subject group with hypnotherapy from

the control group without therapy.

* Home and work coping.

The statistics show that clinical hypnotherapy has a positive effect on the patient's coping mechanisms and developing a sense of personal control over the disease symptoms even though hypoperfusion levels are relatively slow to improve in real terms as seen in section 5 and 6 above. As mentioned previously, coping mechanisms of the control group as seen from the statistics, were very much poorer than those of the subject group, even though blood perfusion levels of the controls were much improved compared to the subjects (according to the radiology reports but not the cortex-cerebellum ratios). The controls had also lived with the disease for 5 to 10 years since diagnosis. The subject group by comparison showed impressive coping skills and performance anxiety control in a matter of months, even though levels of blood perfusion were still in the abnormal range.

Home coping is a a product of many factors including increased ego strength, reduced panic at being ill in this apparently helpless, uncontrollable and previously unrecognised way, a sense of acceptance of the part played in the disease process by stress, overload and over-extension, as well as the patient's confidence that he can avoid these dangers. It is these factors addressed in therapy which apparently made the difference between the two groups.

* Physical symptom reduction.

It appears that a far greater degree of the physiological symptomatology disappeared in the subject group with hypnotherapy than among the controls, hypothetically because of therapeutic work in negotiating control over the symptoms; however it must be said that most M.E. patients in both groups appear to remain vulnerable to re-experiencing at least some of the physiological (and cognitive)symptoms on occasion, especially when under emotional stress, and/or if the immune system becomes overtaxed.

Cortex-cerebellum ratios also show significant hypoperfusion still evident many years after diagnosis. It cannot be claimed that any patient seen to date has completely lost

vulnerability to the re-occurence of symptoms, although there may be extensive periods that are symptom free. Nevertheless the subject group had been able to relinquish more symptomatology 7 months after commencing therapy than had the control group.

In the therapy group, reframing the symptoms as inner messengers to indicate that pro-active personal intervention was required by the patient to create some change, helped empower the patient and reduced the dread and fear associated with symptom appearance. The vulnerability to residual symptoms could be conceptualised as the body's protective defence mechanism to prevent the abuse of energy which initially caused the reduced immune system efficiency. The subjects had accepted that the symptoms need not be feared, and certainly need not have the power to prevent a full and satisfying life. They could rather be understood as a spur to better management of lifestyle.

Despite these approaches, certain physical symptoms appeared more resistant to healing than others, especially in mature to middle-aged patients: these were leg and arm muscle fatigue. This even seemed to be so in Stage 4 patients who had learned to cope with the disease and had spent time and energy on professional training or personal effort to improve muscle strength. It was found that patients seen in therapy invariably became fit enough in Stage 4 to walk long distances on flat surfaces, though equally invariably they experienced difficulty short-term and long-term when exercise involved extensive climbing of steps, inclines or hills or other taxing movements. Jogging was not a viable exercise for any of the M.E. patients in either the pilot study or the research sample after recovery. Noting the degree of SPECT scan hypoperfusion evident in the cortex-cerebellum ratios in the superior parietal lobe even 10 years after diagnosis, this difficulty is not surprising.

Teenage patients not included in the sample appeared most able in the latter stages to be able to resume social tennis and other sports to different degrees, though previous levels of excellence have also not been regained by patients seen in this practice, despite determined efforts by the patients themselves, and dedicated coaches.

In addition to the scan evidence of long-term cortical dysfunction, in hypnotherapeutic terms it may be understood that the body retains a measure of protective dysfunction to guard the patient against previously dangerous excessive stress.

* Anxiety.

The dynamics around state/performance anxiety are easily available to hypnotherapeutic investigation and alleviation, as demonstrated in the statistically significant difference between the sample and control groups stated above. This state anxiety was observed in statistical terms to become less intense with therapeutic intervention as the inner ego states accepted that the love of significant others need no longer be seen to be tied to performance ability in any given area: love can be expected to be unconditional.

However intervention with the more stable, possibly genetically inherited trait anxiety of an anxious personality, had apparently produced less change 7 months after commencing therapy. In Ego State therapy it is a condition of negotiating with the ego states that no part can or should be banished from the total personality. However limits on the unproductive behaviour of any part which is unsuitable for the well-being of the total personality may be negotiated, when alternative choices become apparent or acceptable. There has been an inherent purpose to the anxious behaviour, i.e. maintenance of the patient's safety. Patients in the subject group are guided in therapy to recognise the positive function of the characteristic of anxiety provided it choses to operate at a non-destructive level. Since the statistics of this study do not discriminate between subjects and controls 7 months after commencing therapy, it is presumed that at this stage, acceptable alternatives had yet been accepted by the anxious ego states of the subject group, though in practice this certain occurred at a later stage. By the process of ongoing negotiation in hypnosis, even the more stable trait anxiety can be reduced, made more manageable and less distressing to the patient, who can finally accept its purpose as a safety warning system rather than a signal of disaster to the total personality. It is likely to take longer than 7 months to reach this stage however bearing in mind the physical dis-ease of the patient.

Apart from reframing the purpose of symptoms, the patients in therapy were taught to deal pro-actively as opposed to reactively to toxicity in their current environment, whether caused by physical factors, or more likely in relationship issues. The subject patients needed to experience themselves as being in control to chose whether to tolerate the stressor by protecting themselves from its deleterious effect, or to move away from the source of the discomfort. The patients learned to recognise rather than avoid the acute separation anxiety that the choice of walking away might arouse; they were taught that they were strong enough to handle the anxiety, and practical ways of doing this.

* Depression.

