

# CSM - Guidance For Health Professionals

By Patricia Carrington PhD

## Foreword

Any improvement in the ability to cope with stress amongst the general population has important implications for the management of health service costs.

Few health professionals would disagree that the combination of increased stressors in a rapidly changing environment, together with depleted personal support and security for the individual, is a major cause of much ill health. This creates a massive financial burden upon the community.

Research shows that meditation relieves stress in a safe and effective manner. Adverse effects from the use of Clinically Standardized Meditation are extremely rare, due to the careful instruction and continuing guidance provided by the course.

It is expected that medical practices that make wide use of meditation will experience a decline in the occurrence of stress related illness amongst their patients (Jedrczac, Miller and Antoniou, 1988). The modest cost of introducing meditation as part of a practice Health Promotion Programme therefore needs to be weighed against the possibly considerable cost saving which a reduction in stress related illness would achieve.

## Use of meditation with specific illnesses

The clinical value of meditation techniques when used as adjuncts to standard medical treatment has been confirmed in a large number of studies {1,2,3,4,5}. Use of meditation has been associated with increased rate of autonomic recovery from laboratory induced stressful events {3,6}; decreased blood pressure in both pharmacologically treated and untreated hypertensive patients {7,8,9} and reduction in premature ventricular contractions in patients with stable ischaemic heart disease {10}. It has been used in the treatment of coronary artery disease {11}; angina pectoris {12}; insomnia {13}; addictive behaviour {14,15,16}; asthma {17}; epilepsy {18}; hypercholesterolemia {19}; diabetes {20}; psoriasis {21}; and fibromyalgia {22}, among other medical conditions.

This method, Clinically Standardized Meditation or "CSM", was developed for patient populations and later adapted for the general population. The CSM method emphasises adjustment of the technique to suit individual needs, with trainees learning to self-regulate their meditation. Physicians supervising the use of CSM should note the following:

**Use with Hypertension.** Research shows meditation to be generally useful in helping to reduce high blood pressure {7,8,9} but an occasional case has been reported of a hypertensive patient undergoing a form of deep-relaxation therapy who has shown a paradoxical increase in diastolic and systolic blood pressure after commencing the relaxation training {23}. While such paradoxical reactions have not been noted in any persons practising CSM, in view of their occasional occurrence with other forms of relaxation training we recommend that for hypertensives the effects of meditation practice on the patient's blood pressure be determined at regular intervals during the first 90 days of meditation practice. If meditation is found to cause a significant increase in blood pressure, the practice should be discontinued.

**Use with Diabetes.** In diabetic patients, training in deep relaxation sometimes leads to reduced insulin requirements and to hypoglycaemia {20,24}. Frequent monitoring of urinary glucose levels and instructions to the patient to keep a readily absorbable supply of glucose in reach at all times are therefore recommended for diabetic patients practising all relaxation methods, including CSM.

**Use with Thyroidectomized Patients.** Deep relaxation achieved through thermal and EMG feedback has been reported to have caused a recurrence of symptoms typical of hyperthyroidism in a thyroidectomized patient on replacement therapy {25}. A similar reaction has been reported with one of the thyroidectomized patients who learned CSM. It is therefore recommended that thyroidectomized patients start their training in CSM with very short periods of meditation, meditating no more than 3 minutes at one time, two to three times daily. This brief exposure to meditation should be continued for the first two weeks of meditation practice with the patient's physical condition monitored during that time. If symptoms reminiscent of hyperthyroidism appear, meditation should be discontinued. If the patient adjusts comfortably to the experience of meditating during the first two weeks, then he or she can gradually increase the meditation-time, doing so by once each week adding two minutes to the total time spent in each meditation session. If the patient remains asymptomatic, he or she can gradually increase meditation-time up to a maximum of two 20 minute sessions per day.

**Effect on Medication.** Meditation may enhance the action of certain drugs in certain patients {26}. Requirements for anti-anxiety and anti-depressive, as well as anti-hypertensive and thyroid-regulating medications, should therefore be monitored in patients who are practising CSM. Sometimes the continued practice of meditation may permit a desirable low dosage treatment over more prolonged periods and occasionally permit the discontinuance of drug therapy altogether {7}.

**Doctor Support.** The doctor's support of his or her patients' efforts to employ self-help techniques such as meditation can be of great assistance in augmenting compliance with the technique and subsequent benefits. Hypertensive patients in particular appear to benefit from such continued encouragement.

