

What is Bowenwork®? A Systematic Review

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Abstract

Objectives: The objectives of this study were to systematically review the literature available on the complementary approach to healing known as Bowenwork® and to examine reported research methods.

Methods: To the authors' knowledge, an exhaustive search of the computerized databases from the known scientific community on all available published literature on Bowenwork® was conducted. Databases included Medline Ovid, PubMed, PsychINFO, and CINAHL.® The literature search included English language studies (1985–September 5, 2009) using the following search terms: Bowen Technique, Bowen Therapy, Bowtech, and Bowenwork®. In addition, a hand search of individual journals noted to publish complementary and alternative medicine articles was done (1997–2009). Abstracts of all studies were reviewed. Studies were included if (1) they referenced the original Bowenwork, (2) provided health-related outcomes, and (3) provided quantitative or qualitative data. Excluded articles included testimonials, duplicates, unrelated topics, literature reviews, articles lacking verifiable sources, and studies from proprietary resources.

Results: Of the 309 citations obtained, only 15 articles met the inclusion criteria (randomized clinical trial, $n=1$; quasi-experimental, $n=2$; mixed methods, $n=3$; cross-sectional, $n=2$; case study, $n=7$). Over half of these studies (53%) reported that Bowenwork was effective for pain reduction and 33% reported improved mobility. In addition, several studies ($n=5$) reported the effectiveness of Bowenwork® on the relief of symptoms experienced by persons living with a chronic illness, such as multiple sclerosis.

Conclusions: Bowenwork® may provide a noninvasive and affordable complementary approach to improvements in health. This intervention may offer improvements in pain reduction for various conditions such as frozen shoulder and migraines. While Bowenwork is recognized internationally, scientific evidence is not well documented. Further research is needed to systematically test this modality, before widespread recommendations can be given.

Introduction

PUBLIC RECOGNITION OF COMPLEMENTARY and alternative medicine (CAM) has increased the desire among many people to improve and maintain their health through a holistic approach to wellness. However, oversimplification of the term holistic has created controversy and speculation about many of the complementary approaches to health. The public is inundated with treatments and therapies, all claiming to provide answers to health care problems they have been suffering from for years. There is a tremendous concern about the validity of many complementary and alternative therapies, especially since there is no standard to the wide variety of credentialing and licensure requirements.¹ Exposing complementary and alternative medicine (CAM) to the scrutiny of research is necessary to legitimize these approaches and

protect individuals from questionable and/or dangerous practices. Systematic reviews on CAM modalities bring information to practitioners to allow for informed decisions about different therapies.² The National Center for Complementary and Alternative Medicine (NCCAM) of America classifies CAM into four categories, and one of these categories is described as the “manipulative and body-based practice.” Bowenwork® is one of the lesser-known therapies and will be the focus of this review.

Bowenwork is also known as Bowen, Bowen Therapy, Bowtech, and Bowen Technique in the literature, though Bowenwork is the official name trademarked by the Bowen Therapy Academy of Australia. Bowenwork is a relatively new form of “manipulative/body-based practice,” in the same category as osteopathy and massage.³ Bowenwork is a noninvasive technique that uses a gentle series of hand

movements over muscles to stimulate nerve pathways.⁴ A treatment consists of multiple combinations of moves over specific areas depending on the symptoms the person is experiencing. The precise movement gently stretches the muscle and fascia with a continuous movement over the muscle from one side to the other. It is postulated that this movement causes a transitional state of realignment of microfibers within the nervous system to stimulate healing pathways.^{4,5} Bowenwork[®] is of interest because it is a low-cost, noninvasive, gentle approach to improve health and well-being, and causes no discomfort.⁴

To date, the theory of how Bowenwork actually works is based on clinical observations. It is postulated that Bowenwork is closely linked to the autonomic nervous system and involves stimulation of stretch receptors in muscles that include the Golgi tendons and spindle cells.⁴ The activated fibers of the proprioceptive system, an internal awareness of sensory stimulation, initiates a brain response, which in turn sends nervous system messages back to the fascia to normalize the resting rate of the tissues.⁶ An essential component of the technique is a 2- to 5-minute pause between sets of moves, which allows for the integration of the messages and the nervous system response.^{6,7} As the tension level is normalized, fluid movements of lymph and blood are increased in the area, which enhances tissue repair in injury sites.⁸ The clinical theory behind this work could support the reduction of stimulated pain receptors and could be indicative of the outcomes associated with pain management and improved mobility. However, additional research examining the potential mechanisms of Bowenwork is needed.

Although Bowenwork is widely recognized and utilized for a variety of health conditions in over 30 countries, little research-based effectiveness data are available to guide clinicians in recommending this practice to patients. It is apparent that more randomized control studies are needed to support this approach to healing and give credence to its effects. Therefore, the purpose of this systematic review is to present a detailed account of the literature available on Bowenwork, examine the methodological approaches, and summarize the scientific findings to date.

