

# Multidimensional Treatment for Chronic Pain

## *A Pilot Study of Accelerated, Synchronized Healthcare Interventions (ASHI®)*

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The health care market has changed considerably in recent years. The complexity of intervention strategies has increased with more types of services being available to the consumer than at any other time in history. Simultaneously, an effort to control costs of health care has also addressed practical concerns of the medical establishment and the insurance industry alike. Finally, the speed and efficacy of treatment delivery has also become a central issue, given the pace at which our lives unfold in this day and age.

Three (3) years ago, in this journal, a treatment approach that addressed the latter two points (health care costs and speed/efficacy of delivery) was described in some detail in an article by the first author. This approach, accelerated behavioral medicine (ABM), involved a behavioral medicine approach to treatment of headaches in which a psychologist delivered complementary services with primary care physicians treating headache disorders.

Unlike other behavioral medicine approaches reported in the literature, the focus of ABM (as the name implies) was to concentrate and accelerate behavioral medicine interventions and effect greater gains more quickly than was possible with conventional approaches that took months to complete. The ABM format was tested by the first author over nearly a decade at the world's largest headache treatment center (Diamond Headache Clinic, Chicago, Illinois) with positive results.<sup>1</sup>

Despite the favorable outcomes—both clinical and empirical—it was believed that an even more progressive model could be used.

One of the reasons physicians at the Diamond Headache Clinic were able to reduce the severity of chronic pain significantly and quickly, whereas practitioners at other clinics were unsuccessful, was the result of the liberal use of a “co-pharmacy” approach in administering medications (i.e., using of several medications concomitantly). In fact, most patients disliked being reliant upon medications to relieve their pain but felt that they had no other choices.

Behavioral medicine strategies woven into the treatment program reduced reliance on medications, provided a “natural” means of pain reduction, and were welcomed by many patients.

For severe cases, behavioral medicine approaches alone could not effect the desired goal of pain relief as effectively or as quickly as when they were used in conjunction with medications. The question then arose, if one replaced one of many pharmacologic agents by a specific nonsurgical, nonpharmacologic treatment intervention, could the gains be even greater? With this concept in mind, the accelerated, synchronized healthcare interventions (ASHI®) treatment model was developed.

### **The ASHI Treatment Model**

The ASHI model is a unique approach to the treatment of medical disorders. It involves having patients meet with several treatment providers at the *same time* to discuss their medical problems. Diagnostic assessments and treatment interventions are also provided via a team approach, integrating and weaving intervention strategies from several areas of specialization at specific times during a treatment sessions.

By combining these strategies together, we hypothesized that treatment effects would be accelerated so that the healing process would occur more quickly and completely compared to the segmented, individual approaches used elsewhere. Thus, we decided to test the ASHI approach in a pilot study with patients who have chronic pain. The study was conducted at Dynamic Chiropractic Healthcare, Tewksbury, Massachusetts.

### **The ASHI Team**

The ASHI team consisted of a physician (internal medicine/family practice), psychologist, acupuncturist, nutritionist, and chiropractor. Interventions used with this team included diagnostic assessments, behavioral medicine strategies, “energy” medicine techniques (i.e., energy-based healing techniques), acupuncture, dietary and nutritional recommendations and interventions, and chiropractic treatments.

Each provider had either a private practice (working alone as a single provider) or worked in a medical setting as a team member of a specialized medical practice. Prior to engaging in the research study, none of the providers had ever worked together. Recognizing that each of these specialists had a distinct approach to treatment (specific protocol, variety, number of interventions,

techniques/format, length and frequency of visits, and follow up visits, etc.), the central issue was how to integrate this body of knowledge, techniques, and individuals into a viable treatment approach to patients.

Cost and time considerations were also an issue: We had no funding to test this model and we were all extremely busy in our own respective practices. Hence, we decided to conduct this pilot study with 6 subjects, setting up three separate meetings, 1 week

## Logistical Challenges

*By Mike Maliszewski, Ph.D.*

The efforts to implement accelerated, synchronized healthcare interventions (ASHI<sup>®</sup>) were far greater than might initially be apparent with the outline presented in this article. A look “behind the scenes” sheds light on this situation.

