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SAHAJA YOGA: AN ANCIENT PATH TO MODERN MENTAL HEALTH?

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SAHAJA YOGA: AN ANCIENT PATH TO MODERN MENTAL HEALTH?

by

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ABSTRACT

Sahaja Yoga: An ancient path to modern mental health?

by Adam Morgan

The present study looks to evaluate the effectiveness of the meditative practice of Sahaja Yoga as a treatment for the symptoms of anxiety and depression. Whilst there is a small research literature that has investigated the efficacy of meditation (usually based upon the Buddhist Vipassana tradition) for the treatment of such symptoms, and a smaller literature looking at the effectiveness of Sahaja Yoga in the treatment of a number of physical health problems, no published studies have looked at the effectiveness of Sahaja Yoga as a treatment for mental health problems.

The present study therefore compared three independent groups, these being a 'waiting list' control group, a cognitive-behavioural (CBT) based stress management group and a Sahaja Yoga meditation group. Both treatment groups consisted of six, two hourly sessions, once per week, with symptom severity being measured at pre- and post-treatment using the Hospital Anxiety and Depression scale (HADs) and the 12 item General Health Questionnaire (GHQ-12).

Data were analysed using MANOVA and repeated measures ANOVA tests. The results show that, compared to controls, the participants in the Sahaja Yoga group reported significant reductions on all measures of symptomology, however, surprisingly, the CBT based group showed no such reductions. Limitations of the study, barriers to the use of Sahaja Yoga in clinical practice and the need for future research, particularly regarding process, are considered.

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Finally I would offer my thanks to Shri Mataji Nirmala Devi for her continued effort in teaching Sahaja Yoga to those who are interested, without this effort Sahaja Yoga wouldn't be available to study.

AUTHORS DECLARATION

At no time during the registration for the degree of Doctor of Clinical Psychology has the author been registered for any other University award.

The contents of this bound volume are identical to the one submitted for examination in temporary binding except for the amendments requested at the examination.

This study was conducted whilst the author was a Trainee Clinical Psychologist in the South and West Region based in the Exeter and District Community Health Services NHS Trust and the research was conducted in collaboration with the Exeter County Council Social Services Department.

Signed .....

Date 23.7.99

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Introduction

1.1 Overview

Sahaja Yoga is a meditative practice based upon a multiplicity of religious faiths (see Prakash, 1997). So far a range of studies examining the physical health benefits of its practice have returned encouraging results (see Rai et al., 1988, Gupta et al., 1991; Rai, 1993; Panjwani et. al., 1995; 1996 and Chugh, 1997), however, as yet, no studies have looked at the possible therapeutic effect of its practice upon mental health problems.

Within contemporary psychology a limited number of publications concerning the therapeutic effects of meditation in the treatment of mental health problems have, however, been published and a small literature focused around the use of mindfulness meditation in the treatment of anxiety and depression has developed. The research and academic literature that there is suggests that a practice of mindfulness meditation, based upon the Buddhist Vipassana tradition (see Kabat-Zinn, 1990; Emavardhana and Tori, 1997), can be an effective treatment for anxiety (Kabat-Zinn et. al., 1992; Pearl and Carlozzi, 1994; Miller et. al., 1995; Astin, 1997), as well as an effective prophylactic measure in the treatment of depression[1] (e.g. Teasdale et. al., 1995; Astin, 1997).

[1] Clearly the symptoms of anxiety and depression have a considerable co-morbidity (see Brown, 1995), however those clinical trials that have been published have focused on patients with a *primary* diagnosis of anxiety (the exact nature of which varies between studies).

Thus there is a small but significant literature, within contemporary psychology, that supports the contention that meditation can provide an effective treatment for, and inoculation against, both anxiety and depression.

In this introduction I shall move from a brief overview of the 'theory' of Sahaja Yoga, and then meditation in general, to look at the contemporary psychological literature on meditation and how it attempts to conceptualise meditative practice.

1.2 Sahaja Yoga

1.2.1 Overview

Sahaja Yoga is a method of meditation, founded by Shri Mataji Nirmala Devi, that draws links with a multitude of religious traditions asserting the idea that the religious practices that have developed out of different cultures, and periods, are all based upon a common, deeper truth or reality (Prakash, 1997).

In what follows I shall endeavour to present those concepts necessary to the meditative practice upon which Sahaja Yoga is based in the form of a few simple propositions. Outside of this particular practice of meditation Sahaja Yoga can be seen to be broadly in agreement with Eastern philosophy in general, as discussed in section 1.3.2[2].

[2] It should be noted that, as already mentioned, Sahaja Yoga 'theory' sees a unity in all religious philosophy, as will be discussed.

1.2.2 The 'subtle body'

The first of these propositions is that within us there exists a 'subtle body' of 'Chakras' (centres of awareness), 'Nadis' (channels), and the 'Kundalini' (a Divine feminine power) (see figure 1 below). This is a system which is most obviously derived from the Hindu and Buddhist cultures, and dates back many thousands of years (see Moor, 1810). However descriptions of it would appear to exist within other traditions, see for example Zechariah, chapter 4, v2-3: Old Testament; Surah Nuh (Noah), v15-16: Koran; Surah Ar-Ra'd (The Thunder), v 2: The Koran; Arabi (1982), 'Sabiquun'.

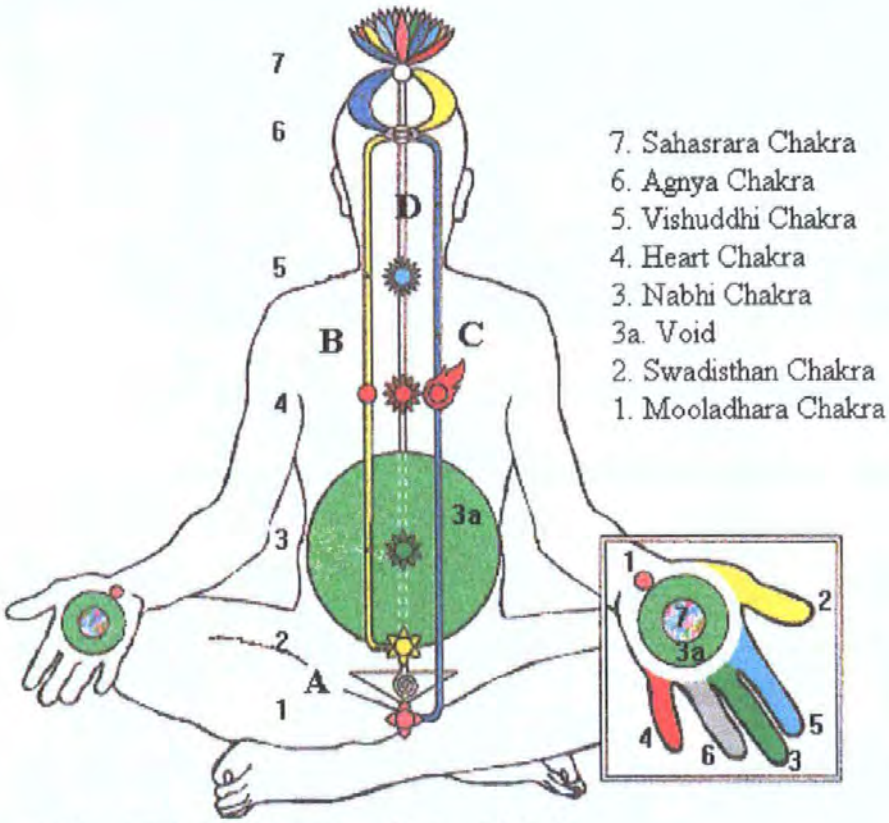

Figure 1. The subtle system.

The three channels and seven Chakras are understood to be both a physical reality (i.e. they correspond to a physical structure) and a non-physical reality (i.e. a 'type of awareness' or 'mode of being'), whilst the Kundalini describes a purely non-physical reality.

1.2.2.1 The three channels

In their non-physical form the three channels can be thought of as representing three 'modes of being', with these modes representing certain attributes. These attributes are as follows: The left channel corresponds to the level of desire, emotion, lethargy and the past; the right channel to that of action (both physical and mental) and the future; and the central channel to that of happiness, moderation, detachment and the present moment (Descieux, 1998; Rai, 1993[3]). Both the left and right channels are also said to be governed by one particular Chakra, the left by the Heart Chakra and the right by the Swadisthan Chakra.

The two side channels are also seen as fundamentally different from the central channel in that they can be 'overused' resulting in negative states of being, whilst the attributes of the central channel (by definition) are seen to result in spiritual growth and ultimately the state of Yoga (Union).

[3] There are only a few published texts on this subject and thus to avoid the endless repetition of these same two references I will simply state at this point that all the material regarding Sahaja Yoga, referred to in the present work, can be found within these two references.

As a result it is the objective of Sahaja Yoga meditation to rest the attention within the central channel and not the two side channels. This means in practice both to rest the attention within the present moment, without thought[4], and also to literally keep the focus of attention centrally within the body. Once the attention rests here it can be drawn up from the bottom Chakra to the top Chakra[5] (above the head) where the state of thoughtless awareness and Yoga are said to reside. The three channels, or 'modes of being', therefore, form a simple and important framework within the practice of Sahaja Yoga.

More detail of their nature can be found in their description, within Eastern tradition, as the three worldly 'Gunas' (see Neki, 1975 for an overview). Thus the left channel corresponds to the 'Tamo Guna', as in the following quote;

> "*Tamas* (Tamo Guna), *which is born of ignorance, darkens the soul of all men. It binds them to sleepy dullness, and then they do not watch and they do not work... ...Darkness, inertia, negligence, delusion - these appear when Tamas prevails"* (Bhagavad Gita Ch.14, v. 8&13).

In accordance with this, the 'theory' of Sahaja Yoga states that 'overuse' of the left channel results in lethargy, depression, and emotional distress.

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[4] As we shall see later on an awareness free from, or beyond thought is seen as essential in order to achieve the state of 'Yoga', or freedom from suffering.

[5] Again 'resting the attention' upon one Chakra involves both concentration upon the physical location of the Chakra as well as a contemplation of the qualities of that Chakra.

Due to the intimate link between the left side and the Heart Chakra any overuse of the left side would be expected to cause a disturbance in this Chakra (and vice versa). The quality of the Heart Chakra is said to be security, or freedom from fear, thus a disturbance in this Chakra would manifest as anxiety. Therefore Sahaja Yoga would expect problems of anxiety (Heart Chakra) and depression (left side) to frequently co-occur.

It is, therefore, noteworthy that such a co-morbidity is, in fact, common (see Brown, 1995). Indeed Brown (ibid.) points out that "..... recent theories have conceptualised anxiety and depression to be constructs sharing a common vulnerability" (ibid., p. 41). The 'theory' of Sahaja Yoga would also posit a common factor between anxiety and depression, i.e. the link between the left channel and the Heart Chakra.

The right channel is understood to be synonymous with 'Raja Guna', as described below;

> *"Rajas* (Raja Guna) *is the nature of passion, the source of thirst and attachment. It binds the soul of man to action..... Greed, busy activity, many undertakings, unrest..... -these arise when Rajas increases.."* (Bhagavad Gita, Ch. 14, v. 7&12).

Thus the attributes of over activity, excessive striving and unrest, somewhat akin to the 'Type A' personality trait (see Friedman, 1969; Rosenman et. al., 1975), or its' more

robust element 'hostility' (see Smith, 1992; Suls and Sanders, 1989), are seen to result from 'overuse' of the right channel.

Finally the central channel is seen to be synonymous with 'Sattva Guna', again as described below;

> *"...Sattva because it is pure, and it gives light and is the health of life, binds man to earthly happiness and to lower knowledge... ... When the light of wisdom shines from the portals of the body's dwelling, then we know that Sattva is in power."* (Bhagavad Gita, Ch. 14, v 6 & 11).

As we can see from this quote Sattva Guna, or the central channel, is of a different nature to the other two Gunas, bestowing a balanced, happy and fruitful state of being.

For the sake of brevity further detail concerning the three channels is not presented here, but can instead be viewed in Appendix I.

1.2.2.2 The Chakras

In their non-physical form the Chakras can be thought of as types of awareness, or perception, that correspond to related clusters of qualities. They can also be metaphorically seen as flowers, that can open, or blossom, within an individual, so that as the flower blossoms its qualities become manifest within the person. Briefly, starting at

the bottom Chakra and moving upwards, the qualities are; innocence, pure knowledge, satisfaction (or freedom from desire), security (or freedom from fear), compassion, forgiveness and joy (or freedom from suffering). Again fuller descriptions can be viewed in Appendix I.

1.2.2.3 Kundalini

Kundalini is described within Eastern religious, or spiritual, tradition as an indwelling spiritual energy[6] that can be awakened in order to purify the subtle system and ultimately to bestow the state of Yoga, or Divine Union, upon the 'seeker' of truth (see Rai, 1993). This awakening involves the Kundalini physically moving up the central channel to reside within the Sahasrara Chakra above the head.

This movement of Kundalini is felt by the presence of a cool or, in the case of imbalance, a warm breeze across the palms of the hands or the soles of the feet. Whilst in Dnyaneshwari the saint Dnyaneshwara describes Kundalini as the source of the 'life wind' which creates a 'cooling sensation' (ibid., ch.6, v.15-17), Sahaja Yoga also says that this sensation is the reality behind the many references in a diverse array of scripture to the 'breath of God' (ibid.), e.g. see Aquarian Gospel of Christ, ch. 44, v19, ch. 161, v35, ch 162, v4; Dnyaneshwari, ch. 6; Ezekiel, ch. 37, vs. 5-6: Old Testament; John, ch. 14 vs. 15-17 & 25: New Testament; Koran, sura 7, vs. 55; sura 24, vs. 24; sura 25, vs. 45; sura 30, vs. 45; sura 35, vs. 9; sura 36, vs. 64; see also Descieux, 1998)[7].

[6] Also described as a Motherly energy (again see Descieux, 1998; Rai, 1993)
[7] Many more references exist, too many to list exhaustively here.

In meditation the Kundalini is directly addressed (as 'Mother') when the respective Chakras are contemplated, e.g. "Mother please make me free from all fear", and is understood to rise up with the meditators attention purifying the subtle system as she does so.

Kundalini is described as an essential part of the meditation as she is said to enable the meditator to achieve what is a very difficult task i.e. to rest their attention, without thinking, in the present moment and to actually experience the qualities of the respective Chakras 'blossoming' within themselves[8]. Again further detail can be viewed in Appendix I.

The final proposition that Sahaja Yoga makes is that once 'Kundalini awakening' has taken place and is established through meditation the Kundalini automatically purifies the subtle body and thus dispels all mental, physical and spiritual 'dis-ease'.

1.2.3 Summary

In summary we can say that Sahaja Yoga makes three proposals. Firstly that within all human beings there exists a subtle body of seven Chakras, three Nadis (channels) and the Kundalini, secondly that the phenomenon of 'Kundalini awakening' is possible, and

[8] Kundalini awakening is described as being synonymous with the Eastern concept of Self Realisation, and the Christian concept of a second birth, both seen within their respective traditions as necessary before any person can achieve their 'enlightenment' (again see Descieux, 1998 and Rai, 1993). Thus it is here that

thirdly that once 'Kundalini awakening' is established through meditation, mental, physical and spiritual 'dis-ease' disappear.

Again, whilst the claim to dispel 'dis-ease' has been investigated to some extent in relation to physical health problems (see Rai et al., 1988, Gupta et al., 1991; Rai, 1993; Panjwani et. al., 1995; 1996 and Chugh, 1997) no published research is available concerning mental health problems.
It is therefore the claim to dispel mental 'dis-ease' that is the focus of the present study.

I shall now take a broader look at the practice of meditation, and ultimately how it can be linked in more clearly with contemporary psychology.

1.3 The Practice of Meditation

1.3.1 Definition and purpose of meditation

In the broadest sense meditation is a religious discipline in which the mind is focused upon a single point of reference (Concise Columbia Encyclopaedia, 1991), thus it encompasses the more Christian practices of contemplation of a spiritual theme, question or problem as well as Eastern practices of focused attention (ibid.).

Wherever meditation is practised it's aim is to enlighten and ultimately to confer a state of emancipation, or transcendence of suffering, upon the practitioner. However it should

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Sahaja Yoga makes it strongest claim, i.e. that it offers Self Realisation, or second birth, and thus a realistic opportunity to achieve the state of 'Yoga', or transcendence from suffering.

be noted that within contemporary psychological texts this ultimate aim is generally seen as being beyond the 'range' of most practitioners (e.g. Delmonte, 1990; De Silva, 1990). As a result attention is most often focused upon other, less grand, benefits, such as relaxation, stress reduction and insight into emotional processes (ibid.).