The CSM Supervisor's Kit (details from Bookplace Ltd) is a valuable source of further information

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## Indications and Contraindications for the Prescription of Meditation

### INDICATIONS

(Conditions which have been shown to respond favourably to meditation)

Addictions to recreational drugs (Benson and Wallace, 1971; Shafii, Lavelly, and Jaffe, 1974, 1975)

Addictions to tobacco and alcohol (Shafii, Lavelly, and Jaffe, 1976; Murphy, Pagano, and Marlatt, 1986; Royer-Bounguar, 1989)

Angina pectoris (Tulpule, 1971; Zamarra, Besseghini, and Wittenberg, 1978)

Anxiety and/or tension states (Carrington, 1977; Delmonte, 1987a; Glueck, 1973)

Bereavement reactions, pathological (see also contraindications)

Bronchial asthma (Honsberger and Wilson, 1973)

Chronic fatigue syndromes including Myalgic Encephalomyelitis (recommended by Dr William Weir F.R.C.P., Royal Free Hospital, London)

Coronary-prone behaviour patterns (Muskatell, Woolfolk, Carrington, Lehrer, and McCann, 1984)

Depression, mild or chronic reactions involving tension and anxiety (Carrington et al., 1980) - see also contraindications

Diabetes (Heriberto, 1988)

Emotion, excessive inhibition of (Carrington, 1977)

Energy, productivity and creativity, reduced (Carrington, 1977)

Epilepsy (Dr P Carrington has received favourable indications)

Hypercholesterolaemia (Cooper, and Aygen, 1979)

Hypertension (Benson, 1977; Patel, 1973, 1975; Hafner, 1982; Friskey, 1984)

Inner directedness, lack of (Hines, cited in Carrington, 1977; Pelletier, 1978)

Insomnia (Miskiman, 1978; Woolfolk, Carr-Kaffashan, McNulty, and Lehrer, 1976)

Irritability, low frustration tolerance (Carrington et al., 1980)

Ischaemic heart disease (Benson, Alexander, and Feldman, 1975)

Manic depression (providing patient is sufficiently motivated)

Migraine headaches (Carrington, 1977) - see also contraindications

Pain relief (Carrington, 1977)

Psoriasis (Gaston and Stroebel, 1977)

Psychosomatic disorders (Carrington, 1977)

Self blame, excessive (Carrington, 1977)

Self-assertion difficulties (Carrington, 1977)

Stress (Carrington, 1977)

Stuttering (McIntyre, Silverman, and Trotter, 1974)

Surgery, preparation for (Leserman, Stuart, Mamish, and Benson, 1989; Domar, Noe and Benson, 1987)

Tension headaches (Carrington, 1977)

Type A behaviour (Friedman and Rosenman, 1974)

## CONTRAINDICATIONS

(Meditation may not be advisable)

Anxiety, so acute that learning a new technique would be impossible

Bereavement -- learning not recommended during period of shock immediately following bereavement

Children under 12 -- sitting forms of meditation generally not appropriate

Depression, acute depressive reactions with passive immobilisation (Carrington and Ephron, 1975)

Migraine headaches -- modify timing or discontinue meditation if headaches made worse (Carrington, 1977)

Psychiatric history, adverse -- must be practised under careful medical supervision and "over meditation" guarded against (Glueck and Stroebel, 1975; Carrington, 1977; Lazarus, 1976)

Schizophrenia -- except under strict clinical supervision, when encouraging results have been obtained (Carrington, 1977; Glueck and Stroebel, 1975)

Thyroidectomized Patients -- deep relaxation could cause recurrence of symptoms typical of hyperthyroidism -- start with short sessions, up to 3 minutes (see course manual "Information Sheet for Doctors")

## CAUTION

It is extremely rare for meditation to create adverse effects. The Clinically Standardized Meditation Course provides detailed guidance to meditators who may be concerned about any aspect of their meditation practice. Medical practitioners recommending meditation are advised to make themselves familiar with the "Information Sheet for Doctors" included in the course manual.

## DRUG INTERACTIONS

Meditation may enhance the action of certain drugs in certain patients. Requirements for anti-anxiety and anti-depressive, as well as anti-hypertensive and thyroid-regulating medications, should therefore be monitored in patients who are practising CSM. Sometimes the continued practice of meditation may permit a desirable low dosage treatment over more prolonged periods and occasionally permit the discontinuance of drug therapy altogether.

In diabetic patients, training in deep relaxation sometimes leads to reduced insulin requirements and to hypoglycaemia. Frequent monitoring of urinary glucose levels and instructions to the patient to keep a readily absorbable supply of glucose in reach at all times are therefore recommended for diabetic patients practising all relaxation methods, including CSM.