It is reiterated that depression encountered in M.E. is both primary, due to old but deeply repressed emotional wounds, and secondary, as a reaction to the helplessness and inactivity caused by the disease. Patients routinely come to recognise, as depression lifts with hypnotherapy, that they feel stronger emotionally and more energised than ever before: they recognise where they previously gave their energy away in succumbing to longstanding negativities, and can reclaim their energy by challenging the restrictions previously imposed by the disease. Hypnotherapeutic intervention to uncover, work through and nullify old blocks in the energy system caused by negative memories stored at the sub-conscious level is powerful in producing change through new choices. Reduced stress levels are also responsible for autonomic nervous system symptom reduction, which reinforces the experience of healing. However, as with anxiety factors, time is necessary to heal the old wounds and release a free flow of energy.

The connectedness of the emotions and their bodily expression becomes clear and challenging to the patient; however repeated attention to the automatically activated memories of disease behaviour in certain circumstances which cause an automatic repetition of symptom experience also needs time to be defused in hypnotherapy, as it cannot occur until acceptable alternative choices are available to the inner ego states.

* Cognitive processing.

No pre-M.E. I.Q. scores were available for any of the subjects in this study. However from the occupations and professional qualifications attained by all the patients in the subject therapy group, they are all likely to have had superior or highly superior cognitive potential: among the group were three highly trained teachers, one University lecturer and a Provincial Town Planner. Thus the intellectual fall-off registered after diagnosis using the WMS-R, and the emotional distress experienced at having to abandon employment are the more significant.

A marked difficulty with maintaining extended concentration and attention of complex or detailed verbal material and holding it in memory, (implicating frontal lobe, left temporal lobe and limbic system hypoperfusion) remained a vulnerability if not weakness in all patients, even after Stage 4 "recovery". Auditory verbal memory, which is an extremely complex task of verbal processing, was particularly resistant to improvement, especially detailed memory in extended text for names and descriptive detail. This is not surprising considering the extensive hypoperfusion of the posterior association area and temporal lobe noted in the cortex-cerebellum ratios and discussed above. However, within the patient sample group itself, there was a notable improvement in verbal memory after therapy, especially longterm memory (See logical memory 2 statistics) even though scores were not as good as what might be expected from the professional functioning level of the subject group pre-M.E. This improvement in verbal memory was characterised by less wandering attention and improved frontal lobe function in focusing on the overall progression of the story.

The use of hypnotherapy is believed to have effected improvement in scores in at least four different ways: by

- * improving focus through the hypnotic practice of sustained attention and concentration in trance;
- * reducing performance anxiety by hypnotic intervention to cancel the need to prove self continually for approval;
- * general ego strengthening in hypnosis as well as post-hypnotic suggestions about

improved extended memory;

* the strengthening of visualisation ability in trance which can then support auditory memory.

Memory accuracy was certainly related in general to the availability of mental energy: in the subject group when the patient was rested and could concentrate most easily performance was observably better: however in dip periods, when less general energy was available, weaknesses which had previously existed in memorising routinely reappeared.

Digital memory forwards did not seem to be as great a cognitive problem in the subject group as verbal memory, even on the first assessment. This is a task largely dependent on rote memory which does not demand the complexities of language processing, merely repetition. This task therefore does not tax the hypoactive temporal lobe as strongly, although it does demand attention and concentration from the frontal lobe for accuracy: less mental energy is hypothesised to be necessary for processing digits than processing language.

Digits backwards, which involves a more complex task of additional visual attention for the ordering process (implicating the frontal lobe and occipital cortex), was in 7 out of 10 cases experienced as more difficult. Spatial orientation, which also involves visual attention and perception, was not tested in this study but was observed to be strongly affected longterm in certain patients with visuo-parietal defects.

No statistically significant difference in logical memory or digital memory distinguished subjects from controls 7 weeks after commencing therapy. In fact there was in this study ongoing weakness in verbal memory among persons previously exceptionally able in this area; this is likely to reflect the longterm dysfunction of the language processing regions rather than the temporary dysfunction due to emotional factors like performance anxiety. Presumably the degree of dysfunction is also related to the severity of the illness experienced at the stage of testing which in itself reduces the availability of mental

energy.

Alternatively, if bacterial or longterm viral infection were proved to be present in the brain of M.E. patients and perpetuating the hypoperfusion of the disease process, the above residual dysfunction could indicate the sites of ongoing cortical inflammation. This may also apply to the previously mentioned areas of physical weaknesses, especially leg and arm muscle weakness.

* Cognitive dysfunction from an Ego State perspective.

In exploring the purpose of the newly arrived ego state of Cognitive Dysfunction with a patient, one may approach the dethroning of Easy Cognitive Processing as an opportunity. Dysfunction in one area makes necessary the expansion of the potential of other cognitive capacities. If disease is seen as a circumstance which can provide opportunities for learning, dysfunction can be seen as providing an opportunity to expand the fullness of personal potential by allowing the emergence of other ego states not previously allowed prominence or even recognised. Patients are encouraged to explore whether the dysfunction in previous areas of personal strength and ability may reflect the need to move on from the predominantly left brain mode of processing and achieving and living, to integrating a more intuitive, creative right-brained way of being into the total personality structure. Whatever the degree or duration of any aspect of dysfunction, it is in any case possible in hypnotherapy to teach patients alternative strategies for practical purposes to circumvent the dysfunction, or even different attitudes to the difficulties so that they become unimportant. All subjects in the therapy group moved beyond the dysfunctional restrictions to enjoying a new range of creative skills previously untapped.

12. Additional therapeutic learnings from the research.

12.i Observed similarities to Attention Deficit Disorder.

A striking feature which will be followed up in a later study is the high incidence of Attention Deficit Disorder with hyperactivity (ADHD) or hypoactivity (ADD) mentioned in the personal or family histories of both subject and control groups, despite

the high intellectual standards attained by the ten participants, eight of whom referred to attention and concentration problems in family members in particular.