As mentioned in the article, the ASHI delivery model was based upon an accelerated behavioral medicine (ABM) model that had not been used elsewhere. In actuality, many psychologic treatment approaches attempt to extend—not shorten—the time spent to treat a problem using a behavioral medicine approach to address the costs (profits) and time needed to achieve some type of positive outcome. Thus, most providers have difficulty with understanding how shortening the time factor can be successful. As a result, it was necessary to find individuals from different specialty areas who could entertain the idea of a program founded on a different philosophy to their own paradigms. The fact that more patients were actually exposed to an abbreviated (ABM) format than any other behavioral medicine program in the country served as an incentive to consider the proposed model seriously.

It was difficult to locate providers who would consider participating in this pilot study. First, we had no grant money or funding and all costs would come out of pocket for time and materials needed. Second, none of the providers had ever worked together with one another. The differences in styles, personalities, delivery approaches, and time spent with patients necessitated some flexibility in modifying their interventions. Finding a time when all providers could meet with a given patient for a scheduled session required sacrificing time away from each provider’s central practice.

Once the team of providers who agreed to participate in the pilot study was assembled, subject selection followed. Despite advertising in a well-known Boston newspaper that often ran advertisements for medical studies seeking participants, we had difficulty in getting subjects. Many patients who answered our advertisement had personal idiosyncrasies that excluded their participation. For example, many patients wanted payment for participation above and beyond free health care if they were to participate; others questioned the conceptual design of the project (even though they had no scientific or health-related background); and still others objected to seeing someone from particular specialties for their own reasons.

We then needed to develop a subject consent form to participate when an outline of services and liability protection was outlined. This involved hiring an attorney who was familiar with health care law in the state of Massachusetts and who could incorporate principles of different specialties into a single document. This component of the study cost thousands of dollars but proved to be quite valuable later on.

While our 6 subjects did complete the study, a structured, reinforced approach needed to be emphasized at all times, with providers emphasizing the need to follow all recommendations that were made. In retrospect, the addition of a nominal fee to be paid by patients at each session would probably have lessened the provider’s need to emphasize adherence to follow-up recommendations. Free care may not be perceived as being as valuable as much as care one pays for (at least, this can happen in the United States).

The response of the professional community to the study proposal also was not without criticism. A number of professionals questioned if such a study could even be done theoretically or procedurally. Some were intimidated by the number of patients seen and financial profits accrued via the ABM model upon which the ASHI model was founded.

Professional jealousies, biases, and competitiveness outside of the ASHI team also entered the picture. For example, a psychologist who was asked to analyze the data collected statistically refused to do so and attempted to discredit the project with other colleagues, stating that the original ABM model was “fraudulent” because the psychologist was charging people by the minute for therapy services provided rather than adhering to the standard 50-minute session. (Ironically, the American Medical Association and Medicare have just developed a new set of procedure codes to have patients with medical conditions treated by nonphysicians, essentially following much of the ABM design, which had been developed 15 years earlier). To avoid such extreme reactions, we tried to conduct the study as quietly as possible.

In retrospect, one unanticipated outcome for providers was the “accelerated” degree of learning (exponentially) that took place in “round table” discussions on patient treatments. Even among providers with eclectic background training in specific medical areas, all providers were surprised to discover what could be done (and how it was done) procedurally from disciplines different from their own while they, too, were providing care to the same patients. Increased creativity and problem solving for addressing different cases followed quite naturally.

From a provider perspective, an ASHI model could be flexible regarding who comprised team membership—ideally, a combination and balance of “hard” and “soft” approaches, which make use of both eastern and Western-based medical specialties could be successful as long as providers left their egos at home, altered their conventional (time specific) approaches flexibly, and worked together to help each patient. Other specialty approaches for which rapid outcomes have been claimed (e.g., eye movement desensitization and reprocessing; thought field therapy, etc.) might even accelerate gains achieved further.

Like the ABM model, a healthy profit could be achieved by an ASHI team that used the approach in a large practice setting in which several patients could be seen in parallel and concurrent time slots. Significant costs savings by insurance companies could be achieved by treating patients (those with chronic problems or who are “outliers” to traditional response norms) who have not improved or been helped by the traditional single-provider model as well as acquiring multiprovider opinions (as opposed to second opinions) on why such patients have not improved. Needless to say, the ABM model billed significantly lower fees for overall services provided to patients but had substantially greater profits than any other behavioral medicine program in the country.

Finally, a word of caution is necessary. Screening patients is also important. When we finished our study, we had one woman who also expressed an interest in participating in the study. She said she had a chronic pain condition of lumbar disc syndrome and lumbar myalgia and we allowed her to participate. We took her history and worked to assist her with reducing her pain.