1.3.2 Related 'theories' and concepts

The promise of liberation from suffering, or a realm beyond and above 'typical' human awareness and endeavour, forms an essential and persistent theme that runs through all religious writings. Often it is described in opposition to usual human awareness which is generally seen to be driven by sensory and worldly desires and concerns. For example within the Eastern traditions 'typical' human endeavour is called 'samsara'[9], and is understood to result from worldly desire and attachment, as a result people are seen to be bound to a state of suffering and emotional turmoil.

Another similar concept is that of maya, a term which refers to the way that the material world "... obscures the undifferentiated spiritual reality from which it originates" (American Heritage Dictionary, Third Edition, 1992). Both of these concepts (that is 'samsara' and 'maya') relate in some sense to the idea that the true nature of reality is obscured, either through the ignorance of normal awareness, full of 'worldly' attachment and desire, or by the alluring nature of material reality itself. References to these ideas can be found in a diverse array of scripture.

[9] Samsara is a Sanskrit word from the Hindu and Buddhist traditions that refers to the eternal cycle of birth, suffering, death, and rebirth that results from human attachment to worldly desires.

For example in the Koran Muhammad says:

"Life in this world is nothing but an illusory pleasure."

(Koran, sura 3, v.185)

And in the Tao Te Ching Loa Zi says:

"The five colours blind men's eyes.

The five tones deafen men's ears.

The five flavours spoil men's palates.

Running and chasing make men's hearts mad.

Rare goods confuse men's ways."

(Tao Te Ching, Part I, verse 12).

And in the Bhagavad Gita Krishna says:

"Wisdom is clouded by desire, the everpresent enemy of the wise, desire in its innumerable forms, which like a fire cannot find satisfaction. Through these it binds the soul, after having over clouded wisdom..... Be a warrior and kill desire, the powerful enemy of the soul."

(Bhagavad Gita, Part 3, verses 39-43).

And in the 'sermon on the mount' Christ said:

"Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal: But lay up for yourselves treasures in heaven, where neither moth nor rust doth corrupt, and where thieves do not break through and steal: For where your treasure is, there will your heart be also."

(New Testament, St. Matthew, VI, 19-21)

Once this attachment to 'worldly' desire is transcended then a joyous reality, free from suffering, is described to be available. Each religious tradition has a name for such a state, Christian tradition calls it 'The Kingdom of Heaven', Buddhist and Hindu traditions 'Nirvana', the Sikh tradition 'Sahaja Samahdi'. Furthermore meditation is described by various traditions as a central means of developing the ability to transcend worldly desires and attachments (see Mascaro, 1965; Hinnels, 1984; De Silva, 1990), and thus to create a state of consciousness from which one can act as a witness to the "..impermanent flux of human experience" (Emavardhana and Tori, 1997, p.194), rather than a fish caught in its net. With this state of detachment, often referred to as the 'witness' state, man's liberation from suffering is understood to be born.

These themes can also be seen clearly in the teachings of the Buddha. Buddha's teaching rests upon the "four noble truths" (de Silva, 1990). Briefly these are as follows:
1.) Existence is suffering; 2.) The cause of suffering is craving, or desire; 3.) There is a cessation of suffering, called 'Nirvana', or total transcendence; and 4.) There is a path

leading to the end of suffering (for the Buddhist this path is the eightfold noble path (ibid.)).

Within the Eastern traditions in general the generic term for the path towards freedom from suffering is *yoga* (Mascaro, 1965), a Sanskrit word meaning union. Meditation is seen as an essential tool in the practice of yoga (ibid.) and hence in the achievement of 'Nirvana' (see De Silva, 1990) as it dissolves the attachment to worldly desires and concerns and thus creates a connection with the Divine (Mascaro, 1965).

Comparing these ideas to contemporary theories it could be argued that the attachment to thought and worldly desires, described within Eastern traditions, is similar to the 'floating away' into elaborate thought described by Teasdale et. al. (1995) in their consideration of the cognitive basis of depression. Notably, however, Eastern theories of human awareness regard 'normal' drifting away into 'normal' elaborate thought as 'unhealthy', and thus they see *all* unreflective attachment to thought as problematic, because such attachment is seen as creating illusion and ignorance (De Silva, 1990; Mascaro, 1965). By contrast the contemporary cognitive hypothesis is that it is only the attachment to, or belief in, depressive, anxious or otherwise distorted thought that is unhealthy (e.g. Beck et. al., 1979; Mathews and MacLeod, 1994).

There are thus corresponding differences in the respective goals of contemporary cognitive therapies and the practice of meditation. Therefore while cognitive therapy

looks to correct only *distorted* thought, meditation looks to create a detachment to, or freedom from, *all* thought.

In summary 'spiritual' or religious theories are founded upon the belief that there is such a thing as a transcendent state, free from worldly desires and attachments, in which there is a cessation of suffering, and furthermore that meditation is a practice that helps to achieve such an awareness.

1.3.3 A religious ideal of mental health?

Within their own terms the various religious traditions can, therefore, be seen to propose the existence of, and a path toward, an ideal state of awareness, or mental health. As an example Neki (1975) argues that the Sikh concept of 'Sahaja Samahdi' can be understood quite clearly to represent such an ideal state of mental health. In his article he attempts to examine the attributes of this state of being and how it might be understood in today's terms.

Neki also draws attention to the difference between psychiatric notions of mental health, which often rest upon some notion of 'normality', or simply on the absence of 'abnormality', and a concept such as 'Sahaja Samahdi' which defines an ideal. He

argues that just as there is a need for an understanding of mental disorder so there is also a need for a description of the "...higher octaves of being" (ibid., p.8)[10].

So for the Sikh, 'Sahaja Samahdi' can be seen to represent an ideal state of being that can, and should, be striven toward. Other traditions have their own ideals, however whether it be 'Nirvana' , 'Samahdi', 'Satori', 'Sahaja Samahdi' or 'the Kingdom of Heaven' (etc.), all of them refer to a place of transcendent awareness, or existence, beyond worldly concerns and sufferings.

1.3.4 Meditation as a means of achieving mental health

Within religious writing meditation can thus be seen as a means of achieving an improved, or ultimately an ideal, state of mental health. In fact several studies have already been conducted that look to examine the ability of a practice of meditation to improve mental health.

1.3.4.1 Trials into the efficacy of mediation

The contemporary trials that have been published (Kabat-Zinn et. al., 1992; Putai, 1992; Pearl and Carlozzi, 1994; Miller et. al., 1995; Astin, 1997) indicate that a practice of meditation is effective in reducing anxiety. Thus in all of these studies participants who took part in a program of meditation showed significant reductions on measures of anxiety. However, having said this, of these trials Kabat-Zinn et. al. (1992) is the only

[10] Clearly such an enterprise has been explored by 'positive mental health' theorists such as Maslow (e.g. Maslow, 1968; 1970), however Neki argues that, whilst many of these Western ideas are useful ones, they

one to use a clinical population[11]. In Putai (1992) participants were recruited from the 'general public' and included people from a diverse array of personal and ethnic backgrounds, whilst Pearl and Carlozzi (1994) and Astin (1997) both used undergraduate populations. Thus in respect of assessing the efficacy of meditation in mental health care settings the study by Kabat-Zinn et. al., (1992) arguably has a significant advantage.

In this study 22 participants who met DSM-III-R criteria for generalised anxiety disorder, or panic disorder, with or without agoraphobia, took part in an eight week meditation based stress reduction program. This highly structured training program in mindfulness meditation and its application can be found described in detail elsewhere (Kabat-Zinn, 1990). It requires participants to attend weekly two hour classes and, in addition, a seven and a half hour intensive, and mostly silent, meditation retreat session in the sixth week. 'Homework' is given and involves a range of formal and informal meditation techniques.

Participants were assessed using a variety of psychometric measures[12] at both post- and pre-treatment, with three month, and later three year (see Miller et. al., 1995), follow up. Before and during treatment measures were taken weekly, whilst post-treatment up to three months they were taken monthly. There was no control group, instead a repeated measures design was employed where each person was seen to act as their own control.

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are inferior both in depth and insight to a concept such as 'Sahaja Samahdi'.

[11] Miller et. al. (1995) reports follow up data on Kabat- Zinn et. al. (1992) and is thus effectively the same study.

[12] These were Hamilton Rating Scale for Anxiety, Hamilton Rating Scale for Depression, Beck Anxiety Inventory, Beck Depression Inventory, Fear Survey Schedule, Mobility Inventory for Agoraphobia, Accompanied and Unaccompanied.

measures design was employed where each person was seen to act as their own control. The results showed statistically significant reductions in measures of anxiety and depression from pre- to post-treatment in 20 of the 22 participants. No analysis of the clinical significance of these results is presented however.

The omission of a separate comparison control group is a significant flaw in this design, however, as Roth and Fonagy (1996) point out, the inclusion of a no treatment control group in trials of therapeutic efficacy is rarely "...ethically or practically possible" (p.18). Even so some form of control group (such as a waiting list control) would have significantly enhanced the internal validity of this study.

Its strongest point is, as Kabat-Zinn et. al. point out, the stringent diagnostic criteria used to identify participants. Such measures go a long way towards adding credibility to the assertion that mindfulness meditation can provide effective treatment for people in those diagnostic groups covered by the study.

Together with those studies looking at non-clinical populations we can therefore say that in respect of anxiety there does appear to be at least some evidence that meditation is effective in reducing distress and promoting good mental health.

Moving away from anxiety Teasdale et. al. (1995) present a theoretical paper arguing that meditation could prove effective in the prevention of depressive relapse. This is based

argued that the practice of mindfulness meditation could prevent the establishment of 'depressive interlock' a state in which the 'central engine' of information processing becomes dominated by, and produces, depressive content. Whilst the participants in Kabat-Zinn et. al. (ibid.) had primary diagnoses of anxiety, they do report significant reductions in measures of depression following treatment with maintenance of gains at both three month and three year follow up (see Miller et. al., 1995). This finding can, therefore, be seen to go some way to supporting the argument made by Teasdale et. al., (ibid.).

Further to the studies mentioned above Emavardhana and Tori (1997) report a study, with a non-clinical population[13], in which they examined changes in ego defences following seven day Vipassana meditation retreats and found that, compared to controls, meditators showed significant positive gains in self-representations (self-esteem) as well as changes in their use of certain ego defences. Specifically the meditators showed a greater tolerance of external stressors and were less likely to use the ego defences of displacement, projection and regression than controls, but were more likely to use the defences of denial and reaction-formation.

In discussing these findings Emavardhana and Tori (ibid.) point out that specific defence mechanisms can be seen as either healthy or unhealthy (see Vaillant, 1992) depending on the circumstances in which they are used, and the intensity to which they are used. For

[13] Recruits for this study came from people attending seven day Vipassana meditation retreats organised by the Young Buddhist Association of Thailand.

the circumstances in which they are used, and the intensity to which they are used. For example Gottschalk, Fronczek and Abel (1993) showed that the denial of anxiety in psychologically healthy individuals could be a functional coping response whilst at the same time going to further psychopathology in people suffering from mental disorder.

In their study 'denial' was operationalised as a greater tendency to be less reactive and fractious in the face of stressful situations, whilst reaction-formation was operationalised as a reduced reactivity to sexual impulses. As Emavardhana and Tori point out both of these can be seen as positive, healthy and adaptive[14] responses and thus they argue that the reported changes in defence mechanisms are indicative of positive, healthy, change.

Overall there would, therefore, appear to be a range of support for the assertion that the practice of meditation is an effective means of improving 'mental health'. However in order to asses the degree to which we can feel safe in making this assertion we should examine in some detail both the internal validity of the above studies as well as alternative explanations for the effects that are reported by them.

In general we can say that there is a reasonable amount of agreement concerning acceptable standards in therapeutic efficacy research (see Roth and Fonagy, 1996). In short, trials should include random allocation to group, and at least a comparison to a treatment known to be effective, or ideally (although perhaps somewhat unrealistic) a no-

treatment control group. Clear treatment protocols should be available, preferably as manuals, and clear diagnostic criteria used for participants.

In the above studies no one trial satisfies all these requirements, however they are all employed by one study or another. For example Astin (1997), Pearl and Carlozzi (1994) and Putai (1992) all used randomised designs, with participants being randomly allocated to treatment condition. Both Pearl and Carlozzi (1994) and Astin (1997) compared a meditation program and a no-treatment control group, although again their participants were undergraduates and not selected using any diagnostic or clinical criteria.

Using a different methodology Putai (1992) compared a range of treatments (Tai Chi (moving) meditation, brisk walking, meditation (not moving) and neutral reading) and looked at the ability of each to reduce stress following 'induced' stressful events[15]. Again in contrast to the other studies here they employed a range of physiological measures as well as psychological ones, and present a more physiologically focused discussion as a result. Unfortunately this study again does not include a no-treatment control (possibly for ethical reasons), and thus, despite the more experimental nature of the study, it is again hard to be clear about what aspects of each treatment are active in producing the reported effects

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[14] Emavardhana and Tori (ibid.) argue that given the acuteness of the AIDS epidemic in Thailand (at the time of their writing) the increase in the use of 'reaction-formation' could be highly adaptive whilst the denial of stress can be adaptive in almost any situation, if not taken to extremes.

[15] Two stress inducing conditions were employed. 'Mental stress', where participants had to complete a set of mental arithmetic problems under time pressure and in a noisy room, and 'emotion stress' where participants watched a stressful film entitled 'Horrible Experiences: A true story'.

As we have seen Kabat-Zinn is on its own amongst these studies in its use of a clinical population with stringent diagnostic criteria used in order to identify participants. Clearly this is a significant advantage, however it does not include a no-treatment control group which is an equally significant disadvantage.

Thus, overall, we can see that each study has its own strengths and weaknesses that need to be taken into account when considering its findings.

However one universal criticism of this body of literature is that in *none* of the studies is a placebo control employed. There is thus always the possibility that any effects shown are the result of expectation rather than active treatment. Having said this it is true to say that a true placebo control is generally acknowledged to be unattainable in psychotherapy research (see Elkin, 1994; Elkin et. al., 1985). One solution to this problem (i.e. the problem of developing a therapeutically inactive 'placebo control psychotherapy') has been to use pill placebo controls (ibid.), which although they are not ideal are perhaps better than nothing. Some studies into the effectiveness of CBT have even used counselling as placebo controls as within the terms of CBT such methods are regarded as inert (see Bergin and Garfield, 1996).

Another way of investigating the possibility that these studies are simply showing placebo effects can be partially provided by ratings of expectancy (i.e. the strength of

belief in the efficacy of the treatment). Both Kabat-Zinn et. al., (1992) and Putai (1992) included such measures in their studies. Kabat-Zinn et. al., (ibid.) report that ratings of expectancy "... failed to serve as a meaningful predictor of outcome" (ibid., p.940). Thus in their study, at least, it was the case that the reported strength of belief in the efficacy of the treatment was not a predictor of outcome.

This is, however, perhaps somewhat unexpected as expectancy is generally understood to have a degree of influence in outcome (see Tinsley, Bowman and Ray, 1988). The important question is actually whether or not there is an active treatment effect present, over and above that of expectancy. For example Putai (1992) found that high expectancy did *increase* efficacy for some treatments, however some of their meditation based treatments with low expectancy still proved to be efficacious. This would, therefore, seem to be stronger evidence than that of Kabat-Zinn et. al., (ibid.) that there are effects over and above that of expectancy present.

However it is still the case that the inclusion of a placebo treatment provides by far the best way of investigating this question. The problem with this is that such a design is only really feasible in respect of the use of a pill placebo (again see Elkin, 1994) and would thus require significant support and backing from a range of agencies. In relation to the present work such standards are clearly unattainable, however a comparison treatment group (a CBT based 'stress management group') and a waiting list control group were incorporated.

1.3.4.2 Summary

Overall we can conclude that none of the published trials is as robust as we would like them to be, but that individually and together they are able to provide a set of initial answers to a wide range of questions. It would, however, be desirable if a contemporary study could be conducted, or were available, that was able to incorporate all of the elements that are acknowledged to be important in therapeutic outcome research.

1.4 Contemporary Psychological Models

Before starting this section I would like to point out that whilst contemporary explanations of meditation are relevant to the present work, it is not within the scope of this work to give a full analysis of all the conceptual issues. The issues and relevant literature are simply too vast. The present review of literature, however, is specifically interested in the clinical usefulness/efficacy of meditation in general, and Sahaja Yoga in particular, as well as the ability of both religious and psychological theories to explain this. Thus it is on these issues that I intend to focus. This section is included to give an indication of those issues that arise in connection with meditation within contemporary psychology. In particular I intend to look at how contemporary psychological theories have been applied to meditation, particularly in relation to clinical considerations.

