

Bowen Therapy Can Improve Some Symptoms of Parkinson Disease

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Summary

This study is a preliminary test of the hypothesis that Bowen Therapy as a complementary therapy can improve some of the symptoms of Parkinson's Disease. The study was geographically confined to Southern Tasmania. Fliers placed in a range of public locations, with health practitioners, the Parkinsons Tasmania Inc in Hobart and an article in the local newspaper attracted 13 volunteers for the study. This resulted in a final study group of 8 Subjects, 4 men and 4 women, ranging in age from 56 – 86 years all of whom had at some time lived in a rural area.

The study procedure involved an initial questionnaire which asked volunteers to identify their symptoms of Parkinson's Disease from a list of 28. These symptoms were monitored over 4 sessions during a 6 / 7 week period. Subjects were asked to monitor between 1 and 18 symptoms. Subjects monitored the degree or lack of improvement in their symptoms after each therapy session and then completed an oral questionnaire after the final session. The Bowen procedures used in each session were drawn from the same limited repertoire.

By the end of the fourth session, all Subjects had reported some improvement in some of their symptoms with 50% or more of Subjects reporting improvement in tremor symptoms occurring in various parts of their body, eating, balance, falling and quality of sleep. No Subject reported a deterioration in their symptoms.

Quality of sleep was the only symptom where 50% or more of Subjects reported improvement after each session, a finding that accords with the similar finding in the study headed by Lisa M Shulman on the use of acupuncture to improve symptoms of PD.¹

Results also indicate that the daily amount of water Subjects drink may determine the degree of improvement or not achieved following a Bowen session, supporting Tom Bowen's advocacy of drinking water after a treatment and the belief of Russell Sturgess and John Coleman that Bowen Therapy rehydrates the fascia.

Individual differences in the medication given, nature, severity, number and impact of PD symptoms, in addition to the small sample size and limited geographical sampling area, preclude any meaningful statistical analysis of results. However, the results provide sufficient initial evidence of symptom improvement to conclude that Bowen Therapy is useful in alleviating some symptoms of Parkinson's Disease and to suggest that a larger, detailed and more controlled study, possibly limited to the symptoms of **tremor** and **quality of sleep** would be worthwhile.

I have been using Bowen technique as a complimentary therapy since 1999. During this time, 2 clients reported that Bowen Therapy was useful in alleviating some of their symptoms of Parkinson's Disease. I therefore decided for the purpose of my research assignment for the Diploma in Bowen Therapy to follow up with **a study proposing that Bowen Therapy can improve some of the symptoms of Parkinson's Disease.**

¹ Shulman Lisa M, **Acupuncture therapy for the symptoms of Parkinson's disease**, *Movement Disorders*, Vol 17, Issue 4, 11 March 2002, pp799-802,

Background to Bowen Therapy

Bowen Therapy was developed by an Australian, Tom Bowen, a self declared osteopath. He advocated 3 W's after a Bowen treatment. A person should drink **water**, **walk** (gentle exercise and continue daily activities) and **wait** for the reaction. He also thought that a treatment could consist of 3 or more sessions. He suggested the ideal time between treatments was 7 days although it could be somewhere between 5 and 10 days for the first 2 sessions. The technique has been taught since 1986. Initially by Ossie and Elaine Rentsch describing it as *Bowtech*, and later by others adding variations, describing it as *Facial Kinetics* Russell Sturgess, *NST* (Neuro Structural Technique) – Michael Nixon-Levey and *Smart Bowen* – Brian Smart² to name a few. Bowen Therapy is now recognised by many Private Health Funds.

Bowen therapy is a gentle non-invasive remedial bodywork technique which gives muscle relaxation. The technique uses a series of set precise moves over tendons, ligaments or muscles and waiting times allowing for the body to respond. It can be done directly against the skin or through loose clothing. Case studies indicate that Bowen Therapy works, but as yet there has been no known research to establish why or how it works. It has been suggested that Bowen could be thought of as the homoeopathy of bodywork as very little work can have a great effect. Although it is not acupressure, it may at times use similar positions on the body that acupressure and acupuncture uses.

Russell Sturgess, of Fascial Kinetics, in his introduction to his workshop on *Scheussler Tissue Salts for Bowen Therapists* suggests that Bowen rehydrates the fascia or connective tissue of the body working at a cellular level. He also suggests that 'clients who don't drink sufficient water, smoke, or drink excessive alcohol will not respond as favourably as someone who does the opposite to those actions.'³ Sturgess also advocates tissue salts (minute homeopathically prepared doses of minerals naturally occurring in the cells of our bodies) to complement Bowen Therapy.⁴

Bowtech suggests that 'In contrast to other hands-on disciplines, where the practitioner imposes correction on the client through the technique performed, the Bowen Technique allows the body to heal itself with minimal intervention. Because of the subtlety of Bowenwork and the body's continuing response to it, other forms of manipulative therapy performed up to four days before or five days after a Bowtech session may interfere with its effectiveness.'⁵

Recently in my practice I have been complementing Bowen therapy with Scheussler Tissue Salts. Initially it came to my attention with one of my Parkinson's Disease(PD) clients that administering Nat Mur cleared the light headedness which sometimes people experience after a session. I have now used it on other non PD clients with similar results. Nat Mur is the tissue salt which balances water in the body.

² Russell Sturgess, Fascial Kinetics Training Manual Module 1 pxi,

³ *Scheussler Tissue Salts Practitioner Workbook*, Martin & Pleasance, **Introduction by Russell Sturgess**, 2005, p3

⁴ Ibid **Scheussler Biochemic Remedies – Twelve Single Tissue Salts**, p5

⁵ Rentsch, Oswald & Elaine, *Bowtech the Original Bowen Technique Training and Instruction Manual Module 1*, 2005, pvii

Background to Parkinson's Disease

A description of Parkinson's Disease as we know it today was first published by James Parkinson in 1817 in his "Essay on Shaking Palsy". It is also known as Parkinsonism, Parkinson's Syndrome, Paralysis Agitans & Shaking Palsy. Parkinson's is a chronic progressive degenerative disease of the central nervous system. Forty years later Jean Martin Charcot added rigidity to the original clinical description and the syndrome was named Parkinson's Disease.

In medical literature the earliest reference to 'shaking palsy' was by Galen AD 138 - 201⁶ and 'a description of Parkinson's Disease in Sanskrit under the name of Kampavata is in the ancient Indian medical text Basquarajiyam in 1400AD⁷.

Parkinson's disease patients have lost 60% or more of their dopamine-producing cells by the time their symptoms appear. Parkinson's is not a fatal disease however as the number of dopamine producing cells decline the symptoms become progressively more disabling. There is no test or scan to positively identify Parkinson's Disease. Diagnosis is based on a progressive deterioration in function and clinical impression. No two people will experience the condition in the same way, so management will vary. Treatment is usually focused on maintaining a sense of quality of life for the person with PD. There is no widely accepted known drug which can prevent the progression of the disease. Post mortem pathophysiology shows a reduction in nigrostriatal dopamine neurons and a massive reduction in striatal dopamine content. It can also be shown by autopsy of a person with Parkinson's Disease that there are microscopic brain structures called Lewy Bodies and there is an accumulation of iron in the brain.