The dysfunction of ADD/ADHD is now known to be genetic in pattern (Wood, 1996). The condition exists across the spectrum of intellectual ability, and is more commonly a problem in males rather than females, though females may show mild symptomatology which does not affect work or social function excessively unless high anxiety becomes a problem. A conscientious attitude, determined structuring and dedication to purpose can also hold the condition in manageable control.

In the experience of this research therapist, ADHD/ADD is primarily characterised by neurological dyscontrol which presents both emotional and cognitive features. Emotionally the client typically appears to be more vulnerable to both anxiety and depression, particularly the former. Separation and performance anxieties are both common among ADHD patients, and the cognitive dysfunction is either predominantly in verbal processing, or motor control or both. Anxiety is known to exacerbate the condition: very rarely has ADHD been seen in this practice without a strong anxiety component, though cognitive deficits are clearly the focus. Concomitant digestive problems and allergy complaints are also common.

The type of concentration and attentional difficulties, language processing dysfunction and muscle weaknesses seen in M.E. patients are strongly reminiscent of extremely severe ADD of the hypoactive type. Faulty neurotransmission is unquestionable and apparently beyond personal control, which raises anxiety levels unbearably.

It is suggested that the apparent commonalities between ADD and M.E. requires extensive consideration.

12.ii Time and energy management in the return to normality.

Three case studies have been described in Chapters 4 to 6 indicating the therapeutic stages of emotional and physical recovery heralding the return to a more normal

lifestyle. All patients seen to date from the current study and the larger patient pool have achieved an acceptable degree of functionality both in the home and in the workplace. Functionality in the home is easier to attain since there is more personal control over task-load and the timing of activities. However, without exception each therapy patient has in the third stage of M.E. (the Late Chronic Stage defined by Hyde & Jain, 1992) chosen, or been forced financially, to explore the possibilities of employment or self-employment.

The actual transition from protected home environment to re-entering the wider employment arena is stressful and enormously demanding for the patient who has lost confidence in his working capacity. Ego strengthening is of exceptional importance, but more practical support is also required of the therapist.

Effective energy management techniques are essential to avoid a relapse into M.E. symptomatology. It requires careful structuring and support in organising the new work environment to ensure coping. Many practical issues need consideration to ensure increasing success rather than failure.

Choice of new work is obviously dependent on energy levels available, and should be seen as temporary, if necessary, to maintain the motivation to start the process. Firstly the demands of the new employment must be reasonable and flexible. Without exception among the adult patients, clients have initially explored different work tasks, or different work environments from previous employment so as to be able to create greater personal control over working conditions. In most cases the same professional training is somehow utilised but in a different context: e.g. a lawyer from the pilot study returned to practising law but in a less demanding capacity, but only after trying a less taxing position running a garden service; a psychologist moved into private practice rather than continue with the heavy demands of working in a clinic.

None of the patients has been able or wished to return to the previous high demand, huge workload commitments which initiated the downward spiral to M.E. Two patients

in the sample were unable to return to the high accuracy, left-brain dominant tasks of town planning and lecturing, and explored other more right-brain creative, artistic talents which were more manageable and less demanding.

Of concern is the fact that although therapy with the sample has resulted in rehabilitation in terms of bringing in some income, high earnings may currently be out of reach of some rehabilitated patients as not all cognitive functions appear to return to normal even a decade or more after diagnosis. While it is possible with creativity and determination to deviate past the weaknesses, it must be recognised that certain verbal memory or spatial tasks, whichever were originally a weaker area, appear to be affected more permanently, especially in patients over 40 years of age: high accuracy and concentration may also not be easily maintained without adequate breaks for relaxation.

12.iii Co-operation with management figures.

Patients seeking to return to functionality will all require great encouragement that they can manage their energy over a working day. In physical terms, most symptomatology will have subsided by Stage 3 except in a relapse situation. Certain weaknesses appear less amenable to both therapeutic intervention in trance or physical retraining as discussed previously, and will need careful attention; e.g. a degree of walking is manageable and encouraged in all patients in the second and third stages of the M.E. disease process and many patients also enjoy swimming limited distances; sustained heavy physical work is not possible however. Management figures who have no knowledge of the disease may appreciate guidelines on what they can expect in the workplace. Adult patients usually prefer to manage the decision about how much information to reveal themselves, which is healthy.

There is a greater need for the ongoing support of adolescent patients as they resume normal activities although younger teenage patients and those in the 20 year-old range from the broader patient pool appear to have greater success in building up muscle strength and cognitive tenacity. Several scholars or students who were forced to leave school or university for six to twelve months because of the disease, have been able to

return to their studies following a gradually built-up programme, but this is not an easy task.

A successful programme requires a careful initial home programme once the disease pattern becomes more manageable late in Stage 2 or in Stage 3. Successful management of such students depends on team support from teachers and parents, and a strict programme of re-entry which gives the student confidence that he will not be overwhelmed by others' initial inappropriate expectations. Home learning programmes of manageable proportions are best organised starting with one academic subject at a time, beginning with that found to be easiest. At the beginning, a home plan of one hour of study or academic exercise per day every other day is gradually built up to an hour each day, then the number of hours increased in the same way.

Once there is a reasonable degree of mental stamina available, return to the academic environment can be planned. This is a demanding phase as more physical and mental stamina is required physically to walk to classes and emotionally to deal with social demands. Again subjects are initially limited, and one or two classes every other day, are increased to a few more with adequate breaks between study blocks, until a full morning can be managed. Finally occasional afternoon classes can be attempted until a full programme is possible. Sport is seen as the last additive in the programme, though attendance at matches etc can maintain interest and a sense of involvement for those who were excellent at sport prior to the disease.

