

**EFFECTS OF MAHARISHI VEDIC VIBRATION TECHNOLOGY ON CHRONIC DISORDERS AND ASSOCIATED QUALITY OF LIFE**

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## 1. ABSTRACT

There is a growing interest for more effective, innovative programs to address the chronic illness suffered by approximately 40 percent of the U.S. population. The purpose of this study was to evaluate the effects of a new Maharishi Vedic Medicine program—the Maharishi Vedic Vibration Technology—on the quality of life of individuals with chronic disorders. A total of 213 individuals took part in the study (mean age=48.55 years; average length of time of chronic illness=18.42 years). Results showed that over three sessions, the average self-reported improvement in chronic illness was 40.97 percent. Conditions related to neck pain improved the most (51.25%), followed by respiratory ailments (48.00%), digestive problems (46.90%), mental health, including anxiety and depression (46.34%), arthritis (41.57%), insomnia (37.38%), back pain (36.32%), headaches (35.83%), cardiovascular conditions (22.31%), and eye problems (21.19%). Findings also showed significant reductions in frequency of discomfort or pain ( $p<.000001$ ), intensity of discomfort ( $p<.000001$ ), and disabling effects of the discomfort in daily activity ( $p<.000001$ ), in addition to overall improvement in mental health ( $p<.000001$ ) and vitality ( $p<.000125$ ). Possible mechanisms of action are presented.

## 2. INTRODUCTION

The impact of chronic illness on the daily life of the individual and society is a growing concern among the public and the US health care system (1-4). A study published in a 1996 issue of the Journal of the American Medical Association reported that over 45% of people in the United States—123 million people out of the current population—suffer from one or more chronic diseases (5). National surveys indicate that one-third of the population is afflicted by chronic pain, especially backaches, neck pain and migraines (6-8). Other surveys of the adult population have shown the prevalence of chronic mental disorders—20% for major or minor depression, and 19% for anxiety disorders (9,10).

The economic impact of chronic diseases has been estimated at \$659 billion annually, and is a major contributor to escalating health care costs (5). Severe chronic illnesses affect 17% of the general population but account for 47% of medical expenditures (5). This has led to pressure to contain the costs of treating individuals suffering from these diseases through “managed care,” and controversy over the ethics of controlling health care utilization of those with extreme needs (11).

The high prevalence and social costs underscore the limitations of modern health care practices in preventing and treating these disorders. Moreover, the adverse side effects of standard medical treatments are widely recognized, and are of special concern when medication is prolonged over several years (4,12). Side effects of drugs may also discourage patient compliance with their prescribed treatment regimen (12). As a consequence there is a growing interest among the public and professional practitioners for health care programs that

can either substitute for or complement standard conventional medicine without harmful side effects. This is reflected in 42% of adults reporting use of alternative medicine therapies in 1997 (13).

Maharishi Vedic Medicine is a comprehensive, system of prevention-oriented natural medicine, based on the ancient Vedic approach to health—recently restored by Maharishi Mahesh Yogi, in collaboration with leading expert practitioners and scientists (2,15,22). It includes a wide breadth of clinical procedures applicable to the prevention and treatment of acute and chronic diseases, as well as health promotion (14,15). There has been extensive clinical research previously conducted on several modalities of Maharishi Vedic Medicine, including the Transcendental Meditation program (16-20).

The Maharishi Vedic Vibration Technology, a component of Maharishi Vedic Medicine, utilizes sounds, derived from the Veda and Vedic Literature, to enliven the inner intelligence at the basis of the physiology (21). According to Nader, the 40 aspects of the Veda and Vedic Literature, are the laws of nature, the impulses of intelligence, that structure the human physiology (22). The structures and functions of the different aspects of the Vedic Literature have been shown by Nader to have an exact correspondence with the structures and functions of the human physiology, leading to the conclusion that the human body is a replica of the Veda (22). When the sounds of these Vedic texts are applied in the Maharishi Vedic Vibration Technology program, the predicted effect is that of restoring the orderly functioning of specific areas of the physiology while having a general positive effect on the body as a whole (21).