## Meditation in Clinical Practice

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### **Modern Forms of Meditation**

#### History of the Method

Modern forms of meditation, simplified and divested of esoteric trappings and religious overtones, possess some outstanding therapeutic properties. This chapter presents ways in which these noncultic techniques can be applied in clinical practice.

Technically, meditation can be classified as "concentrative" or "nonconcentrative" in nature. A concentrative technique limits stimulus input by directing attention to a single unchanging or repetitive stimulus. A nonconcentrative technique expands the mediator's field of attention to include as much of his or her conscious mental activity as possible. In actuality, it is the experience of meditation that brings about therapeutic change, rather than the techniques used to evoke this experience; nonetheless, for practical purposes, the clinician considering using meditation with clients requires a set of replicable procedures. The modern concentrative forms of meditation presented here are simple to learn. These techniques are typically practised seated, in a quiet environment, with the object of the meditator's attention being a mentally repeated sound, the breath, or some other appropriate focal point. When the meditator's attention wanders, he or she is directed to bring it back to this attentional object in an easy, unforcing manner.

Although meditation is a basically simple procedure, various forms of it have been used by numerous societies throughout recorded history to alter consciousness in a way that has been perceived as deeply beneficial. Traditionally, its benefits have been defined as spiritual in nature, and meditation has constituted a part of many religious practices. Recently, however, simple forms of meditation have been used for stress management with excellent results. Contributing to the rising interest in the meditative techniques is the fact that these techniques are related to the biofeedback techniques (which also emphasise a delicately attuned awareness of inner processes) and to muscle relaxation and visualisation techniques used in behaviour therapies.

In addition to providing deep relaxation, however, the meditative disciplines appear to assist the client in an area peripheral to many other therapeutic interventions-- the fostering of communication between the client and his or her own self, apart from his or her interpersonal environment. In a world where inner enrichment from any source is scarce, many clients hunger for a more profound sense of self than is implicit in merely "getting along with others." Such people seek an awareness of their identity as being (as distinct from identity as doing). The inner communion of meditation offers a means of fulfilling this need, thus promising to heal an aspect of the psyche that may be as needful as any other presently identified. The use of meditation along with other forms of therapy may therefore be an inevitable accompaniment of the trend currently seen in the behavioural sciences toward encompassing more and varied aspects of life.

Noncultic Methods

Among the clinically oriented meditation techniques, "Clinically Standardized Meditation" (CSM; Carrington, 1978) and the "Respiratory One Method" (ROM; Benson, 1975) have been the most widely used to date. These techniques were devised with clinical objectives in mind and are strictly noncultic. The methods differ from each other in several important respects, however. A trainee learning CSM selects a sound from a standard list of sounds (or creates one according to directions) and then repeats this sound mentally, without intentionally linking the sound to the breathing pattern or pacing it in any structured manner. CSM is thus a relatively permissive meditation technique and may be subjectively experienced as almost "effortless." By contrast, when practising ROM, the trainee repeats the word "one" (or another word or phrase) to himself or herself mentally, while at the same time intentionally linking this word with each exhalation. ROM is thus a relatively disciplined form of meditation with two meditational objects-- the chosen word and the breath. Accordingly, ROM requires more mental effort than CSM and may appeal to a different type of person.

### The Physiology of Meditation

All of the simplified meditation techniques-- including Transcendental Meditation-- have in common the fact that they rapidly bring about a deeply restful state that possesses certain well-defined characteristics. Although meditation is not the only intervention that can bring about such a restful state, it is clearly one of the most effective. Research has shown that during meditation, body and mind typically enter a state of profound rest. Oxygen consumption can be lowered during 20 to 30 minutes of meditation to a degree ordinarily reached only after 6 to 7 hours of sleep (Wallace, Benson, & Wilson, 1971), and heart and respiration rates typically decrease during meditation (Allison, 1970; Wallace, 1970). However, the heart rate can also speed up during meditation in response to the introduction of stimuli perceived as stressful (Goleman & Schwartz, 1976) - a finding that has been variously interpreted as suggesting a heightened orientation response during meditation or as being a paradoxical reaction. The latter are occasionally found during meditation and are of considerable theoretical interest, while not altering the general finding that meditation is a deeply restful state. In addition electrical resistance of the skin tends to increase during meditation (Wallace, 1970), suggesting a lowering of anxiety at this time. Similarly, a sharp decline in the concentration of blood lactate may occur (Wallace et al., 1971). Although some studies have failed to show such clear-cut indications of decreased physiological arousal during meditation as these, subjective reports of meditators typically describe marked anxiety reduction during this state, and clinical

reports have generally confirmed the anxiety-reducing properties of meditation (Delmonte, 1987a).