The return to academic work is of necessity a slow and careful one. The stage of home lessons generally lasts several months and the increase of school or university involvement similarly extends over several months. Extreme patience and regular ongoing therapeutic support and support from significant others is essential. It is obvious that the process demands extreme courage and tenacity from the scholar. Most have finally been successful in passing important examinations, though most not as brilliantly as earlier performance may have promised. Nevertheless with the adjusted value systems explored in therapy, slight lowering of standards can become acceptable

when seen in the context of a larger objective: passing adequately can become acceptable in the context of achieving a broader life goal.

For the adult attempting re-employment, self-employment or flexi-time employment are the easiest ways to start if there is a choice. Again the Rossi (1982) teachings of maintaining and obeying natural rhythms is invaluable. This attitude of monitoring the body's needs and responding with gentleness nevertheless also requires the discipline to plan a day with care, to stop and rest at the first signals of fatigue. Forcing the pace inevitably causes releases.

Again time set aside for work should ideally be limited initially, preferably mornings only to start, and every other day leaving recovery days between Practical encouragement is helpful, to work with a diary, organising the day into manageable slices with adequate and essential breaks every hour initially until a comfortable pace is attained and can be maintained. Office executives are encouraged to install a comfortable reclining chair or mattress in the office. It is encouraged that the client use the lunch hour to close the door, eat quietly, then practice 20 minutes of deep relaxation or self-hypnosis to regain energy and balance. A break away and a quiet walk are also beneficial, but some sort of allowable rest must be seen as essential. Once the patient learns that he can manage time and energy with personal adjustments according to need, confidence returns together with increased motivation. Here there is a real danger in slipping back into old habits of over-exertion. A balance must be maintained. There is a need to avoid the fear that the old disease is a limiting factor, however it is also necessary to acknowledge that parts of self continue to set short term safety limits which need not preclude the attaining of longer term goals.

13. Conclusion.

It is hoped that this study will make a contribution in the following areas:

^{*} to extend the understanding of NLE and clarify diagnostic issues;

^{*} to emphasise the body-mind-spirit connection that underpins the paradigm of

psychoneuroimmunology, and seems an essential focus for therapeutic intervention with cases of psychosomatic illness, in particular M.E.

- * to illustrate the value of hypnotherapeutic intervention at a deeper level than normal psychotherapy, for ego strengthening, addressing deep pain, and freeing the energy channels of the personality to facilitate healing of the body and deep connectedness to inner potentials of the human spirit.
- * to make available to a diversity of personnel in the healing professions the present knowledge of a wide range of persons involved in dealing with M.E. not with the intention of selecting one approach above another, but in order to integrate the information so as to understand the larger picture, this implies a shift from the Cartesian view of a person currently implicit in research strategies and medical intervention, to a Heideggerian phenomenologic perspective of any patient (Leonard, 1989).
- * to open up information about patient needs and symptomatology so that technology may be developed to make possible depiction of dysfunction with ever finer degrees of accuracy: this will facilitate intervention.
- * to encourage ever more searching investigation by creative medical technologists to encourage a probing into unexplored conditions, in addition to pursuing the current objectives of confirming disease states that conform to existing parameters.

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APPENDIX A

AFFECTIVE FUNCTIONING SCORES OF PATIENTS

SU	IB J	EC1	ΓS
Ju	, DJ		·

SUBJ	ECTS										
•	Tests	Age	Therapy time before	State anxiety % rank	Trait Anxiety % rank	Percentile Score	Depression Rating		1	1	
			retesting	% Idlik	70 TATIK	Score	Rating	Spectrum	coping	coping	tried
1	1		8 months	100	100	43	mod	100	0		
	2	38		55	78	5	nil	59	80	80	Aropax
2	1	27	4 months	100	100	43	mod	98	10		Dynalert, Dixarit,Mestinon
	2	27		10	35	20	nil	70	95	80	Prothiaden, DHEA,Vitamins
3	1	29	7 months	100	100	58	severe	100	10		Lilyfluoxetine, Tegretol, Voltaren
	2	30		71	66	19	nil	72	80	40	H/T, Vitamins
4	1	48	1 year	64	100	48	severe	95	0		Atarax, Trepiline
7	2	49	y your	78	97	24	mild	66	65	50	Atarax, Treplinie
_	4		7	00	400	67		400			100
5	2	44 45	7 months	99 87	100 89	57 14	severe nil	100 88	60	60	Lilyfluoxetine, H/T
CONT	rrols	S	Time since diagnosis								
6	1	58	10 years	76	81	57	nil	80	25	nil	Trileptal, Serc, Orthoest, Atroxin Lacriserts, Travocort,
7	1	58	10 years	93	98	30	mild	73	40	50	Lilyfluoxetine, Inderal
8	1	30	5 years	89	100	34	mod	91	50	nil	nil
9	1	52	8 years	93	73	33	mod	78	25	nil	nil
10	1	25	1 year	71	66	19	nil	78	35	50	Anutreptaline, Allergy medication

APPENDIX B

COGNITIVE FUNCTIONING SCORES OF PATIENTS.
Wechsler Memory Test Revised (Wechsler, 1987)

SUBJEC	CTS			:						
	Assess- ment	Age		es: attention/ entration	Verbal N	l lemory	Logical N			Span Backwards
			Mental control	Weighted digit span		% Rank	% Rank	% Rank	% Rank	% Rank
1	1 2	39 41	5 6	42 38	- 5/6 - 2/3	16 25	24 26	33 42	81 94	92 77
2	1 2	25 26	6 6	38 36	- 1 1/3 - 1/2	9 31	8 41	27 45	82 43	74 74
3	1 2	30 30	4 6	32 34	- 1 2/3 + 1/6	5 63	8 62	22 80	82 95	47 47
4	1 2	48 49	6 4	42 40	-2 -1 1/2	2 7	3 10	2 10	94 81	95 95
5	1 2	44 45	5 6	22 20	-2/3 +1 1/2	25 93	33 93	37 96	64 99	<1 81
CONTR	OLS									
6	1	57	6	42	- 2 1/3	1	4	3	94	97
7	1	58	4	26	-1 1/3	9	7	3	81	3
8	1	30	4	24	+1/6	63	62	36	20	26
9	1	52	4	28	-1 2/3	5	4	5	51	51 26
10	1	25	3	34	0	50	51	67	99	26

APPENDIX C

STATISTICAL ANALYSIS 1.

