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## Using Bowen Technique in a health service workplace to improve the physical and mental wellbeing of staff

### Introduction

Health issues in the health workforce are an increasing problem. As with the general Australian workforce health professionals are aging and the costs of workplace injuries and illnesses are increasing. In New South Wales the average age of a nurse is 44 years, having risen from 41.7 years in 1999. Nurses aged over of 55 years have risen from 9.6% of the nursing workforce in 1999 to 14.3% in 2002 (NSW Health 2002). The allied health workforce is generally a little younger but 58% are over the age of 35, with 9% over the age of 55 (O'Kane & Curry 2001).

The rising cost of workplace injuries is alarming. In 2000/2001 the gross cost of employment injuries in NSW was \$1138 million. Mental disorders (including stress) accounted for 20.7% of all diseases and cost \$44.8 million.

### ABSTRACT

*A six week program using Bowen Technique treated 31 Hospital and Community Health Service staff in a group setting providing an innovative way to reduce stress and improve physical health. Quantitative and qualitative data indicated that Bowen Technique was successful in reducing pain, improving mobility, reducing stress, and improving energy, well being and sleep.*

Back injuries accounted for 30% of all workcover claims costing \$270 million.

Health related industries accounted for 49% of all mental health claims with an average time off work of 21 weeks. RSI and Occupational Overuse Syndrome accounted for 11.3% of all claims with the majority occurring in the health field. The average time off work was 16 weeks (Workcover 2001).

### The Impact of Stress

Stress has a substantial impact on any organisation, with financial implications in terms of increased sickness, absenteeism, decreased productivity, reluctance to change and the chance of litigation (Howard 1995). Current health and safety legislation clearly places responsibility with the employer to control or reduce hazards including stress (Workcover 1998).

With chronic stress there is increased activation of the sympathetic-adrenomedullary axis with increased production of adrenaline and noradrenaline and associated health problems (Julius, Schork & Schork 1988; Plubbs 1987 in Antai-Otong 2001; Schalekamp, Vincent, Man in't Veld 1983). Because of the mind body connection, chronic stress also results in emotional disturbances such as depression, irritability, anxiety, frustration, anger and lack of confidence (Antai-Otong D 2001).



### Workplace Stress Management Programs Using Complementary Therapies

Non-drug interventions that reduce stress and sympathetic arousal have demonstrated clinically significant and lasting blood pressure reductions (Barrios-Choplin, McCraty, Cryer 1997; McCraty, Atkinson, Tomasi 2003). Since the 1970s Employee Assistance programs have been introduced, but have often failed to successfully address the major issue of workplace stress. Increasingly health economics apply pressure on employers to provide more staff healthcare at the workplace (Lippitt 1996).

There has also been a trend towards the introduction of workplace health promotion strategies which have been shown to be very effective (Edwards, Burnard, Owen, Hannigan, Fothergill, Coyle 2003). At the core of stress management are self-renewal activities which include personal holistic health promoting activities fostering a state of well being. These activities can include physical, psychological, mental, social and spiritual components (Antai-Otong 2001; Field, Quintino, Heuteleff, Wells-Keife, Delvecchio-Feinberg 1997).

### Complementary Therapy Stress Reduction Programs in the Health Sector

In the UK, complementary therapies are being integrated into the National Health Service. Wirral Hospital in Merseyside developed a permanent massage service for staff with 900 staff accessing

the service in the first 12 months (Scott 1995). A unit of the Havensack University Medical Centre in New Jersey, USA, runs a Retreat for Healthcare Providers looking to manage stress and to increase mind/body/spirit connection (HUMC 2004). The Sacred Space Foundation, a registered charity in the UK, has established retreats in the Lake District to support stressed-out health professionals (Wright 2000).

In Australia the Clarence Valley sub-branch of the

*'... health economics apply pressure on employers to provide more staff healthcare at the workplace.'*

Australian Holistic Nurses Association runs a retreat for nurses and health care workers, at Yamba NSW and the WA branch of the Australian Nursing Federation has provided retreat/holiday accommodation for its members for some years (Tattam 1994). All these retreats utilise complementary therapies in their approach to helping burnt-out health professionals to heal and learn coping mechanisms to use in their lives.