During the meditative state also, the electroencephalograph (EEG) shows an alert-drowsy pattern with high alpha and occasional theta wave patterns, as well as an unusual pattern of swift shifts from alpha to slower (more sleep-like) frequencies and then back again (Das & Gastaut, 1957; Wallace et al., 1971). These findings suggest that meditation may be an unusually fluid state of consciousness, partaking of qualities of both sleep and wakefulness, and possibly resembling the hypnogogic or "falling asleep" state more than any other state of consciousness. A number of studies have also shown that the physiology of meditation differs from that of ordinary rest with eyes closed and from that of most hypnotic states (Brown, Stewart & Blodgett, cited in Kanellakos, 1974; Wallace, 1970; Wallace et al., 1971). Other studies, however, have shown that true uninterrupted "rest," as induced in the laboratory, shares many of the same features.

In sum, the research suggests that during meditation deep physiological relaxation, somewhat similar to that occurring in the "deepest" non-rapid-eye-movement (NREM) sleep phase, occurs in a context of wakefulness. Wallace et al. (1971) have thus termed meditation a "wakeful, hypometabolic state," and Gellhorn & Kiely (1972) have called it "a state of trophotropic dominance compatible with full awareness." When practised regularly, meditation also appears to alter behaviour occurring outside of the meditative state itself, with both clinical and research evidence suggesting that a number of beneficial changes may take place in people who meditate. These changes are described later, when clinical indications for meditation are discussed.

### Balance between Cerebral Hemispheres

Research suggests that during meditation, a greater equalization in the workload of the two cerebral hemispheres may occur (Banquet, 1973). Verbal, linear, time-linked thinking (processed through the left hemisphere, in the right-handed person) seems to be lessened during meditation as compared to the role it plays in everyday life, while holistic, intuitive, wordless thinking (usually processed through the right hemisphere) comes more to the fore. The therapeutic effects derived from meditation may reflect this relative shift in balance between the two hemispheres.

During the early stages of meditation practice, when the technique is relatively new to the meditator, the left-hemispheric activity of the brain-- which predominates during waking life in our modern world, often almost to

the exclusion of "right-hemispheric" activity-- has been shown to take a lesser role during meditation, with a shift toward right-hemisphere dominance occurring (Davidson, Goleman, & Schwartz, 1976). During the more advanced practices of meditation, however, EEG records of experienced meditators frequently display an unusual balancing of the activity of the two cerebral hemispheres during meditation (Earle, 1981). In terms of the clinical applications of meditation considered here, this distinction is relatively unimportant because the "early" stages of a meditation practice constitute the entire meditative experience for the vast majority of those who take up the modern forms of meditation. An occasional client in psychotherapy does advance beyond these beginning stages, but such a person is likely to be using meditation for exploring altered states of consciousness or for furthering spiritual development rather than for therapeutic purposes. More advanced practices of meditation are, of course, valid in their own right, but a discussion of them is beyond the scope of this chapter.

Since restrictive moral systems are for the most part transmitted verbally, with much role modelling dependent on verbal imitation, ameliorative effects of meditation on self-blame-- a clinically relevant benefit of this technique-- might be explained by this basic shift away from the verbal left-hemispheric mode during meditation. Minimizing verbal-conceptual experience (yet still remaining awake) may afford the individual temporary relief from self-derogatory thoughts, as well as from excessive demands on the self that have been formulated through internal verbalizations. Having obtained a degree of relief from these verbal injunctions during the meditative state, the meditator may find himself or herself less self-critical when returning to active life. The reductions in the strength of self-criticism may have generalized from the meditative state to the life of action.

## **Clinical Effects of Meditation**

### Clinical Conditions Responding to Meditation

Based on research and clinical reports, a substantial body of knowledge has accumulated concerning the usefulness of meditation in clinical practice. As in most areas of research, however, not everyone agrees in interpretation of the findings. Holmes (1984), for example, considers meditation to be no more effective in lowering arousal or providing therapeutic benefit than is resting with eyes closed, while other researchers (Benson & Friedman, 1985; Shapiro, 1985; Suler, 1985; West, 1985) cite compelling evidence to support the concept that meditation possesses some special therapeutic properties distinct from those of rest.