SUBJECT GROUP - with Hypnotherapy.

Dependent measures: scores before (B) and after (A) therapy. Wilcoxin Signed Rank Order Test.

							AFFE	CT/C	OPING						COG	VITIV	E FUN	ICTI	ONING	3 ; W	MS-	R
	State	Anxiety	Trait	Anxiety	Depres		Sympt spectru		Home o	coping	Work o	coping	Verba Mem		Logica Memo		Logic Memo		Digit s		Digit : Backv	
Subject	B1	A1	B2	A2		А3	B4	A4	B5	A5	B6	A6	B7	Α7	В8	A8	B 9	Α9	B10	A10	B11	A11
1	100	55	100	78	1	5	100	59		80	0	80	16	25	18	20	33	42	81	94	92	77
2	100	10	100	35	1	20	98	70	,	95	0	80	9	31	17	21	27	45	82	43	74	74
3	100	71	100	66		19	100	72	10	80	0	40	5	63	15	29	22	80	82	95	47	47
4	64	78	100	97	48	24	95	66	0	65	0	50	2	7	3	8	2	10	94	81	95	95
5	99	87	100	89	57	14	100	88	0	60	0	60	25	93	19	35	37	96	64	99	<1	81
	Lower	scores a	fter the	erapy inc	licate in	nprov	ement		Higher indicate					Highe	r score	es aft	er ther	ару і	indicat	e imp	rovem	ent

APPENDIX D

STATISTICAL ANALYSIS 2
Two Independent Groups: Wilcoxin Rank Sum Test

SUBJE	C	TS WI	гн м.е.	: Post th	erapy								
				AFFECT	r / COPING				C	OGNITIVE F	UNCTIONIN		
Subject	t	Group		Trait			Home	New Work		Logical	Logical	Digit	Digit
			Anxiety	Anxiety	Depression	Symptoms	coping	coping	Memory	Memory 1	Memory 2	Span 1	Span 2
			T1	T2	Т3	Т4	T5	Т6	Т7	Т8	Т9	T10	T11
•	1	1	55	78	5	59	80	80	25	26	42	94	77
;	2	1	10	35	20	70	95	80	31	41	45	43	74
	3	1	71	66	19	72	80	0	63	62	80	95	47
	4	1	78	97	24	66	65	50	7	10	10	81	95
	5	1	87	89	14	88	60	60	93	93	96	99	81
CONT	RC	DLS: V	Vith M. E	. : Witho	ut therapy						_		07
(6	2	76	81	5	80	25	0	1	4	3	94	97
•	7	2	93	98	30	73	40	50	9	7	3	81	3
	8	2	89	100	34	91	50	0	63	62	36	20	26
•	9	2	93	73	33	78	25	0	5	4	5	51	51
1	0	2	71	66	19	78	35	50	50	51	67	99	26

APPENDIX E: FULL RANGE OF CORTEX-CEREBELLUM RATIOS

BRAIN SPECT SCANS RESULTS OF QUANTITATIVE ANALYSIS (CORTEX-CEREBELLUM RATIOS)

Normal range:1.0 - 0.85Areas of suspicion:0.85 - 0.80Diminished perfusion:0.80 - 0.75Severe reduction:< 0.75

A) SUBJECTS:

Patient 1

Region:	<u>Study</u> (5 Oct. 1		<u>Study :</u> (19 Jun. 1	_
	Rt	Lt	Rt	Lt
Lateral frontal lobe:	<u>0.81</u>	0.90	<u>0.79</u>	0.91
Fronto-Parietal:	0.85	0.89	<u>0.78</u>	0.90
Lateral Parietal:	0.82	0.86	<u>0.80</u>	0.89
Temporal:	0.85	0.91	<u>0.78</u>	0.91
Superior Parietal:	0.72	0.69	<u>0.65</u>	<u>0.67</u>
Parieto-Occipital:	0.77	0.72	0.77	<u>0.72</u>

Patient 2

Region:	Study (19 Sept			idy 2 ig. 1997)
	Rt	Lt	Rt	Lt
Lateral frontal lobe:	0.78	0.94	0.85	0.93
Temporal Parietal:	0.72	0.86	0.82	0.79
Lateral Parietal:	0.87	0.88	0.87	0.74
Superior Parietal:	0.76	0.85	0.74	<u>0.77</u>
Parieto-Occipital:	0.83	0.84	0.73	<u>0.79</u>

Patient 3

Region:	Study (12 Sept.		(<u>Study 2</u> 17 Apr. 1	
	Rt	Lt		Rt	Lt
Superior Fronto-Parietal:	0.78	0.77	0	.77	0.77
Temporal Parietal:	0.77	0.84	C).78	0.85
Superior Parietal:	0.70	0.73	0	.74	0.77
Parieto-Occipital:	0.72	0.71	().73	0.71

Patient 4

Region:	Stud (15 May.			<u>1dy 2</u> 1l. 1997)
	Rt	Lt	Rt	Lt
Superior Fronto-Parietal:	0.87	0.83	0.82	0.87
Lateral frontal lobe:	0.89	0.95	0.94	0.92
Lateral Fronto-Parietal:	0.83	0.88	0.79	0.87
Temporal Parietal:	0.83	0.91	0.85	0.93
Superior Parietal:	0.77	0.78	0.78	0.78
Parieto-Occipital:	0.84	0.90	0.78	0.85