Most experts share the opinion that PD is caused by a combination of genetic and environmental factors but no one knows what that combination is. About 10% of people with PD have a family history of the disease. The origin of the disease has not been fully investigated yet we know it occurs cross culturally, effecting 4 million people world wide. Currently the most conservative estimate is that over 80,000 Australians are affected by Parkinson's Disease. 4,000 new diagnoses of Parkinson's Disease are made each year.⁸ It is estimated that there may be 2,000 people living with Parkinson's Disease in Tasmania.⁹

It affects both men and women but tends to be more common in men in a ratio of 3:2. Although the perception may be that PD is an old persons' disease, 5-10% of those with the disease are under 40. 1-2 people per 1,000 in the population have Parkinson's Disease, increasing to 1 in 100 over the age of 60. Predominately Parkinson's Disease occurs in people in the middle to later years (50 – 75). It is the second most common neurodegenerative disorder after Alzheimer's Disease.¹⁰

A social study of people with Parkinson's Disease by Susan Moore found that 'there is a significant stigma perceived to be associated with Parkinson's Disease as well as significant misconceptions about the course and outcome of the disease'.¹¹ People living with PD can be socially isolated as their movement disorder can be interpreted as being drunk (associated with an unsteady gait) or communication difficulties may occur as their

⁶ Journal of the Royal Society of Medicine Vol 84 August 1991, *Treatment of Parkinson's disease in 'Ayurveda' (ancient Indian System of medicine): discussion paper* ; p 491

⁷ www.doi.wiley.com/10.1002/1531-8257

⁸ *Parkinson's Tasmania Newsletter, Beliefs and Knowledge about Parkinson's Disease*, Aug '06. Issue 4, p4

⁹ Personal communication, **Pauline Domenev**, Secretary / Treasurer Parkinson's Tasmania Inc

¹⁰ **Beliefs and Knowledge about Parkinson's Disease** op cit

¹¹ Moore Susan, *Beliefs and Knowledge about Parkinson's Disease*, E-Journal of Applied Psychology: Clinical and Social Issues.2(1): 15 – 21 (2006)

quality of speech deteriorates and the development of a masked facial expression is often misinterpreted as mental retardation.

Forms of Parkinson's Disease

Parkinson's Disease may be drug induced and this is normally reversible. However in idiopathic Parkinson's Disease there is no known cure.

There are a number of diseases which include Parkinson's Disease in their symptoms and these have been grouped together as **Parkinson's Plus Syndrome**.

This includes

Progressive Supranuclear Palsy which is the most common syndrome. People develop symptoms in their 60's or 70's - symptoms including bradykinesia, rigidity, dysarthria and dementia as do people with PD. Those with Progressive Supranuclear Palsy develop severe posture instability. Tremor is rare.¹²

Multi System Atrophy which 'has three cardinal features –

- Parkinsonism,
- Autonomic failure (including orthostatic hypotension, erectile dysfunction and urinary incontinence or retention
- Cerebellar ataxia (failure of muscular coordination)

If autonomic failure predominates then it is known as *Shy Drager Syndrome*, if Parkinsonism predominates it can be known as *Striatonigral Degeneration* and if cerebellar ataxia predominates it can be known as Olivopontocerebellar Atrophy.¹³

Dementia with Lewy Bodies (DLB) is one of the more common forms of dementia and shares characteristics with both Alzheimer's and Parkinson's Disease. Lewy bodies are tiny deposits of protein found in nerve cells in the brain which diminish the ability of the cells to function normally. DLB is characterized by

- fluctuating cognition,
- features of Parkinson's Disease and
- recurrent visual hallucinations.¹⁴

The diagnosis of any Parkinson's Plus Syndromes like PD is made by a medical practitioner. There is no pathological test or identifying markers to confirm a diagnosis. Diagnosis is based on a progressive history of deterioration in function and clinical impression and can only be confirmed at autopsy.

Symptoms of Parkinson's Disease

Although tremor is one of the most noticeable symptoms of PD not everyone with Parkinson's Disease experiences a tremor. They may experience prolonged muscle contractions or spasms forcing the body into abnormal, sometimes painful positions or movements as their most pronounced symptom.

Defining features of Parkinson's Disease are a variable combination of **slowness of movement** (bradykinesia), **muscle rigidity** (increased muscle tone) and **tremor at rest**. The nature, severity and impact of symptoms varies from person to person. Symptoms can include

¹² <http://oascentral.emedicine.com/RealMedia/ads/click-ix.ads/emedicine.com/Neuro/MoveNeurodegenerDis/Parkins>, Section 4

¹³ Ibid section 3

¹⁴ Wilson, Dr Mark, **What is Dementia with Lewy Bodies?**, Information Sheet, Royal Hobart Hospital, 15 October, 2005

- involuntary movements
- poor balance
- slow movement
- problems walking including a slow, shuffling gait (Parkinson's gait)
- problems getting up from chairs & in/out of vehicles
- (rigidity) especially in the face
- inability to swing arms
- odd posture including leaning forward and to one side
- festinating gait
- show little facial animation or delayed response in facial expression
- quiet, clipped speech, or problems saying the right words
- slurred speech
- incoherent speech
- problems swallowing
- unchecked drooling
- decreased blinking
- involuntary eye closure
- tiny handwriting
- 'cogwheel' jerking movements
- problems with freezing suddenly when trying to move
- diminished muscle strength
- difficulty with turning in bed
- trembling (tremor) at rest, (some experience an internal tremor) tremor may increase with stress or fatigue
- 'pill-rolling' movements with fingers
- problems in grasping objects
- problems in dropping items
- problems in catching or lifting things

Secondary symptoms may also present such as

- depression and nervousness
- memory loss
- sleep disturbances
- constipation
- frequent urination
- unexplained fatigue
- dementia may occur in the latter stages of the disease
- anxiety

The documentary film, *The Bridge At Midnight Trembles*¹⁵, portrays the Australian actor Richard Moir as he experiences living with Parkinson's Disease, giving insight into both the physical and emotional impact on his life. After seeing this I had a clearer idea not only of how the symptoms impact on the life of someone who has PD, their family and their friends, but also the impact of the drugs and surgery experienced by someone living with PD.

¹⁵ Moir, Richard & Storm, Esben, *The Bridge at Midnight Trembles*, DVD running time 52mins, released Feb 2006.

TRADITIONAL WAYS OF TREATING PARKINSONS DISEASE

Drug therapy is one of the traditional approaches.

Prescription Medications available include

Dopamine Replacement Therapy

Levodopa replaces the depleted neurotransmitter in the brain and can be converted to dopamine in the brain. It can be administered in combination with carbidopa or benserazide to maximise the delivery to the brain and minimise side effects. With increased dosing and prolonged usage patients may experience spontaneous, involuntary movements (dyskinesia) and on-off periods when the medication will suddenly and unpredictably start or stop working. Possible side effects of levodopa include low blood pressure, nausea, confusion, dyskinesia, dry mouth, dizziness. It may also have possible interactions with antacids, anti-seizure drugs, anti-hypertensives, anti-depressants and high protein food.

Examples of these drugs include Sinemet, Kinson, Madopar, Stalevo

Dopamine Agonists

These medications stimulate the dopamine receptors in the brain mimicking the action of dopamine. Some of these drugs have side effects similar to drugs used in dopamine replacement therapy and possibly interact with alcohol, anti-psychotics and blood pressure lowering medications.

An example of this drug is Cabasar

Anticholinergics

This group was the first available treatment for Parkinson's before levodopa.