Since many of the more clinically relevant effects of meditation are not readily identifiable by standard psychometric measures, it is probably only necessary for the clinician to note that the conditions of a meditation experiment tend to create a type of uninterrupted "guilt-free" rest that is atypical of our society. Such rest can occur in the Laboratory because the experimenter has carefully set up the conditions for it: Rest has become a "demand characteristic" of the experiment. Laboratory-induced rest may well possess some special therapeutic properties, particularly if, while "resting", the subject experiences what I have called the "meditative mood" (Carrington, 1977). Most people in our fast-paced society find it difficult if not impossible to truly rest during the day, and therefore a practice of meditation may supply a highly structured, especially effective form of enforced rest each day-- one that is easier for the average person to observe than are vague therapeutic prescriptions to "take it easy and get more rest." In fact, meditation may be particularly effective in this respect because it is a novel, out-of-the-ordinary activity.

Such practical considerations as these constitute the focus of indications and contraindications for meditation in clinical practice. The discussion that follows summarises the major findings in this area.

### Reduction in Tension/Anxiety

In research where the effects of meditation on anxiety have been measured, results have consistently shown anxiety to be sharply reduced in a majority of subjects after they commenced the practice of meditation (Carrington, 1977). There is also some evidence suggesting that the regular practice of meditation may facilitate a reduction in anxiety for subjects with clinically elevated (i.e., high or average) anxiety levels, but that it shows a "floor" effect (i.e., not much change) in those with low anxiety (Delmonte, 1987a). In addition, meditation may be less effective for some patients with long-term severe anxiety neurosis or those who suffer from panic disorder, because such patient can easily be overwhelmed by their symptoms and drop out of the practice. Glueck, (1973), however, in a study conducted with a group of psychiatric inpatients, found that dosages of psychotropic drugs could be greatly reduced after these patients had been meditating for several weeks; in a majority of cases, the use of sedatives could also be reduced or eliminated in these patients. Meditation has also successfully been used to lower the anxiety experienced by patients preparing for cardiac surgery (Leserman, Stuart, Mamish & Benson, 1989) and for ambulatory surgery (Domar, Noe, & Benson, 1987).

The quieting effects of meditation differ, however, from the effects brought about by psychotropic drugs. Whereas the relaxation brought about by drugs may slow the person down and cause grogginess, the relaxation resulting from meditation does not bring with it any loss of alertness. On the contrary, meditation seems, if anything, to sharpen alertness. Groups of meditators have been shown to have faster reaction times (Appelle & Oswald, 1974), to have better refinement of auditory perception (Pirot, 1978), and to perform more rapidly and accurately on perceptual-motor tasks (Rimol, 1978) than nonmeditating controls. Meditation may therefore be indicated where anxiety is a problem, and can often be used productively in place of tranquillisers or as a supplement to drug treatment.

### Improvements in Stress-Related Illnesses

Many stress-related illnesses have proven responsive to meditation. Researches shown meditation to be correlated with improvement in the breathing patterns of patients with bronchial asthma (Honsberger & Wilson, 1973); with decreased blood pressure in both pharmacologically treated and untreated hypertensive patients (Benson, 1977; Patel, 1973, 1975; Hafner, 1982; Friskey, 1984); with reduced premature ventricular contractions in patients with ischaemic heart disease (Benson, Alexander, & Feldman, 1975); with reduced symptoms of angina pectoris (Tulpule, 1971; Zamarra, Besseghini, & Wittenberg, 1978); with reduced serum cholesterol levels in hypercholesterolemic patients (Cooper & Aygen, 1979); with reduced sleep-onset insomnia (Miskiman, 1978; Woolfolk, Carr-Kaffashan, McNulty, & Lehrer, 1976); with amelioration of stuttering (McIntyre, Silverman, & Trotter, 1974); with lowered blood sugar levels in diabetic patients (Heriberto, 1988); with amelioration of psoriasis (Gaston, 1988-1989); and with reductions in the symptoms of psychiatric illness (Glueck & Stroebel, 1975). Studies have also shown that meditation may reduce salivary bacteria and thus be useful in treating dental caries (Morse, 1982) and may decrease periodontal inflammation (Klemons, 1978). It may also reduce some coronary-prone behaviour patterns (Muskatel, Woolfolk, Carrington, Lehrer & McCann, 1984) and may be beneficial in lowering central nervous system responsivity to norepinephrine (Benson, 1989). Meditation can thus be a useful intervention in a wide variety of stress-related illnesses.