### The Effect of Bowen Technique on Stress

While many tactile, visual imagery and psychological

approaches have been applied to the problem of staff health, Bowen Technique is a relatively new therapy and its potential has yet to be fully explored. Measurement of changes in heart rate variability and clinical observation demonstrated that Bowen Technique affects a change in the autonomic nervous system (Whitaker & Marlow 1998; Whitaker, Gilliam, Seba 1997). Bowen Technique has been found to enhance individuals' positive moods, reduce tension, anxiety, fatigue, anger, depression and confusion (Rayment 1997). Norman's study into the effectiveness of Bowen Technique found that clients rated the treatment as 80% successful for the relief of stress and tension (Norman 1998).

### The Effect of Bowen Technique on Physical Problems

A range of studies look at the effectiveness of the Bowen Technique in the treatment of a wide range of physical conditions. Significant improvement in shoulder function in clients with diagnosed frozen shoulders or long term shoulder pain has been demonstrated (Carter 2001; Kinnear & Baker 2000). Other studies have demonstrated improvement in: Asthma (Rattray & Godfrey 2002) Belpachospasm (Figov 1999) Bunion Treatment (Lambeth 1999) Carpal Tunnel Syndrome (Sheedy 2000) Chronic Back Pain (Rayment 1997)

Fibromyalgia (Whitaker et al 1999, 1997)  
 Lymphatic Drainage (Lund 1999)  
 Migraine (Ariff 2002)  
 Restless Leg Syndrome (Biorac 2000)  
 Staff Health (Dicker A 2001)  
 Acknowledged health

problems of an aging health workforce and the associated costs indicate that our health services need to provide some innovative ways to manage the health of their staff, particularly in the area of stress. The literature review demonstrates that workplace stress reduction programs using complementary and non-pharmacological therapies are effective in reducing staff stress. It is also known that stress reduction has wider health improvement implications. This paper proposes that as the Bowen Technique is effective in reducing stress and improving physical health problems it would be a suitable program to assist with the management of staff health problems.

### **Bowen Technique**

Bowen Technique was developed by Tom Bowen (1916-1982) in Geelong, Victoria.

Bowen moves are subtle and very precise mobilisations made gently with fingers and thumbs. Specific points of the body are addressed by using gently rolling moves over muscle, neurovascular bundles, ligament, fascia or tendon. The moves draws slack skin back, holds the point in a 'challenge', then is completed by moving the fingers and thumbs back over the muscle, creating a vibration stimulation. The pressure used

is very light. Every few moves the practitioner leaves the client for at least 2 minutes to give the body time to respond to the move. This waiting period allows response to occur on physical, energetic and emotional levels. A typical treatment takes 20-30 minutes and, unlike many other therapies, the less done the more effective the treatment (Rentsch & Rentsch 1997).

### **Methodology**

This study was designed to determine the usefulness

*'... workplace stress reduction programs using complementary and non-pharmacological therapies are effective in reducing staff stress.'*

of Bowen as a useful tool to improve the health of staff in the workplace. The focus was on stress with acknowledgement that some physical problems may also respond to the treatment. Ethics Approval for the research project was granted by the Manager Eastern Cluster, Northern Rivers Area Health Service as a Health Promotion project. Ethical approval to research the effects of Bowen Technique on staff was given by the Complementary Therapy Subcommittee of the NRAHS

Executive, chaired by Anne O'Donoghue. The time chosen for the study was 6 weeks from the 1<sup>st</sup> of December, as this is traditionally the most stressful time for the staff in Community Health and the Hospital environment, due largely to the massive influx of visitors to the area—Byron Shire experiences over 1.7 million visitors a year which puts a huge load on resources (Byron Shire 2001). Counselling staff identified that the Christmas period (and the associated expectations that it be a happy time) puts a lot of emotional pressure on staff both professionally and personally.

### **Participants**

Participation in the study was voluntary and free, with any employee of the Northern Rivers Area Health Service being eligible to attend. Staff could attend a maximum of once a week for up to 6 sessions—staff received an average of 2.7 treatments each. Waiting times between moves during each session enabled up to 5 clients to be treated consecutively.