They block the effect of the brain chemical acetylcholine, to rebalance its levels with dopamine. They are rarely used nowadays. There is a possible interaction with anti-histamines.

An example of this drug is Artane

Amantadine

This has both the dopamine Agonist properties and anticholinergic properties. It may be used in controlling drug-induced involuntary movements.

An example of this drug is Symmetrel.

Monoamine oxidase (MAO) type B inhibitors

These prevent the breakdown of available dopamine within the brain and therefore prolong the action of levodopa. There are possible interaction with anti-depressants, narcotic painkillers and decongestants.

Examples of these drugs include Elderpryl & Selgene

Catechol-o-methyl transferase (COMT) inhibitors

These are used along with levodopa. They block an enzyme known as COMT that breaks down levodopa in the intestine and brain, prolonging the action of levodopa and reducing motor fluctuations.

Examples of these drugs include Comtan & Tasmar

The drugs that people living with Parkinson's have to take lifelong often have strong side effects and the drugs lose their effectiveness with time.

Low dose naltrexone is a prescription drug available for people who have Parkinson's Disease. Not all medical practitioners would chose this approach.

"Naltrexone itself was approved by the FDA in 1984 in a 50mg dose for the purpose of helping heroin or opium addicts, by blocking the effect of such drugs. By blocking opioid receptors, naltrexone also blocks the reception of the opioid hormones that our brain and adrenal glands produce: beta-endorphin and metenkephalin. Many body tissues have receptors for these endorphins and enkephalins, including virtually every cell of the body's immune system. The drug is taken between 9pm and 3am (usually at bedtime). In 1985, Bernard Bihari, MD, a physician with a clinical practice in New York City, discovered the effects of a much smaller dose of naltrexone (approximately 3mg once a day) on the body's immune system."

Bihari has since posted on the low dose naltrexone website references to the efficacy on people who have Parkinson's Disease in regard to stabilising the condition and slowing the progression of it. In Australia the drug is available at some compounding pharmacies.¹⁶

Surgery is sometimes considered as treatment for Parkinson's Disease.

Surgery for the treatment of Parkinson's Disease was developed in the 1950's. Neurosurgery is increasingly common as a treatment for Parkinson's. It is best suited to those who have responded well to levodopa but have problems with involuntary movements or have large fluctuations in their response to levodopa.

Thalamotomy

This has been the most common form of surgery. It involves lesioning very small specific areas of the brain - the thalamus associated with symptoms of some forms of tremor. Around 70% of people with Parkinson's Disease have a tremor.

Pallidotomy

This involves lesioning of very small specific areas of the brain - the globus pallidus. Pallidotomy is used to alleviate dyskinesias.

Deep Brain Stimulation or DBS was developed in the 1990's

This involves implanting an electrode into the globus pallidus, thalamus or subthalamic part of the brain. An impulse generator is implanted under the collarbone (something like a pacemaker) to provide an impulse to a part of the brain involved in motor function. Patients have a controller to turn the device on and off and to check the battery. The battery lasts for about 3 – 5 years and is replaced under local anaesthetic. DBS improves both the side effects of medication and the symptoms of the disease. It doesn't solve the problem completely as most people still require medication as well as deep brain stimulation.

Neurosurgeons determine which of these three options or if any will best suit the person with PD.

Foetal cell / stem cell therapy

This involves transplantation of healthy dopamine-forming cells into the damaged area of the brain. This procedure is still controversial and highly experimental and is not at this stage available in Australia.

¹⁶ www.lowdosenaltrexone.org

COMPLEMENTARY AND OR ALTERNATIVE TREATMENT FOR PARKINSON'S DISEASE

Some Over the Counter Medications

Researchers are examining some natural supplements to evaluate their effectiveness on slowing Parkinson's Disease progression and managing symptoms.

There is evidence relating oxidative damage of nerve cells to Parkinson's Disease. Some researchers are studying antioxidants. Clinical trials done by Clifford Shults¹⁷ on **Coenzyme Q10 (CoQ10)** suggests a possible slowing of disease progression in a small number of Subjects but as yet they have not studied it enough to recommend it to Parkinson's patients.

Vitamin E has also been examined in the DATATOP trial but the trial failed to establish that Vitamin E either slows the progression or manages the symptoms of Parkinson's.¹⁸

Researchers are also examining **fermented papaya and blueberries** in slowing nerve cell death. Although optimistic about the research, scientists do not have enough conclusive evidence to recommend these in the treatment of Parkinson's Disease.¹⁹

Also **Creatine** and **glutathione** have shown promise in preliminary studies by The National Institute of Neurological Disorders and Stroke but there is insufficient data to recommend them for Parkinson's Disease.²⁰

Over the counter medications can also have side effects and possible interactions with other drugs.

Physical Activity

People living with Parkinson's Disease are encouraged to continue their daily activities as far as possible. Occupational therapists, speech therapists and physiotherapists may be able to assist with strategies to improve the quality of life. Exercise routines and sport activities may need to be modified but do not necessarily need to be eliminated.

In a UK survey **Yoga and Meditation** were rated beneficial in improving symptoms of People living with PD.²¹

Anecdotal evidence suggests that some people with PD have benefited from **Homeopathy** – in relieving cramps, **Massage** in reducing stress and stiffness, **Herbal Medicines** in sleep problems and agitation, **Hypnotherapy** in sleep problems and depression.²²

It was reported in the medical journal, *Movement Disorders*, that researchers found when using a range of PD and behavioural scales, quality of sleep showed improvement by the use of **Acupuncture**. Also 85% of patients reported subjective improvement of individual symptoms over a 10 – 16 week period of time when they received 2 acupuncture treatment sessions per week²³

¹⁷ National Institute of Neurological Disorders and Strokes Press Release Monday October 14, 2002.

¹⁸ ibid

¹⁹ ibid

²⁰ ibid

²¹ www.guide4living.com/parkinsons/alternative-treatment.htm

²² ibid

²³ Shulman Lisa M, **Acupuncture therapy for the symptoms of Parkinson's disease**, *Movement Disorders*, Vol 17, Issue 4, 2002, pp799-802

Bowen Therapy in combination with Aqua Hydration Therapy

This is the approach used by John Coleman. In his book *Stop Parkin' & Start Livin'* he claims that after testing during 2001, "we have been able to estimate that Bowen Therapy constitutes about 25% of the physical recovery process {sic of Parkinson's}. It works synergistically with the Aqua Hydration Formulas which do about 60% of the work. So Bowen is vitally important for people recovering from neurological disorders, but will give the greatest benefits when used with hydration therapy." Coleman claims "the purpose of Bowen Therapyis to move and hydrate fascia, balance energy and encourage regeneration/reactivation of brain cells."²⁴ He attributes that Bowen Therapy played an important part in his recovery from Multi Systems Atrophy.²⁵

Transcranial Electric Polarization -

A press release on 25 March 2006 indicated that Transcranial Electric Polarization used in combination with antiparkinsonian drug intake was effective for some symptoms. The technique involves the continuous application of 2 milliamphere current for 15 minutes via cathode and anode on the head skin. Research showed there was reduction in redundant muscle tone, increase in movement rate, a decrease of drug's side effect. Movement and muscle tone varied from 100% to 63.3% and the effect remained for half a year to a year. There was no influence on tremor²⁶.