Patient 5

Region:		<u>dv 1</u> : 1996)		tudy 2 v. 1996)
	Rt	Lt	Rt	Lt
Fronto-Parietal:	0.82	0.74	0.80	0.76
Superior Parietal:	0.72	0.69	0.63	0.62
Parieto-Occipital:	0.86	0.87	0.77	0.79

B) CONTROLS:

Patient 6

Date of Study: 26 August 1997

Region:	Rt	Lt
Superior Frontal lobe:	0.78	0.85
Temporal Parietal:	0.82	0.87
Lateral Parietal:	0.85	0.87
Superior Parietal:	0.74	0.72
Parieto-Occipital:	0.89	0.87

Patient 7

Date of Study: 5 May 1999

Region:	Rt	Lt
Superior Frontal lobe:	0.86	0.73
Fronto-Parietal:	0.74	0.78
Lateral Parietal:	0.80	0.81
Superior Parietal:	0.72	0.69
Parieto-Occipital:	0.85	0.79

Patient 8

Date of Study: 12 May 1999

Region:	Rt	Lt
Superior Frontal lobe:	0.76	0.77
Fronto-Parietal:	0.79	0.80
Temporal Parietal:	0.77	0.83
Lateral Parietal:	0.82	0.84
Superior Parietal:	0.72	0.67
Parieto-Occipital:	0.69	0.73

Patient 9

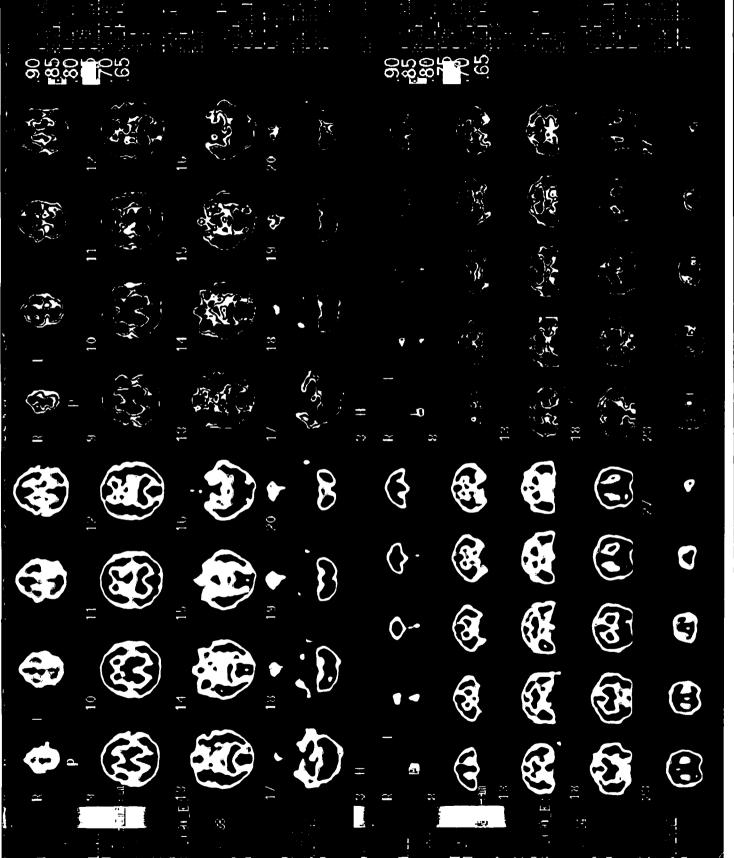
Date of Study: 19 May 1999

Region:	Rt	Lt
Superior Frontal lobe:	0.74	0.76
Fronto-Parietal:	0.73	0.69
Lateral Parietal:	0.72	0.74
Superior Parietal:	0.57	0.59
Parieto-Occipital:	0.76	0.79

Patient 10

Date of Study: 9 June 1999

Region:	Rt	Lt
Superior Frontal lobe:	0.86	0.83
Fronto-Parietal:	0.82	0.82
Lateral Parietal:	0.77	0.78
Superior Parietal:	0.73	0.74
Parieto-Occipital:	0.82	0.83



APPENDIX G.

SYMPTOM CHECKLIST.

It would be appreciated if you could complete the following questionnaire.

NAME:	DATE:
-------	-------

- 1. Who diagnosed your condition as M.E.?
- 2. When was the diagnosis?
- 3. Do you still see a medical doctor regularly for M.E.? <u>YES /NO</u> If you are on regular medication, please say what you take.
- 4. Please state/describe any other therapies /treatments you have used, and their usefulness on a scale of 0 (useless) -10 (full cure). e.g. Reflexology (Please use the back of the sheet if necessary.)
- 5. Please tick whether you now experience the following symptoms:

Often Sometimes Rarely No

Exhausted days

Muscle pain

Muscle weakness

Joint pains

Sore throats

Swollen glands

Low fevers

Night sweats

Headaches

Gastro-intestinal disturbance

Candida problem

Cognitive dysfunction

with concentration

recent memory retention

fluent speech

word/name finding

accuracy

focusing on reading

excessive light sensitivity

skin sensitivity

sound sensitivity

poor motivation for activity

Low sex drive

Disturbed sleep patterns

Disturbing dreams

Others?

7. Please tick to show which stage of M.E. applies to you:

Acute illness

Improving but relapsing pattern

Chronic but coping: plateau with odd relapses

Generally recovered.

APPENDIX H.

COPING WITH M.E.

PLEASE ANSWER AS FRANKLY AND HONESTLY AS YOU CAN, TELLING IT THE WAY IT IS RIGHT NOW, NOT AS IT WAS, NOT THE WAY YOU WISH IT WERE, OR HOPE IT WILL BE! PLEASE FEEL FREE TO ADD EXTRA NOTES IF NECESSARY.