Previous research on the Maharishi Vedic Vibration Technology program was conducted by Nader and colleagues on 358 cases of chronic disorder in the categories of arthritis, back problems, headaches, digestive problems, asthma, and skin problems (21,23). The research was designed as a double-blind experiment. Significant percentage of improvement in the 6 categories of chronic disorder was found for experimental vs. placebo control conditions over one session.

The current study was conducted to further evaluate the effects of the Maharishi Vedic Vibration Technology on the quality of life of individuals suffering from chronic disorders. Quality of life refers to patients appraisal of and satisfaction with their current level of functioning compared to what is perceived to be ideal (24). Quality of life includes self-perception of one's physical, functional, emotional, and social wellbeing (25). Subjective evaluations of health status have been found to significantly predict health care utilization and mortality due to chronic disease (26).

The specific objectives of the study were to assess: 1) percentage of improvement in chronic illness across a wide-range of categories; 2) change in frequency of discomfort or pain from chronic illness, intensity of discomfort, and the disabling effects of the discomfort in

daily activity; 3) the extent to which change in the frequency and intensity of discomfort and the disabling effects of discomfort in daily activity contributed to subjects' reported improvement in chronic illness; and 4) change in overall mental health status and vitality.

### **3. MATERIALS AND METHODS**

A total of 213 individuals with 352 cases of chronic disorders were studied in Fairfield, Iowa. The mean age of the subjects was 48.55 years (SD=11.16), with a range of 11 to 86 years. Fifty-two percent of the subjects were female. The average length of time of chronic illness was 18.42 years and the average severity of illness was moderate (2.3 on a scale of 1 to 4).

Each subject participated in 3 sessions, lasting about 20 minutes per disorder, over an average of 5 days. The Maharishi Vedic Vibration Technology program was administered by trained experts who have been specially instructed how to apply the sounds of the program from the field of pure consciousness, which has been described as the Unified Field of Natural Law (21,28). Using this technique of consciousness, the expert directs his or her attention towards the area or problem being addressed.

To assess the primary outcome of the study, all subjects were asked to report percentage of change in their specific chronic illness. Subjects responded to a test item, indicating percentage of improvement, immediately after their third session was completed.

A within-group design, with subjects serving as their own controls, was used to assess change in the secondary quality of life variables described below. Subjects were asked to fill out a 3-question pain questionnaire, based on items from the Clinical Back Pain Questionnaire (27), at baseline and immediately after the last session. This questionnaire had a 5-point Likert scale:

1. How often have you experienced discomfort or pain from your health disorder? (Not at all to Almost always)
2. Please rate the intensity of your discomfort or pain by circling the number that best describes your pain. (No discomfort at all to Severe discomfort)
3. Does the discomfort prevent you from carrying out your work/housework and other daily activities? (Not at all to Severely affected)

A subgroup of the study sample (n=87 cases) volunteered to take the standardized Short-Form (SF)-36 mental health (5 items) and vitality (4 items) subscales at baseline and immediately after the last session. These quality of life subscales had a 6-point Likert response set.

The primary outcome of the study, percentage of improvement in chronic illness, was reported in terms of the mean for all cases combined and for each category of chronic illness with 10 or more cases. Two-tailed paired t-tests were used for statistical analyses of all secondary

outcomes. In addition, multiple regression was used to determine the extent to which change in the frequency and intensity of discomfort and the disabling effects of discomfort in daily activity contributed to subjects' reported improvement in chronic illness.

### **4. RESULTS**

The average reported improvement in chronic illness after 3 sessions of the Maharishi Vedic Vibration Technology program was 40.97 percent. An analysis of 10 categories (in which there were 10 or more cases) found that conditions related to neck pain improved the most (n=16; average improvement of 51.25%), followed by respiratory ailments (n=20; 48.00%), digestive problems (n=71; 46.90%), mental health, including anxiety and depression (n=64; 46.34%), arthritis (n=23; 41.57%), insomnia (n=21; 37.38%), back pain (n=33; 36.32%), headaches and migraines (n=12; 35.83%), cardiovascular conditions (n=13, 22.31%), and eye problems (n=16; 21.19%). All other categories combined (n=59), with fewer than 10 cases per category, had an average reported improvement of 36.20% (**figure 1**). No significant relationships were found between percentage of improvement in chronic illness and either severity of illness or number of years having the illness.