SCIENTIFIC PRACTICES

'Modern health care is implemented on the basis of evidence based practice.

McKenna et al (2000) argues that evidence can be as much opinion based as research based²⁷

There are many forms of research undertaken in the medical world today. Some research is based on gathering evidence from written and oral sources and forming an opinion based on the materials available. Other research uses techniques which compares Subjects who receive intervention with those who do not, or investigates differences within groups of Subjects who all receive intervention.

Anna Dicker suggests there are four levels of research evidence.

Level I

Evidence obtained from systematic review of relevant randomised controlled trials (with meta-analysis where possible).

Level II

Evidence obtained from one or more well-designed randomised controlled trials.

Level III

Evidence obtained from well-designed non-randomised controlled trials; or from well-designed cohort or case-control analytical studies, preferably multicentred or conducted at different times.

Level IV

²⁴ Coleman John C. *Stop Parkin' and Start Livin'* p 12

²⁵ Personal communication, **John Coleman**, October 2006

²⁶ www.medicalnewstoday.com **Parkinson's Disease May Be Treated By Electric Current**, Press release, March 25 2006

²⁷ Dicker Anna, **Research**, Diploma Evaluation, *Bowen Technique Research CD*, BAA, 2006.

The opinions of respected authorities based on clinical experience, descriptive studies or reports of expert committees²⁸.

Broadly speaking research on Parkinson's Disease explores 2 directions. One seeks the *causes* of the disease from a genetic²⁹, environmental³⁰ or combination of the two points of view.³¹ The other seeks possibilities for *improving the quality of life* of the person living with Parkinson's Disease³². My research falls into the category of improving the quality of life of a person living with PD. In Anna Dicker's terms my research would fit somewhere between level II and level III as it was a random selection but did not use a control and experimental group.

METHOD OF RESEARCH

No funding was received for this project and no money was exchanged between volunteers and the person doing the research. The study was not set up as an alternative but rather a complementary therapy to the existing treatment the volunteers were already using. Nobody was asked to withdraw from any prescribed antiparkinsonian medication. In this aspect it is similar to the research using Transcranial Electric Polarization³³. Initially a flyer³⁴ calling for volunteers from people living with Parkinson's Disease was placed in areas within the Huon Valley. This encompassed a variety of shops, libraries, health service providers, community groups and the local council. In Hobart I contacted a physician who has patients with Parkinson's Disease and I contacted the Parkinson's Tasmania group. An article was also published in the Huon Valley Newspaper.³⁵ Those who volunteered were asked to complete a questionnaire³⁶ to identify their symptoms and provide a brief client history. If they were unable to complete the form themselves a carer or an observer was used to assist in the process. All volunteers were to be anonymous.

For the purpose of this research I used a random group of volunteers who had been diagnosed with Parkinson's Disease by a medical practitioner. The volunteers were offered 4 sessions of Bowen Therapy. 10 volunteers came to consulting rooms but there were 3 volunteers who were treated in a nursing home. The volunteers were not necessarily treated concurrently but at times of mutual convenience over a time frame which began in July 2006 and ended in February 2007. All treatments were given by the same therapist. The specific treatment was tailored to the individual needs of the volunteers as no two volunteers had exactly the same symptoms.

A limited repertoire³⁷ of moves was used in the Bowen sessions. The sessions were planned at intervals of week 1, week 2, week 4, and week 6. Volunteers were asked after each session to complete a table monitoring their symptoms using the terms 'deteriorated,

²⁸ *ibid*

²⁹ www.medicalnewstoday.com/prINTERfriendlynews.php?newsid=45442, **Rare Disease's Gene May Illuminate Major Disorders**, 19 June 2006.

³⁰ P A , **Allergy linked to Parkinson's risk**, *Mercury*, Hobart, Wednesday, Aug 9, 2006, p 19

³¹ www.findarticles.com/p/articles/mi_mOFDN/is_6_5/ai_68727247/print. Dr Parris Kidd discusses PD 'including probable etiological factors in the disease: genetic susceptibility, toxic exposure, an inadequate antioxidant defence system and lack of antioxidant nutrients.

³² www.medicalnewstoday.com/prINTERfriendlynews.php?newsid=43208, **Multidisciplinary Treatment Program Improves Long-Term Outcomes of Individuals With Parkinson's Disease**, 14 May 2006

³³ www.medicalnewstoday.com/prINTERfriendlynews.php?newsid=40260

³⁴ See Appendix A Flier

³⁵ See Appendix B Research on Parkinson's Disease

³⁶ See Appendix C Initial Questionnaire

³⁷ See Appendix D Therapists Observations & Treatment

remained unchanged, moderate improvement, great improvement'. They were also invited to make comments about the treatment.³⁸ If necessary they could use a carer or observer to assist.

Following the fourth treatment an oral questionnaire was given.³⁹

My hypothesis was that Bowen Therapy can improve some of the symptoms of Parkinson's Disease.

STUDY SUBJECTS

All people who volunteered had a medical diagnosis of their condition as being Parkinson's Disease or one of the Parkinson's Plus Syndromes This was a study of eight people, 4 female and 4 male, drawn from an initial pool of 13 people living with Parkinson's Disease in southern Tasmania.

All people who volunteered were initially accepted and received at least 2 treatments. In my research the Subjects were identified thus: S1, S2, S3, S4, S5, S6, S7, S8, and volunteers who were withdrawn from the study were identified as V1, V2, V3, V4, V5. Subjects 1 – 8 received 4 sessions and the volunteers 1 – 5 received 2 sessions. Of the **13** people who volunteered, **2** had been diagnosed with Dementia with Lewy Bodies, **2** did not present with a tremor, **2** had a known history of Parkinson's Disease in the family, **1** person had been living with Parkinson's Disease for 33 years. The male to female ratio was **8** to **5**.

Of those 13 people **5** were not included in the study for the following reasons.
2 people withdrew because of matters unrelated to the treatment given.
2 people withdrew because of negative reactions to the treatment. Another person was withdrawn from the data as I learned that physiotherapy was being given after the treatment and also that this volunteer had other medical conditions which may have impacted on the results.

All Subjects in the study received **4** sessions of Bowen Therapy.

7 out of **8** were on prescription medication for Parkinson's Disease

1 Subject was not on any medication for Parkinson's Disease.

1 reported having been treated in the past by a naturopath for Parkinson's Disease. Nobody in the study had experienced Bowen Therapy previously.

The age range of the Subjects in the study was between **56** and **86** years.
 The age of diagnosis of Parkinson's Disease ranged between **34** and **85** years. The Subjects had been living with PD for somewhere between 1 year and 22 years.

1 person in the study had a family history of Parkinson's Disease. All others had no known history of Parkinson's Disease in their family.

2 people in the study had strong opinions on what had caused or triggered the onset of their PD. One said it was triggered following chickenpox and the other attributed it to his experience of working with chemicals used in road making.

³⁸ See Appendix E Symptom log

³⁹ See Appendix F Oral questionnaire

1 person mentioned chemical exposure – a pesticide at work which was indoors approximately 28 years ago and orchard spray 23 years ago. After exposure the Subject experienced severe headache each time.

7 out of the 8 experienced a tremor somewhere in their body.