### **The Study**

Participants were asked to fill in a comprehensive health assessment and to rate their stress level on a scale of 0 (zero stress) to 10 (maximum stress). The average self assessed stress levels, pre-treatment, was 6 on a 0-10 scale (5 staff did not record a pre treatment stress level). Details of any physical problems were noted and a plan of treatment made. The client's written



consent was obtained. Notes made at each visit were brief due to time constraints and, although were not used in the final evaluation, were used as a guide for response and treatment plans.

Detailed questionnaires were distributed a week after the project finished with a return date of 5 weeks hence. A copy of the original health assessment was included to refresh participants' memory of what they had presented with. The questionnaires included the number of treatments received. Clients were asked to rate any improvement on a scale of 0 to 10 with zero equating to no improvement, 5 for much better and 10 indicating completely better. Areas addressed were (i) stress levels, (ii) energy, (iii) well being, (iv) sleep patterns, (v) pain/discomfort (up to 8 areas mentioned in the initial assessment were separately rated), (vi) Mobility (up to 4 areas were separately rated). Comments were invited in each area. Participants were also asked if they thought there was a need for an ongoing program, if they saw staff stress reduction programs as a responsibility of the health service, and for general comments. Participants were informed of the evaluation process and results were distributed after correlation.

### Treatments

Basic Bowen moves (known as the Basic Relaxation Moves), as taught by the Bowtech method and described in the Bowtech training manual were made for each client. With

the participant lying prone the therapist sets up the move, waits for an exhalation then moves across the tissue point creating a gentle vibration. After completing the moves in the prone position the participant is re-positioned supine and the remainder of the moves completed. The majority of participants received the Basic Relaxation Moves only—some participants received more specialised moves for specific health problems within the time constraints.

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*'One fully qualified Bowen Therapist conducted the treatments with another acting as an assistant.'*

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Participants were not required to remove clothing. Treatment tables were placed 1.5 metres apart and relaxation music was softly playing in the background. After the first treatment participants were given a professional pamphlet, an information sheet and a list of standard instructions to cover the post-treatment period which alerted to the need to drink 6-8 glasses of water, not to use ice packs or heat packs, to avoid other forms of therapy for at least 5 days and to avoid contact sports or vigorous exercise. Participants were also warned that treatment could cause some aches and pains the next day

and that such an effect was normal. An after-hours contact number was provided to address participant's questions.

One fully qualified Bowen Therapist conducted the treatments with another acting as an assistant. Both Bowen Therapists were members of the health staff and were acting in a paid capacity as part of their work. Costs were minimal and absorbed by the Health Service management. Participants attended in their own time or were released from their duties to attend. The project was submitted as a health promotion proposal and was well supported by the Health Service manager.

### Results

A total of 31 staff were treated over the 6 weeks with 28 questionnaires returned—90% response rate. The 3 participants who did not return evaluations were eliminated from the study (n=28).

### Demographics

There were 6 males and 22 females. All participants came from the Community Health and the Hospital sectors and the range of occupations was across the whole spectrum. Allied Health (10) included counsellors, physiotherapists, occupational therapists and social workers (all from Community Health); Nursing (11) included community nurses, mental health nurses, hospital nurses and nurse managers; Other (7) were hotel staff, receptionists (from hospital and community) and wards-men.

The staff of the Hospital and Community Health Service

reflected the aging workforce picture shown across the state—in the participant group (n=28), 20 were aged over 41 (71%).

### Stress levels

Stress was the main focus of this study as it was the one single factor common to each participant prior to commencement of the study. Participants' pre-treatment stress levels varied. Post treatment there were some dramatic reductions, while others pointed out that they weren't stressed in the first place! The majority (23) of the participants identified an improvement in stress levels. Comments from the first treatment included:

*'The treatments have helped to lower my stress levels.'*

*'My stress levels have reduced. Seem to be able to stay in control when certain situations arise.'*

*'I found the therapy to be very good for stress. Just having the time to concentrate on healing was a great experience.'*

*'My stress levels have dramatically dropped.'*

*'Really enjoyed taking time out to nurture self through this trial. Important, necessary message to get and give to ourselves and bigger picture-wise to our clients.'*