Background on Bowenwork

Bowenwork was first introduced in the early 1950s by Thomas Bowen (1916–1982) of Geelong, Victoria, Australia. Mr. Bowen was influenced by early osteopathic soft-tissue manipulation, but created his approach largely through trial and error over a period of 30 years. According to the Report of the Committee of Inquiry into Chiropractic, Osteopathy, Homeopathy, and Naturopathy⁹ by the Victorian Government of Australia, Mr. Bowen treated an estimated 13,000 patients per year. The report revealed greater than an 80% success rate in symptoms that were associated with a wide range of conditions, from chronic ailments to acute injuries including pain reduction.^{4,5,10} Since 1989, Bowenwork has spread around the world and classes have been taught in over 20 countries, in six different languages, with over 70 current instructors. In Australia, Bowenwork has become a nationally accredited, 2-year vocational program offered through the Border College of Natural Therapies based in Albury Wodonga, Victoria. It has been given reputable status in Europe, especially the United Kingdom, where in 1993 the

Bowen Therapy Academy of Australia was accepted into the British Complementary Medicine Association.¹¹ Bowenwork is also recognized by the Canadian Naturopathic Association, and in the United States by the Oregon Board of Chiropractic Examiners and the Oregon Association of Naturopathic Physicians, for continuing education credits.

Methods

Literature search

A computerized search of four nationally recognized electronic databases (Medline Ovid, PubMed, PsychINFO, and CINAHL[®]) was conducted. The literature search included English language studies beginning in 1985 through September 5, 2009, using the following search terms: Bowen Technique, Bowen Therapy, Bowtech, and Bowenwork. In addition, a hand search of individual journals noted to publish CAM articles including Bowenwork were reviewed for potential articles. The referenced journals and/or magazines were chosen from Australia, the country of origin for Bowenwork. Abstracts of all studies were reviewed for inclusion in this systematic review. Inclusion criteria were (1) original Bowenwork, (2) health-related outcomes, and (3) quantitative or qualitative data reported. Excluded articles included testimonials, duplicates, unrelated topics, literature reviews, articles lacking verifiable sources, and studies from proprietary resources.

Study quality

All studies were critically appraised on a total of 16 study elements to determine a study quality score.¹² Elements reviewed included study design, sample selection, description of Bowenwork, and description of health-related outcomes, data analysis, and results. Each item had a possible score ranging from 0 to 2 (0=absent, 1=partially defined, 2=clearly defined), with possible scores ranging from 0 to 32. This tool was used to review the methodological quality of the reported research studies to date examining Bowenwork (Table 1).^{2,3,5,10,13–16}

Results

A total of 284 citations were obtained electronically, though only 14 articles met the inclusion criteria. An additional 25 articles were obtained through the hand search method, though only 1 additional study met the inclusion criteria (Table 2). Therefore, a total of 15 articles were reviewed (randomized clinical trial, $n=1$; quasi-experimental, $n=2$; mixed methods, $n=3$; cross-sectional, $n=2$; case study, $n=7$). A quality score was given for each of the research studies (not case studies) included in this review. Scores ranged from 11 to 27 (mean=17.75, standard deviation=5.63); however, no studies were excluded on the basis of their quality.

Research studies

A total of eight research studies were published between 2001 and 2008 (Table 1) and included a wide variety of study designs, though all studies used methodological approaches for the discovery of health-related outcomes using Bowenwork. Subjects included in these studies reported pain, joint or muscle stiffness, chronic illness, or poor quality of life.

