

# HealthRHYTHMS Research

## Published Research Summary

Numerous research studies have been published in peer reviewed journals which demonstrate the health & wellness benefits of our research-based HealthRHYTHMS Recreational Music-Making (RMM) protocol. HealthRHYTHMS Group Empowerment Drumming is Remo's internationally acclaimed research-based RMM program and is the basis for this research.

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### **IMPACT ON IMMUNE SYSTEM**

#### [Strengthens the Immune System \(2001\)](#)

A healthy immune system is the key component to preventing infectious diseases. We are all exposed to millions of germs every day, so our reliance on our own immune system to fight off most potential infections is indisputable.

What do we mean it can strengthen the immune system? The study of 111 HealthRHYTHMS Group Empowerment Drumming participants showed a statistically significant increase in natural killer cell activity after a one-hour group session. Natural Killer cells (NK) are the white blood cells that seek out and destroy cancer and virally infected cells. Additionally, the protocol appears to reverse specific neuroendocrine and neuroimmune patterns of change associated with the classic stress response.

[Read the Abstract](#)

[Read Remo Belli's Interview with Researcher, Barry Bittman, MD](#)

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### **EMPLOYEE BURNOUT & TURNOVER REDUCTION**

#### [Improves Mood States and Reduces Burnout \(2003\)](#)

Working in the long-term care environment can be very stressful. Lower employee stress and turnover rates translate into better care for residents and cost savings for employers. The U.S. Department of Health and Human Services (HHS) estimates there is an annual turnover rate of between 70 to 100 percent in nursing homes (Wilner 1999).

In this 6-session (HealthRHYTHMS) study of 112 long-term care workers 46% demonstrated significant mood improvement. When follow-up testing was done 6 weeks after the end of the study, the improvement in mood had continued to grow increasing to 62%. Based upon what is already known from previous studies of factors that influence an employee's decision to quit, an independent team of economic-impact analysts projected these improvements would result in an 18.3% reduction in turnover. When follow-up was done with this facility the annual turnover experienced was actually reduced even more than these projections.

[Read the Abstract](#)

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## **REDUCING STUDENT DROP-OUT RATE**

### [Retains Students: Mood Improvement & Burnout Reduction \(2004\)](#)

In July 2007, a report released by the PricewaterhouseCoopers' Health Research Institute found that though the average nurse turnover rate in hospitals was 8.4%, the average voluntary turnover for first-year nurses was 27.1%. (GIH, 2008) Drop-out rates for nursing schools are rising further compounding this problem.

In this study the mood states of 75 first year associate degree nursing students were evaluated including: tension/anxiety, depression/dejection, anger/hostility, vigor/activity, fatigue/inertia and confusion/bewilderment. In spite of the fact that being required to participate in the study added additional time requirements to their schedule a 28.1% improvement in total mood disturbance was reported. Analysts project that these reductions in burnout and improvements in mood would likely reduce drop-out rates. This has the potential to positively impact the number of nurses completing nursing school and entering the nursing profession.

[Read the Abstract](#)

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## **GENOMIC IMPACT**

### [Reverses Stress on the Genomic Level \(2005\)](#)

"Stress is really a component of every disease," says James Rosenbaum, MD.

For more information about stress-related illness click here. (link to: [STRESS IMPACT: RESEARCH SUMMARY](#))

This groundbreaking study published in the February 2005 issue of the international research journal Medical Science Monitor shows for the first time that playing a musical instrument can reverse multiple components of the human stress response on the genomic level. We know from previous studies that HealthRHYTHMS Group Empowerment Drumming Protocol (RMM) reduces stress, burnout, improves mood states and boosts the immune system. This study looked at the effects of Recreational Music Making (RMM) at the genomic level and demonstrated not simply a reduction in stress but a reversal in 19 genetic switches that turn on the stress response believed responsible in the development of common diseases. This study also "extends our understanding of individualized human biological stress responses on an unprecedented level". (Bittman, B., 2005)

[Read the Abstract](#)

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## **CORPORATE EMPLOYEE WELLNESS BENEFITS**

### [Strengthens the Immune System of Corporate Employees \(2007\)](#)

Growing evidence linking job stress to illness emphasizes the importance of finding an effective means of stress management. This study of Corporate Employees in Japan was conducted to assess whether or not this wellness strategy demonstrated a positive effect on stress biology in the corporate environment.

HealthRHYTHMS has significant potential for utilization in the corporate wellness environment. (Masatada, W., Koyama, M., Utsuyama, M., Bittman, B., Kitagawa, M., Hirokawa, K., 2007)

*[Read the Abstract](#)*

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## **CREATIVITY & BONDING IN SENIORS**

### *[Recreational Music-Making Inspires Creativity & Bonding in Long-Term Care Residents](#)*

Bittman, B., Bruhn, K., Lim, P., Neve, A., Stevens, C., Knudsen, C., 2003

This study demonstrates the efficacy of recreational music-making as a means of inspiring creativity and helping long term care residents bond. Residents reported that RMM activities produced far more favorable effects, when compared with antidepressants or mood-stabilizing drugs.

To test this hypothesis, two real-world laboratories were established at Wesbury United Methodist Retirement Community, Meadville, Pa., a facility with independent living, skilled nursing, assisted living, and memory support (skilled and assisted); and Fredericka Manor, Chula Vista, CA., a retirement campus with independent living, assisted living, and skilled nursing, including 60 beds for persons with dementia.

While ongoing RMM programs are currently offered at both facilities, the data collection period extended from 2002 through 2003. A total of 550 seniors participated in the study. All subjects (or family members when appropriate) signed informed consents, and the protocol was approved by the Institutional Review Board for Human Studies of Meadville Medical Center. The program was conducted by an interdisciplinary facilitation team that included a physician, two music therapists, a music teacher, musicians, and members of the facilities' activities staffs. The program included a Yamaha Clavinova Keyboard assisted drum circle which followed the HealthRHYTHMS Protocol.

Resident Observations: After completion of the program, many residents noted the immediate benefits of creating connections with staff and other residents. Participation in just one RMM session often promoted identifiable and meaningful connections. The predominant conclusion was that there are no "strangers" at the end of an RMM session. Several residents remarked that their ability to more effectively deal with the loss of a loved one or friend was enhanced through RMM sessions. The acknowledgement of a person who had recently passed on served as an effective means for honoring an important relationship through empathetic group support. A number of participants commented that RMM positively influenced their overall perspectives and expectations for living in a long term care environment. In addition, residents reported that RMM activities produced far more favorable effects, when compared with antidepressants or mood-stabilizing drugs.

*[Read the Abstract](#)*

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## QUALITY OF LIFE IMPROVEMENTS IN AT-RISK ADOLESCENTS

HealthRHYTHMS Adolescent Protocol is a catalyst for quality of life improvement

Despite the devotion of significant resources to rehabilitate juvenile delinquents (youth who have committed offenses that would be considered criminal in adults) a limited number of effective, replicable, evidence-based treatment strategies exist, which are supported by peer-reviewed research. This new research published in *Advances Journal* demonstrates significant improvements in these youths through the use of the HealthRHYTHMS adolescent protocol. In fact this is the first strategy we are aware of which may actually hold hope for reducing what some refer to as "the columbine effect" which has driven so many adolescents to commit horrible violent acts. (*Instrumental Anger*)

[Read the Abstract](#)

**"This is an accessible, affordable and sustainable strategy that can positively impact juvenile rehabilitation." Barry Bittman, MD**