Aside from presenting a rather nondescriptive and uneventful review, between the first and second sessions she reported that, for the first time in her life, the pain that affected the entire left side of her body had switched completely over to the opposite side of her body and had increased dramatically despite all interventions attempted with her and recommendations made that she claimed to follow. Her condition did not change through the third and final session despite our skepticism as to how this was possible.

Several weeks later, we received a letter from an attorney requesting copies of all records and bills. We also later learned (although this was not reported by this patient) that she was destitute, living in a mobile home, unemployed and unable to work, estranged from her family and children, had an extensive history of physical and verbal abuse, and had been involved in an automobile accident for which she was seeking damages and compensation.

Having signed the consent to participate in the study, we had the attorney who developed this form for us contact the patient’s attorney and inform him of the voluntary study design and that no fees were charged. The latter attorney also had not been informed of the nature of the ASHI study. No further contacts or issued followed (to our relief). The message is clear: all types of care are needed in our litigious society.

apart, to see what could be achieved by a synchronized, multi-provider approach to treat their pain.

### Patient Selection

To select patients for this study, an advertisement was placed in a Boston newspaper seeking subjects for a new approach to treatment of pain disorders. Interviews with the principal investigator via phone or in person were used to screen potential subjects. Exclusion criteria included individuals with histories of drug abuse or sociopathic behaviors or pain lasting for less than 6 months.

Six (6) patients were eventually found who presented with pain disorders, met our selection criteria standards, understood the study design, and expressed interest in participating in the three treatment sessions.

### Study Design

The different specialty areas comprise various approaches, tests, strategies, presumptions, and techniques that are specific to particular disciplines. The first question was how to represent the contributions of each specialty area/discipline effectively without overwhelming patients by presenting too much information or too many interventions at once. Another issue was to determine in what order the strategies/contributions (by specialty area) should appear.

Because several individuals were to present treatment, for heuristic reasons, it was decided to limit intervention strategies for each discipline to two or three specific forms of intervention. We also decided to proceed from more vigorous, physically invasive approaches to more "subtle" interventions. This was a generic strategy that could be modified to fit the needs (and responses) of each specific patient. Generally, one began with chiropractic interventions, which were then followed by acupuncture. Nutritional, behavioral medicine, and energy medicine interventions followed.

Each session lasted approximately 2.5 hours. After agreeing to participate in this pilot study, each patient met with all providers at all these sessions. To begin, however, the subjects all had the format/approaches and other concerns regarding "specialties" explained to them prior to treatment being provided. In addition, printed materials describing the approaches and treatments were also given to the subjects. No fees were paid for participation in the project study, thus offering the benefit of free treatment offered for pain. A written consent to participate in the study was then signed by each subject. To maximize the effects of treatment, patients were also given "homework assignments," techniques/strategies, and plans for daily activities between the three sessions.

Prior to the first meeting, an outline of the ASHI model was described to all of the subjects. They were also asked to provide the treatment team with any medical records, notes, or information pertaining to their medical treatment records and histories. Prior to meeting with providers, the treatment team reviewed these records. The physician (see Acknowledgments) then reviewed the records and offered medical impressions of the records to the team. At the first meeting, each patient described his or her condition(s) to the treatment team, meeting in a "round table" format with all parties present. A question-and answer



Left to right: A prospective patient discusses treatment approaches with the pilot research team, Paul Madden, R.N., Michael Simone, M.S., Bill Tibbetts, D.C., and Mike Maliszewski, Ph.D., at Dynamic Chiropractic Healthcare, where the study was conducted. Photo courtesy of Dr. Maliszewski.

period would follow between each patient and the treatment team to procure additional medical and prior treatment information.

The treatment team then met, without the patient present, briefly for approximately 10 minutes to discuss their findings and determine what treatment order/strategy would follow for that session. The team then shared their observations and strategies with the patient. This was followed with active treatment interventions offered by all of the providers. Homework assignments followed with providers being on call 24 hours a day to respond to each patient's questions, to provide support or advice, or to recommend modification of treatments. The second and third meetings involved a similar approach, including discussion about responses to treatment followed by active interventions with each provider.

While each provider had a separate time slot, more than one provider could work simultaneously with another (e.g., energy-based healing [*qigong*] could be performed after needles had been inserted by the acupuncturist; supportive, verbal counseling could be done at the same time as an acupuncture or *qigong* intervention, et cetera). Patients were informed that a successful outcome was dependent upon their adherence to treatment recommendations and motivation to improve their conditions. Paper-and-pencil tests to assess pain and emotional and psychologic factors were given prior to and upon completion of the three sessions.