**INSERT FIGURE 1 ABOUT HERE**

Subjects also reported significant reductions in frequency of discomfort or pain from chronic illness (mean=-0.96,  $p<.000001$ ), intensity of discomfort or pain (mean=-0.62,  $p<.000001$ ), and the disabling effects of discomfort from chronic illness in daily activity (mean=-0.53,  $p<.000001$ ) over the three sessions (**table 1**). The effect size for reduction in frequency of discomfort was large (ES=-.85), the effect size for reduction in intensity of discomfort was moderate to large (ES=-.65), and the reduction in disabling effects in daily activity was moderate (ES=-.45).

**INSERT TABLES 1 AND 2 ABOUT HERE**

**Table 2** describes the association between these three discomfort variables and subjects' reported percentage of improvement in chronic illness. In terms of all disorders, significant relationships were found between change in all three factors and percentage of improvement in chronic illness. The multiple correlation coefficient, indicating the overall contribution of the three variables to subjects' reported improvement in chronic illness, was .336 ( $p<.001$ ). When considering only severe to very severe cases across all disorders, again all three factors were found to significantly correlate with percentage of improvement in chronic illness. The multiple correlation coefficient was .489 ( $p<.01$ ).

In terms of change in overall mental health and vitality, a significant improvement in both of these factors was found across all cases (**table 1**). For mental health there was an improvement of 0.40 ( $p<.000001$ ) and for vitality an increase of 0.43 ( $p<.000125$ ) was observed. The

effect sizes for both mental health (ES=.41) and vitality (ES=.39) were in the moderate range.

### 5. DISCUSSION

The above findings suggest that the Maharishi Vedic Vibration Technology was effective in improving the short-term condition of subjects, suffering from a range of chronic illnesses. The average reported improvement in chronic illness was 41%. These results did not appear to be associated with duration of chronic illness or level of severity.

The results of this study are promising in that they show that individuals suffering from a wide-range of chronic disorders may achieve a substantial improvement in only three sessions of an innovative, nonpharmacological, natural medicine approach. The disorders which showed the most improvement included neck pain, respiratory ailments, digestive problems, mental health disorders, and arthritis. These categories demonstrated 40% or greater improvement. Other categories, which showed at least 35% improvement included insomnia, back pain, and headaches and migraines. Also, an average improvement of 36% was observed when all other disorders--which had fewer than 10 cases each--were combined. The finding that eight major categories of chronic disorders showed more than 35% improvement is consistent with the theory presented by Nader that the proper application of Vedic sounds can restore the orderly functioning of specific areas of the physiology (21,22).

The above findings, indicating substantial improvement in subjects' chronic illness, are supported by more specific quality of life outcomes, showing improvement in physical, functional, and emotional wellbeing. Significant reductions were found in frequency and intensity of discomfort or pain and the disabling affects of discomfort from chronic illness in daily activity. Significant increases in mental health and vitality were also observed over three sessions. The improvements in mental health and vitality suggest a positive effect on the mind and body as a whole due to the Maharishi Vedic Vibration Technology program.

Additional findings of the study showed that change in all three discomfort variables—frequency of discomfort, intensity, and disabling effects in daily activity—appeared to significantly contribute to subjects' reported improvement in chronic illness. Those subjects' who tended to report the highest percentages of improvement also tended to report the largest decreases in frequency of discomfort, intensity of discomfort, and disabling effects of discomfort in daily activity. The same pattern of responses was observed when taking into account only those cases rated severe to very severe.

While an alternative explanation of the above results could include a "placebo effect," Nader et al in a series of double-blind placebo-controlled trials previously reported significant improvement in chronic disorders due

to the Maharishi Vedic Vibration Technology compared to well-designed placebo controls (21,23). This suggests that the study results reported here are due to an active intervention rather than the prescribed program acting as a placebo.