TABLE 1. CHARACTERISTICS OF PUBLISHED RESEARCH STUDIES

First author, year	Study design	Aim/objective	Sample	Measurement	Standardized tool, yes/no	Results
Dicker, 2001 ¹⁰	Quasi-exp	Effects on health care providers quality of life	Community dwelling adults, n = 28 Age = 71% > 41 yrs old, 79% women	Questionnaire, 90% response rate	No	89% relief of symptoms 78% improved ability to work Quality Score = 12
Carter, 2001 ¹³	Mixed methods	Effects on frozen shoulder, pain, and perceived function	Adults with diagnosis of frozen shoulder, n = 20 Age = 75% > 50 yrs old 50% women	Pre/post-test assessment	Yes, McGill Pain Questionnaire and Pain diaries	100% self-reported relaxation and improved well-being 70% improvement range of motion 80% pain score 0–2 (none to slight ache) Quality Score = 19
Hooper, 2001 ²	Mixed Methods	CAM use for MS	Diagnosis of MS, n = 40 48% with MS > 10 yrs Age = 42% 50–59 yrs old, 70% women	Questionnaire and semistructured interviews	Yes, Extended Disability Status Scale	82% used CAM 72% reported perceived benefits 3 % used Bowen Technique Quality Score = 27
Long, 2001 ³	Cross-sect	Perceived medical benefits of CAM	CAM practitioners, n = 66 age and gender not reported	Questionnaire	Yes, Survey from the UK Department of Health	No obvious trend noted in Bowenwork [®] treatment, without supported clinical evidence Quality Score = 25
Carter, 2002 ¹⁴	Mixed methods	Effects on frozen shoulder	Diagnosis of frozen shoulder with impairment in daily function, n = 20 Age = 75% > 50 yrs old, 50% women	Semistructured interviews without qualitative analysis	Yes	75% Reported improvement in ROM and pain after initial treatment Quality Score = 19
Potter, 2002 ¹⁶	Quasi-exp	Effects on frozen shoulder and shoulder pain	Healthy volunteers with gradual onset shoulder pain, n = 100, age and gender not reported	Pre/post-test assessment of ROM	No	Treatment group improvements: 40% shoulder abduction 28% forward flexion Placebo group improvements: 8% shoulder abduction 7% forward flexion Quality Score = 11
Dicker, 2005 ¹⁵	Cross-sect	Effects on work-related injuries	61% work related injury, n = 49 age and gender not reported	Questionnaire, 69% response rate	No	97% felt Bowen Technique was effective 70% reduction in sick leave Quality Score = 12
Marr, 2008 ⁵	RCT- single blinded	Effects on hamstring flexibility	Community dwelling volunteer, n = 116, age and gender not reported	Pre/post-test	Yes, hamstring flexibility using electrogoniometer	Statistically significant better flexibility (t test, p < 0.01) Quality Score = 17

Quasi-exp, quasi-experimental; CAM, complementary and alternative medicine; MS, multiple sclerosis; Cross-sect, cross-sectional; ROM, range of motion; RCT, randomized clinical trial.

TABLE 2. BOWENWORK[®] LITERATURE SEARCH RESULTS

Database	Abstract reviewed	Articles included	Not included
CINAHL [®]	33	14	19
MEDLINE	5	0	5
PubMed	245	0	245
PsychINFO	1	0	1
Hand Search	25	1	24
Total	309	15	294

Inclusion criteria were (1) original Bowenwork, (2) health-related outcomes, and (3) quantitative or qualitative data reported. Excluded articles included testimonials, duplicates, unrelated topics, literature reviews, articles lacking verifiable sources, and studies from proprietary resources.

Sample sizes ranged from 20 to 66 subjects per study, using primarily convenience samples. To date, only one randomized control trial using Bowenwork has been reported, though it was a large study that included 116 community-dwelling volunteers. The quasi-experimental and mixed-methods study samples ranged from 20 to 100 subjects per study, while the cross-sectional study samples ranged from 49 to 66 subjects per study.

The majority of these studies reported favorable outcomes for pain relief, fewer migraines, and improved shoulder mobility.¹³⁻¹⁶ However, not all of the studies reviewed reported improvements in health-related outcomes following treatments using Bowenwork.³ Only five studies utilized standardized measurement tools to assess health related outcomes, such as joint range of motion, hamstring flexibility, and mobility.^{2,3,5,13} One of the more recent studies,⁵ a randomized clinical trial, reported a statistically significant improvement in hamstring flexibility using an electrogoniometer (independent *t* test, $p < 0.01$).

Case studies

A total of seven case studies reported between 1999 and 2008 on Bowenwork were reviewed (Table 3).^{4,11,17-20} These case studies are defined as reports in the literature by practitioners, who described a client's presentation of symptoms, the course of treatment, and an observed health-related outcome. Four (4) of seven case studies reported relief of back and neck pain, varying from marked reduction to complete resolution.^{4,11,18,20} The second most commonly self-reported symptom treated was for migraine headaches, with a substantial reduction in frequency of migraines in two to three sessions.^{4,17,19} The third most frequently reported health outcome was related to increased joint mobility among adults complaining of a frozen shoulder or other joint ailments.^{4,11,17,18,20} Similar to the research study findings above, the case studies reviewed revealed a common theme of relief of back and neck pain and improvement in other mobility and soft-tissue dysfunction.

Discussion

Applications of Bowenwork are many, according to the articles reviewed. Over half of these studies (53%) reviewed reported that Bowenwork was effective for pain reduction and 33% reported improved mobility. In addition, several studies ($n=5$) reported the effectiveness of Bowenwork on the relief of symptoms experienced by persons living with a chronic illness. The most common application of Bowenwork seems to be for pain and mobility issues associated with musculoskeletal problems, including back and neck pain, herniated discs, carpal tunnel syndrome, tennis elbow, rotator cuff injuries, knee pain, ankle sprains, and plantar fasciitis.