A summary of the patients' case presentations, diagnoses, courses and treatments, and pain ratings are presented in Tables 1–3.

### Pros and Cons of the Treatment Model

Because this type of accelerated/integrated treatment intervention model had not been tested previously, the ASHI treatment team speculated on both the pros and cons of using this paradigm with patients in general.

Four positive aspects that were proposed as potential improvements over current health care models:

1. Patients would experience greater communication with the providers who treated them and were given clearly articulated, unified treatment goals. This would be useful because “piece-meal” or isolated treatments by individual specialists are more likely to lead to “doctor shopping.”
2. Greater responsibility for selecting treatment options would be redirected to treatment providers. This meant that less responsibility would be placed on patients to determine which of multiple specialists to choose from to assist with pain management.
3. Multiple techniques/strategies performed simultaneously or close in time could potentiate one another and yield faster and more comprehensive outcomes.
4. Although no fees were involved in treatment, if such a financial consideration were a component of an ongoing treatment model, reduced costs to both insurance companies and patients could be achieved with improved outcome results.

It was also possible that less-positive aspects to this approach might emerge.

1. The amount of information shared and number of treatment interventions given in a short time might be overwhelming to patients (i.e., patients would feel that it was “too much, too fast”).
2. Patients might have difficulty with “embodying” (i.e., incorporating and practicing the exercises as “second nature,” without great effort) treatment procedures and effects and following through with “homework assignments” between formal sessions.
3. There was also the possibility that interventions/treatment outcomes by one provider might negate or be nullified by an alternate provider’s technique. Because the patients were dealing with a treatment *team*, the intensity of a one-to-one relationship with a solo provider could be diluted (i.e., less individualized personal contact). Despite the providers’ egalitarian approaches to treatment, patients might also experience

**Table 1. Patient Demographics and Medical Information**

Patient number	Gender	Age	Diagnoses and history
1	Female	47	<i>Diagnoses:</i> Lumbar facet syndrome, radicular neuralgia/radiculitis, lumbar myalgia, lumbar myospasm. <i>Pulse:</i> soft, weak deep; <i>tongue:</i> pale, thin, dry scalloped edges, short with a quiver: Liver overruling Spleen; <i>Liver yang</i> causing headaches, Spleen <i>qi</i> deficiency, <i>yin</i> deficiency. <i>History:</i> Irritable bowel syndrome, hiatal hernia, panic disorder, agoraphobia, gastroesophageal reflux disease, premature ventricular contractions, ocular migraines, rheumatoid arthritis, systemic lupus erythematosus. <i>Stressors:</i> in-laws living in same home; high-stress job; husband with terminal medical condition; son with acute social anxiety disorder. <i>Poor diet, no intake of fruits or vegetables, no intake of water (only cola-type beverage), smoker (1 pack/day).</i>
2	Male	62	<i>Diagnoses:</i> Cervicobrachial syndrome (left side), cervical myalgia, cervical radiculitis (left arm), cervicobrachial syndrome. <i>Pulse:</i> wiry, weak in middle position on right side; <i>tongue:</i> dark pink, flabby yellow moss at root, slight scalloped edges. <i>Spleen</i> deficient with <i>Liver yang</i> ascending. <i>History:</i> Carpal tunnel syndrome, bone spurs, acute sharp pain (left arm), dull ache (both shoulders), neck pain; hip pain since childhood; auto accident 4 months ago; nervousness (general); stomach upset; recent personal losses; abdominal gas; frequent red meat intake.
3	Female	58	<i>Diagnoses:</i> Cervical disc syndrome, cervical radiculitis, cervical myalgia, cervical disc degeneration, lumbar facet syndrome, low-back pain, lumbar myalgia, piriformis syndrome. <i>Pulse:</i> left, wiry, right slippery; <i>tongue:</i> pale, thin, dry edges quivering: <i>Internal Wind</i> result of <i>Liver yang</i> ascending. <i>History:</i> Parkinson’s disease; hypertension, hematuria, sciatic pain (left side), hip pain (left side), shoulder pain and rigidity (left side); anemia (childhood). <i>Anxiety, stressors:</i> high-stress job (office manager); difficulty in sleeping.
4	Female	55	<i>Diagnoses:</i> Cervicobrachial syndrome, cervical myofascitis/myofibroscitis, cervical disc degeneration, reduced painful range of motion (cervical spine), abnormal posture, aberrant global displacement (cervical spine). <i>Pulse:</i> wiry, weak in third position; <i>tongue:</i> thin, red tongue: <i>Liver</i> blood stagnation, <i>Kidney</i> deficient. <i>History:</i> Endometriosis, sciatic pain, osteopinea, bone spurs on cervical vertebrae, mononucleosis (at age 19), serious auto accident/injury (in 1969), with left-side spasms in neck and arm, decrease in bone density. <i>Stressors:</i> death of sister (1 month ago) and uncle (during session 2); radical job shift change after 30 years. <i>Exercised regularly, watched diet.</i>
5	Male	30	<i>Diagnoses:</i> Lumbar posture strain; low-back pain, lumbar myalgia, decreased pain noted during range of motion, abnormal posture, thoracic sprain/strain (postural), thoracic myalgia. <i>Pulse:</i> wiry; <i>tongue:</i> pale, swollen, wet. <i>Kidney</i> and <i>Spleen</i> deficient. <i>History:</i> Two broken collarbones, broken right tibia and fibula, multiple knee injuries (torn anterior cruciate ligament and medial collateral ligament from participation in hockey); low-back pain (3 months duration); sharp pain in both shoulders, dull pain in back <i>Stressors:</i> high-pressure job; recent move; poor sleep. <i>Worked as a personal trainer; attentive to exercise and diet.</i>
6	Female	36	<i>Diagnoses:</i> Cervicobrachial syndrome, cervical myalgia, cervical myospasm, decreased pain during range of motion. <i>Pulse:</i> soft; <i>tongue:</i> pale, wet, scalloped edges. <i>Spleen qi</i> and <i>yin</i> deficient; <i>Spleen</i> damp blocking <i>Bladder</i> channel on right. <i>History:</i> Tendonitis, right-shoulder pain; 10 years of being overweight, right-side pain (head to foot), low-back pain. <i>Stressors:</i> significant job and financial pressure; difficult family relations. <i>Poor nutritional intake of fruits and vegetables; noncompliant with dietary efforts.</i>