### Increased Productivity

Meditation may bring out increased efficiency by eliminating unnecessary expenditures of energy; a beneficial surge of energy is often noted in persons who have commenced the practice. This can manifest itself

variously as a lessened need for daytime naps, increased physical stamina, increased productivity on the job, increased ideational fluency, the dissolution of writer's or artist's "block," or the release of hitherto unsuspected creative potential. Meditation may therefore be useful when it is desirable to increase a client's available energy and/or when a client is experiencing a block to productivity.

### Lessening of Self-Blame

A useful by-product of meditation may be increased self-acceptance, often evidenced in clients as a lessening of unproductive self-blame. A spontaneous change in the nature of a meditator's self-statements-- from self-castigating to self-accepting-- suggests that the noncritical state experienced during the meditation session itself can generalize to daily life. Along with the tendency to be less self-critical, the meditator may show a simultaneous increase in tolerance for the human frailties of others, and there is often concomitant improvement in interpersonal relationships. Meditation may therefore be indicated when a tendency toward self-blame is excessive or when irrational blame of others has become a problem.

### Antiaddictive Effects

Several studies (Benson & Wallace, 1971; Shafii, Lavelly, & Jaffe, 1974, 1975) have shown that, at least in persons who continue meditating for long periods of time (usually for a year or more), there may be a marked decrease in the use of nonprescription drugs, such as marijuana, amphetamines, barbiturates, and psychedelic substances (e.g., LSD). Many long-term meditators, in fact, appear to have discontinued use of such drugs entirely. Similar antiaddictive trends have been reported in ordinary cigarette smokers and abusers of alcohol as well (Shafii, Lavelly, & Jaffe, 1976; Murphy, Pagano, & Marlatt, 1986; Royer-Bounguar, 1989). Meditation may therefore be useful for a patient suffering from an addictive problem, particularly if that problem is in its incipient stage.

### Mood Elevation

Both research and clinical evidence suggests that people suffering from mild chronic depression or from reactive depression may experience distinct elevation of mood after commencing meditation (Carrington et al., 1980). People with acute depressive reactions do not generally respond well to meditation, however, and are likely to discontinue practising it (Carrington & Ephron, 1975). Meditation therefore appears indicated in mild or chronic depressive reactions, but not in acute depressions.

## Increase in Available Affect

Those who have commenced meditating frequently report experiencing pleasure, sadness, anger, love, or other emotions more easily than before. Sometimes they experience emotions that have previously been unavailable to them. Release of such emotions may occur during a meditation session or between sessions, and may be associated with the recovery of memories that are highly emotionally charged (Carrington, 1977). Meditation is therefore indicated when affect is flat, when the clients tends towards overintellectualisation, or when access to memories of an emotional nature is desired for therapeutic purposes.

## Increased Sense of Identity

Meditating clients frequently report that they have become more aware of their own opinions since commencing meditation; that they are not as easily influenced by others as they were previously; and that they can arrive at decisions more quickly and easily. They may also be able to sense their own needs better, and thus may become more outspoken and self-assertive and more able to stand up for their own rights effectively. Such effects may not be easily measurable by any existing tests, although it is possible that the trait known as "field independence" may be relevant to some of the effects noted. Two studies (Hines, cited in Carrington, 1977; Pelletier, 1978) have shown changes in the direction of greater field independence ("inner-directness") following the commencement of the practice of meditation, whereas other researchers have found no such changes. The clinically important observation that there tends to be an increased sense of identity in meditators may not as yet have been validly tested in an experimental setting.

One result of the increased sense of identity noted by clinicians may be marked improvement in the ability of a meditator to separate from significant others when such separation is called for. Meditation can thus be extremely useful in pathological bereavement reactions, or in cases where an impending separation (threatened death of a loved one, contemplated divorce, upcoming separation from growing children, etc.) presents a problem. Meditation is therefore indicated where separation anxiety is a problem. Since it is particularly useful in bolstering the inner sense of "self" necessary for effective self-assertion, it may also be helpful as an adjunct to assertiveness training.

## Lowered Irritability

The meditating person may become markedly less irritable in his or her interpersonal relationships within a relatively short period of time after commencing meditation (Carrington et al., 1980). Meditation thus appears indicated where impulsive outbursts or chronic irritability is a symptom. This recommendation includes cases of organic irritability, since preliminary observations have shown meditation to be useful in increasing overall adjustments in several cases of brain injury (Glueck, 1973).