The next most common symptoms experienced by the people in the study were

- Problems with writing
- Problems with dressing
- Problems with eating
- Problems with balance
- Unsteadiness
- Quality of sleep

Only 1 Subject in the study indicated that standing was an issue for them and the same Subject was the only 1 who identified tremor in jaw. This was the oldest Subject. Only 1 Subject indicated that depression was an issue and was one of the 2 diagnosed with Dementia with Lewy Bodies.

5 identified the following other symptoms

- Deteriorating speech quality
- Muscle cramps
- Problems getting out of bed
- Falling

4 identified

- Difficulty in swallowing
- Walking with a limp or shuffle
- Problems turning over in bed

3 identified

- Stiffness
- Problem getting out of a chair

2 identified

- Muscle pain
- Problems getting out of vehicles

The Subjects monitored between 1 and 18 symptoms.

The following tables show a **summary of the data** collected

Table of symptoms monitored in the study

									No of Subjects
Tremor in hand		S2		S4	S5	S6		S8	5
Tremor in leg	S1			S4	S5			S8	4
Tremor in jaw						S6			1
Tremor in head			S3		S5	S6			3
Problems with writing	S1			S4	S5	S6	S7	S8	6
Problems dressing	S1		S3	S4		S6	S7	S8	6
Problems eating					S5	S6	S7		6
Problems with facial muscles				S4	S5				2

Difficulty in swallowing	S1				S5	S6	S7		4
Difficulty in standing						S6			1
Deteriorating speech quality			S3	S4	S5		S7	S8	5
Depression							S7		1
Stiffness			S3				S7	S8	3
Muscle pain			S3					S8	2
Muscle cramps			S3	S4		S6	S7	S8	5
Stooped posture	S1				S5	S6			3
Walking with a limp or shuffle	S1		S3				S7	S8	4
Difficulty in getting going						S6	S7	S8	3
Problems with balance	S1			S4	S5	S6	S7	S8	6
Unsteadiness	S1			S4	S5	S6	S7	S8	6
Problems turning over in bed	S1		S3		S5		S7		4
Problems getting out of bed	S1		S3		S5		S7	S8	5
Problems getting out of a chair			S3			S6	S7		3
Problems getting in or out of vehicles			S3				S7		2
Falling	S1				S5	S6	S7	S8	5
Quality of sleep	S1		S3	S4	S5	S6	S7		6
Symptoms /Subject	12	1	12	10	15	16	18	14	

**Monitoring of symptoms after session 1 D=deterioration U= unchanged
M=moderate improvement G=great improvement
The last column shows the number of symptom which improved out of the total monitored.**

Symptom	S1	S2	S3	S4	S5	S6	S7	S8	
Tremor in hand		U		U	U	M		U	1/5
Tremor in leg	U			U	U				
Tremor in jaw						M			
Tremor in head					U	M			
Problems with writing	U			U	M	U	U	U	1/6
Problems dressing	U		U	U		U	U	U	
Problems eating					U	M	U		1/3
Problems with facial muscles				U	U				
Difficulty in swallowing	U				M	U	U		1/4
Difficulty in standing						U			
Deteriorating speech quality			U	U	U		U	U	
Depression							U		
Stiffness			U				U	M	1/3
Muscle pain			U					U	
Muscle cramps			U	U		M	U	U	1/5
Stooped posture	U				U	U			
Walking with a limp or shuffle	M		U				U	U	1/4

Difficulty in getting going						U	U	U	
Problems with balance	M			U	D	U	U	U	1/6
Unsteadiness	U			U	D	U	U	U	
Problems turning over in bed	U		U		M		U		1/4
Problems getting out of bed	M		U		M		U	U	2/5
Problems getting out of a chair			U			U	U		
Problems getting in or out of vehicles			U				U		
Falling	U				U	U	U	U	
Quality of sleep	U		M	U	M	M	U		3/6
Improvement per Subject	3/12	U	1/12	U	5/15	4/16	U	1/14	5/8

Comments

S4:Felt relaxed for the first 3 or 4 hours after session

S5:[therapist] S5 needed to take medication at 3pm. Took it at 3.30pm. Noted that next week's appointment needed to be earlier. Felt quite light headed for 2 hours then had a headache. Headache disappeared overnight and had extra energy after 36hours. When I say balance deteriorated it happened in 5cm darkness.

S6: Subject experienced dizziness on rising so nat mur was given. Post treatments comments by Subject: better urine output and control. Better sleep. No left leg pain. No night leg pain.

S7: Soreness and stiffness in arms.

S8:[therapist] S8 went to sleep during part of the session

Monitoring of symptoms after session 2 D=deterioration U= unchanged

M=moderate improvement G=great improvement

The last column shows the number of symptom which improved out of the total monitored.

Symptom	S1	S2	S3	S4	S5	S6	S7	S8	
Tremor in hand		M		U	D	M		U	2/5
Tremor in leg	U			U	D			U	
Tremor in jaw						M			1/1
Tremor in head			U		D	G			1/3
Problems with writing	U			U	M	M	M	U	3/6
Problems dressing	U		U	U		M	M	U	2/6
Problems eating					U	M	M		2/3
Problems with facial muscles				U	M				1/2
Difficulty in swallowing	U				M	M	M		3/4
Difficulty in standing						M			1/1
Deteriorating Speech Quality			U	M	D		M	M	3/4
Depression							M		1/1

Stiffness			M				M	U	2/3
Muscle pain			U					U	
Muscle cramps			U	U		M	M	U	3/5
Stooped posture	U				U	U			
Walking with a limp or shuffle	M		U				M	U	2/4
Difficulty in getting going						M	M	U	2/3
Problems with balance	M			U	U	U	M	U	2/4
Unsteadiness	U			U	U	U	M	U	1/6
Problems turning over in bed	U		M		M		M		3/4
Problems getting out of bed	U		M		M		M	U	3/5
Problems getting out of a chair			M			U	M		2/3
Problems getting in or out of vehicles			M				M		2/2
Falling	U		M		U	M	M	U	3/6
Quality of sleep	U			M	M	M	M		4/6
Improvement	2/12	1/1	6/12	2/10	6/15	12/16	18/18	1/14	8/8

Comments:

S2: Observer reported that after session tremor is less intense and doesn't last as long. (She sees him most days.)

S4: If I talk or think about tremor it starts.

S5: Had a slight neck ache also slight improvement in limbs. More stamina. The deterioration due to medication. (upgraded sinemet ½ tablet every other dose.

S6: (from therapist) S6 experienced clammy sweat during treatment. (from S6 after session) Generally unwell

S7: During session mentioned he didn't drink much water. He was light headed after treatment so was given a glass of water then the tissue salt nat mur. After session S7 commented on soreness and stiffness

S8: [therapist] S8 fell asleep once during session. Nat mur given.

Monitoring of symptoms after session 3 D=deterioration U= unchanged

M=moderate improvement G=great improvement

The last column shows the number of symptom which improved out of the total monitored.