Nader, Smith et al discuss in detail several physical and physiological mechanisms for the effects of the Maharishi Vedic Vibration Technology (23). This theory is based upon principles from Maharishi Vedic Medicine, unified quantum field theories, and self-organization.

From the perspective of Maharishi Vedic Medicine, the body is the expression of fundamental laws of nature, or impulses of intelligence, which not only underlie the structures and functions of all levels of the physiology—including cells, tissues, organs, and the whole physiology—but underlie and govern the orderly functioning of the entire universe. The unified basis of these laws is an unmanifest field of pure intelligence, or consciousness, referred to in modern quantum field theory as the unified field of natural law (22,28,29). It is proposed that the laws of nature emerging from this 'unified field' are first expressed in the physical universe as waves, whose subtle expression is available in the sounds of the 40 aspects of the Veda and Vedic literature (23). These subtle 'vibrations,' or sounds of the Veda and Vedic Literature are applied to specific 'disordered' parts of the physiology to enliven the underlying intelligence of that part, thereby, transforming a disorderly condition of bodily functioning into a more orderly one.

A further understanding of how this inner intelligence of the body can directly transform 'disorder into order' may be understood from self-organization and chaos theories. These theories are useful in explaining how a specific delicate impulse or stimulus, in the form of the sounds used in the Maharishi Vedic Vibration Technology program, is capable of producing a relatively instantaneous orderly change in the functioning of the physiology (23). This has been studied mathematically in autocatalytic cyclic reaction chains, whose dynamic patterns easily shift from chaos to order if one slightly varies specific control parameters (30). Related to the physiology, Freeman (31) for example, discovered that a faint stimulus of the receptor neurons in the nasal passages is sufficient to induce an orderly shift in the firing patterns of neurons.

Together, the above principles from Maharishi Vedic Medicine, quantum field theory, and self-organization theory help to broadly explain the underlying mechanics of how the Maharishi Vedic Vibration Technology program can effect rapid improvement in chronic illness conditions. Future research studies on MVVT can elucidate more detailed underlying mechanisms.

The following three examples of subjects' experiences provide a narrative description of the effects of the Maharishi Vedic Vibration Technology program on chronic disorders:

I went into the Maharishi Vedic Vibration Technology consultation as a last resort, resigned to live with pain and numbness in the hips and thigh caused by a back injury. My first session was a wonderfully nourishing and blissful experience that produced immediate results. And with the bliss came a life-giving energy, a dynamism that also had receded.... I feel happier and more a part of the pace of normal life (case #1).

I had consultations for three disorders: anxiety, insomnia, and depression. These were long-standing problems which interfered greatly with my quality of life. After the first session, I felt about 80 percent relief. I felt a profound change taking place in my body and mind, including a very clear experience of healing in my brain physiology. Since my consultation I have continued to enjoy relief of perhaps 60 to 70 percent. I am sleeping better, am far less anxious and depressed and, for the first time in a very long time, am experiencing happiness, peace and hope (case #2).

For the last two years, due to whiplash from an auto injury, I have experienced lack of mobility in my neck and the loss of functioning in my arm. On the first day of the Maharishi Vedic Vibration Technology consultation I felt a profound change. At the beginning of the session the injured arm and the area around the neck felt heavy, thick, and full of inertia, but during the session they became sweet, light, and comfortable (case #3).

These three examples illustrate the potential of the Maharishi Vedic Vibration Technology program to immediately relieve pain and restore balance to the affected part of the body (cases #1 and 3) and improve mental health (case #2).

The question of whether these short-term changes would persist over time is an important one when considering clinical applications. While this study was not designed to address this question, it is recommended that future studies on the Maharishi Vedic Vibration Technology program build into their protocols the evaluation of longer-term effects of this program. The use of physiological measures to assess objective change in specific chronic disorders would further advance the knowledge of the potential benefits of this program.

In view of the prevalence of chronic disorders, side effects of standard treatments, and the economic impact of treating these disorders, continuing research on new treatment approaches should be a high priority in the field of preventive medicine. Based upon the findings of this study and that of Nader, Smith et al (23), the Maharishi Vedic Vibration Technology program shows great promise in the improvement of chronic illness.