NAME

DATE

- 1. WHAT ARE YOU PRESENTLY ABLE TO DO: A. AT YOUR PLACE OF EMPLOYMENT.
 - 1. What is your work?
 - 2. Can you still work full time? (If part-time, give details.)
 - 3. What adaptations help you cope?
 - 4. What has been your employer's response?
 - 5. How have colleagues responded?
 - 6. Is there a time limit on support arrangements? Give details.

B. AT HOME.

Are you able to:

- 1. Cook? Give details.
- 2. Do cleaning/tidying? (Please describe.)
- 3. Beds, washing?
- 4. Shopping/household finances?
- 5. Drive the car?
- 6. Care for children? (Please describe.)
- 7. Maintain a sex life?
- 8. Entertain at home?
- 9. Attend social functions out?
- 10. Go to church functions?

IF YOU ARE LIMITED, HOW DO YOU FEEL ABOUT YOUR

HELPLESSNESS? (Please tick):

Angry

Frustrated

Temporarily accepting

Positive

Other feelings: (please describe).

Depressed & negative;

BEHAVIOURS OF SUPPORTERS. (Please tick or cross as applicable):

Which of these people is supportive of you now you are ill:

Spouse/partner

Children

Parents

Relations

Your closest friend

Please complete the following table with regard to the persons listed using a yes or no.

Partner Parent/s Friend

Does each:

Cope with the extra duties efficiently?

Help grudgingly or resentfully?

Deny your disease?

i.e. think you could snap out of it?

React angrily, or critically to your situation?

Any other reactions?

SUGGESTED M.E. DIET.

Source unknown.

	177 1/01/17/17 00 00 1/17/17
TO BE AVOIDED	AND NOW THE GOOD NEWS
WHEAT, BREAD OR OTHER WHEAT PRODUCTS YEAST/FOODS CONTAINING YEAST (Marmite, etc., or pills set in yeast)	MEALIE MEAL / KREEMY MEAL RYVITA, RICE CAKES (Vital Product) RYE BREAD WITHOUT YEAST HERBAL TEAS/COFFEE* (*'Eura')
ORDINARY TEA AND COFFEE Mouldy fruit and vegetables Shelled or packaged Nuts (Mould, etc.)	ALL FRUIT EXCEPT CITRUS, (but in moderation – suggest only two pieces a day, 'til you find out if you should actually eliminate fruit
MUSHROOMS/CHAMPIGNONS (Cont. Yeast)	completely for 3 months: this is suggested by USA nutrition experts on Candidiasis for Chronic
PUDDINGS / CAKES AND SUGAR!!!	cases ALL VEGETABLES, (but tomatoes at a
Jams, etc. / Anything else with sugar Confectionary and Chocolate	minimum – very acid - & peas have lots of sugar BROWN RICE STIR-FRIED VEGETABLES – Use only Olive
*SUGAR feeds the yeast fungus	Oil
Anything containing Caffeine (Including medicines)	OLIVE OIL – I Tablespoon daily: (Oleic acid in olive oil is very good for a number of sufferers' complaints.)
VINEGAR/WINE/GRAPES (Sugar / Mould) ALCOHOL OF ANY SORT (Including Tinctures)	1 Tbls. Of "MOLKOSAN" ** DAILY. (Instead of vinegar in salads, or as a drink.
DAIRY PRODUCTS (For those who are allergic – SINUS, etc and Rhinitus)	** This is concentrated whey, and is one of Dr A Vogel's products from Switzerland. (He wrote
RED MEAT (Contains antibiotics, hormones (animals fattened with them), and two natural chemicals in the flesh itself.	the book: "Swiss Nature Doctor".) SMALL AMOUNT OF EGGS/CHICKEN (If you
CITRUS FRUITS / HONEY/ COLOURANTS * (*ESPECIALLY TARTRAZINE!)	are not allergic)
/PRESERVATIVES/ CHEESE FRUIT JUICES (Particularly processed ones like Liquifruit which is allegedly irradiated.) * In the case of school children who crave	PURIFIED WATER ONLY (And LOTS of it!) Either BRITA water filter or bottled or BOILED. Minimum 6 – 8 glasses a day – most important to eliminate body toxins.
something sweet and miss the fruit juices, it is better to LIQUIFY FRUIT YOURSELF, using up daily allowance of fruit and adding purified water to make it last a whole day. (Refridgerate) CHEESE - with the exception of a little goat cheese for those not allergic to lactic acid. This	GARLIC (LOTS OF IT). Marvellous natural antiseptic, good for intestinal problems. Either fresh in cloves, (If you have no social engagements!) OR Garlic & Parsley capsules.
has no preservatives (Get from Buxtons.)	FISH
REFINED CARBOHYDRATES - e.g. White flour, biscuits, cake, white pasta, etc.	LOTS OF FRESH PARSLEY. (This is a wonderful natural purifier for the kidneys. It is also refreshing as a tea.)
TOMATOES - (Eat at your discretion - this is highly acid, and M.E. and Candidiasis sufferers cometimes have poor digestion and assimilation.)	SUGGEST THIS DIET FOR 3 MONTHS,
WHITE RICE/SAUCES/PICKLES/SPICY FOOD	THEN TEST OTHER FOODS.
OATS. (East at your discretion. <u>Some</u> sufferers find in the initial stages that it is better to go off <u>all</u> grains, but this a rare.)	