Symptoms	S1	S2	S3	S4	S5	S6	S7	S8	
Tremor in hand		M		U	M	M		U	3/5
Tremor in leg	M			U	M			U	2/3
Tremor in jaw						M			1/1
Tremor in head			U		M	M			2/3
Problems with writing	U			M	U	U	U	U	1/6
Problems dressing	U		U	U		U	U	U	
Problems eating					M	M	U		2/3
Problems with facial muscles				U	M				1/2
Difficulty in	M				M	U	U		2/4

swallowing									
Difficulty in standing						M			1/1
Deteriorating Speech Quality			U	M	U		U	U	1/5
Depression							U		
Stiffness			U				U	M	1/3
Muscle pain			U					U	
Muscle cramps			M	U		G	U	U	2/5
Stooped posture	U				U	M			1/3
Walking with a limp or shuffle	M		U				U	M	2/4
Difficulty in getting going						M	U	U	1/3
Problems with balance	M			U	U	M	U	M	3/6
Unsteadiness	M			U	U	M	U	M	3/6
Problems turning over in bed	U		U		U		U		
Problems getting out of bed	M		M		M		U	U	3/5
Problems getting out of a chair			M			M	U		2/3
Problems getting in or out of vehicles			M				U		1/2
Falling	M				M	M	U	M	4/5
Quality of sleep	U		M	M	M	M	U		4/6
Improvement	7/12	1/1	5/12	3/10	9/15	13/16	U	5/14	7/8

Comments:

S5: just the feeling well being. Still had to take medication for headache. There is an improvement in my balance as I find I am putting both feet more firmly on the earth. [oral comments] didn't need to go to the toilet as frequently as before. She could control it better. Since having PD I have been more effected by strong smells.

S6: General aches and pains. Feet warm for the first time in ages

S7: Soreness and stiffness

S8: Prior to treatment S8 said he had a bad week. He was still prepared to have a session. [therapist] S8 fell asleep twice during the session.

Monitoring of symptoms after session 4 D=deterioration U= unchanged

M=moderate improvement G=great improvement

The last column shows the number of symptom which improved out of the total monitored.

Symptoms	S1	S2	S3	S4	S5	S6	S7	S8	
Tremor in hand		G		U	M	G		U	3/5
Tremor in leg	M			U	M			U	2/4
Tremor in Jaw						G			1/1
Tremor in head			M		M	G			3/3
Problems with writing	U			U	M	M	U	U	2/6

Problems dressing	U		U	U		U	U	U	
Problems eating					M	M	U		2/3
Problems with facial muscles				U	M				1 /2
Difficulty in swallowing	U				M	U	U		1/4
Difficulty in standing						M			1/1
Deteriorating speech quality			U	U	M		U	M	2/5
Depression							U		
Stiffness			U				U	M	1/3
Muscle pain			M					U	1 /2
Muscle cramps			U	U		G	U	U	1/5
Stooped posture	U				U	M			1/3
Walking with a limp or shuffle	M		U				U	U	1/4
Difficulty in getting going						M	U	U	1/3
Problems with balance	U			U	M	M	U	U	2/6
Unsteadiness	U			U	M	M	U	U	2/6
Problems turning over in bed	U		U		M		U		1/3
Problems getting out of bed	M		U		M		U	U	2/5
Problems getting out of a chair			U			M	U		1/3
Problems getting in or out of vehicles			U				U		
Falling	M				M	M	U	U	3/5
Quality of sleep	M		M	M	M	G	U		5/6
Improvement	5/12	1/1	3/12	1/10	14/15	14/16		2/14	7/9

Comments

S4: I get cold trembles inside as well as the ones in my arms and legs. Only after I got PD

S5: legs not so trembly in the early mornings (could be medication). Energy increased. Not having as many trips to the toilet.

S6: Headaches and pains in hands

S7: Soreness and tiredness, stiffness. Too gentle with treatment.

S8: [therapist] was change from prone to supine without getting off table. Went to sleep several times during session

When the symptom log was not provided or inconsistent the material was collected from the final oral questionnaire.

Comments made by or about Subjects about the treatment in oral questionnaire

S1 'not waking up as much'

S3 'During the sessions I felt nice and peaceful-it didn't go as far as massage.'

S4 'I felt very relaxed when having it.'

S5 'It was a plus that I only need to go once or twice to the toilet in the night whereas before it could have been 3 or 4 times.'

S6 There was an 'Improvement in bladder control.'

S6 'Haven't had any headaches for a while.'

S7 Carer commented that Subject is changing from day to day. Subject can't always say how he is feeling. Says he feels drunk and in a haze.

Observations made during the sessions

Some people went to sleep for short periods of time during the treatment.

Some felt light headed after the treatment and were given the tissue salt nat mur which alleviated the situation.

RESULTS

After the **first** session **5** out of **8** reported there was an improvement in some of their symptoms of PD.

Half of those presenting with quality of sleep as a symptom reported there was an improvement.

3 people reported that their symptoms remained unchanged.

After the **second** session of Bowen therapy **all 8** people reported that there was an improvement in some of their symptoms.

After the **third** session **7** out of the **8** volunteers reported an improvement in their symptoms.

1 person reported their symptoms remained unchanged.

After the **fourth** session **7** out of the **8** volunteers reported an improvement in their symptoms.

1 person reported their symptoms remained unchanged.

All Subjects reported at some time over the 4 sessions that they had an improvement in some of their symptoms.

6 people reported that some of their symptoms showed a moderate improvement.

2 people reported that some of their symptoms showed a great improvement.

None of the 8 Subjects reported that their symptoms deteriorated.

No one reported that all their symptoms showed an improvement.

The following symptoms showed improvement by 50% or more of the people in the study after the fourth session

- Tremor in the hand
- Tremor in the leg
- Tremor in the jaw
- Tremor in the head
- Problems with eating
- Standing
- Falling
- Quality of sleep

The only symptom where over 50% of people reported that there was an improvement after each session was **Quality of sleep** at 83%.

Over the 4 sessions there was an increase in the number of Subjects reporting an improvement in **tremor**.

All those involved in the study wished to be informed of the results.

When asked would they have Bowen Therapy again

1 person said no, 4 people said yes 1 person was unsure, 1 person said it would depend on finance and 1 said I don't think so.

DISCUSSION

When I began my research I did not include **quality of sleep** as one of the symptoms of PD to be considered. I was encouraged by medical practitioners to include it and for that I am most grateful as this was the symptom that consistently showed improvement after each Bowen treatment in over 50% of Subjects. It is interesting to reflect that Lisa M Shulman's study using acupuncture to relieve the symptoms of PD also found that the only symptom showing improvement was quality of sleep.⁴⁰

I had no preconceived idea that Subjects would use different indicators to measure quality of sleep, so it was interesting to see the outcome. One of the people in the study used a reduction in nightmares and sweating as the measure of improvement. He attributed the onset of both the nightmares and sweating to the time he began to use one of the antiparkinsonian drugs. Others measured the frequency they woke during the night and/ or the need to go to the toilet during the night as measures of quality of sleep. Further studies investigating the effect of Bowen Therapy on PD symptoms, would benefit by specifying a variety of measures, including the measure of bladder control/frequency of urination on the symptom of quality of sleep.

There was an increase in the number of Subjects reporting an improvement in **tremor** over the 4 sessions. For easier interpretation of results, given the size of the study, all forms of tremor were grouped as tremor. Only one Subject reported measuring the improvement by the decrease in intensity and the frequency of tremor. This Subject only monitored 1 symptom and was also one of the 2 Subjects reporting a great improvement in tremor. It was difficult for the Subject and or the person who made the observation to monitor more as the subject was confined to bed in a nursing home, with limited mobility. The observer visited the subject most days. It may be worth including guidelines for measuring tremor by intensity and frequency for Subjects in future studies. Many people with PD also adjust their own medication daily under the guidelines of their medical practitioner so this may also need to be added to the reality of measuring. This is another factor that might need to be considered when measuring the effect of Bowen Therapy on tremor.