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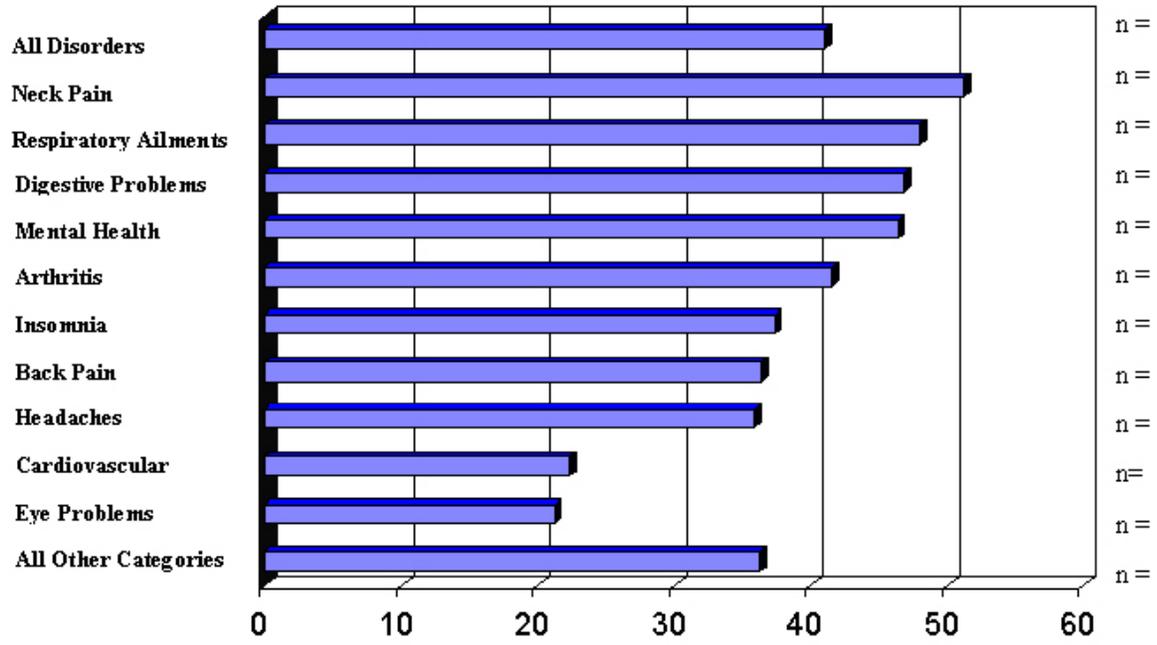
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**Table 1.** Change in Frequency and Intensity of Discomfort, Disabling Effects in Daily Activity, Mental Health, and Vitality

<b>Factor</b>	<b>N</b>	<b>Pretest Mean±SD</b>	<b>Posttest Mean±SD</b>	<b>t-test</b>	<b>p value</b>
Frequency of Discomfort or Pain	254	3.81±1.13	2.85±1.14	13.37	.000001
Intensity of Discomfort or Pain	277	3.21±0.95	2.59±1.02	11.16	.000001
Disabling Effect in Activity	275	2.55±1.19	2.02±1.07	8.94	.000001
Mental Health	87	4.22±0.98	4.62±0.91	5.19	.000001
Vitality	87	3.32±1.11	3.75±1.00	4.02	.000125

**Table 2.** Contribution of Change in Frequency and Intensity of Discomfort and Disabling Effects in Activity to Subjects' Reported Improvement in Chronic Illness

Disease Category	Change in Quality of Life Variable	Correlation With Global Improvement	Multiple Correlation, R
All disorders (N=252)	Frequency	-.307 ***	.336 ***
	Intensity	-.309 ***	
	Disabling effects	-.253 ***	
All disorders: Severe and very severe cases only (N=61)	Frequency	-.263 *	.489 **
	Intensity	-.330 **	
	Disabling effects	-.424 ***	



**Figure 1.** Chronic disorders. Average per cent improvement by disorder