## **Limitations of the Method**

### Side Effects of Tension Release

Like all techniques used to effect personality change, meditation has its limitations. One of these is the stress release component of meditation, which must be understood if this technique is to be used effectively. Particularly in the new meditator, physiological and/or psychological symptoms of a temporary nature may appear during or following meditation. These have been described elsewhere. (Carrington, 1977, 1978) and appear to be caused by the release of deep-seated nonverbal tensions. Their occurrence can be therapeutically useful, provided that the therapist is trained in handling them properly; however, too rapid a release of tension during or following meditation can cause difficulties and discouragement in a new meditator, and may result in a client's backing off from meditation or even abandoning the practice altogether. For this reason, careful adjustments of meditation time and other key aspects of the technique must be made if this modality is to be used successfully. Such adjustments can usually eliminate problems of tension release in short order; accordingly, adjustment of the meditation to suit each practiser's individual needs is central to such modern forms of meditation as CSM.

### Rapid Behaviour Change

Another potential problem in the use of meditation stems from the rapidity with which certain alterations in behaviour may occur. Some of these changes may be incompatible with the life style or defensive system of the client. Should positive behavioural change occur before the groundwork for it has been laid (i.e., before the client's value system has readjusted through therapy), an impasse can occur, which must then be resolved in one of two ways: (1) The pathological value system must be altered to incorporate the new attitude brought about by the meditation; or (2) the practice of meditation must be abandoned. If the meditator facing such an impasse has recourse to psychotherapy to work through the difficulties

involved, this usually allows the individual to continue productively with meditation and make use of it to effect a basic change in life style.

Some of the ways in which meditation-related behavioural changes may threaten a client's pathological life style are as follows:

1. Meditation may foster a form of self-assertion that conflicts with an already established neurotic "solution" of being overly self-effacing. The tendency toward self-effacement must then be modified before meditation can be accepted into the person's life as a permanent and beneficial practice.
2. Meditation tends to bring about feelings of well-being and optimism, which may threaten the playing out of a depressive role that may have served an important function in the client's psychic economy.
3. The deeply pleasurable feelings that can accompany or follow a meditation session can cause anxiety. For example, clients with masturbation guilt may unconsciously equate meditation (an experience where one is alone and gives oneself pleasure) to masturbation, and thus may characterise it as a "forbidden" activity.
4. Meditation can result in an easing of life pace, which may threaten to alter a fast-paced, high-pressured life style that is used neurotically as a defence or in the service of drives for power, achievement, or control. Clients sensing that this may happen may refuse to start meditating in the first place-- or, if they start, may quickly discontinue the practice-- unless these personality problems are treated.
5. A client may develop negative reactions to the meditation process, or to a meditational object of focus such as mantra. Some individuals initially view meditation as being almost "magical." When they are inevitably forced to recognise that the technique varies in its effectiveness according to external circumstances, or according to their own mood or state of health, they may then become angry and quit the practice unless the clinician can help them modify their irrational demands.

Fortunately, such complications as these do not occur in all meditating patients. Often meditation assists the course of therapy in such a straightforward fashion that there is little necessity to be overly concerned with the client's reaction to it.

### Cautions

1. An occasional person may be hypersensitive to meditation, so that he or she needs much shorter sessions than the average. Such a person may not be able to tolerate the usual 15- to 20-minute sessions prescribed in many forms of meditation, and may require drastic reductions in

meditation time before benefiting from the technique. Most problems of this sort can be successfully overcome by adjusting the meditation time to suit the individual's needs.

2. Over-meditation can be dangerous. On the theory that "If one pill makes me feel better, taking the whole bottle should make me feel exceptionally well," some clients may, on their own, decide to meditate 3 or 4 hours (or more) per day instead of the prescribed 15-20 minutes only once or twice a day. Like a tonic or medicine, meditation may cease to have beneficial effects if it is taken in too heavy doses, and may become detrimental instead. Release of emotional material that is difficult to handle may occur with prolonged meditation; in a person with an adverse psychiatric history, the commencement of meditation training has been known to precipitate psychotic episodes (Glueck & Stroebel, 1975; Carrington, 1977; Lazarus, 1976). Although it is not certain that overmeditation will lead to such serious results in relatively stable people, it is probably unwise for any person to enter into prolonged meditation sessions, except in special settings (such as a retreat) where careful supervision is available.

The fact that meditation may be a tonic and facilitator when taken in short, well-spaced dosages, but may have an antitherapeutic effect when taken in unduly prolonged sessions, is essential to consider when reviewing a psychiatric case history where any form of meditation has previously been practised by a client. Certain forms of meditation currently promoted by "cults" demand up to 4 hours of daily meditation from their followers-- an important factor to note when assessing some of the "brainwashing" effects frequently reported by ex-members of these cults.