FIGURE 1

The Cybernetic flow of Mind-Body Communication between Psychosocial Cues and Gene Expression is the fundamental domain of hypnotherapy. Hypnosis heals by accessing and facilitating the cybernetic communication loop between the mind-brain and the cell-gene levels via the ultradian pulses of molecular messengers that encode state-dependent memory, learning and behaviour. The three basic processes of information transduction at the cellular-genetic level — (1) gene expression, (2) metabolism and energy dynamics and (3) self-signaling on all levels from cell to body, brain, and mind – are all mediated by the production of proteins in the endoplasmic reticlum (ER) (Rossi, 1986/1993).

SUMMARY OF THESIS CONTENT.

This thesis conceptualises Myalgic Encephalomyelitis (M.E.) as an interreactional disease process involving body, mind and spirit. It seeks to establish a fuller picture of the specific dysfunction and distress experienced by the M.E. patient, so as to make possible more efficient diagnosis and more effective therapeutic intervention.

Following the paradigm of psychoneuroimmunology, it seems clear that affective pain needs healing before the body can begin to abandon the symptomatology of M.E. and allow renewed energising of the spirit. It is hypothesised that clinical hypnotherapy affords the most dynamic means of reaching the memories of experiences held in the sub-conscious mind that are responsible for the disabling perceptions of self; these produce the stress which leads to the lowering of immune system function, which in turn leads indirectly to the dysfunction of disease, and the impairment of the self-healing process. The strengthening of distressed ego states, and the releasing of negative emotional blocks where necessary makes possible a new focus on positive energy and choices available in the present to beat the limitations of the disease. The qualities of therapist style found appropriate in developing a therapeutic alliance with the patient in hypnotherapy are examined, and specific techniques of Traditional, Ego State and Ericksonian intervention methods experienced as being useful at different stages of the M.E. disease process are described in three case studies.

The brain regions activated in hypnosis are seen have affinity with regions of neuropsychological dysfunction apparent in the M.E. disease process, thus for this reason also, clinical hypnotherapy is seen to be a promising mechanism of intervention. It is further shown that complaints of physical, emotional and cognitive dysfunction as measured using the instruments selected, can be supported by radiological evidence of dysfunction: brain SPECT scans, within the parameters of the technology available, can provide visual and quantitative illustration of certain regions of lowered blood perfusion in the brain compatible with cognitive and physical dysfunction as described by the patient and evidenced in norm-based assessment. The cortex-cerebellum ratios obtained from the SPECT scan visuals may suggest complementary avenues of exploration and intervention in the M.E. disease process from a neurological perspective.

OPSOMMING: INHOUD VAN HIERDIE PROEFSKRIF.

Hierdie proefskrif is die resultaat van'n intensiewe ondersoek ten einde Mialgiese Ensefalomiëlitis (M.E.) of Kroniese Moegheidsindroom as 'n wisselwerkende proses waarin liggaam, gees en verstand betrokke is, beter te begryp. Dit beoog om 'n meer volledige illustrasie te lewer van die spesifieke wanfunksie wat deur die M.E.-pasiënt ondervind word, dit meer volledig toe te lig, 'n meer doeltreffende diagnose en 'n meer effektiewe terapeutiese ingryping moontlik te maak.

In navolging van die paradigma van psigo-neuro-immunologie het dit duidelik geword dat effektiewe pyn genesing benodig alvorens die liggaam die simptomatologie van die M.E.-siekteproses kan prysgee en hernude geeskrag kan opbou. Dit was aanvaar dat kliniese hipnoterapie die mees dinamiese hulpmiddels sou oplewer in die genesingsproses omdat geheue en ondervindings wat vasgevang word in die onderbewuste en wat verantwoordelik is vir die afbrekende persepsies van die self, stres produseer wat indirek lei tot die wanfunksie van 'n siektetoestand en die verlamming van die selfgenesende proses. Die loslating van negatiewe energieë maak nuwe positiewe energieë en keuses beskikbaar. Die gehalte van die terapeut se metode as die doeltreffendste in die ontwikkeling van 'n terapeutiese bondgenootskap met die pasiënt in hipnoterapie was ondersoek, en spesifieke tegnieke van Tradisionele, Ego Staat en Ericksoniese ingrypende metodes is doeltreffend bevind gedurende die verskillende fases van die M.E.-siekteproses soos beskrywe in drie gevalle studies.

Die breinstreke wat ge-aktiveer is gedurende hipnose het 'n verwantskap getoon met gebiede van neuropsigologiese wanfunksie wat opvallend is in die M.E.-siekteproses. Om hierdie rede is kliniese hipnoterapie ook gesien as 'n belowende meganisme van ingryping. Dit het ook aan die lig gekom dat fisieke, emosionele en verstandelike wanfunksie gemeet kan word deur sekere geselekteerde metodes aan te wend. SPECT brein skanderings, binne die parameters van die huidige tegnologie, het hierdie bevindings in visuele en kwantitatiewe terme meer duidelik gemaak en ondersteun, deur aan te toon dat sekere gebiede van lae bloedvoorsiening in die brein verenigbaar is met verstandelike en fisieke wanfunksie, soos beskryf deur die pasiënt en bewys in norme-gebaseerde veronderstellings. Die kortikoserebelêre ratios wat verkry is uit die afbeeldings van die SPECT brein skanderings dui aanvullende denkrigtings aan uit 'n neurologiese perspektief in die verkenning en ingrypings van die M.E.-siekteproses.

KEY TERMS RELATED TO THE THESIS SUBJECT MATTER.

Myalgic Encephalomyelitis (M.E.)

Chronic Fatigue Syndrome (C.F.S)

M.E. diagnosis.

Psychoneuroimmunology

Healing the spirit

Integrational perspectives

Hypnotherapy

Clinical hypnosis

Traditional hypnotherapy for M.E.

Ego State hypnotherapy for M.E.

Ericksonian hypnotherapy for M.E.

SPECT scan imaging in M.E.

Psychoneurological processes in hypnosis

Psychoneurological processes in M.E.