Both Teasdale et. al. (1995) and Astin (1997) suggest that mindfulness meditation influences affect in a similar way to cognitive therapy, i.e. via its effect upon cognition

and information processing. Teasdale et. al. (ibid.) suggest that meditative practice gives individuals a means of transcending, or at least preventing, what they refer to as 'depressive interlock', a state in which 'negative' cognitive processes become self generating and self fulfilling. More specifically a practice of meditation is seen as preventing people from "..'floating away' into elaborate, ruminative thought streams" (ibid., p.34) which are seen as playing an essential role in depressive relapse (ibid.).

When comparing meditation to cognitive therapy Teasdale et. al. (ibid.) note that a practice of meditation has various advantages, especially in relapse prevention. Firstly they argue that meditation can be practised on many aspects of experience and in many situations and thus does not require the presence of negative affect or thought, as does cognitive therapy. Secondly they argue that a regular practice of meditation creates a habit of 'turning inwards' and reflecting upon experience, whatever it may be. This habit is then said to guard against the tendency for people in remission to ignore or 'look away' from any signs of returning depressed mood, and therefore to provide an 'early warning system' should there be any negative change in affect.

Following in the cognitive theme, De Silva (1984; 1990) draws some striking parallels between Buddhist practices and cognitive behavioural psychology, claiming that the contemporary techniques of: *".. fear reduction by graded exposure and reciprocal inhibition; using rewards for promoting desirable behaviour; modeling for inducing behaviour change; the use of stimulus control to eliminate undesirable behaviour; the*

use of aversion to eliminate undesirable behaviour; training in social skills; self-monitoring; control of intrusive thoughts by distraction, switching/stopping, incompatible thoughts, and by prolonged exposure to them; intense, covert, focusing on the unpleasant aspects of a stimulus, or the unpleasant consequences of a response, to reduce attachment to the former and eliminate the latter; graded approach to the development of positive feelings towards others; use of external cues in behaviour control; use of family members for carrying out behaviour change programs..."(De Silva, 1990, p.248) are all foreshadowed by Buddhist tradition.

Some of these can clearly be seen to relate to meditative practice e.g. *"the control of intrusive thoughts by distraction, switching/stopping,* (or the use of) *incompatible thoughts,* (or the) *prolonged exposure to them* (i.e. intrusive thoughts)*"* as well as "(the) *intense, covert, focusing on the unpleasant aspects of a stimulus, or the unpleasant consequences of a response, to reduce attachment to the former and eliminate the latter".*

As well as a cognitive-behavioural framework for understanding meditative practice, psychoanalytic frameworks have also been suggested (see De Silva 1990; Delmonte, 1990; Epstein, 1990; Haartman, 1994) with these often focusing on the concept of the 'ego' and its place within a healthy psyche. This issue is seen to arises due to the striving of meditators to transcend the ego (and thus achieve a state of egolessness) in search of

the Ultimate, a practice that appears unwise when considered from a psychoanalytic viewpoint (for a discussion see Epstein, 1990)[16].

Haartman (1994), however, referring to the works of M.D. Faber and J. Lacan (Faber, 1981; Faber, 1989; Lacan, 1977; Lacan, 1989), argues that unconscious ego defences, formed as the result of significant biological early life trauma (e.g. birth trauma), establish and maintain an "illusory consciousness". He goes on to say that via the use of concentration and insight (mindful) meditation techniques[17], these defences "... become available to awareness" (ibid., p.49) and can then be subjected to positive (i.e. healthy) change.

Emavardhana and Tori's (1997) study of Vipassana meditation, already mentioned, lends some support to this assertion, with the meditators in their study showing significant changes to measured ego-defences. This support is, however, somewhat predicated upon accepting their argument that these changes are healthy, or adaptive, and that they reduce the degree of 'illusory consciousness'. Having said this it seems that Emavardhana and Tori's argument, that the changes are healthy, is reasonable and supported within the available literature, although it is not obvious that they represent a reduction in 'illusory consciousness'.

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[16] Psychosis is often seen by psychoanalytically orientated theory to be the end result of removing 'ego boundaries' (again see Epstein (1990) for a discussion).

[17] A common distinction drawn by many authors is that between 'mindfulness' techniques, where the contents of consciousness are viewed dispassionately without judgment or attachment, and 'concentration' techniques where a single point of reference is focused upon to the exclusion of all other stimuli (see Delmonte, 1990).

Haartman's (ibid.) concept of the creation of an 'illusory consciousness' also seems to be reminiscent of Eastern notions about reality, i.e. that its true nature is somehow obscured by our usual 'worldly' awareness (samsara), or by its own innately illusory nature (maya). Both 'theories' clearly suggest that typical awareness is characterised by an 'incorrect' or 'misperceived' version of reality. This is, however, not unsurprising given that Faber explicitly cites Buddhist philosophy as influential in his theory.

Furthermore, as mentioned earlier, such a formulation about reality, and awareness, is not restricted to 'Eastern' philosophy but can be found in a wide array of scripture.

Many authors maintain that meditation is of most relevance to anxiety related disorders (see Delmonte, 1990), and furthermore that in respect of major mental illnesses, such as psychosis, caution should be exercised due to the possibility of recovering overwhelming traumatic experiences during meditative practice (ibid.). Paradoxically this propensity for recovering traumatic experience, that meditation is seen to possess, is also cited as a reason for its therapeutic effect, by allowing exposure to traumatic material to occur (see Delmonte, 1990; Epstein, 1990; Haartman, 1994).

In summary we can see that a variety of psychological formulations have been proposed that look to explain meditative practice within their own terms as well as a smaller

number that look to draw links between more modern psychological models and older religious ones.

Finally, however, I believe that it is worth stressing that contemporary psychological explanations can only ever provide us with a limited cultural, and theoretical, view of meditative practice simply because the practice of meditation derives from a set of much older 'theories' based upon religious practice and belief. It is thus disheartening to note that within the contemporary psychological literature on meditation the religious underpinnings of meditative practice are often played down and frequently given little or no mention (see Shapiro, 1994)[18]. Such a negation of the theoretical roots of the practice would seem to be unwise, perhaps somewhat akin to examining cognitive therapy with little or no mention of Beck or his work. It is for this reason that I have included consideration of religious 'theories' in the present work.

1.5 Aims of this Study

1.5.1 Research questions

As already noted whilst there are several studies that have examined the physical health benefits of the practice of Sahaja Yoga (Rai et al., 1988, Gupta et al., 1991; Rai, 1993; Panjwani et. al., 1995; 1996 and Chugh, 1997), there are no published studies that focus upon its efficacy as a treatment for mental health problems. The present study is, therefore, aimed at filling this gap in the published literature by examining the efficacy of

its practice in the treatment of anxiety and depression. Thus the present study comprises of a quantitative evaluation of the efficacy of the practice of Sahaja Yoga as a 'treatment' for anxiety and depression, including a comparison to a more traditional cognitive-behavioural (CBT) treatment program. To this end the present research aims to compare the effectiveness of three groups of participants following their referral for help with anxiety and depression; namely a Sahaja Yoga meditation group, a CBT group and a 'waiting list control' (no treatment) group.

The general question that the present study is aimed at answering is, therefore: "Is participation in a Sahaja Yoga meditation group an effective treatment for anxiety and depression?" as well as "How does Sahaja Yoga compare to other 'standard' treatments (i.e. CBT)".

1.5.2 Hypotheses

The specific hypotheses of the study are as follows;

1. Those participants taught Sahaja Yoga meditation will show a significant reduction in symptoms of both anxiety and depression.
2. Those participants taught Sahaja Yoga meditation will show a significantly greater improvement in their symptoms than 'waiting list control' participants.
3. Those participants in the CBT group will also show a significantly greater improvement in their symptoms than 'waiting list control' participants.

[18] Perhaps Buddhism is a possible exception here with a variety of theoretical papers on Buddhist thought having been published (e.g. De Silva, 1984; 1990).

4. Those participants taught Sahaja Yoga meditation will show an improvement in symptoms that is at least as large as those participants who received CBT.

2

Methods

2.1 Overview

The present study involves the comparison of three groups of participants. These three groups consist of two treatment groups and a 'waiting list' control group. The two treatment groups consisted of a Sahaja Yoga meditation group and a cognitive-behavioural (CBT) anxiety management group. The trial was conducted at a social services run group work centre, called the Victory Centre, in Exeter, Devon.

2.2 Design

The present study uses a 'quasi-experimental' (see Cook and Campbell, 1979) comparison of 3 independent groups in order to evaluate the effectiveness of a Sahaja Yoga meditation group as a treatment for anxiety and depression.

Random allocation to group was not feasible, due to the use of a waiting list control, whilst random allocation to treatment group was deemed to be clinically inappropriate (see below under 'selection and allocation'). As a result the design is quasi-experimental and uses pre-, as well as, post-treatment collection of the dependent measures to help

identify any non-equivalence between groups present at pre-treatment. This is the course of action recommended by Cook and Campbell (ibid.).

2.3 Participants

2.3.1 Selection and allocation

Participants were chosen from referrals to the Victory Centre and came from a variety of sources, including GP's Clinical Psychologists and Psychiatrists as well as internal referrals and reviews.

The inclusion criteria for participation were that all participants were assessed, by staff at the Victory Centre, to be primarily suffering from recognised symptoms of 'anxiety', with or without symptoms of depression as well. Participants who were assessed to be a significant suicide risk, or who showed any signs of either psychosis or an obsessive compulsive disorder, were specifically excluded, as were people taking major tranquillisers (the specific criteria used can be viewed in Appendix II).

The control group was a 'waiting list control' and therefore consisted of people who had already been referred into an anxiety management group at the Victory Centre and were waiting for it to start. Random allocation to the control group was, therefore, not possible.

Whilst random allocation to treatment group was considered, as a methodological ideal, it was felt that *discriminative criteria* should be used to allocate participants to treatment group. This was due to the very different nature of the CBT-based anxiety management group and the Sahaja Yoga meditation group, which meant that random allocation could result in a (possibly 'damaging') clash between participant 'style' and treatment type. The following discriminative criteria were therefore drawn up and used:

A.) Discriminative criteria for inclusion in the Sahaja Yoga treatment group

- People who are psychologically reflective and therefore capable of internal reflection/introspection. People happy 'looking inwards'.
- People who are happy sitting quietly without talking.

B.) Discriminative criteria for inclusion in the CBT based treatment group

- People who have a more concrete, outward-looking and perhaps physical understanding of themselves and the world.
- People who would not be happy sitting quietly without speaking.

It is noteworthy here that the above criteria appear to be similar to Eysenck's (see Eysenck and Eysenck, 1975) notion of introversion/extroversion as used in the Eysenck Personality Questionnaire (EPQ) (ibid.). This is an important observation as the Introversion/Extroversion Scale of the EPQ has proved to be orthogonal to, or independent from, the Neuroticism Scale. As a result the discriminative criteria used for

allocation to treatment group should not, in and of themselves, result in differences between treatment groups in terms of the initial severity of anxiety symptoms, or disorder.

2.3.2 Sample size

In order to determine a minimum appropriate sample size a power calculation was performed. This calculation was based upon Kirk's (1982) treatment of ANOVA designs, and shows that, using fairly stringent criteria, a sample size of 30, i.e. 10 per group, produces a power of 0.8, which is generally considered to be sufficient (ibid.). Therefore a total sample size of 30 participants was aimed at.

To determine the above the tables on p.870 (taken from Bratcher, Moran and Zimmer, 1970) were used, with alpha=0.05. In order to arrive at a given power a value of C (the difference in means, accepted as significant, expressed in terms of the standard error) has to be decided upon, however the value of C is arbitrary, there being no *mathematical* grounds upon which to determine a suitable value, and little guidance is given by Kirk (ibid.).

The above analysis used C=1.50, which is towards the stringent end of the values tabled by Kirk (ibid.). Clearly the larger the value of C chosen the larger any difference in means will need to be to detect an effect. If C is set at 1.75 (the mid value in Kirk, ibid.) this yields a minimum sample size of 24 in order to achieve a power of 0.8.

The sample size actually achieved in the present study was 24. Given the analysis in Kirk (ibid.) this would still seem to be an acceptable size (again providing a power of 0.8 at the alpha=0.05 level for three groups when C=1.75 (the mid value tabled by Kirk, ibid.))[19] although admittedly it is towards the minimum end of what can be considered sufficient, and it would have been more satisfactory to have achieved a sample size of 30 thus enabling the use of a more stringent value for C (i.e. with C=1.5).

2.3.3 Sample composition

In total 24 participants completed the study from an initial 45 people who were 'referred' into it, with 28 of those 45 actually participating. Thus only 3 people actually 'dropped out' of the study (one from the Sahaja Yoga group, and two from the control group[20]). Of these 24, eight were in the Sahaja Yoga group, 10 in the control group and six in the CBT group.

The gender distributions, mean ages, standard deviations and ranges, in years, for each group are shown in table 1 over leaf.

[19] Kirk's (ibid.) analysis assumes equal group sizes and thus relates two three groups of eight participants. Thus the CBT group (with only six participants) will suffer from a lower power than that quoted above.
[20] Both control participants failed to return the last set of evaluation questionnaires, whilst the Sahaja Yoga participant attended one group session only, saying that it 'wasn't for him'.

	Sahaja Yoga	CBT	Control
Mean Age (years)	37.13	39.17	37.00
Standard deviation	8.48	2.56	7.60
Range	27-49	36-43	27-53
Female (n)	6	2	6
Male (n)	2	4	4

Table 1. Means, standard deviations, range of ages and gender N's, by group.

2.4 Ethical procedures

Local ethical committee approval for the present study was sought and, after some changes to the treatment protocol (see below under 'Procedure'), received (see Appendix III).

All relevant GPs were informed of their patients involvement in the study and all participants in the treatment groups completed consent forms and received a patient information sheet (again see Appendix III).

2.5 Measures

In order to evaluate any changes in 'symptom severity' during the course of this study both the Hospital Anxiety and Depression scale (HADs; Zigmond and Snaith , 1983) and the twelve item General Health Questionnaire (GHQ-12), a shortened version of the original GHQ-60 (Goldberg, 1978), were used.

2.5.1 The HADs

The HADs is a 14 item self-rating scale commonly used to assess the severity of anxiety and depression in diagnosed patients (HADs; Zigmond and Snaith , 1983). Reliability studies, with clinical populations, (Clark and Fallowfield, 1986; Moorey et. al., 1991) have shown a high degree of internal consistency. Test-retest reliability, with healthy samples, has also been shown to be high (see Snaith and Zigmond, 1994).

A good variety of validity studies have been conducted which show a range of, usually high, correlations between HADs scores and other measures of anxiety and depression (see Zigmond and Snaith, 1983; Snaith and Taylor, 1985; Aylard et. al., 1987; Bramley et. al., 1988; Moorey et. al., 1991; Snaith and Zigmond, 1994).

The HADs produces two separate overall scores, one for depression (HADs depression) and one for anxiety (HADs anxiety), ranging from 0-21 each, with higher scores indicating higher levels of distress (scores of 8-10 are referred to as 'mild', 11-14 as 'moderate' and 15-21 as 'severe' (Snaith and Zigmond, 1994)).

2.5.2 The GHQ-12

The GHQ-12 is a shortened version of the original 60 item General Health Questionnaire, which is a self-rating scale used to detect non-psychotic psychiatric disorder in people in community and medical settings (GHQ (60); Goldberg, 1978). Again reliability studies, on clinical populations, have shown high levels of internal consistency, indeed only

slightly below those of the full length GHQ-60 (see Johnston, Wright and Weinman, 1989). Test re-test reliability studies have been conducted and report high levels of temporal stability (ibid.). As well as this a wide variety of validity studies have also been published that again report generally high correlation between GHQ scores (in all of its' variations) and other measures of psychiatric disorder (ibid.).

In the present study the GHQ-12 was chosen as a supplement to the HADs as it is understood to be a reliable indicator of clinically significant non-psychotic mental disorder, in general, and is not restricted, as the HADs is, to symptoms of anxiety and depression.

The GHQ-12 was scored as a likert scale, rather than the alternative 'GHQ scoring', as this produces a more sensitive measure of symptom severity. This produces scores ranging from 0-36 with higher scores indicating higher levels of distress.

2.6 Procedure

To reiterate the study uses three independent groups, two being treatment groups and one a waiting list control group.

Symptom severity was measured both before the start of treatment (as the very first task of both treatment groups) and post treatment (as the very last task of both treatment groups), with the control group participants being posted the questionnaires at the

appropriate times. All three groups ran concurrently with data being collected within the same two week period[21] at both pre and post-treatment intervals. Each group is described below;

a.) Anxiety management group

The anxiety management group consisted of a pre-existing six week, two hour long group regularly run at the Victory Centre that uses a cognitive-behavioural approach to helping people cope with the symptoms of anxiety. A more detailed outline describing the areas covered by this group can be found in Appendix IV.

b.) Sahaja Yoga meditation group

This group again consisted of a two hourly six week program[22]. It aimed to teach the participants the essential aspects of meditation as understood within the 'theory' of Sahaja Yoga. However due to the concerns of the local ethics committee the final agreed protocol involved teaching the meditation as a 'technique' with all explicit references, and contextual material, related to religious practice removed. Again an outline describing the areas covered by this group can be found in Appendix IV.