### Energy and well being

Participants did not appear to have any difficulty in differentiating between the question of energy and well being although both questions resulted in 18 of participants reporting improvements (64%). Most participants found a change in their energy. One participant felt very flat and had no energy for 2 days

while others were amazed at the change they experienced. Comments included:

*'I noticed a change 2 weeks into the course, when I felt more energetic than I had for some time.'*

*'For a 2 week period this was VERY noticeable.'*

*'Not as tired.'*

*'More able to focus my energy.'*

*'I found a more consistent level of energy.'*

Participants were able to look at their overall health situation in relation to the Bowen Program outcomes. It was also

*'... the program helped participants cope with the stresses of their workload.'*

clear from comments that the program helped participants cope with the stresses of their workload. Comments included:

*'I felt nurtured and cared for and this felt very important in my job which often feels like energy being given out to clients and few are in a situation where any can be returned.'*

*'Moving about freely allows one to look and act better.'*

*'Particularly at work. I have felt calm and able to deal with stressful situations with ease.'*

*'I feel much better as a whole for the treatments.'*

*'Yes -tolerance levels improved.'*

*'Overall felt happier and enjoyed the day even though our area of service is very hectic at this time of the year.'*

*'In particular the week following treatment.'*

*'Did feel much more able to cope with the complexities of the approaching Christmas.'*

### Sleep

No previous studies have been done on the effect of Bowen Technique on sleep. This question on sleep was an afterthought to explore the improvement of participants' rest and recuperation process. It was possible that a reduction in physical pain allowed some people to sleep better. Of the 28 participants 14 recorded a positive effect on their sleep patterns. Comments included:

*'With less pain in my neck and shoulder I have better quality sleep.'*

*'Only waking once a night instead of 3-4 times'*

*'I now sleep like a baby when previously I was a light and restless sleeper.'*

### Pain or discomfort

This was recorded by participants initially and the improvement after treatment noted. Many staff members had multiple problem areas, presumably due to age and long working history. Many participants reported physical problems as chronic and had received extensive treatment in the past with varying results. Many had accessed the physiotherapy department for acute treatment but most just accepted that chronic pain was part of the job and was age-related. Bowen Technique usually treats chronic problems with a specialised treatment plan but time constraints meant only limited treatments could be given in this program.

Areas reported as being



problems were: Neck 18, shoulder 12, lower back 10, headaches 7, hip 6, upper back 5, knee 4, buttock pain 3, tendonitis (elbow) 3, asthma 2, stress incontinence 2, ankle 2, sinus 2, sciatica 2, ear 1, dysmenorrhoea 1, lymphedema 1, breast tenderness 1, bursitis 1, allergy (sneezing) 1, jaw 1, gall bladder 1, foot pain 1, 87 areas in total. Participants averaged 3.4 problem areas of pain or discomfort. Post-treatment self-evaluation revealed that 2 participants—one of whom had 1 treatment and the other received 2 treatments—covered 10 areas of pain and discomfort that had not responded to treatment. The questionnaire had a descriptive term with the value 3 being 'better'. Participants responded that 78% of areas responded with 'better' or more.

#### Previous knowledge of Bowen Technique

Most participants had heard of Bowen Technique, some having received previous Bowen treatments at work, however many were receiving this technique for the first time. They were asked to make comments about the changes to their pain:

*'Treatment would usually relieve headaches and I found less need to use pain-killers. Also I noticed a reduction in frequency.'*

*'Due to having several treatments over the year I have found that each treatment I have becomes more effective'*

*'My lower back pain was aggravated by moving house in the middle of my treatment which led to a response of very much better.'*

*'Approx. 1 hr after initial treatment I felt as if I had been trampled in a rugby scrum, 7 hrs later I felt great. Each subsequent treatment left me feeling euphoric immediately.'*

*'I didn't expect any improvement after 1 treatment. The treatment itself is relaxing however so that perhaps had a beneficial effect.'*

*'The pain in the hip is definitely not as bad.'*

#### Mobility

Participants who indicated a problem with joints were asked

*'The majority of the staff felt that a staff support program such as this had value in workplace stress reduction.'*

to indicate any improvement in mobility—27 participants had 48 areas of concern between them in which mobility had been restricted. Participants reported that 38 of areas were improved and rated 3 or more on the 0-10 scale.

