



Evaluation of the Efficacy of an Acupuncture Program at Wellness Center

A Service of the Benson Henry Institute for Mind Body Medicine at Mass General Hospital



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INTRODUCTION

- Acupuncture originated in China nearly 3000 years ago.¹
- Involves insertion of thin needles to balance the flow of Chi (life force energy) through channels or pathways called meridians.¹
- 3.1 million Americans reported recent use of acupuncture and reports of perceived benefit were generally high.²
- Acupuncture is used for the following conditions: chronic pain, post operative pain, nausea associated with chemotherapy, osteoarthritis, chronic back pain, fibromyalgia, addiction and stroke rehabilitation, among others.³

OBJECTIVES

- Evaluate the **process** of the acupuncture program in order to help improve program delivery and refine the program model.
- Evaluate the **impact** of the acupuncture program to determine how the program components affect the physical and mental health outcomes of the patients

LOGIC MODEL

Inputs	Outputs		Outcomes → Impact		
	Activities	Participation	Short	Medium	Long
<ul style="list-style-type: none"> Acupuncturist Interns Receptionist Office Manager Wellness Assistant Wellness Director Wellness Center (5th floor) Acupuncture needles Relaxation CDs CD players 	<ul style="list-style-type: none"> Acupuncture 	<ul style="list-style-type: none"> MGH primary care patients who wish to improve their health and well-being using alternative methods 	<ul style="list-style-type: none"> Reduce pain Reduce stress Reduce anxiety Reduce fatigue Increase feelings of relaxation 	<ul style="list-style-type: none"> Increased mobility Decrease pain medications 	<ul style="list-style-type: none"> Decrease in stress-related symptoms Fewer hospitalizations Enhanced feelings of well-being Increased quality of life Enhanced ability to engage in activities of daily living Enhanced resilience
Assumptions <ul style="list-style-type: none"> Effects of acupuncture Placebo effect Patient-provider relationship 	External Factors <ul style="list-style-type: none"> Cultural beliefs Perceived financial barriers Wellness center hours of operation and transportation availability 				



METHODS

- Setting:** MGH-BHI Wellness Center
 - Offers wellness programs including acupuncture, massage, yoga, Tai Chi and Mind Body Groups.
 - Patients are referred by primary care provider.
- Subjects:** Patients enrolled at MGH-BHI Wellness
 - Received acupuncture between August 1, 2011 and January 31, 2012 (n = 137).
- Study design:** Mixed methods study
 - quantitative (questionnaire) and qualitative (focus group)
- Questionnaire domains:**
 - Reasons for seeking acupuncture treatments
 - Medical conditions which afflict them
 - Effect of acupuncture on their health and well-being
 - Experience with MGH-CHA Wellness Center
 - Sociodemographic information
- Focus Group domains:**
 - Experience with acupuncture
 - Experience at MGH-CHA Wellness Center
 - Reasons for seeking acupuncture treatments
 - Effects of acupuncture on health and well-being
 - Barriers in obtaining treatments

QUANTITATIVE RESULTS

- Survey Response rate = 52.6% (72/137)

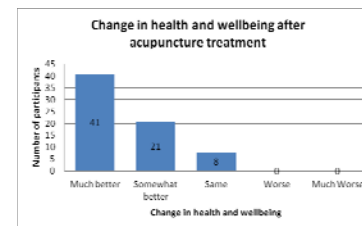
Demographics		
Gender:		
Male		13 (18%)
Female		59 (82%)
Age		
21 – 35		6 (8%)
36 – 50		17 (24%)
51 – 65		25 (35%)
66 – 80		16 (23%)
81 – 95		7 (10%)

- 61% of the participants had not received acupuncture before coming to the Wellness Center.
- Most of the patients heard about the acupuncture program from their physician, while some heard it from a friend, flyer or poster.
- Most of the patients had received more than ten acupuncture sessions at the MGH-BHI Wellness Center and felt much better after receiving acupuncture.

Correlation between acupuncture sessions and its effects on patient's health

Variables	p-value
Number of acupuncture sessions and change in health and wellbeing	p=0.003
Perceived change in health and wellbeing after acupuncture and decrease in pain meds	p=0.039
Number of acupuncture sessions and decrease in pain meds	P=0.151

Participants' perception of change in their health and wellbeing after receiving acupuncture treatment



QUANTITATIVE RESULTS

- Demographics: 6 participants (5 females, 1 male)
- Major themes that emerged from focus group:
 - Pain relief:** "I used to take three pills of Vicodin every day and now I only take half."
 - Stress management and relaxation:** "Immediately, I feel much better because I feel relaxed."
 - Quality of service:** "It feels safer to get acupuncture at MGH because it is in a hospital."
 - Affordability:** "It would be financially prohibitive to get acupuncture if not at MGH."
 - Expansion of services:** "Need later hours or Saturday morning for work schedules."

CONCLUSIONS

- Acupuncture services at MGH-BHI Wellness Center, have a beneficial impact on the population it serves.
- Positive correlation between the number of acupuncture sessions and the perceived change in health and wellbeing (unable to determine if this is actual effect or a placebo effect, or both) $p < .003$.
- Positive correlation between the perception of the change in health and wellbeing after acupuncture and a decrease in the intake of pain medications $p < .039$.

Strengths:

- High response rate for the questionnaire.
- Varied domains for program process and impact.

Limitations:

- Only one focus group for the qualitative portion.
- Selection bias

REFERENCES

- Aung, SKH; Chen WPD (2007). Clinical introduction to medical acupuncture. Thieme Medical Publishers. ISBN 978-1-58890-221-4.
- Barnes PM, Bloom B, Nahin R. CDC National Health Statistics Report #12. Complementary and Alternative Medicine Use Among Adults and Children: United States, 2007.
- Acupuncture. NIH Consensus Statement Online 1997 Nov 3-5; 15(5):1-34.

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