Bowenwork is also utilized to address conditions such as migraines, asthma, temporomandibular joint pain, colic in babies, coccyx injuries, infertility, breast tenderness, concussions, fibromyalgia, and sciatica.^{6,8,15} However, experimental evidence using Bowenwork among persons with chronic illness is

TABLE 3. CHARACTERISTICS OF PUBLISHED CASE STUDIES ON BOWENWORK[®] USING INDIVIDUAL INTERVIEWS

First author, year	Aim/objective	Sample size	Outcomes reported
Lund, 1999 ^a	Effects of lymphatic drainage and pain	$n=12$	Reduction in measured edema in limbs and decreased pain when used as a complement to standard treatment, 20% with secondary lymphedema (hysterectomy) without change, 16% reduction lower extremity lymphedema and pain following radical vulvectomy
Stiles, 2003 ¹⁷	Effects on postpartum shoulder tension, bladder infection, depression, infant colic, migraines, frozen shoulder, tendonitis	$n=5$	Perceived relief from symptoms sustained after treatments
Shapiro, 2004 ⁴	Relief of migraines and back pain, fibromyalgia, TMJ	$n=4$	Perceived relief of symptoms associated with various ailments
McKeithan, 2004 ¹⁸	Relief of back pain	$n=1$	Full recovery from pain
Godfrey, 2005 ¹⁹	Effects on migraine	$n=1$	Decreased episodes from 3/week to 1/month
Guest, 2006 ²⁰	Effects on pain and acute whiplash injury	$n=2$	Perceived relief of decrease in acute back pain and right posterior neck injury
James, 2008 ¹¹	Effects on sacroiliac pain and depression	$n=2$	Perceived decreased pain with increased mobility and resolution of depression symptoms

^aLund E. Bowen and lymphatic drainage. Br Lymphol Soc Newslett 1999;24:10-13. TMJ, temporomandibular joint.

reported but not well documented. Despite the study quality scores obtained for the studies reviewed, there were reported improvements in health-related outcomes, such as pain reduction, improved mobility for frozen shoulder, and fewer migraines, using Bowenwork.

The literature indicates that Bowenwork is a useful CAM practice.³ There is a significant amount of controversy surrounding the most appropriate approach to the CAM research designs, though it is still evident that basic scientific rigor is essential for success.²¹ However, the studies reviewed had varying degrees of methodological problems, including type of sampling technique, incomplete description of the study sample and procedures, and the lack of standardized measurement tools.^{5,10,15,16} The majority of the studies reviewed require greater attention to design details and methodological issues, in order to support the validity of the reported health-related outcomes, before recommending Bowenwork for use in clinical practice.

It is well known that systematic reviews for CAM are challenging, based on a multitude of reasons. Manheimer and Berman²² outline these challenges as follows: "Double-blind randomized trials are difficult for therapies, especially for acupuncture and massage; there is an unfamiliarity with Western systematic reviews with CAM therapies; CAM studies are frequently heterogeneous in intervention, control, and outcome, and CAM trials are difficult to locate during the reviewing process."^{p.193} This systematic review on Bowenwork presented some challenges, including limited sources for information, minimal peer-reviewed articles, difficulty in accessing the literature that did exist outside the electronic databases, and difficulty in making targeted contacts. Despite these challenges, a systematic review of Bowenwork was completed, and is thought to be representative of the scientific findings to date. It is evident that further research is needed to systematically test this modality, before widespread recommendations can be given.

Conclusions

Bowenwork is gaining recognition by health care providers throughout the world as a complementary and alternative treatment option for persons with acute and chronic health conditions. Systematic reviews are important to conduct and provide a synthesis of research findings, enabling practitioners to make informed decisions about different treatment modalities, such as Bowenwork. However, the science of Bowenwork needs further investigation with an improvement in research methods. Even though this review produced a substantial amount of written information on findings with Bowenwork, it is evident that the science requires more intense research to support and validate health-related outcomes.

The scholarly discussions on Bowenwork and the growing literature indicate that it is worth investigating the health-related outcomes associated with this work. By continuing to support scientific exploration and to publish results, the practice of Bowenwork will continue to expand, and the science behind the phenomenon of its mechanisms will be more clearly understood.

With the continuous debate surrounding health care services, including availability, system costs, and individual expenses, Bowenwork may provide a noninvasive and affordable alternative for possible improvement of health and well-

being.¹⁵ Bowenwork is a cost-effective, noninvasive treatment modality that can be introduced into diverse health care settings such as acute-care hospitals, outpatient settings, and rural environments. More importantly, Bowenwork may potentially contribute to the global initiatives for healthier people.

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