There was enthusiastic feedback about the increase in mobility:

*'Even 4 weeks later I feel movement is completely free'*

*'Do not have any neck stiffness now'*

*'My lower back seems more flexible'*

*'Hips feel less fused'*

#### Attitudes to workplace stress-reduction programs

The majority (26) of the staff felt that a staff support

program such as this had value in workplace stress reduction. Most (24) felt that stress reduction programs for staff were a responsibility of the health service. They had many comments to make—many on the theme of helping the wear and tear on the body and thus improving performance:

*'I think it is vitally important to care for staff—body therapy, massage, treating aches and pains enables staff to keep working instead of getting to crisis point.'*

*'Does a lot for staff morale to know they can access something like this that the service supports. Nice to know at crisis times that an accessible intervention is available—otherwise wouldn't do anything as hard to get organised for massage etc.'*

*'Many staff have things wrong with them. If the health service can facilitate such a great program it would encourage a better work performance.'*

*'It can only be a positive step towards people's morale and pain support'. 'Most definitely for many reasons—reinforcing message of practicing what we preach to clients—de-stressing, encouraging interest and acceptance of fellow peers knowledge and talents'*

*'Many staff are faced with some very stressful situations and a staff support program would be very beneficial for stress reduction.'*

#### General comments

There were some constructive criticisms from participants about the venue (the physiotherapy department), the feeling of being rushed because the room was going to be used shortly, the noise of telephones, noisy footwear and

the timing of the sessions. But there was plenty of enthusiasm and hope that this project would lead to a permanent clinic. Some staff who joined in the project towards the end expressed regret that they hadn't accessed it earlier as they were surprised how beneficial it had been.

#### Participant recommendations

All participants wanted an ongoing program and gave some convincing arguments as to why:

*'The aging workforce needs all the help it can for staff to stay on their feet and maximise their work performance. It is a cheap way of helping staff with their physical and mental health.'*

*'Very positive feedback from all staff I know who attended. Also there is no other health promotion program offered for the staff. It is not a youthful staff and many have stress/physical work related problems.'*

*'Nearly all the staff I know suffer physically because of the stress of their jobs. Anything the organization can do to help reduce stress and pain is gratefully accepted.'*

*'Although we are conscious of safe working practices, there are still many occasions when a simple action causes muscle strain.'*

*'I heard a few comments from participants that "I really don't think this will work but I will give it a go". Bingo after one treatment there was relief and this changed their belief.'*

*'If the health service is interested in keeping workers at work and not out on stress leave or just ill, it is sensible to make sure that work conditions are as safe and stress free as possible.'*

*'We maintain our cars don't we?'*

*'Most definitely. There appears to be little rewards or prestige in working in health these days, certainly a bigger picture plan would have to look at greater productivity and effectiveness if staff were 1) healthier and 2) less stressed.'*

#### Discussion

For the majority of participants, the Bowen Technique produced positive results in a number of areas. It has been demonstrated that this therapy is a

*'... health staff appreciate and benefit from a workplace health program.'*

useful tool to improve the physical and mental health of staff. Key outcomes were the improvement of stress levels and the improvement of physical problems. Staff morale rose as a result of the staff feeling valued by the Health Service. The program acted as a team building exercise because of the group atmosphere and so many staff participating in a health promotion project with interaction that would not normally take place across the spectrum of occupations. None of the participants reported adverse effects from the therapy. The fact of being able to treat several people at the same time is a very efficient way of giving individual treatment.

It is accepted that there are some limitations to this study and that the method of scoring the scales was by participant self-assessment and was therefore open to subjectivity. Future research could explore the degree of response related to the number of treatments and the chronic nature of the complaints and the response of the physical problems to the various different sets of Bowen. Such explorations were beyond the scope of this study.

#### Recommendation

In terms of successful outcomes in pain reduction, mobility improvement, stress reduction, improvement in energy, well being and sleep, further study is warranted. It has also been demonstrated that health staff appreciate and benefit from a workplace health program and the value of this should also be further explored. Bowen Technique training is widely available in Australia and overseas. It is not an expensive training with current costs under \$2000.

#### Acknowledgement

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