a sense of having less control over the direction of treatment. With so much being offered and done at “at once,” and at no cost, the patients might view the treatments provided as too “easy,” might react in a passive fashion to what was being done, and might not value the team efforts and lose motivation and their active role in the treatment process.

To counter the first problem, each provider was told to limit the number of recommended interventions/procedures compared to what he or she proposed as a “solo” provider. To address the second problem, outcome work assignments were designed to keep (1) the impact of treatment effects ongoing and (2) patients’ motivation level high. To address the third problem, the 24-hour availability and check-in efforts were built into the model design.

It was also possible that the ASHI treatment approach might only work well for specific types of people: A patient might need to have a certain personality makeup (e.g., be open to new experiences, have the ability to relinquish need for control, be disciplined but not obsessive, have a high motivation level to improve a condition or reduce pain) and be relatively intelligent (able to process and integrate information/treatment provided, have some basic understanding of one’s medical condition and pain treatment strategies).

The focus of the ASHI model was integrative. Individual patients were discouraged from becoming preoccupied with ascertaining which treatment providers or disciplines worked better than others. Although patients were encouraged to state what seemed to work or not work for them, they were told that treatment effects (and pain control) could change from session to session, that the specific contribution of each provider could not be ascertained, and that focusing attention on this might actually detract from outcome potential (e.g., overanalysis, intellectualization, etc.). In essence, the global focus of the team and the patient’s focus was to be simply to reduce or eliminate pain.

## Results and Discussion

As a group, to the extent that patients’ follow-through with treatments provided and recommendations made between formal meeting sessions, significant reductions in pain were achieved (see Table 3 for all patient ratings across the three sessions). Although a variety of psychologic tests (the Marlowe-Crowne Social Desirability Scale, Zung Depression Scale, Illness Behavior Questionnaire, Short Form 12-Health Inventory, Beck Depression Inventory, SOS-10, State-Trait Anxiety Inventory, and Locus of Control Scale) were also administered prior to and upon completion of the three sessions, the test scores revealed no significant changes over time. This was viewed as largely being the result of the short time period that elapsed between sessions and the nature of the tests focusing on more global aspects of personality and emotional states (exploring traits as opposed to situational effects that could change more easily).

The providers observed that patients who were motivated to get well and who adhered to treatments achieved positive gains in a shorter period of time than they would have, had the providers seen these patients alone in private sessions.