This 'stripped down' version of Sahaja Yoga was deemed to be sufficient as it kept the essential elements of the practice in tact, i.e. the use of seven inner qualities in

[21] Both treatment groups ran on the same day and thus data collection was within hours of each other. As the control group were posted questionnaires they inevitably incurred greater variability in the time of response.

meditation (corresponding to the Chakras), a left and right side (corresponding to left and right channels), as well as the use of an internal motherly energy used to purify, or bring about the fruition of, these qualities within the 'meditator'.

c.) Control group

The control group consisted of individuals who had already been referred into one of the Victory Centre's pre-existing treatment groups and who were waiting for this group to begin. Thus these were either individuals who had been referred into the next six week anxiety management group, or into an alternative, and longer, twelve week anxiety management group also run regularly at the Victory Centre. Again the inclusion/exclusion criteria used were the same as for the two treatment groups.

The control group were posted the HADs and GHQ-12 questionnaires four days before the treatment groups were due to complete them, and asked to fill them out and return them within one week. In practice all control group questionnaires were collected within two weeks of the corresponding treatment group questionnaires.

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[22] The treatment period stretched across Christmas for which there was a two week break and thus the study lasted for nearly two whole calendar months rather than the six weeks of actual 'treatment time'.

3

Results

3.1 Overview

The following results are broken into four main sections, the first being a description of the research population, the second an analysis of any pre-treatment differences between groups, the third an analysis of treatment effects and the last a look at whether the results support the stated hypotheses of the study. All data was analysed using SPSS-6 computer software.

3.2 Pre-treatment comparisons

Due to the lack of randomised allocation to group (either treatment or control) it is necessary to ensure, where possible, that no significant pre-treatment biases exist between the three research groups. To this end one way ANOVAs were used to compare ages and 'symptom severity' between groups at the start of the treatment trial, whilst chi-squared tests were used to look for any significant differences in gender composition of the groups, as well as the sample as a whole.

The results showed no significant differences between groups for age ($F(2,21)=0.20$, $p=0.82$), and analysing the distribution of sexes in the sample showed that there were no significant gender differences between groups (Chi-squared (Pearson)=2.47, d.f.=2,

p=0.29) nor a preponderance of one gender in the sample as a whole (Chi-squared (Pearson)=0.67, d.f.=1, p=0.41).

Equally no significant pre-treatment differences between groups for any of the 'symptom severity' measures were found (HADs anxiety F(2,21)=0.40, p=0.68; HADs depression F(2,21)=0.15, p=0.86; GHQ-12 F(2,21)= 0.85, p=0.44). The means, standard deviations and ranges of each of these variables is shown below in table 2.

	Sahaja Yoga	CBT	Control
HADs anxiety			
mean score	12.25	14.17	13.80
standard deviation	4.06	4.88	4.44
range	7 - 20	7 - 19	5 - 19
HADs depression			
mean score	7.25	8.17	8.10
standard deviation	3.58	4.17	3.60
range	0 - 11	2 - 15	1 - 14
GHQ-12			
mean score	18.75	24.33	19.70
standard deviation	7.17	8.55	9.14
range	10 - 32	11 - 35	5 - 35

Table 2. Means, standard deviations and ranges of pre-treatment scores, by group.

3.3 Analysis of treatment effects

3.3.1 Overview

In this section treatment effects are analysed using both MANOVA and repeated measures ANOVA tests. Prior to the analysis, the statistical assumptions of these procedures are discussed and applied to the present data where necessary. As well as ANOVA and MANOVA, graphs are used to illustrate any effects found and independent t-tests used for specific comparisons.

3.3.2 Statistical assumptions

Both MANOVA and ANOVA assume, and in some instances require, that the data comply with a range of assumptions and necessary conditions. These conditions are reviewed below.

1. That the data within each cell of the analysis be normally distributed. Whilst both MANOVA and ANOVA are fairly robust to violations of this condition if it is the result of skew, they are both highly sensitive to outliers, the presence of which can cause both type I and type II errors with no indication from the analysis that this has occurred (see Tabachnick and Fidell, 1989[23]). It is therefore important to check the data for outliers prior to analysis (ibid.).

2. Both MANOVA and ANOVA assume that the data exhibit homogeneity of variance between the individual cells in the design (see Howell, 1997;

[23] Whilst a 3rd edition is in print (Tabachnick and Fidell, 1996), it was not readily available to me at the time of writing and I have thus used the 2nd edition for reference.

Tabachnick and Fidell, 1989), however both tests are reasonably robust against violations of this assumption, for example with ANOVA variances can vary by as much as a factor of four and still be usable (Howell, 1997). Furthermore SPSS-6 incorporates a range of tests to check for homogeneity of variance when using both MANOVA and ANOVA tests.

3. That there be independence of observations. This is primarily a question of research design, with which, unfortunately, the present study does not wholly comply (due to its use of group treatment) and will be considered in the discussion.

4. That N's be equal between groups. Due to the difficulty of ensuring that group N's start and remain equal in any study a variety of corrections have been developed for violations of this assumption (see Tabachnick and Fidell, 1989; Pagano, 1994; Howell, 1997), SPSS-6 tackles this by calculating a UNIQUE SS.

5. Finally repeated measures ANOVA assumes that the data exhibit 'sphericity'. Sphericity derives from another particular homogeneity assumption, specific to repeated measures designs, called *homogeneity of treatment difference variances* (see Maxwell and Delaney, 1990, p.471), and refers to the assumption that the population covariance matrix has a certain form (called *sphericity*, or *circularity*, ibid.). However, as Maxwell and Delaney point out, for all practical purposes

sphericity is only definable using matrix algebra, and thus to render their analysis more comprehensible they, along with other authors (e.g. Howell, 1997), use a specific case of sphericity, called *compound symmetry*, in their book[24].

I therefore do not intend to provide a detailed analysis of such a technical area here, and would instead refer the interested reader to both Maxwell and Delaney (1990), and Winer et. al., (1991). I will simply say that, again, SPSS incorporates a statistic to check for significant departures from this assumption and that these statistics will be utilised[25].

As we can see from the above, SPSS-6 provides a range of statistical procedures to check most of the above assumptions for significant violation, however it does not check for outliers. As a result box plots for each cell of the proposed analysis were produced, and can be seen in Appendix V. These showed there to be one outlier[26] (subject no. 9 in the CBT group, pre-treatment HADs depression score). This point was not the result of an error in data recording but represents a real part of the variance of the intended sample. In such instances Tabachnick and Fidell (1989) recommend that the outlying case be changed and assigned a score...

[24] A full analysis of sphericity, rather than the simpler compound symmetry, can be found in Winer, Brown and Michels (1991, pp.239-246)

[25] Having said this the tests available are less accurate with small N's (as is the case in the present study), however there are no alternative solutions within a repeated measures ANOVA (see Howell, 1997).

[26] SPSS-6 defines an outlier as a point which lies between 1.5 and 3 boxlengths (i.e. the interquartile range) away from the edge of the box.

"... one unit larger (or smaller) than the next most extreme score in the distribution." (ibid., p. 70).

Due to the 'discomfort' of simply changing a score because it does not fit the analysis, even though it represents a genuine part of the variance, in what follows I shall report two analyses wherever this data point is involved; one with it transformed to a score one unit higher than the next most extreme score (from a HADs depression score of 15 down to one of 10) and one with it left in unchanged. As we shall see changing the data point has a negligible effect on the results produced.

3.3.3 Treatment effects

3.3.3.1 Rationale

The primary purpose of this analysis is to determine whether there is a therapeutic treatment effect evident in the data, in other words whether the treatment groups show a significantly greater reduction in 'symptom severity' than the control group.

In order to determine this several stages of analysis are used. Firstly a MANOVA is conducted in order to determine whether any significant effects are present within those variables used (i.e. HADs anxiety, HADs depression and GHQ-12 scores). Following this ANOVAs are used to determine which variables are producing any effects discovered.

Using these tests a significant therapeutic treatment effect will create a significant 'group by time' interaction effect. However a significant 'group by time' interaction only tells

us that across time the mean 'mental health indicators' (i.e. both the HADs measures and the GHQ-12) for each group change in significantly different ways. Therefore any significant effects that are found to be present will be investigated further with the use of graphs and independent t-tests. Independent t-tests allow us to conduct specific group comparisons in order to identify precisely where any significant differences lie.

3.3.3.2 Data analysis

Leaving the outlier in place, a MANOVA, including the pre- and post-treatment variables for HADs Anxiety, HADs Depression and GHQ-12 scores, reported there to be no significant differences in the covariance matrix (Boxs M=26.69, $F(21,830)=0.72$, $p=0.81$), allowing the legitimate use of Wilks' Lambaba (see Tabachnick and Fidell, 1989), and showed there to be a non-significant main effect of 'group' ($F(6,38)=1.22$, $p=0.32$), a significant main effect of 'time' ($F(3,19)=19.90$, $p<0.0005$) and a significant interaction of 'group by time' ($F(6,38)=2.90$, $p=0.02$).

If the outlier is changed, to one unit higher than the next most extreme point, then the analysis shows the following results;

> Boxs M=26.69, $F(21,830)=0.72$, $p=0.81$, non-significant main effect of 'group' $F(6,38)=1.46$, $p=0.22$, significant main effect of 'time' $F(3,19)=19.70$, $p<0.0005$ and significant 'group by time' interaction $F(6,38)=3.10$, $p=0.014$.

Thus changing the outlying point has little effect on the actual numerical results and no effect on their statistical significance at the usual 0.05 level. I will therefore use the more conservative results reported here, with the outlier left as is, in any future discussion.

As a result of the significant 'group by time' interaction and the 'time' main effect, a series of repeated measure ANOVAs (one for each individual variable, i.e. HADs anxiety, HADs depression and GHQ-12 scores) were conducted to identify which variables were responsible for this effect. The results were as follows;

For all three repeated measures ANOVAs tests of sphericity and homogeneity of variance showed there to be no significant violation of ANOVAs assumptions, for the sake of brevity and clarity these results are not shown here but can be viewed in Appendix V.

All three analyses showed the same pattern of results as the MANOVA, these being a non-significant main effect of 'group' (HADs anxiety $F(2,21)=1.37$, $p=0.28$; HADs depression $F(2,21)=1.25$, $p=0.31$; GHQ-12 $F(2,21)=2.73$, $p=0.09$), a significant main effect of 'time' (HADs anxiety $F(1,21)=28.79$, $p<0.0005$; HADs depression $F(1,21)=9.42$, $p=0.06$; GHQ-12 $F(1,21)=43.30$, $p<0.005$) and a significant 'group by time' interaction (HADs anxiety $F(2,21)=5.84$, $p=0.01$; HADs depression $F(2,21)=3.46$, $p=0.05$; GHQ-12 $F(2,21)=7.13$, $p=0.004$).

Changing the outlier in the analysis of HADs depression scores has little effect, again producing a non-significant main effect of 'group' ($F(2,21)=1.35$, $p=0.28$), a significant main effect of 'time' ($F(1,21)=6.19$, $p=0.021$) and a significant 'group by time' interaction ($F(2,21)=3.55$, $p=0.047$). Again the more conservative result (with the outlier left unchanged) will be quoted from here onwards.

As these results show all three variables show significant main effects of 'time', indicating that group scores change significantly from pre to post-treatment, and significant interactions of 'group by time', indicating that the degree of change is significantly different between groups.

To investigate these differences further graphs of mean scores, by group, for each variable at pre and post-treatment intervals were drawn and are shown over the next couple of pages in Figure 2.

As these graphs show both treatment groups (Sahaja Yoga and CBT) show greater reductions across all measures of symptom severity than the control group, and the Sahaja Yoga group shows a larger improvement, on all measures, than the CBT group.

This indicates that the significant 'group by time' interactions reported above are the result of significant therapeutic treatment effects, however in order to investigate whether

All t-tests[27] showed the same pattern of results; the Sahaja Yoga group showed a significant improvement as compared to the control group (HADs anxiety t=3.20, d.f.=16, p=0.006; HADs depression t=2.46, d.f.=16, p=0.026; GHQ-12 t=4.33, d.f.=16, p=0.001), however the CBT group did not show a significantly greater improvement than the control group (HADs anxiety t=1.44, d.f.=14, p=0.17; HADs depression t=1.15, d.f.=14, p=0.27; GHQ-12 t=1.32, d.f.=14, p=0.21).

When comparing the Sahaja Yoga group to the CBT group no significant differences were found (HADs anxiety t=1.77, d.f.=12, p=0.10; HADs depression t=1.31, d.f.=12, p=0.21; GHQ-12 t=1.85, d.f.=12, p=0.089), although the HADs anxiety and GHQ-12 results are indicative of a trend in the data (p=0.10 and p=0.089 respectively).

3.4 Evaluation of hypotheses

The above results provide strong support for three of the four hypotheses stated at the end of the introduction, namely that

1. Those participants taught Sahaja Yoga meditation will show a significant reduction in symptoms of both anxiety and depression.
2. Those participants taught Sahaja Yoga meditation will show a significantly greater improvement in their symptoms than 'waiting list control' participants.

[27] Again t-tests assume homogeneity of variance and are sensitive to outliers. Using box plots no outliers were discovered and homogeneity tests showed no significant deviation (and can again be viewed in

3. Those participants taught Sahaja Yoga meditation will show an improvement in symptoms that is at least as large as those participants who received CBT.

However they do not lend support to the hypothesis that;

Those participants in the CBT group will also show a significantly greater improvement in their symptoms than 'waiting list control' participants.

Thus, to re-iterate, the three hypotheses related to the efficacy of the Sahaja Yoga meditation group are supported by these results, however the hypothesis related to the efficacy of the CBT group does not find support from these results.

Appendix V)

4

Discussion

4.1 Summary of results

This study has investigated the efficacy of a six week Sahaja Yoga meditation group in the treatment of the symptoms of anxiety and depression. As part of this process comparisons to both a no-treatment 'waiting list' control, and a CBT based stress management group, were included.

To re-iterate the results lend support to the general hypothesis that participants in the Sahaja Yoga meditation group would show a significant reduction in their reported levels of both anxiety and depression, as well as 'non-psychotic psychiatric disorder' in general, over and above that which could be expected due to spontaneous remission. However, surprisingly, they do not lend support to the hypothesis that participants in the CBT based stress management group would show a similar reduction.

This last finding requires some explanation as it is well established that CBT is an effective treatment for anxiety related problems (see Roth and Fonagy, 1996). There are, however, some possible explanations. Firstly whilst we can see from Appendix IV that the group is based on recognisable components of cognitive theory it is also not a standard package but rather uses a collection of material that has a clear cognitive 'bias'

to it. Thus it is hard to compare this group with cognitive treatments reported in other studies.

Secondly the therapist who led the group does not have any specialist training in CBT or its techniques from a recognised professional body. Given the available research into the effect of therapist's level of training on outcome (again see Roth and Fonagy, ibid., for an overview) this, perhaps when combined with the above concerns, could have significantly reduced the efficacy of this group.

Perhaps most importantly, however, the CBT group has the lowest N's in the study and thus may simply not have been a large enough sample to detect any effect. The power calculation used assumes equal group sizes and thus with a total sample size of 24 it was expected that each group had at least eight members. As noted earlier the CBT comparison group had only six members and thus we cannot rule out the possibility that the lack of a significant effect here is the result of a type II error. Given this it would seem unwise to try and draw any firm conclusions relating to this group.

4.2 Interpretation of results

4.2.1 Methodological standards

The question now arises as to how much, or how little, can be deduced from these results in terms of cause and effect, i.e. how much can we say about what produced the reported effects . This ability to comment on cause and effect is commonly termed the 'internal

validity' of a study. Whilst good internal validity is desirable it in turn reduces the 'external validity' of any research, i.e. how much we can generalise from a set of results (see Roth and Fonagy, ibid. for an overview). Whilst this is not the place for a detailed discussion of experimental research methodology, a brief consideration of those elements relevant to the present work is necessary.

The 'gold standard' for research into the efficacy of 'therapy' is the randomised control trial (RCT) where participants are randomly allocated to group and their 'progress' then monitored (ibid.). Ideally such trials should be 'double blind', i.e. both the recipient and the provider of 'treatment' should be unaware as to its nature (control or otherwise). However this methodology has many difficulties when applied to psychological therapy (ibid.).