It would be difficult to extrapolate anything where there was only 1 Subject identifying a particular symptom. Therefore in this study, 'difficulty in standing', although returning a positive result, has not been commented on in the results: similarly the unchanged status of the 1 Subject who identified depression.

⁴⁰ www.guide4living.com/parkinsons/alternative-treatment

S6 who reported a great improvement in 4 symptoms was the oldest in the group, had been given the most recent diagnosis of PD and was the person who drank the most water (2 litres) daily. S6 found it necessary to drink that amount of water because one of the side effects of the antiparkinsonian drug prescribed resulted in a dry mouth.

It is interesting to note that the Subjects who drank 3 glasses of water or more daily had the greatest improvement in terms of the number of symptoms which improved.

Conversely the 2 people who withdrew from the study because of the discomfort they experienced following sessions, reported that they did not drink any water⁴¹. These results seem to confirm what Russell Sturgess has said about those who can benefit most from Bowen and seems to support the theory of Russell Sturgess and John Coleman that Bowen may be rehydrating the fascia. They believe that the fascia rehydrates by drawing the water from somewhere in the body. If there is insufficient water then discomfort may occur. It is also interesting to note that after the administration of water then Nat Mur, (the water balancing chemical in the body), light headedness was relieved. Further investigation on the effects of Bowen therapy and water consumption could be worthwhile.

S7 who has Dementia with Lewy Bodies, consistently gave the same ratings after each session⁴². All symptoms were rated as moderate improvement or unchanged. One of the characteristics of DLB is fluctuating cognition. It may be useful to consider refining a study to include only those who have Parkinson's Disease rather than encompassing those with this Parkinson's Plus Syndrome, since the cognition fluctuations of DBL Subjects are likely to make their responses unreliable, with the potential to skew the results.

Even though Subjects reported improvement in their symptoms they did not necessarily wish to have Bowen again. It is only conjecture on my part for the reasons for this response; or it may simply mean that Bowen is not a suitable treatment for everyone. In the light of experience, if I were to repeat this study, I would attempt to ascertain what Subjects expected from Bowen Therapy prior to treatment so the outcomes could be effectively measured against expectations.

Subjects of the study were responsible for the monitoring their own symptoms. Perhaps some form of objective monitoring could be made. There was no regularisation in the symptoms monitored or in the severity of the symptoms. This also could be considered in future studies. All Subjects had a different set of symptoms and therefore the treatment varied. Perhaps a greater sample would enable a clearer comparison of symptoms to be made as this study used a small sample from a geographically limited area.

Conclusion

In conclusion, this study resulted in some useful insights, in particular the influence of Bowen Therapy on Subjects' quality of sleep, and the correlation between the daily water intake and the improvement of PD symptoms. In addition, given that people living with PD experience more tremor when they are fatigued or stressed, the findings of both Anna Dicker's study⁴³ (that Bowen reduces stress) and this study (that Bowen improved tremor) suggest that Bowen may be particularly useful in alleviating the tremor symptom, whatever its cause.

⁴¹ See Appendix G Volunteer History summary

⁴² See tables monitoring symptoms after each session p 15-19

⁴³ Dicker Anna, *Using Bowen Technique in a Health Service Workplace to Improve the Physical and Mental Wellbeing of Staff*, The Australian Journal of Holistic Nursing, Vol 12 Number 5, Southern Cross University October 2005.

It is not possible to make an unbiased assessment, or draw broad conclusions from this study. However it does provide sufficient initial evidence of symptom improvement to conclude that Bowen Therapy is useful in alleviating some symptoms of PD and to suggest that a larger, detailed and more controlled study, possibly limited to the symptoms of **tremor** and **quality of sleep** would be worthwhile.

Bowen Therapy can improve some symptoms of Parkinson Disease.

Glossary

Akenesia a loss of the sense of movement. Mosby

Bradykenesia an abnormal condition characterised by slowness of all voluntary movement and speech. Mosby

Cerebellar ataxia failure of muscle control

Dysarthria difficulty in articulating words

Dyskinesia an impairment of the ability to execute voluntary movements. Mosby

Festinating gait a manner of walking in which a person's speed increases in an unconscious effort to 'catch up' with a displaced centre of gravity. Mosby

Globus pallidus "the smaller and more medial part of the lentiform nucleus of the brain, separated from the putamen by the lateral medullary lamina and divided into external and internal portions closely connected to the stratum, thalamus and mesencephalon" Mosby's Dictionary

Kick in period denotes the period of time taken for the drug therapy to take effect.

On / off periods denotes the time when the drug therapy was having an effect or not.

Substantia nigra a dark band of gray matter lying between the tegmentum of the midbrain and the crus cerebri. Mosby

Subthalamus a part of the diencephalon that serves a correlation centre for the optic and vestibular impulses relayed to the globus pallidus.

Thalamus is involved in the mechanisms that produce complex reflex movements. Mosby's Dictionary

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www.parkinsons-vic.org.au, **Parkinson's Profile**

www.pdf.org **Surgical Treatments Medications and Treatments**

(Parkinson's Disease Foundation)

Appendices

Do you have Parkinson's Disease
or
know someone in southern Tasmania
who has Parkinson's Disease?

I am seeking volunteers who have **Parkinson's Disease** to assist in a research project involving Bowen Therapy treatment for the relief of symptoms of Parkinson's Disease.

Bowen Therapy is a gentle non-invasive remedial muscle relaxation technique. It is acknowledged by many private health funds as a complementary health service.

Anyone who thinks they can help please contact Margaret on **0417 050 449** or on **6297 1644** after hours

Margaret Horn Bowen Therapist

Member of the *Bowen Association of Australia*

Appendix B

Text given to Huon Valley Newspaper for publication.

Research on Parkinson's Disease

September 4th to 9th was promoted as National Parkinson's Week.

Did you know that there is an estimated 2,000 people living with Parkinson's Disease in Tasmania? It occurs more frequently in people aged 50 – 75 years but some are younger than 40 or over 80 when it is diagnosed.

It is not contagious and not a mental illness but it is a degenerative disease of the brain that affects a person's ability to control body movements. Many people display a tremor that may be in their arms, legs or head. Others have difficulty walking and may have a shuffle or limp. Some have difficulty eating, while in others their speech deteriorates. Many experience muscle pain and cramps. People living with Parkinson's Disease may have many of the above symptoms. Every person living with Parkinson's is different.

At the moment there is no blood test or scan that determines whether or not a person has Parkinson's Disease. It is diagnosed by a medical practitioner. As yet the cause of the disease has not been established and as yet there is no known cure.

Drug therapy is the main form of treatment and some people combine it with physical therapies, diet and self-help programs.

Margaret Horn, a Bowen Therapist working at Huonville is carrying out research to see if Bowen Therapy can relieve some of the symptoms of Parkinson's Disease.

Bowen Therapy is a gentle non-invasive remedial muscle relaxation technique. It is acknowledged by many private health funds as a complementary health service.

If you have been diagnosed with Parkinson's Disease or know of someone who has, and wish to volunteer to participate in the research, please contact Margaret on 0417 050 449 or after hours on 6297 1644.