Each provider learned additional information from the other providers, achieving greater knowledge and insight into the pain and medical conditions being treated. No treatment interventions

nullified treatments provided other providers. It was confirmed by both team providers and patients that more physically active approaches worked better at the beginning of a session and were best followed by more subtle interventions (e.g., chiropractic generally preceded acupuncture), unless specific reactions of a particular patient dictated otherwise. With respect to “energy work,” active energy approaches (transmission of energy) worked best when they followed acupuncture treatments.

Analyses of patients’ individual responses to treatment interventions revealed that psychologic factors (e.g., personality makeup, attitude, motivation level, influence of mood states [e.g., anxiety, depression]) had significant impacts on outcome.

Patient #1 had mixed reactions to treatment. She had difficulty with making any dietary changes but had significant positive reactions to energy interventions to the point that she could generate the flow of energy on her own by the third session although she had no prior experience with this modality.

Patient #2 had an obsessive-compulsive personality and generally interpreted his symptoms rather than describing them, resisted dietary changes, and (against team recommendations) altered his medication regimen.

Patient #3 consistently followed treatment recommendations and actively participated in treatment to effect gains in pain reduction for the first time in many years.

Patient #4 was noncompliant with dietary recommendations. She had a dramatic reaction to the energy work and, despite significant initial changes in pain and somatic symptoms (pain relocation and spontaneous [yogic] *kriyas* [involuntary movements]), she chose not to follow through with any further energy treatments because of what she felt were the “strangeness” of her bodily reactions. Two recent deaths in this patient’s family (one during the series of sessions) and her first job schedule change in 30 years all significantly limited what could have been achieved.

Patient #5 had difficulty with focusing attention to somatic reactions and, despite gains achieved, needed to be focused by the team to provide consistent answers to questions designed to evaluate specific treatment outcomes.

Patient #6 came into the study with extensive stressors (financial problems, relationship issues) and had limited motivation to follow advice given between sessions one and two. Firmly addressing the need for compliance and the team inquiry asking if she truly wished to be rid of her pain, she began pursuing treatment recommendations with great zeal and, to her surprise, surpassed any expectations she had in her own mind for pain relief.

The selection of providers chosen for the ASHI model was important to the success of the proposed program. The first investigator had two previous experiences with the dissolution of provider teams involved in testing the ASHI paradigm before the projects had been completed. The first project terminated when one team member became “overwhelmed” by trying to integrate his interventions with those of the other providers and felt *he* could not manage this with patients. The second attempt broke down when ego clashes within the group led to competition among providers in delivering treatments, leading to an untenable working relationship among them-

selves and with patients. It is important to not only have distinct specialties and approaches involved but also to select providers who are able to work in a group setting with one

another and who have backgrounds of having worked in treatment teams. Solo practitioners find this approach harder and more challenging.