The most difficult stumbling block is the task of making trials 'blind'. Firstly, and most obviously, it is not possible to deliver psychological therapy in a 'blind' fashion, i.e. therapists clearly have to be aware of the nature of the treatment they provide in order to deliver therapy effectively. Secondly, as Roth and Fonagy point out, finding a placebo activity to use as the control is "... *beset by the difficulty of finding an activity which could be guaranteed to have no therapeutic element, which controls for the effect of attention and which is also viewed by patients as being as credible as the active interventions.*" (ibid., p.18). There is also the ethical dilemma of actively depriving patients of treatment for the duration of any treatment trial, something which ethical

committees have become less willing to do as evidence has accumulated for the general efficacy of therapy (see Elkin, 1994). The solution often utilised has therefore been to use 'waiting list' controls, i.e. individuals naturally waiting for treatment during the treatment trial.

As a result of these difficulties it is only possible for psychological research to *approach* the ideal of a double blind RCT, often by randomly allocating participants to *two active treatment groups only* (Roth and Fonagy, ibid.).

4.2.2 Limitations of the present study

4.2.2.1 Randomisation

Given the above we can see that the present study manages to achieve certain methodological goals, but not others. One problem it has is that it did not utilise randomised allocation to treatment group, but instead used a set of discriminative criteria (see section 2.3.1, p.36) for allocation to treatment group. This method of allocation was chosen due to the concerns of the assessors at the Victory Centre who felt strongly that it would be clinically inappropriate to randomly allocate patients to two such different treatments.

Their main concern was that such a methodology could result in a potentially damaging 'clash' between patients' personal style and the treatment offered. As such their concern was an ethical one, "Is it right to randomly pick a treatment when we can (and it is our

normal practice to) chose what we feel is appropriate for a given person?" Under these circumstances randomised allocation was simply not available to the present study.

The main problem with such a methodology is that it increases the risk of creating 'in-built' group bias, or non-equivalence, and thus the danger that any comparisons drawn may not be of like with like. As a result pre-treatment measures were taken so that a simple analysis of pre-treatment group bias could be conducted, as recommended by Cook and Campbell (1979). As we saw in the results section no pre-treatment bias was detected in either gender, age or the initial severity of symptoms.

Whilst this is clearly only a limited array of variables it includes symptom severity which is the variable of interest in the present research, as well as gender and age which are known to be two important sources of general variation. It would thus seem reasonable to conclude that the lack of any significant group bias in any of these variables indicates that in broad terms the groups examined in the present study were initially equivalent. Thus whilst randomised allocation to treatment group is clearly an ideal that it would have been preferable to include, its absence does not seem to have seriously compromised the internal validity of the present study.

4.2.2.2 Non-independence

A more serious threat to the internal validity of the present study does exist, however, due to the lack of independence of data points in the treatment groups. As Maxwell and

Delaney (1990) point out non-independence in an ANOVA design can result in a *"dramatic"* increase in the probability of type I errors and should thus be avoided (ibid. p. 110-111). When group 'treatments' cannot be avoided they suggest the option of considering the design to be nested, but point out that this requires the use of several groups delivering the same treatment.

Unfortunately there were not enough resources available to the present study to either utilise a nested design, or to deliver treatment on an individual basis[28], or to run multiple (i.e. 8 or more) treatment groups, for each treatment, and consider each one as a single data point. As a result the present study is stuck with this difficulty and thus the results should be interpreted with a certain amount of caution.

Having said this it is true to say that within the research literature within clinical psychology the use of group treatment, or comparison, is commonplace (often due to the nature of the topics under investigation, or to the nature of service delivery) and is certainly not seen to render such research invalid.

For example a quick look at a selection of recent copies of the British Journal of Clinical Psychology reveal several published studies that involve the use of group treatment, or

[28] Furthermore Sahaja Yoga meditation is intended to be practised collectively (again see Descieux, 1998 and Rai, 1993).

comparison, where no account is taken, or mention made, of the problem of non-independence of data points (see Dagnan, Trower and Smith 1998; Cullen and Mappin, 1998; and Peters, Day, McKenna and Orbach, 1999). The publication of these studies in such a prestigious journal clearly shows that the problem of non-independence is not generally seen to render research as meaningless, or too flawed to be of value.

The point here is not to play down the potential threat that non-independence makes to the conclusions that can be drawn from the present research but simply to point out that the present study is not on its own with such difficulties, and is not recklessly abandoning excepted standards.

4.2.2.3 Follow-up data

The lack of follow-up data in the present study is due to the fact that several participants from both treatment groups went on to attend further therapeutic groups at the Victory Centre within one month of the end of the treatment period. This is the result of the Victory Centre's policy of regular review and follow-up following the termination of any of their treatment groups, and would obviously render any follow-up data impossible to interpret.

Indeed the issue of continuing therapy is just one of the many difficulties in interpreting follow-up data in general. In discussing this area Roth and Fonagy (ibid.) note that there are many different ways of measuring whether gains have been maintained after the end

of treatment, and they point out that *".. there is little sign of agreement over conventions that guide both how data is analyzed and how good outcomes are defined over follow-up - both factors that can alter the apparent efficacy of a trial."* (ibid., p.359). They conclude that *"Further work is required to agree on realistic standards by which longer-term outcomes may be judged."* (ibid., p.360).

Returning to the present study it is nevertheless regrettable that follow-up data (of some description) are not available, an absence that should further caution the conclusions drawn from the present study.

4.2.2.4 Clinical significance

Another possible weakness in the present study is that it only considers statistically significant change rather than trying to evaluate clinically significant change. The risk here is that statistically significant change is not necessarily indicative of clinically significant change (see Kukla, 1989).

Again here, however, we encounter the difficulty of definition, "How are we to define clinically significant?". Several approaches have been applied to this problem, such as comparing patient change with normative samples, the use of a pre-determined criterion measure of change (e.g. treated clients should be 2 SD below the mean of the untreated

group, see Jacobson and Truax 1991) or the use of a criterion for recovery, (e.g. a final BDI score of 9 or less, see Elkin et. al., 1989)[29].

All of these criteria would appear to have their flaws. A change to 2 SD below the mean of the untreated group seems somewhat over stringent. For example in the present study such a magnitude of change is not possible with respect to the GHQ-12 (2 SD from the mean is a negative number), with the HADs depression it relates to a score of 0.21 and with the HADs anxiety to a score of 2.94. Thus this would seem to be an unrealistic criterion here.

Perhaps the most suitable solution would be to pre-define clinically significant response to treatment and categorise participants as responders or non-responders as per Elkin et. al., (1989)[30]. In the present study this could be achieved by re-scoring the GHQ-12, using the alternative 'GHQ' scoring, and then using a cut off score of three to define a 'case' (see Johnston et. al., 1989 for the definition of 'cases' using the GHQ-12). Thus anyone with a final score of less than three could be classified as having shown a therapeutic response to treatment, and anyone with a final score of three or more as not having shown a therapeutic response to treatment[31].

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[29] See Kazdin (1994) and Roth and Fonagy (1996) for further discussion.

[30] In effect this appears similar to the solution of comparing patient change with normative samples, i.e. by defining clinically significant change as a return to 'normal' or at least sub-clinical levels.

[31] Using this system 6 of the eight members of the Sahaja Yoga group, two of the six members of the CBT group and two of the 10 members of the control group show clinically significant change.

However in the present study there are four participants (one each from the Sahaja Yoga and CBT groups and two from the control group) who have initial GHQ-12 scores of two or less, thus complicating the picture somewhat. Clearly, then, in the present study it may not be the case that a final score of two or less is indicative of a therapeutic change (or response to treatment). The solution could be to either exclude these participants from the analysis or to add further categories so as to include them (i.e. people who cross the threshold one way (therapeutic) people who cross it the other way (anti-therapeutic[32]), participants who stayed one side (not 'cases') and participants who stayed the other ('cases')). Unfortunately, however, both of these solutions (i.e. either excluding certain data points or using more categories) would render the numbers in the analysis too small to be valid, and thus a full analysis of clinically significant change was not realistically possible.

Despite this some tentative conclusions can be drawn, however, by simply inspecting the data that are available. Taking mean pre-treatment group scores for the HADs measures all groups start with mean HADs anxiety scores high enough to be clearly identifiable as clinically significant (the scores being Sahaja Yoga 12.25; CBT 14.17 and control 13.80 which all fall within the moderate range (see section 2.5, p.42)). At post-treatment these scores had fallen to sub-clinical levels for the Sahaja Yoga group but not for the control group or the CBT group (the scores being Sahaja Yoga 7.63; CBT 11.67 and control 13). This pattern fits with the analysis of statistical significance already reported.

[32] One participant in the control group showed just such a deterioration.

With respect to the HADs depression scores the picture is more vague, principally because the mean pre-treatment group scores do not clearly identify the presence of clinically significant levels of depression in the groups under investigation. Both the CBT and control groups have mean pre-treatment scores only just within the mild range (8.17 and 8.10 respectively) whilst the Sahaja Yoga group has a mean pre-treatment score just below the mild range (7.25). Thus it is harder to argue that the reductions reported by members of the Sahaja Yoga group reflect *clinically significant* change, simply because they did not start with clinically significant levels of depression in the first place.

It would, therefore, appear that the *statistically significant* treatment effect (for HADs depression scores), found for the Sahaja Yoga group, is not indicative of a *clinically significant* treatment effect. This is the result of a 'floor effect', i.e. because initial HADs depression scores were too low, clinically significant change was simply not possible.

If we take GHQ scores, and use the alternate 'GHQ' scoring, again defining a score of three or more to be a 'case' then all three groups have pre-treatment means that are clinically significant (Sahaja Yoga 5.63; CBT 8.33; control 7.10). At post-treatment the Sahaja Yoga group has a sub-clinical mean score (1.13) whilst both the CBT and control

groups' scores remain at clinically significant levels (5.67 and 5.10 respectively). Again this pattern fits with the analysis of statistically significant change already reported.

4.2.2.5 Measures used

One last criticism of the present work could be aimed at the rather 'symptom focused' nature of the measures used. Both the GHQ-12 and the HADs are clearly designed to tap into obvious major subjective symptoms of 'mental illness' and as such they will be blind to other aspects of mental illness, and thus recovery, such as mobility, social function and personal relationships, etc.. Furthermore there is a good deal of replication, and thus redundancy, between these two measures and in this sense it is not at all surprising that the reported effects found follow the same pattern for both scales.

In order to have gained a more diverse measurement of recovery, measures aimed at some of the above mentioned areas could have been employed. For example Kabat-Zinn et. al. (1992) used the Mobility Inventory for Agoraphobia (Chambless et. al., 1985) on top of a range of more classically symptom focused scales in order to assess the degree of mental 'illness' in their participants. Indeed Roth and Fonagy (1996) in discussing measurement techniques in psychotherapy research comment that there is *"some consensus that single measures of outcome are unsatisfactory"* (p.20) and go on to recommend that those measures used should offer;

- Differing perspectives (i.e. those of patient, close relatives or friends, and those of the therapist or independent observers).

- Differing symptom domains (such as affect, cognition and behaviour).
- Differing domains of functioning (such as work and social and marital functioning).

The present study can only claim to have partly achieved the second of these recommendations. Given the resource restrictions of the present study the first recommendation would have been unrealistic and extremely difficult to have met in any meaningful way, however it is true to say that with hindsight it could have been possible to have employed some measures to tap into differing domains of functioning.

It is regrettable that such alternative perspectives were not tapped into, however in organising the research the decision was made to keep things as short and simple as possible for participants. In particular there was concern that too large a battery of questionnaires would significantly reduce the postal returns from control participants. The GHQ-12 was included as well as the HADs as it offered the possibility of analysing clinically significant change. The HADs was felt to be needed as the GHQ-12 would not have provided a clear measure of the degree of either anxiety or depression, instead giving a rather blunt indication of overall non-psychotic 'mental illness'. Perhaps a further measure looking at, say, social functioning should have been included and may not have reduced the postal returns significantly.

4.2.3 Strengths of present study

Whilst the study has many shortfalls, it also certain strengths. Firstly it includes a control group which allows the reported improvements to be measured against the possibility of spontaneous remission, and thus control for a whole range of possible influences upon participant recovery. The fact that the Sahaja Yoga group improved significantly more than the control group[33] would indicate that there is some additional 'active' element involved.

Secondly it has reasonable N's. Excluding the CBT group there are sufficient N's in each group to produce an acceptable level of power.

Thirdly there is complete consistency across all measures regarding the outcome. This goes to make a clear picture of the pattern of change regarding participants' reported symptoms.

Finally there is apparent pre-treatment equivalence between groups which allays to a certain extent any concerns regarding the lack of randomised allocation to treatment group.

[33] There were cases of reported spontaneous remission in the control group.

4.2.4 Overall

It is not easy to arrive at a distilled conclusion given all the issues that are at stake. It would, though, seem reasonable to conclude that there is at least encouraging evidence in support of the statement that participation in the Sahaja Yoga meditation group resulted in significant reductions in levels of reported symptomology over and above that which could be expected from spontaneous remission. Again it is not possible to be more strident given the methodological shortfalls that are present.

Equally it should also be noted that the present study is not able to shed light upon what elements of the Sahaja Yoga meditation group were active in producing this effect. However in fairness to the present work it was never designed to look at therapeutic process but was instead aimed at a more basic level of analysis, i.e. "Will it work?" rather than "How does it work?"

4.3 The present research in context

In this section the present research will be examined in terms of both its contribution to, and place in, the existing literature.

Firstly it is the case that the available research literature into the therapeutic efficacy of Sahaja Yoga is very small indeed (see Rai et al., 1988, Gupta et al., 1991; Rai, 1993; Panjwani et. al., 1995; 1996 and Chugh, 1997) and this is the first study to be conducted into its efficacy as a treatment for mental health problems. Thus in many ways it forms

an important addition to the available literature on the therapeutic efficacy of the practice of Sahaja Yoga and adds to the evidence already available in support of the hypothesis that the practice of Sahaja Yoga is therapeutic. Compared to those studies already published the present research is of similar size[34] and methodology[35].

Outside of this literature, as described earlier, there are an equally small number of contemporary published studies (see Kabat-Zinn et. al., 1992; Pearl and Carlozzi, 1994; Miller et. al., 1995; Astin, 1997) that show the practice of meditation to be of significant therapeutic value in the treatment of anxiety. Most of these studies relate to a practice of 'mindfulness' meditation, however as I argued earlier whilst there are clear differences between the various practises they all aim for a state of consciousness free from thought, or the attachment to thought and are thus broadly similar. The present study can therefore also be seen to contribute to this literature.

Comparing the present study to Kabat-Zinn et. al. (1992) I would argue that the present work is of a roughly similar standard, in that in some respects it is of a better design (there was no control group in Kabat-Zinn et. al.), in size it is very similar (N=22 Kabat-Zinn et. al.; N=24 present study), and in other respects it is inferior (the diagnostic

[34] N's for the other studies are Rai et. al., (1988), N=20; Chugh (1997), N=25; Gupta et. al., (1991), N=18; Panjwani et. al., (1995), N=18; Panjwani et. al., (1996), N=10.
[35] All the published studies report comparisons to control subjects, however the papers that I have direct access to do not detail whether or not randomisation was used.

standards and measures used by Kabat-Zinn et. al. are of a higher standard than those of the present work[36]).

As regarding the other studies (i.e. Putai (1992); Pearl and Carlozzi (1994) and Astin (1997)) the present work has a certain advantage regarding efficacy in 'mental illness' given that it too uses a clinical population, whereas they do not. Where these studies (particularly Astin (1997) and Pearl and Carlozzi (1994)) do have an advantage over the present one is in their use of full randomisation including no-treatment controls. However this advantage is, arguably, due to the reality that the use of full randomisation including no-treatment controls is only really ethically viable with a non-clinical population.

Given these comparisons I would argue that within the existing contemporary literature the present study makes a worthwhile contribution regarding the question of whether meditation, in general, can afford an effective treatment for non-psychotic mental illness.

Looking wider afield we can compare the present work to studies that have evaluated *group psychological treatments in general.* Clearly there is a significantly larger body of literature available here of which a useful summary can be found in Bergin and Garfield (1994), however much of this research is now 20 years old. In respect of this literature the present work is clearly less significant in that it is only one of many studies showing

[36] In Kabat-Zinn et. al. (1992) considerably more care was taken in the assessment and diagnosis of participants to be included in the research, and a greater variety of measures were employed.

that group intervention can provide effective treatment for people suffering with non-psychotic mental illness.

Furthermore Bergin and Garfield (1994) criticise the group psychotherapy efficacy literature for being too outcome focused and non-specific concerning process, arguing that such research leaves too many variables uncontrolled and that it is thus time to turn research attention away from gross measures of outcome and look instead at the finer detail of what elements of group treatment are 'active'. Unfortunately the present study is not able to answer such criticisms as it also has little to say regarding therapeutic process, being purely outcome focused.