Appendix C

Initial Questionnaire

Gender Male <input type="checkbox"/> Female <input type="checkbox"/>	
Date of birth:	
Your age when Parkinson's disease was diagnosed	
Are you or have you been treated for Parkinson's by any of the following <input type="checkbox"/> General Practitioner <input type="checkbox"/> Physician <input type="checkbox"/> Neurologist <input type="checkbox"/> Neurosurgeon <input type="checkbox"/> Physiotherapist <input type="checkbox"/> Occupational therapist <input type="checkbox"/> Speech Therapist <input type="checkbox"/> Nutritionist.. <input type="checkbox"/> Complementary Health Therapist – please name therapy	
Do you suffer from any of the following Resting tremor <input type="checkbox"/> Right hand /arm <input type="checkbox"/> Left hand/arm <input type="checkbox"/> Legs <input type="checkbox"/> Jaws <input type="checkbox"/> Head <input type="checkbox"/> Problems with writing <input type="checkbox"/> Problems dressing <input type="checkbox"/> Problems preparing meals <input type="checkbox"/> Problems eating <input type="checkbox"/> Problems with facial muscles <input type="checkbox"/> Difficulty in swallowing <input type="checkbox"/> Difficulty in standing <input type="checkbox"/> Deteriorating speech quality <input type="checkbox"/> Depression	<input type="checkbox"/> Stiffness <input type="checkbox"/> Muscle pain <input type="checkbox"/> Muscle cramps <input type="checkbox"/> Stooped posture <input type="checkbox"/> Walk with a shuffle or limp <input type="checkbox"/> Difficulty in getting going <input type="checkbox"/> Problems with balance <input type="checkbox"/> Unsteadiness <input type="checkbox"/> Problems turning over in bed <input type="checkbox"/> Problems getting out of bed <input type="checkbox"/> Problems getting out of a chair <input type="checkbox"/> Problems getting in or out of vehicles <input type="checkbox"/> Falling <input type="checkbox"/> Quality of sleep <input type="checkbox"/>

Margaret Horn
Bowen Therapist
 PO Box 138
 Franklin
 TAS 7113

Dear

Thank you for contacting me. I would like to inform you of what you are letting yourself in for. Just to fill you in on Bowen Therapy I have included my brochure which I have available for all my clients. I am an accredited Bowen therapist with the Bowen Association of Australia and have been practising since 1999.

If you wish to participate in the research you will be invited to experience a treatment made up of 4 Bowen Therapy sessions. Each session may be up to one hour in duration and will follow the time pattern below.

#	#		#		#
WK1	WK2	WK3	WK4	WK5	WK6

After each treatment you will be asked to reflect on your response. It may be useful to make diary notes yourself and or seek observations from those who have close contact with you.

Prior to the first session I would like you to complete a questionnaire on how you experience Parkinson's Disease and return it to me. When I receive your questionnaire I shall contact you to make your first appointment.

I have also enclosed a separate sheet for your contact details.

After the 4th session I will contact you and ask you to complete another brief questionnaire.

There will be no monetary cost to you for the treatment.

If you wish to proceed with this research I would be most grateful.

Appendix D
Identification:

Therapists Procedures / Observations

Repertoire of moves

Lower Back		
Upper Back		
Middle Back		
Hit the Lat		
Neck		
TMJ		
Hamstrings		
Knee Reflex		
Burning Heel		
Ankle		
Hammer Toes		
Pelvis		
Non-Response		
Cranial		

Did client have any of the following reactions?

Clammy sweat	
Thirst	
Need to urinate	
Dizziness on rising	
Disorientation	
Sleepiness	
Lethargy	
Surge of energy	
Hunger	
Emotional response	

Comments

Appendix F

Oral Questions to be given approximately a fortnight after completion of 4th session.

What medication do you take and at what times and how much is taken?

What was the first sign or symptom that you had Parkinson's Disease?

Looking back in hindsight how long do you think it was before Parkinson's Disease was diagnosed?

Have any of your relatives had symptoms of Parkinson's Disease?

(Include grandparents, parents, aunts or uncles, siblings or cousins)

Have you or any of your relatives had Multiple Sclerosis (MS), fibromyalgia, restless leg syndrome, Motor Neuron Disease, Polio, Dementia, or Peripheral Neuropathy

(Include grandparents, parents, aunts or uncles, siblings or cousins)

During your life what occupations have you had? Dates or age if possible

What hobbies or pastimes have you had or do you have?

What occupations have your parents had?

What occupations did your grandparents have?

What occupations/ hobbies/ pastimes have your relatives with PD(not already mentioned) had?

Have you had any stressful physical experiences in your life and at what ages did they occur?

Have you had any stressful emotional experiences in your life and at what ages did they occur?

Have you ever lived in a

- city
- rural area
- small country town

Do you have any other significant medical conditions for which you are being treated or have been treated for in the past?

What do you drink of the following each day and how much of it?

Coffee or tea

Fruit juice

Water

Anything else?? Include soft drink, cordial, alcohol

Over the 6 week period please assess your symptoms

Symptom	Deteriorated	Remains unchanged	Moderate Improvement	Great Improvement
As per Subject				

Were there any negative reactions you experienced following a treatment?

Any comments you can make about other reactions to the treatment.

Would you be prepared to have other Bowen Therapy sessions?

Would you like to be informed of the results of this research?

Were there any negative reactions you experienced following a treatment?

Any comments you would like to make about other reactions to the treatment.

Would you be prepared to have other Bowen Therapy sessions?

Would you like to be informed of the results of this research?

Appendix G

Volunteer History

Na = not available

Attributes	S1	S2	S3	S4	S5	S6	S7	S8	V1	V2	V3	V4	V5
Gender	F	M	F	M	F	F	M	M	M	F	M	M	M
Age	81	78	67	56	78	86	73	57	66	51	58	79	67
Age diagnosed	na	74	60	34	54	85	71	53	33	49	48	70	48
PD in family	No	No	No	yes	No	No	No	No	No	yes	No	No	No
Diagnosed as Parkinsons Plus Syndrome							Dementia With Lewy Bodies	Dementia With Lewy Bodies					
Medication for PD if known	Sinemet SinemetCR	Na	Stalevo Cabasar	Stalevo Madapor Artane	Sinemet Contam Cabasar	Artane	none	Sinemet Cabasar	Kinsen Contam Tasmar Sinemet CR Zyprexa Valpro	Cabasar Madapor Cipramil	na	Cabasar Kinsen Symmetrel	Cabasar Kinsen Symmetrel
Daily glasses of water	3	Na	2	2	3-4	2 litres	2	0	0	Na	Na	2 glass	0
Daily coffee/tea (cups)	4	Na	3-4	3	2	4	2	3	2			4	0
Daily juice (glasses)	1	Na	1	1	4 with H ₂ O	1	1	0	4			1	2-3
Daily other		a	½ bottle wine	2 beer 1 wine								1 cordial	1 litre fizzy dink per day
Had Bowen prior to research	No	No	No	No	No	No	No	No	No	No	Yes	No	No
Showed improvement during study	Yes 5/12	Yes 1/1	Yes 3/12	Yes 1/10	Yes 14/15	Yes 14/16	No	Yes 2/14					
Would have Bowen again	No	Yes	Don't think so	Depends on finance	Yes	Yes	Yes	Not sure	No	Na	Yes	Yes	Yes but for another reason
Have lived in a rural area	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes
Wished to know results	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	na	Yes	Yes	Yes