**Table 2. Treatment Interventions**

Patient number	Chiropractic
1	Flexion-extension/lateral flexion/distraction (L2 to L5); trigger point therapy (TPT), C7 to T4, T1 to T4; prone T4 to T8 body left (BL); manual manipulation PA (posterior-anterior) impulse (dorsal)
2	Activator manipulation (AM) C2 to T1 bilaterally, PA C7/T1 impulse adjustment dorsal BL manipulation T2 to T6; prone left shoulder PROM (passive range of motion) circumduction mobilization; prescribed AROM (active range of motion) exercises all areas for cervical spine supine thoracic manipulation T4 to T8; PA lumbosacral impulse manipulation (PA C7/T1 junction impulse adjustment) AM C2 to T1 bilaterally
3	Distraction and extension manipulation spinal levels (L2 to L5) activator C2 to T1 bilaterally; TPT left trapezius prone passive circumduction shoulders and hips bilaterally; PA occipital/atlas (C1) and sacral drop manipulation
4	Activator adjustment levels C2 to T1 bilaterally and PA drop impulse maneuver occipital/atlas extension compression traction (8 minutes in mild mode); PA sacral drop manipulation
5	Distraction and extension with lateral flexion spinal levels L2 to L5; PA occipital/atlas and sacrum, supine C4 body right and C2 body left manipulation T4 to T7 body left manipulation; left shoulder manipulation
6	Distraction, lateral flexion/extension/flexion manipulation L2 to L5; vertical (wall board) dorsal manipulation T8 to T10 (anterior); PA sacral impulse (manipulation) C4 body right and C6 body left manipulation (diversified); PA C7/T1 drop adjustment and C7/T1 activator instrument manipulation; C4BR and C6BL diversified manipulation; PA occipital and PA sacral drop adjustment
Patient number	Acupuncture
1	Points selected: Gv20, Lv3, Li4, St36, Sp6, St41, Ki6, Gb21,33,34, Lu7, Pc6; Earpoints: pressballs applied to Shenmen, Lungs, Heart
2	Points selected: Gb21, Gv14, Si3, BL62, Pc6,7, BL10,11,13,20, Si10,11, Si8-BL62, huatuojiaji at C5,6, BL20; T3,4, BL23-10, Tw15, BL21, St36
3	Points selected: Gv3, I4, Si3, BL62, Si10,11, Tw15, Gb21, Li4,11, Ki1,3, Sp3,4,6, Gb19, BL23, Gv4; josen, huatuojiaji at L-5, BL25,40,57,62, Si3-BL62, bafeng; josen with huatuojiaji points BL23,25,40,57,62
4	Points selected: Gb20,21,30, Si3-BL62, Gv3,4,14 with huatuojiaji Si10,11, BL48,49,13,14, Cv3,4; josen; BL27,28,29,40,57,62, Ki6, Gb30, BL13,18,19,25,27,28,40,48,49,57,62; Left Si10,11
5	Points selected: Gb21, Tw14, 15, BL13, Li15, St38, Gb34, Tw5, Li4, Lv7, BL20,23, Gv3,4; Josen with huatuojiaji BL40, 57,62, Ki6; gwa sha massage
6	Points selected: Pc6, Li3,4, Lv3, Lu7, Tw4,5; Sp6, St36; BL23, Ki6; Gb20, 21, Gv14; huatuojiaji at C6,7,T1, Li14,15, Tw14, B125,40,57,62; St38, Gb34; Gv3 with huatuojiaji Gb21, BL23,25,40,62, Ki6, Li4,14,15, Tw5,14, Lu7
Patient number	Nutrition
1	Dietary changes: Add water, fruits and vegetables to diet; add white meat (chicken, turkey, or fish); limit consumption of cola; limit intake of red meat and dairy products Supplements: Pantothenic acid, magnesium citrate; <i>Lactobacillus acidophilus</i> , feverfew ( <i>Tanacetum parthenium</i> )
2	Dietary changes: Avoid orange juice, milk, fatty meals, spicy foods and sugar; increase vegetable intake; patient resistive to dietary changes Supplements: Ginger ( <i>Zingiber officinale</i> ), 250 mg b.i.d.; magnesium citrate; water, 8 8-oz glasses/day; P5P50 (the active form of vitamin B <sub>5</sub> ), 50 mg 4 times/day; <i>Lactobacillus acidophilus</i> , 1 capsule b.i.d.
3	Dietary changes: Add water to diet Supplements: Magnesium citrate 150 mg in AM; 300 mg at bedtime; lyprinol 100 mg in AM, 100 mg in PM; 2 tablets of valerian ( <i>Valeriana officinalis</i> ) complex at bedtime; grape ( <i>Vitis vinifera</i> ) seed extract, 100 mg in AM, 100 mg in PM; NADH (reduced form of nicotinamide adenine dinucleotide), 5 mg t.i.d., one half-hour before meals
4	Supplements: Bromelain, 3 capsules b.i.d., before and after food (500 mg, 3200 mcv); sublingual B <sub>12</sub> , 2500 mcg b.i.d. Other recommendations: Patient generally noncompliant with other recommendations
5	Supplements: Bromelain, 1500 mg before or after food per day; flax ( <i>Linum usitatissimum</i> ) seed oil, 1 tablespoon/day; valerian complex, 2 tablets at bedtime; DLPA (D-phenylalanine), 1000 mg b.i.d. before/after food; collagenics, 2 tablets t.i.d.
6	Supplements: Pantothenic acid (vitamin B <sub>5</sub> ), 500 mg in AM, 500 mg in PM; lyprinol 100 mg in AM, 100 mg in PM; DLPA 1000 mg in AM, 1000 mg in PM, 1 hour before and after food; myotone, 2 tablets b.i.d.; hops ( <i>Humulus lupulus</i> ) 2 capsules at bedtime Other recommendations: exercises directed away from weight lifting to cardiovascular exercises
Patient number	Energy and behavioral medicine
1	Series of warm-up/warm-down exercises encompassing all areas of body when first waking up and prior to going to sleep; diaphragmatic breathing exercises every hour, 30-60 seconds every hour awake; sleep 6 or 7.5 hours; discussed sched ule; qi directed into areas of pain and cold temperature areas (especially wrists); stress management coping strategies discussed
2	Format outlined for patient #1 above
3	Warm-up/warm-down exercise regimen; qi directed into specific areas of "cold" and pain (leg, kneecap, soles of feet); energy directed throughout body along spine to relieve poor "flow" of energy
4	Similar format noted with patient #1; structured consistent times for meals and sleeping hours; qi directed toward left shoulder, elbow, pelvic area with post-treatment reactions and kriyas (energy treatment stopped because of patient request: patient had anxiety associated with unfamiliar experience)
5	Format outlined for patient #1 above
6	Diaphragmatic breathing exercises noted above; qi energy directed to arms/shoulders (absorbed well)