Having said this it does seem that Bergin and Garfield (1994) are, at least, rather 'unkind' to the group efficacy literature suggesting that given the lack of understanding of group process a belief in the efficacy of group treatment is "perilously similar" to superstition. They even suggest that a belief in the efficacy of group treatment is similar to the belief that bear fat cures baldness or that hawk blood cures myopia because "... they may have worked some time in the past" (ibid., p.632). Given the number of reasonably well controlled experimental designs that are available regarding group treatment this would seem to be a rather extreme position to take. Surely a lack of understanding about process is not the same as a lack of therapeutic effect.

Overall we can conclude that the present study has something of value to add to both the efficacy literature on Sahaja Yoga in particular and the efficacy literature on meditation in general. In respect of the literature into the efficacy of 'group treatment' in general it seems that the present study has less of importance to say.

4.3.1 The question of process

To continue in this theme it is true to say that it is not clear from the published research is how meditation is able to produce the reported effects. In short none of the published studies have attempted to experimentally examine therapeutic process. This may well be due to the many difficulties in conducting such research to a good standard (see Roth and Fonagy, 1996; Orlinsky, Grawe and Parks, 1994), or it may simply reflect the fact that research into meditation is still at an early stage, that of accumulating evidence concerning whether it is effective or not. Hopefully researchers will move on to examine process as evidence accumulates for the general efficacy of meditative practice.

As noted earlier one promising, and obvious, suggestion is that of Teasdale et. al., (1995), and Astin (1997), who argue that meditation achieves its results in a similar way to cognitive therapy, i.e. through its impact upon cognition, and cognitive processes[37]. Given the aims of meditative practice, combined with the research into cognitive therapies, this would seem to be a very plausible possibility, however it is not so obvious how this theory would explain the findings of the studies that examined physical health

[37] There is good evidence to support the proposal that intervening at the level of cognition forms an effective therapeutic strategy (see Orlinsky et. al., 1994 for a review of research into this area).

problems. It may well be that meditation, and Sahaja Yoga in particular, have their effect via several key routes, with cognition being one of them, or that there is another higher order process at work that can account for all of these changes. From the research available at present it is not possible to say what processes are at work, however.

In summary we can say that the present research forms a valuable, though tentative, addition to the published literature already available into the therapeutic efficacy of meditation in general, and Sahaja Yoga in particular. Clearly more research is needed to examine how these practices achieve these effects.

4.4 Implications for clinical practice

Meditation could have a place in clinical practice. As previously mentioned Teasdale et. al., (1995) note that meditation has many advantages over cognitive therapy, especially in relation to relapse prevention specifically because it can be practised in the absence of cognitive distortion and in any situation. Teasdale et. al., (ibid.) argue that these attributes could go to significantly reduce the possibility of relapse. In support of this suggestion a study by Miller et. al., (1995) presents three year follow-up data on participants from the study by Kabat-Zinn (1992) and shows a maintenance of gains in all 18 subjects who able to be contacted[38].

[38] In the original study there were 22 participants, of which 20 showed a maintenance of gains at three month follow-up. Of the four people for whom data are not available, one declined to participate, one was unreachable and two were 'non-compliant' with attempts to schedule interviews.

Another advantage is that meditation is most amenable to a group setting and thus could save a considerable amount of therapist time. Such groups are simple to organise and run since once the practice has been explained there is little else to actually 'do'. Indeed they also benefit the therapist who gets to join in the meditation and thus also enjoy its benefits too!

One possible disadvantage though is that like other forms of psychotherapy it would seem prudent for meditation 'teachers' to be meditators themselves, certainly this is the case with Sahaja Yoga (see Prakash, 1997). Thus at present there is clearly a shortage of people able to run such groups.

Linked to the above, another barrier to the use of Sahaja Yoga, in particular, as an everyday part of mental health service provision, is the nature of its 'theory'. It is true to say that, in 'Western' healthcare services, the ideas that it presents are unconventional and controversial, and it is no surprise that all the published studies that are available are to be found in Indian journals.

Indeed, as alluded to earlier, the present research encountered considerable resistance during its implementation related largely to the nature of the 'theory' of Sahaja Yoga. Quite simply it was not taken seriously, perhaps because it presented an alien set of concepts which were seen as absurd, and with no personal experience to counter this its proposals were clearly hard to except. It is not obvious to me how this situation might

change, or be moved forward. Having said this, a set of proposals were eventually agreed upon which maintained, to some degree, the essential aspects of the practice. Perhaps these could form the basis of an 'acceptable' version of Sahaja Yoga for future investigation and use within healthcare settings.

It is hard to say whether participants would have echoed the concerns, regarding the original content for the group, that were raised elsewhere. Certainly staff at the Victory Centre were happy for the group to go ahead in its original from and did not find its contents worrying. At this point in time it is not possible to comment on whether clients would have found the original proposals upsetting, or detrimentally challenging, and thus whether such proposals would ever be acceptable.

Whilst many would make the argument that what we need to do is distil those elements that are active in producing recovery and utilise them, disregarding 'unnecessary additions', such as in Segal et. al.,'s Attention Control Training (see Teasdale et. al., 1995), I would argue that for many clients this is not the most helpful way forward. It is perhaps a subtle point but such an approach clearly defines human consciousness within a cognitive model and suggests that by the use of a simple 'trick' we can correct any dysfunction. Whilst this is a perfectly valid model it clearly lacks the 'roots' that are available if we leave these practices in their original context. These roots allow for a much more full, and I would argue satisfying, understanding of ourselves and the world that we live in. They can, and do, provide many people with a moral and meaningful

frame in which to live their lives, and provides them with a 'place' in a meaningful universe. I feel that the value of this should not be underestimated.

Finally a further point of interest here is the fact that the present study was conducted within a 'normal' part of service provision within Devon, and people were referred into it in a 'normal' way. This could be seen to strengthen the external validity of the study, in that if Sahaja Yoga meditation works as a normal part of provision in Devon there is no obvious reason why it shouldn't, and couldn't, work elsewhere.

In summary we can say that meditation groups could form an effective and valuable part of service provision, but that there is clearly some way to go before this could become a reality.

4.5 Future research

Clearly the present study is only a start, replication is essential. Any future replication should attempt to address the shortfalls highlighted in the present work, and would thus need to be a larger and better-resourced study. It would also be of interest to look at the efficacy of Sahaja Yoga in relation to people suffering primarily from depression. Whilst the present results support to some extent the hypothesis that its practice is therapeutic there is doubt, as noted above, concerning whether this result is clinically, rather than just statistically, significant.

Beyond the above it would be interesting to try and evaluate individual elements of the practice, however it would be extremely difficult to experimentally verify hypothesised events such as Kundalini awakening. One way around this might be to use a mixture of qualitative and quantitative methods. For example subjective accounts of the sensations that people felt on their hands could be collected from two groups, a Sahaja Yoga meditation group and a relaxation 'control' group. Whilst this would clearly not experimentally 'prove' Kundalini awakening, it would require some explanation if it turned out that only the Sahaja Yoga group felt a 'cool breeze', or other similar sensations. Equally another option would be to compare the subjective accounts of meditating upon this cool breeze (i.e. concentrating on it) as compared to meditating upon ones heart beat, or breath. Such studies would not necessarily require the use of clinical populations, although it is hard to say how the results would generalise from 'normal' to clinical populations.

Another interesting area for research would be to try and examine the role of detachment, or freedom from thought as an active element in recovery from mental illness. Again it is hard to see how this could be done experimentally, so that lines of cause and effect were clear. Perhaps some form of self rating scale could be devised to see if it predicted recovery, or degree of recovery.

4.6 Conclusion

In conclusion we can say that the present study makes a tentative yet valuable addition to the existing literature to the effect that meditation, and Sahaja Yoga in particular, is a valuable and promising treatment in respect of the symptoms of anxiety as well as depression. The results support more strongly the claim to alleviate the symptoms of anxiety than they do the claim to alleviate symptoms of depression, however this may well be the result of a floor effect in the data.

Whilst it would seem that meditation, and Sahaja Yoga in particular, could form a valuable part of service provision there are clear problems to be overcome before this could become a reality. One potential problem could be a 'clash of cultures', together with a limited number of people able to run such groups. It is possible that the modified version of Sahaja Yoga used for the present research could form a mutually acceptable starting point, although it would still require those leading the group to be meditators themselves. It is also argued that, for many people, the 'roots' of meditative practice are important and inseparable from the act of meditation itself, and that for many clients their removal could be more of a loss than a gain.

Appendix I

The following contains further details concerning the three channels, seven Chakras and the Kundalini.

The three channels

At the top of the right and left channels respectively there exist two 'balloons' of consciousness that are said to correspond to the 'ego', meaning the sense of 'I', and 'superego', meaning the conditioning, or learnt ways of being and thinking, that result from our family, culture and past experiences in general[39]. Thus the 'ego' and 'superego' reflect the totality of what we understand to differentiate ourselves from others, in other words they make up what we think we are. It is thus notable that the Sahasrara Chakra, and thus the state of Yoga and Union, is beyond and above both of these entities. It is also important to note that if these entities become too large (literally) then they block the path to the Sahasrara Chakra.

In their physical form the left and right channels are said to correspond to the left and right branches of the sympathetic nervous system, whilst the central channel is seen to correspond to the parasympathetic nervous system. Thus the meditative aim of reducing the activity of the left and right channels and increasing the activity of the central channel is understood to be synonymous with a reduction in sympathetic activity and an increase in parasympathetic activity. There is some research evidence to support this proposal (see Rai, 1993 and Rai et. al., 1988).

The seven Chakras

1.) Mooladhara Chakra

This centre corresponds to the quality of innocence, and purity. The name means 'root' or 'support' and thus this centre, and the quality of innocence, is understood to literally be the support or root of the whole subtle system, and thus a persons spiritual evolution and well-being. Within the teaching of Sahaja Yoga great emphasis is thus placed upon this Chakra and the personal qualities of innocence and purity, which are understood to be synonymous with the qualities of 'little children'. It is, therefore, this quality that is seen to be at the heart of Christ's insistence that:

> "... *unless you change and become like little children, you will never enter the kingdom of heaven.*" (Matthew, Ch. 18, v. 3).

[39] As far as I am aware the choice of these labels does not reflect any significant theoretical allegiance to, or compatibility with, Freudian theory.

2.) Swadisthan Chakra

This centre corresponds to the quality of 'pure knowledge', as in the knowledge that flows from a persons pure attention rather than the knowledge that is gained from books. 'Pure attention' refers to a focused attention free from thought, or the attachment to thought and is, therefore, seen as an enlightened attention. It is from this 'pure knowledge' that wisdom is understood to come.

The Swadisthan Chakra is also important as it is the centre that governs, or controls, the whole right side. Thus if the right side is in balance it has the quality of a pure, focused, attention, which is, notably, the opposite of the result of an imbalance in the right side which leads to frantic overactivity (both mental and physical) as described above[40]. Another important aspect of this 'pure knowledge' is creative ability which is seen as developing naturally from the awakening of this centre.

3.) Nabhi Chakra

The Nabhi Chakra reflects our 'seeking', whether this be for food, shelter, wealth or spiritual fulfilment. In a similar way to Maslow's hierarchy of needs (see Maslow, 1968; 1970) it is understood that seeking starts with 'lower' needs, or wishes, and works up to the striving for enlightenment, or self realisation[41].

A natural consequence of the Nabhi's 'seeking' is the achievement of satisfaction. Whilst this satisfaction may initially be in transient forms, such as eating a meal or acquiring a desired object, it leads on, ultimately, to the satisfaction of enlightenment, which is understood to be fundamentally different in that it is not transient and does not arise from satiating worldly desires. Thus the ultimate quality of the Nabhi is that of sustained satisfaction.

In addition once this seeking turns to the quest for enlightenment the qualities of the Nabhi are seen to relate to a wider area called the 'void', or 'ocean of illusion' that surrounds the Nabhi.

3a.) The Void

The 'void' or 'ocean of illusion' is a large area described by the 'orbit' of the Swadisthan Chakra around the Nabhi. This area is perhaps best described by the term 'ocean of illusion' (in Sanskrit this area is called 'Bhavasagara') and symbolises the existence of 'Maya', a term referring to the way in which the material world "... obscures the undifferentiated spiritual reality from which it originates" (American Heritage Dictionary, Third Edition, 1992). Thus within this 'ocean of illusion' the seeker of truth, or enlightenment, is seen to be somewhat adrift, at the mercy of worldly desire and passion, perhaps getting caught in the struggle for power, money and influence along the way.

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[40] In this state a persons attention is seen to be at the mercy of their desires and aspirations.

[41] It is entirely possible that Maslow's concept of self actualisation (see Maslow, 1968; 1970) has its roots in the Eastern concept of self realisation.

As a result an essential aspect of the void is that of 'Dharma'. Dharma is a term often used within both the Buddhist and Hindu traditions, and has a related but slightly different meaning within each. Within Hinduism it refers to the concept of correct moral, and religious, conduct, somewhat akin to our concept of 'virtue', whilst within Buddhism it refers to the 'right path' and specifically the eightfold path taught by the Buddha (American Heritage Dictionary, Third Edition, 1992). Having said this an important aspect of the path taught by the Buddha is that of 'virtue', see for example 'The Dhammapada', Ch. 19 (The righteous) and Ch. 22 (The downward course). Thus through the establishment of Dharma (i.e. the virtue, or righteousness, of the 'right path') an individual is seen to be able to steer their way through this 'ocean of illusion'.

It is through this ability to be beyond the entrapment of maya (i.e. the material illusion) that the quality of the void is manifest, namely the ability to be ones own master, or guide. Thus the void is also referred to as the 'Guru tattva', or Guru principle, the Guru being one who is beyond maya. It is now that we can see more clearly how the Nabhi and void relate to one another. It is with the Nabhi's quality of satisfaction, and thus freedom from desire, that an individual is said to become free to be their own master and not the slave of their every whim and fancy.

4.) Heart Chakra

The Heart Chakra relates to the quality of security, or of being free from fear. It is also within the heart that the Spirit, or Divine spark, is understood to exist (for example see Chandogya Upanishad, 8.1, The Upanishads, p.120) and it is from this that the security of the Heart is said to arise (Descieux, 1998). The Spirit is described as "..all that now is and all that is not" (Chandogya Upanishad, 8.1, The Upanishads, p.120), with this knowledge within your heart what would there be to fear?

Therefore, in relation to the present study, suffering from an anxiety disorder would be expected to correlate with a disturbance in this centre. Furthermore the Heart Chakra is also the centre that governs, or controls, the left channel, and thus if the Heart Chakra is badly affected then, equally, the whole left channel would also be expected to be so affected. As noted already an imbalance in the left channel is seen to result in depression, lethargy and emotional distress, and thus the 'theory' of Sahaja Yoga would predict that someone suffering from an 'anxiety disorder' (i.e. an imbalance in the Heart Chakra) would also be highly likely to suffer from 'depression' (i.e. and imbalance in the left channel).

5.) Vishuddhi Chakra

The Vishuddhi Chakra corresponds to the aspect of 'collectivity', in other words the nature of our relationships with others. It is thus a quality of the Vishuddhi Chakra to be compassionate and free from the tussling of dominator/dominated in our dealings with others. This collective quality is seen to follow on from a 'detached' sense of identity, i.e. by not viewing oneself as belonging to any 'artificial' grouping such as nationality,

for example. With such a detached sense of identity the person is described as viewing everyone as a 'brother' or 'sister', i.e. of the *same* family.

The Vishuddhi also corresponds to our communication with others (clearly an important aspect of our relations), such that another quality of the Vishuddhi is that of sweet, kind and reassuring speech.

6.) Agnya Chakra
The Agnya Chakra corresponds to the qualities of forgiveness and thoughtless awareness. It also represents the 'gateway' to the Sahasrara Chakra the path to which is usually blocked by the 'ego' and 'superego', in other words our individuality, or separateness. Thus it is through the qualities of the Agnya[42] that it is understood to be possible to go beyond our limited selves and attain the state of 'Yoga', said to reside within the Sahasrara Chakra.

7.) Sahasrara Chakra
This centre is understood to correspond to 'The kingdom of God' and represents liberation from the suffering of the individual self. It has the quality of joy and peace.

In their physical form the Chakras are understood to correspond to the major nerve plexuses along the spinal column, with the petals of each Chakra corresponding to the respective sub-plexuses (see Rai, 1993).

Kundalini
The sensations that can be felt on the hands and feet, that are said to come from Kundalini (once she has been awakened), also provide information about what aspects of the subtle system are not in balance. Thus a cool sensation indicates that all is well whilst heat indicates that there is an imbalance. As each finger and each part of the hands (and feet) corresponds to a particular aspect of the subtle system the sensations that are felt are understood to provide information as to the 'status' of respective elements in the subtle system (see figure 1). This process is seen to be the reality behind the prophet Mohammed's declaration that "(after the resurrection)... their hands shall speak to us and their feet shall bear witness of what they earned" (Koran, sura 36, v64).