3. Meditation may enhance the action of certain drugs in some clients. Requirements for antianxiety and antidepressive drugs, as well as antihypertensive and thyroid-regulating medications, should therefore be monitored in patients who are practising meditation. Sometimes the continued practice of meditation may permit a desirable low-dosage treatment of such drugs over more prolonged periods, and occasionally may permit the discontinuance of drug therapy altogether.

To avoid such difficulties as these, meditation should therefore be practised in moderation, with the meditator following instructions in a reliable meditation training programme. Full training in the management and adjustment of the technique, not just instruction in how to meditate, is essential in the clinical use of meditation.

## **The Method**

Optimal use of meditation in a clinical setting depends on teaching the client to manage the technique successfully-- a consideration that can easily be overlooked. Unless routine problems that arise during the practice of meditation are handled, the likelihood of obtaining satisfactory compliance is poor. If the technique is regulated to meet the needs of the particular client, however, compliance is often excellent.

It is doubtful whether meditation can ever be taught effectively through written instructions, since correct learning of the technique relies on the communication of the "meditative mood"-- a subtle atmosphere of tranquillity best transferred through nuances of voice and tonal quality. Meditation can be taught successfully by means of tape recordings, however, provided that the latter effectively convey this elusive meditative mood (i.e., that they are not "cold" or "mechanical" in nature) and that the recorded teaching system is sufficiently detailed in terms of the information it conveys, so that the trainee is instructed in handling minor problems that may arise before the technique becomes truly workable.

The CSM method (which incorporates ROM as an alternative form of meditation) teaches meditation through cassette tapes and a programmed instruction text, and comprises a total training programme in the management of meditation. Because of these advantages, the following discussion on method is confined to CSM. Some of the points made, however, can be applied to any of the modern meditation methods. The following discussion covers some of the ways in which CSM may be introduced to a client.

### Introduction of the Method

Clinicians are in a strategic position to introduce the idea of learning CSM to their clients. This is best done by referring to specific difficulties or symptoms that a client has previously identified. Simply mentioning research that suggests that meditation may be useful for these problems is often all that is needed to motivate the client to learn the technique. To forestall misunderstandings, however, several aspects of the CSM method are useful to mention when the subject of meditation is first introduced.

The clinician will want to indicate that this form of meditation is strictly noncultic in nature. Clients with religious convictions will not want their beliefs violated by competitive belief systems and can be relieved to learn that CSM is a "scientifically developed" form of meditation. In addition, clients who are uncomfortable with seemingly unconventional interventions will also benefit from being reassured about the noncultic nature of the method. The clinician will also want to emphasise that the technique is

easily learned, since one of the most prevalent misconceptions about meditation is the notion that it requires intense mental concentration. Most people are reassured by the knowledge that a modern technique such as CSM does not require forced "concentration" at all, but actually proceeds automatically once it has been mastered. The clinician should also routinely check on the client's knowledge about and/or previous experience with meditation in order to clear up any further questions about the method.

The preliminary discussion between therapist and client is typically brief, but certain clients may need to be introduced to meditation in a more planned manner. "Type A" clients, for example, may resist learning meditation (or any other relaxation technique) because the idea of "slowing down" threatens their life style, which is often hectic and high-pressured. When a clinician is recommending CSM to a Type A person, therefore, a useful strategy is to indicate that the time that this person will take out of his or her day for meditation practice is likely to result in increased efficiency. Much research suggests that this is so, and Type A individuals are typically achievement-orientated.

Type A or extremely active people can also be helped to accept meditation by being informed that they can break up their practice into a series of what have been termed "minimeditations" (Carrington, 1978). These are short meditations of 2 or 3 minutes (sometimes only 30 seconds) in duration, which can be scattered throughout the day. Frequent minimeditations may be much more acceptable to an impatient, driven sort of person than longer periods of meditation may be (although these can be used too), and they have the advantage of helping the client reduce transient elevations in stress levels as these occur.

A final strategy useful when recommending meditation to Type A or exceedingly active persons can be to inform them that they can use CSM while simultaneously engaged in some solitary sport that they may already practice and enjoy.

Meditation can be successfully combined with solitary, repetitive physical activities such as jogging, walking, bicycling, or swimming, and this practice may be a salutary one. Benson, Dryer, & Hartley (1978) have shown, for example, that repeating a mantra mentally while exercising on a stationary bicycle can lead to increased cardiovascular efficiency.