**Table 3. Pain Ratings and Assessments**

Patient number	Pain Ratings (0 [low]–10 [high])			Observations and Comments	
	Session 1	Session 2	Session 3	Provider Observations	Patient Commentaries
1	Low-back pain (left side): 6 Joint pain: 5–8	Low-back pain (left side): 4 Joint pain: 4–6	Low back pain (left side): 0 Joint pain: 3–4 (wrists, ankles, and knees)	Multiple medical issues; good motivation; difficulty with changing diet; good pain reduction; developed ability to transmit <i>qi</i>	Increased mobility (especially neck); significant back pain reduction
2	Neck pain: 5 Left arm pain: 7	Neck pain: 3 Left arm pain: 4	Neck pain: 1 Left Arm pain: 0–2 (intermittent)	Resistive to dietary recommendations; interpreted symptoms rather than described them; (intellectualization) had some issues with control; positive results still achieved	50% less frequency of “pins and needles” sensation in the left arm; improved neck mobility; no pain when breathing exercises were done
3	Neck pain: 5 Low-back pain: 5	Neck pain: 4 Low-back pain: 4	Neck pain: 2–3 Low-back pain: 2	Highly motivated to do well and achieve results	Reported feeling better; more energy; less stiffness
4	Neck pain: 9 Mid-back pain: 5	Neck pain: 4 Mid-back pain: 2	Neck pain: 1 Mid-back pain: 1	Resistive to dietary recommendations; frightened by dramatic reactions of her body to <i>qi</i> interventions (hence, energy treatment was discontinued)	Reduction in pain to both neck and back
5	Low-back pain: 6 Shoulder/arm pain: 7	Low-back pain: 5 Shoulder/arm pain: 5	Low-back pain: 2 Shoulder/arm pain: 2	Needed to reinforce compliance with treatments and focusing of attention; result achieved when focused by team	Felt near/immediate pain relief following treatment; felt overall progress was good
6	Right-side pain: 8 Neck pain: 8	Right-side pain: 8 Neck pain: 8	Right-side pain: 4 Neck pain: 4	Compliance limited initially, later motivated to pursue recommendations; significant changes noted in sessions 2 to 3	Initially doubtful; later enthusiastic with efforts; noticed dramatic changes

### Conclusions

Overall, it was felt that the ASHI treatment model could effectively meet the needs of patients who feel limited by piecemeal approaches taken to treat their pain and who actively seek a synchronized, multimodal intervention approach. If such patients have not been helped by individualized approaches, perhaps the “simultaneous,” multimodal approach of ASHI might achieve results. When time is a factor, results might also be achieved more quickly.

For providers who treat pain disorders, the ASHI approach might offer a “jump start” effect in those cases when pain reduction has not been achieved. The model can be an alternative approach to past efforts with individualized treatments when “everything else” has been attempted (i.e., arguing for the strength/impact of a “multitechnique/multiprovider” focus).

Clearly, having a team of providers take histories and assess patient responses collectively in and out of sessions serves to highlight specific details that may be delimiting responses to treatments as a whole. It is also possible that this model will work well with the managed care focus on economics and outcome results and achieve significant results in a shorter period of time, thus allowing relationships between the insurance industry and health care providers to become more complementary rather than “contrary” in nature.

It is obvious that additional explorations of this treatment approach are needed. Larger size studies, more empirical and behavioral test measures, selection of subjects with different and more specific medical conditions, and using providers with different

areas of expertise clearly are factors that would help to assess the viability of the ASHI model in current and future health care settings.

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### Reference

1. Maliszewski, M. Accelerated behavioral medicine: Low cost, high volume, quality-controlled care. *Altern Complement Ther* 1999;5:158–163.

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