[42] As mentioned elsewhere the attainment of thoughtless awareness, or detachment from thought, is widely seen as essential in order to attain the state of 'Yoga'. Within this practice of meditation the ability to forgive is also seen as essential in going beyond our limited selves (i.e. the 'ego' and 'superego') (see Descieux, 1998).

Appendix II

The following inclusion/exclusion criteria (taken from ICD-10) were used for all three groups.

Inclusion Criteria

Symptoms of anxiety

- Nervousness
- Panic attacks (acute episodes resulting in, for example, palpitations, chest pains, choking sensations, dizziness, feelings of unreality, plus associated fears of immanent death, loss of control, or madness)
- Specific fear, and avoidance, of objects situations or places
- Autonomic overactivity (sweating, tachycardia, tachypnea, epigastric discomfort, dry mouth, frequent urination, dizziness etc.)
- Motor tension (inability to relax, restless fidgeting, headaches)
- Apprehension (persistent worrying about possible future misfortunes).

The above with or without:

Symptoms of depression

- Low mood
- Loss of interest/enjoyment in previously pleasurable activities
- Reduced energy/activity
- Reduced appetite (possibly with weight loss)
- Disturbed sleep (often early waking with an inability to get back to sleep)
- Bleak view of future
- Feelings of guilt/unworthiness

Exclusion criteria

People showing symptoms of 'psychosis', to include;

- Auditory, visual or olfactory hallucinations (e.g. hearing voices, seeing 'visions').
- Delusional beliefs (a perception that situations, people or objects have some specific, often sinister, meaning clearly directed at the individual)
- Thought disorder; including thought insertion, broadcasting or withdrawal
- 'Made' feelings, acts or impulses

Or any of the following;

- Obsessive *intrusive* thoughts with or without compulsive ritualistic behaviour
- People taking major tranquillisers (i.e. neuroleptic or anti-psychotic medication)
- Significant risk of suicide.

Appendix III

Approval from the Exeter research ethics committee, consent form, patient information sheets and G.P. information sheets.

Exeter District

COMMUNITY HEALTH SERVICE

■ NHS TRUST ■

Exeter & District Community Health Service NHS Trust, Newcourt House, Old Rydon Lane, Exeter, Devon EX2 7JU
Telephone 01392 449700 Facsimile 01392 445435

Dr. P. Gentle,
Exeter Research Ethics Committee,
Department of Medical Affairs,
RD&E (Wonford) Hospital,
Barrack Road,
EXETER EX2 5DW

Please ask for: *Jeanette Newman*

Direct Dial Tel.: *01392 449761*

Date: *1st October 1998*

Dear Peter,

Re: STUDY 1062 EVALUATION SAHAJA YOGA: A PILOT STUDY

Thank you for sending me the above Study on behalf Mr. Morgan. I am writing to advise you that I hereby give my approval on behalf of the Exeter & District Community Health Service NHS Trust.

With kind regards.

Yours sincerely,

EXETER MEDICAL RESEARCH ETHICS COMMITTEE
-6 OCT 1998
STUDY No. .....

DR. VAUGHAN PEARCE
Medical Director

Working for a Healthier Community

Consent form

Study Title: Evaluating Sahaja Yoga.

	Please delete as necessary
Have you read the Patient Information Sheet?	Yes / No
Have you had an opportunity to ask questions and discuss this study?	Yes / No
Have you received satisfactory answers to all your questions?	Yes / No
Have you received enough information about the study?	Yes / No

To Whom have you spoken? .....

Do you understand that you are free to withdraw from the study:

- At any time?
- Without having to give a reason for withdrawing?
- And without affecting your future therapeutic care? Yes / No

Do you agree to take part in this study? Yes / No

Signed ..... Date .....

(Name in block letters) .....

Signed (Researchers) ..... Date .....

Patient information sheet 1

Study title: Evaluating Sahaja Yoga

This study is aimed at evaluating the effectiveness of the meditative practice of Sahaja Yoga as a treatment for mild to moderate mental health problems. The treatment involves participating in a Sahaja Yoga meditation group for a period of 6 weeks. As a group member you will be taught the techniques of Sahaja Yoga meditation. It will also be necessary to develop a daily practice of meditation (approximately 10-15 minutes a day) for the duration of the group. As well as this you will be asked to complete two questionnaires both before the start of the group and once it has finished. Both questionnaires together take 10 minutes to complete.

The potential risks of this treatment are the same as for all group therapy, namely that you may find being in a group uncomfortable. If that is the case then individual counselling can be offered to you.

The potential benefits for you are a reduction in mental distress and learning a means of coping with such distress in the future. Research already conducted indicates that meditation can provide an effective treatment for anxiety and depression.

There is no obligation to participate in this study and if you do not wish to do so then this will in no way affect your future treatment or relationships with staff.

If you do chose to participate you may withdraw from the study at any point, without explanation and again without effecting your future treatment or relationships with staff in any way. Equally participation in this study will not affect your future care, once you have completed the meditation group, in any way.

Under new EC regulations data collected during this study can be given to the Department of Health, and possibly to similar authorities in other countries, however information from which you may be identifiable, will be kept strictly confidential.

If you wish to know more about this study then please ask and we will arrange for you to talk to someone.

If any questions arise during the study then you can discuss these with Adam Morgan at the psychology department (Tel. 01392 - 403170), or Tony Kuhl at the Victory Centre (Tel. 01392 - 383788).

Thank you for your time.

Patient information sheet 2

Study title: Evaluating Sahaja Yoga

At the present time I am conducting some research into the effectiveness of a meditative practice called Sahaja Yoga as a treatment for mild to moderate mental health problems. As a part of this study I am comparing the effectiveness of Sahaja Yoga with more traditional group therapies. If you are reading this it is because you have been referred into one of the Victory Centre's stress management courses that I would like to use as a comparison. If you are to participate in this study then you will be asked to complete two questionnaires both at the start of the group and once it has finished. Both questionnaires together take 10-15 minutes to complete.

Your referral into the stress management group is not as a result of this study but is due to how staff at the Victory Centre perceive your needs. The only way in which this study changes the care you would normally receive is by asking you to fill out the above mentioned questionnaires.

There is no obligation to participate in this study and if you do not wish to then this will in no way effect your future treatment or relationships with staff. Equally participation in this study will not effect your future care in any way.

If you do chose to participate you may withdraw from the study at any point, without explanation and again without affecting your future treatment or relationships with staff in any way.

Under new EC regulations data collected during this study can be given to the Department of Health, and possibly to similar authorities in other countries, however information from which you may be identifiable, will be kept strictly confidential.

If you wish to know more about this study then please ask and we will arrange for you to talk to someone.

If any questions arise during the study then you can discuss these with either Adam Morgan at the psychology department (Tel. 01392 - 403170), or Tony Kuhl at the Victory Centre (Tel. 01392 - 383788).

Thank you for your time.

GP Information Sheet

This is too inform you that ..... is participating in a research project being run at the Victory Centre in Exeter. The project is aimed at evaluating the meditative practice of Sahaja Yoga as a treatment for mild to moderate mental health problems, primarily anxiety and depression.

Participation in this study involves completing a 6 week meditation group, as well as completing the HADs (Hospital Anxiety and Depression Scale) and GHQ-12 (12 item General Health Questionnaire) at the start and end of the group.

Participation in this study will in no way effect your patients future care at the Victory Centre.

If you have any questions regarding this then please contact Tony Kuhl at the Victory Centre on Tel. 01392 - 383788, or Adam Morgan at the psychology department on Tel. 01392 - 403170.

Appendix IV

Research protocols for the Sahaja Yoga and CBT groups.

Research Protocol for Sahaja Yoga meditation group

The Sahaja Yoga treatment group will last for six weeks. The following covers those topics that I intend to cover in this time. The topics are in order and represent an introduction to the practice of Sahaja Yoga. The first week and last week's session will last an hour and a half whilst all other weeks will last one hour.

Week 1
Fill out GHQ-12 and HADs. (10-15 minutes).

1). Introduction: Confidentiality, 'house-keeping' at the Victory Centre (i.e. toilets, tea and coffee etc.), introduction of group members. (10 minutes)

2). Evidence re. meditation and mental health: Promising research re. meditation and anxiety/depression, research on Sahaja Yoga specifically. The present research. (10 minutes)

3). Brief introduction to Sahaja Yoga: The 'ladder of qualities' to be used in guiding meditation and the concept of an internal nurturing energy as follows.

The 'ladder of qualities'

Sahaja Yoga uses a 'ladder' of qualities to help guide our attention in meditation. This ladder contains seven rungs with each rung corresponding to a quality to be considered in meditation (see figure 1 below).

The process of meditation then involves considering these qualities in turn as our attention is guided slowly up from the base of the spine to above the head. Each rung on the ladder thus forms a stepping stone as the attention is raised to the area above the head. Whilst raising the attention up the spine the desired goal is to keep your attention located centrally along the spinal column (corresponding to the centre of each rung on the ladder) rather than letting it (i.e. your attention) fall to either the left or the right side (corresponding to the left and right legs of the ladder).

Figure 1.

The concept of a nurturing energy

Sahaja Yoga also uses the concept of a motherly nurturing energy within us. This concept is used in meditation when we consider the seven qualities mentioned above. We address this concept within us in respect of each quality by requesting it to bestow upon us the quality in question. An example for each of the seven qualities (in the order they will be considered) is given overleaf:

i.) Please make me innocent
ii.) Please make me wise
iii.) Please make me satisfied
iv.) Please make me fearless
v.) Please make me compassionate
vi.) Please make me forgiving
vii.) Please make me joyful

The object of meditation is thus to raise ones attention to the area just above the head (corresponding to the quality of joy) in order to achieve the state of thoughtless awareness.

This session will also include mention of the importance of trying to establish a daily practice of meditation, preferably at least 5 minutes in the morning and 10 minutes in the evening.

It will also contain a mention that adopting a relaxed attitude towards the practice is recommended, i.e. not to use any aspects of the practice that feel uncomfortable. This will also include a re-iteration of the Patient Information Sheet that states that anyone who feels uncomfortable with the meditation or information presented in the group is entirely free to leave without affecting their future treatment by the Victory Centre in any way.
(30 minutes in total for section 3)

4). Introductory meditation involving turning ones attention inward and then asking the motherly energy (silently within oneself) to bestow the state of thoughtless awareness followed by holding the attention above the head. De-brief/feedback (25 minutes).

5). Questions (cup of tea/drink for anyone who wants one).
(10-15 minutes).

Total 80 minutes (approx).

Week 2
1). Feedback from week 1 and intervening week followed by a full meditation that considers each of the seven qualities in turn as described above. De-brief/feedback.
(30 - 40 minutes in total).

2). Questions (cup of tea/drink for anyone who wants one).
(10-15 minutes).

Week 3.
1). Feedback from week 2 and the intervening week, followed by a meditation.
(25-30 minutes).

2). Introduction to the use of hand movements to guide raising the attention before and after meditation as well to preserve the state of meditation. These hand movements are described below:

Raising the attention.
Begin with the left hand in front of the body at the level of the abdomen, palm facing towards the body. While rotating the right hand around the left hand, move the left hand up the front of the body and over the head. Use this movement three times.

Preserving the state of meditation
Place the left hand at your side at the level of the waist with the fingers pointing forwards. Using the right hand, describe an arc starting at the level of the left hip (where your left hand is) going over the head, down to the right hip and back again. Do this movement seven times.

Week 4.
1). Feedback from week 3 and the intervening week, followed by a meditation. (25-30 minutes).

Exercises for balancing ones attention in meditation so that ones attention stays on the central path described by the middle of each rung on the ladder (and the spinal column on the body) towards the area above the head, rather than the left and right paths of each leg of the ladder. The exercises are as follows:

If the attention falls to the left
Place the left hand palm up on your lap, fingers pointing forwards and your right hand on or pointing towards the ground. Try and hold your attention slightly above your head.

If the attention falls to the right
Place the right hand on your lap palm up, fingers pointing forwards and your left hand pointing upwards palm facing you, at the level of your neck. Try to hold your attention slightly above your head.

3). Questions (cup of tea/drink for anyone who wants one). (10-15 minutes).

Week 5
1). Feedback from week 4 and the intervening week, followed by a meditation. (25-30 minutes).

2). Introduction to the use of the elements to help improve the state of meditation. Fire (i.e. a candle) and earth if the attention falls to the left, and water if the attention falls to the right. These exercises are described below:

Using a candle
Whilst sitting in the position described for "Attention falls to the left" place a lit candle in front of the left hand.

Using water
This involves soaking your feet in cool salty water whilst holding your attention slightly above the head (i.e. meditating) with your hands placed palm up on your lap.
(15 minutes).

3). Questions (cup of tea/drink for anyone who wants one).
(10-15 minutes).

Week 6.
1). Feedback from week 5 and the intervening week, followed by a meditation.
(20-25 minutes).

2). Consolidation of techniques covered so far. To involve a brief overview of the topics so far covered and questions. (15-20 minutes).

3). Mop up and goodbye. Information about Sahaja Yoga in Exeter for anyone who is interested (15-20 minutes).

4). Cup of tea/drink for anyone who wants one.
(10-15 minutes).

5). Fill out GHQ-12 and HADs. (10-15 minutes).

N.B. Whilst the above material content was used as shown, group sessions actually lasted for 2 hours each, rather than the 60-90 minutes anticipated.

Research Protocol for CBT 'Anxiety Management Course'

Each week's session lasts 2 hours.

Week 1.

Complete GHQ-12 and HADs

Introductions and welcome. Confidentiality and house keeping. Course structure.

Brainstorm "what is anxiety?"

Tea break.

Three systems approach (cognition, physiology, behaviour). Anxiety is 'normal'. Using diaries.

Handout 'Anxiety booklets'

Week 2.

Feedback from last session; discussion of any difficulties (particularly with handout)

The place of physiology in three systems approach. The physiology of anxiety.

Stress arousal is a part of both pleasure & excitement and fear.

Tea break.

Evoke list of anxiety symptoms from group, link into stress response system.

Introduce and explain calm breathing and breathing-style monitoring.

Week 3.

Feedback from last session; discussion of any difficulties (particularly with handout)

In pairs or small groups brainstorm thoughts related to feeling anxious.

Handout "thinking errors".

Link results of brainstorm into groupings on handout.

Tea break.

Handouts "challenging and altering negative thoughts" and "positive thinking".

In large group look at positive thoughts to challenge negative thoughts.

Handout "anxiety spiral" look over and explain.

Re-cap on calming breathing

re-cap on using diaries.

Week 4.

Feedback from last session; discussion of any difficulties (particularly with handout)

Group to share behaviours they have that are;

1. Anxiety linked.
2. Helpful in coping with anxiety.

Handout "four approaches to coping with anxiety.

Brainstorm "how to alter unhelpful behaviours".

Review and expand upon calming breathing.

Tea break.

Handout "deep breathing" and "base lines of anxiety".

Discuss relaxation theory around base-lines of anxiety and peaks of panic.

Teach Jacobson's progressive relaxation.

Discussion of "changing lifestyles".

Handout "ten rules for coping with panic".

Importance of practice re. relaxation.

Handout "Anxiety diary".

Week 5

Feedback from last session; discussion of any difficulties (particularly with handout).

Review three systems approach, add in emotion.

Discussion

1. What are emotions?
2. What emotions are present in my anxiety?
3. What in my lifestyle increases my anxiety?

Tea break.

Full relaxation, 1. Jacobson, 2. Calming breathing, 3. Guided visualisation.

Feedback on relaxation.

Week 6.

Feedback from last session; discussion of any difficulties (particularly with handout).

Address difficulties.

Re-cap on course.

Full relaxation, 1. Jacobson, 2. Calming breathing, 3. Guided visualisation.

Tea break.

Ideas about 'quick relaxation'.

Handout "summary of course".

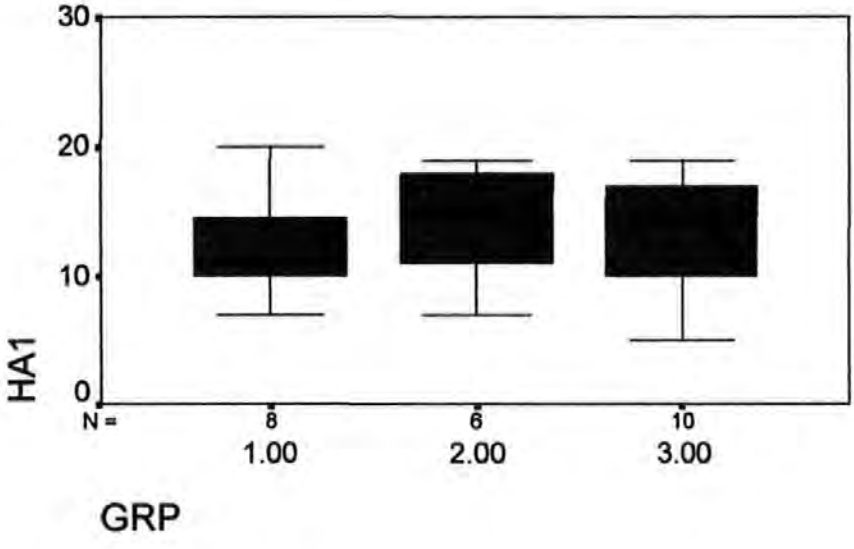
Complete GHQ-12 and HADs.

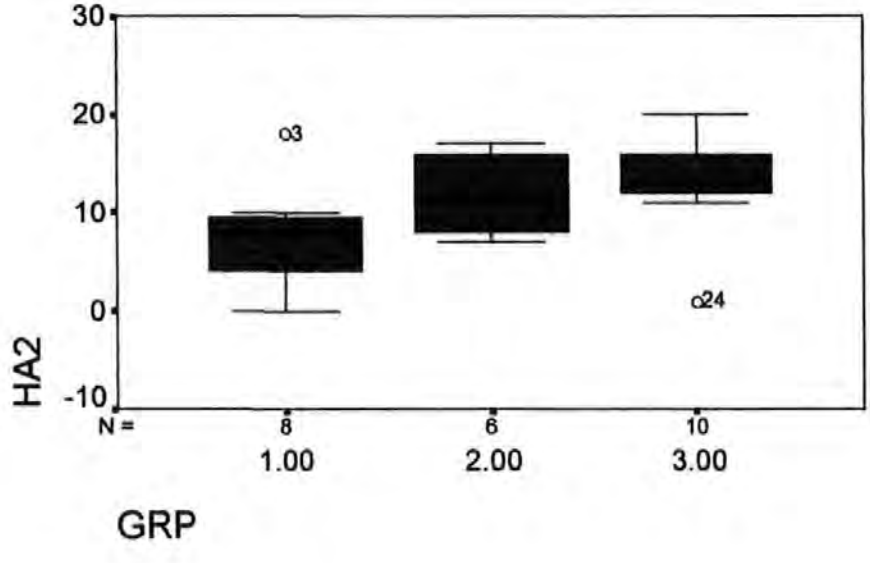
Appendix V

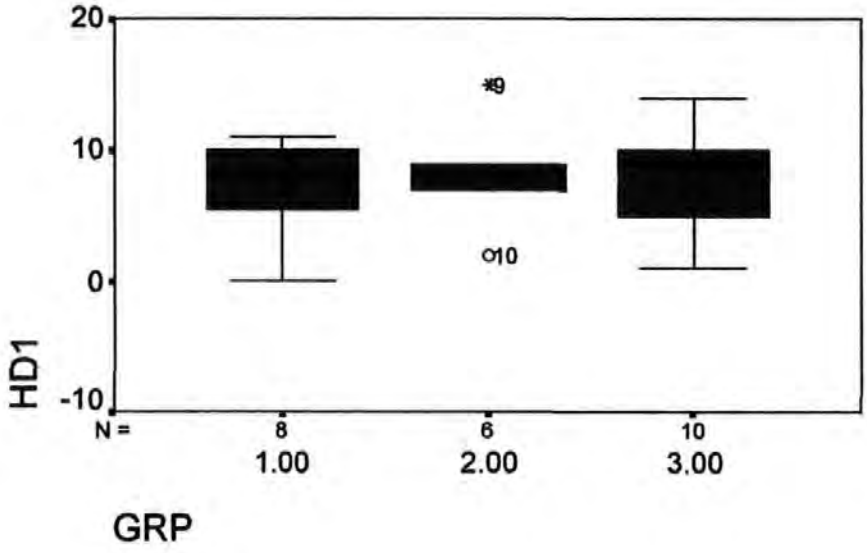
(Addendum to results section)

PART 1. Box plots

1. Box plots for individual cells of MANOVA and repeated measures ANOVA tests. Group 1 = Sahaja Yoga, Group 2 = CBT and group 3 = control.



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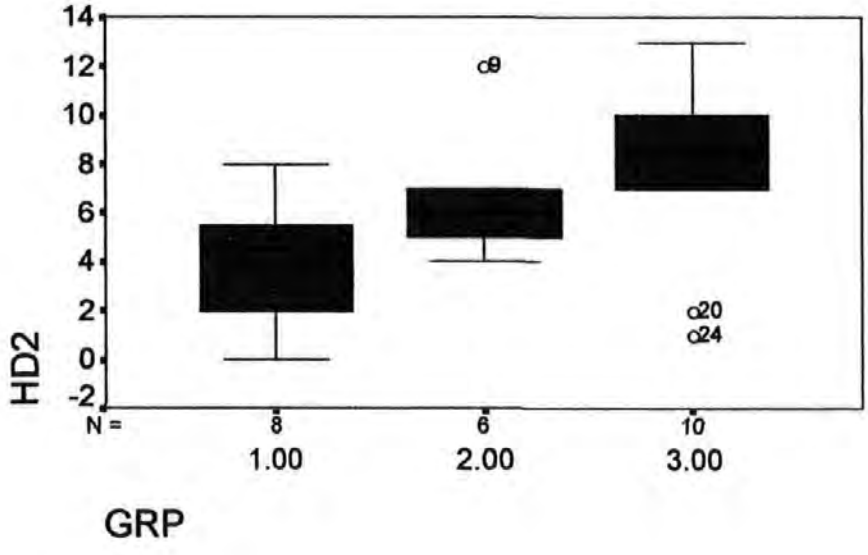
0
-10
HD1
*9
○10
N =
8
6
10
1.00
2.00
3.00
GRP


14
12
10
8
6
4
2
0
-2
HD2
○9
○20
○24
N =
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6
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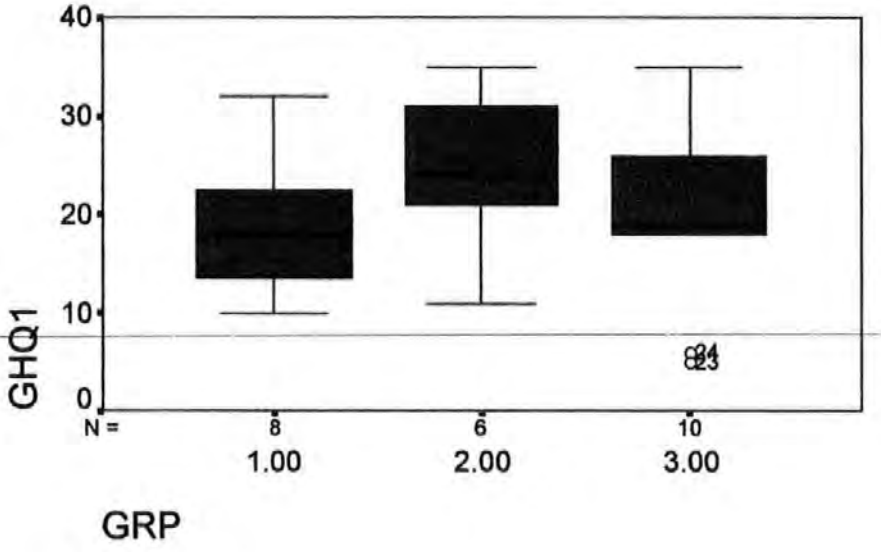
1.00
2.00
3.00
GRP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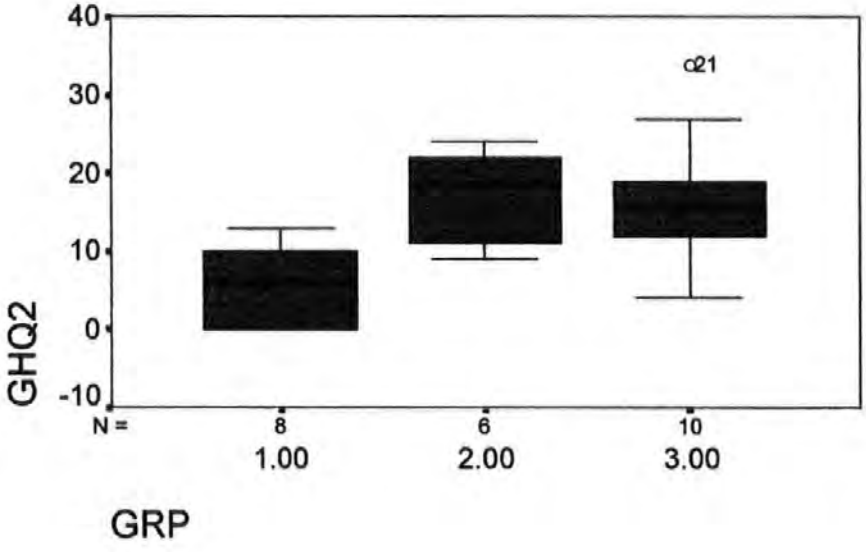
2.00
3.00
GRP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GHQ2
N =
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6
10
1.00
2.00
3.00
GRP

PART 2. Tests of sphericity and homogeneity of variance for reported repeated measures ANOVAs

1. HADs anxiety

Multivariate test for homogeneity of dispersion matrices, Boxs M=3.80, F(6,4074)=0.54, p=0.78. **i.e. variances do not differ significantly.**

Univariate homogeneity of variance tests. Pre-treatment Bartlett-Box F(2,872)=0.09, p=0.91. Post treatment Bartlett-Box F(2,872)=0.19, p=0.83. **i.e. variances do not differ significantly.**

Bartlett's test for sphericity; Chi-squared=30.85, d.f.=2, p<0.0005. **i.e. there is sphericity.**

2. HADs depression

Multivariate test for homogeneity of dispersion matrices, Boxs M=5.38, F(6,4074)=0.76, p=0.60. **i.e. variances do not differ significantly.**

Univariate homogeneity of variance tests. Pre-treatment Bartlett-Box F(2,872)=0.08, p=0.92. Post treatment Bartlett-Box F(2,872)=0.54, p=0.58. **i.e. variances do not differ significantly.**

Bartlett's test for sphericity; Chi-squared=16.79, d.f.=2, p<0.0005. **i.e. there is sphericity.**

With the outlier changed to one unit higher than next most extreme point.

Multivariate test for homogeneity of dispersion matrices, Boxs M=1.87, F(6,4074)=0.26, p=0.95. **i.e. variances do not differ significantly.**

Univariate homogeneity of variance tests. Pre-treatment Bartlett-Box F(2,872)=0.20, p=0.82. Post treatment Bartlett-Box F(2,872)=0.54, p=0.58. **i.e. variances do not differ significantly.**

Bartlett's test for sphericity; Chi-squared=13.84, d.f.=2,p=0.001. **i.e. there is sphericity.**

3. GHQ-12

Multivariate test for homogeneity of dispersion matrices, Boxs M=3.86, F(6,4074)=0.55, p=0.77. **i.e. variances do not differ significantly.**

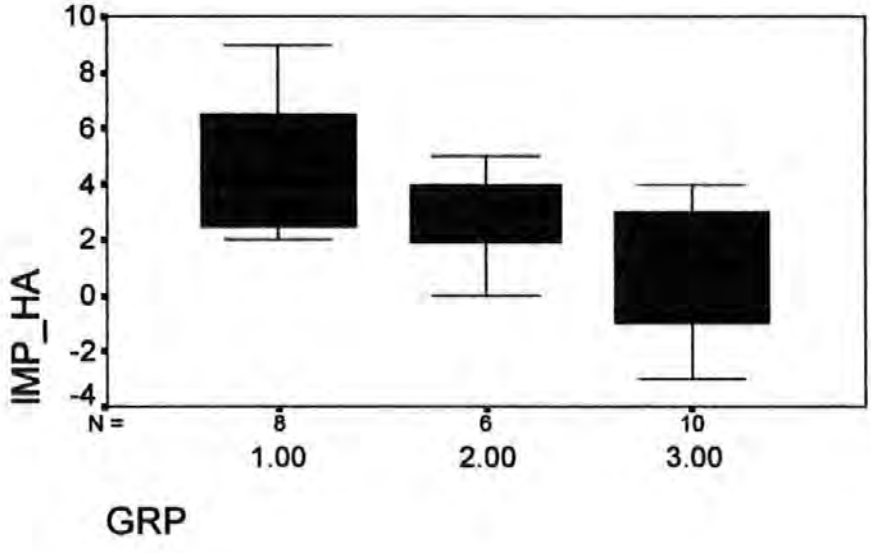
Univariate homogeneity of variance tests. Pre-treatment Bartlett-Box F(2,872)=0.21, p=0.81. Post treatment Bartlett-Box F(2,872)=0.92, p=0.40. **i.e. variances do not differ significantly.**

Bartlett's test for sphericity; Chi-squared=16.77, d.f.=2, p<0.0005. **i.e. there is sphericity.**

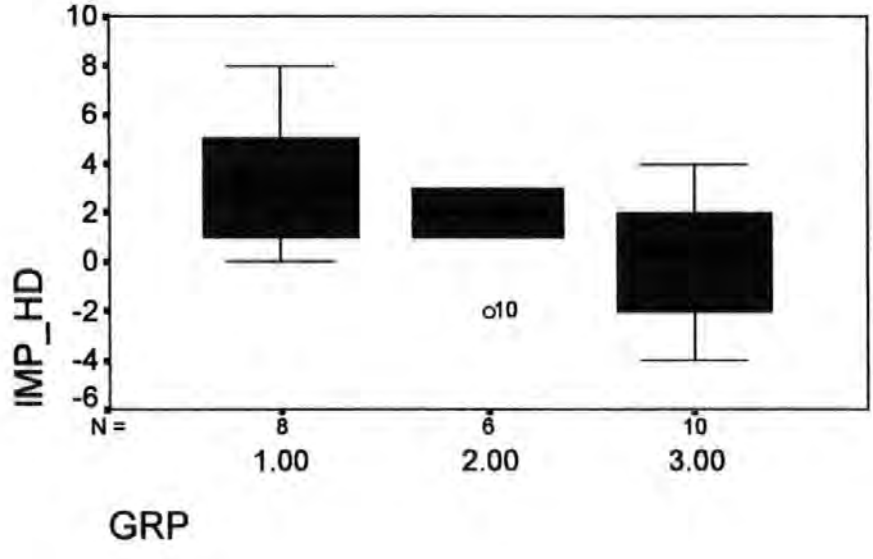
PART 3.Box plots for improvement data (t-tests)

In the following charts the groupings are as above.

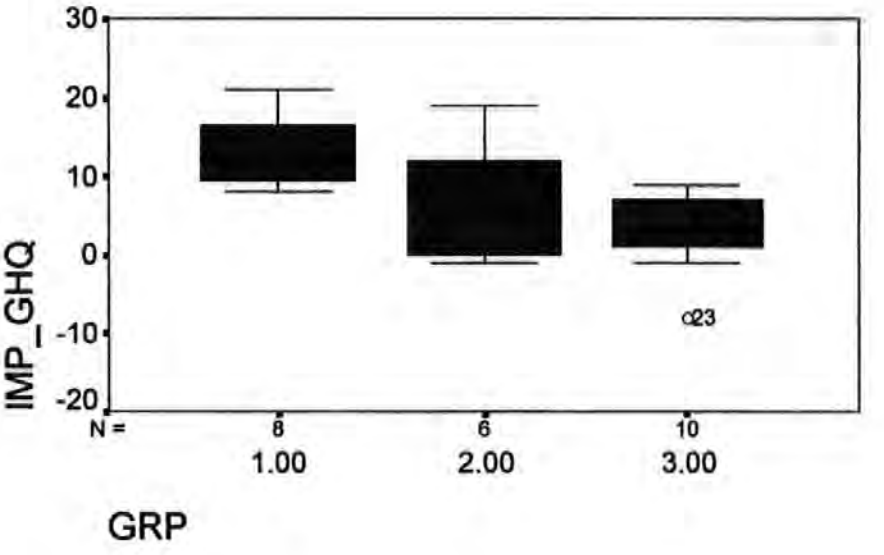
HADs anxiety



HADs depression



GHQ-12



PART 4. Homogeneity of variance tests for reported t-tests (Levene's test)

HADs anxiety

Sahaja Yoga vs. control; F=0.10, p=0.76

Sahaja Yoga vs. CBT; F=1.28, p=0.28

CBT vs. control; F=2.81, p=0.12

HADs depression

Sahaja Yoga vs. control; F=0.05, p=0.83

Sahaja Yoga vs. CBT; F=1.58, p=0.23

CBT vs. control; F=1.31, p=0.27

GHQ-12

Sahaja Yoga vs. control; F=0.069, p=0.80

Sahaja Yoga vs. CBT; F=1.10, p=0.32

CBT vs. control; F=0.70, p=0.42

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