

Effects of acupuncture on psychological stress and viral load in African-Americans living with HIV/AIDS



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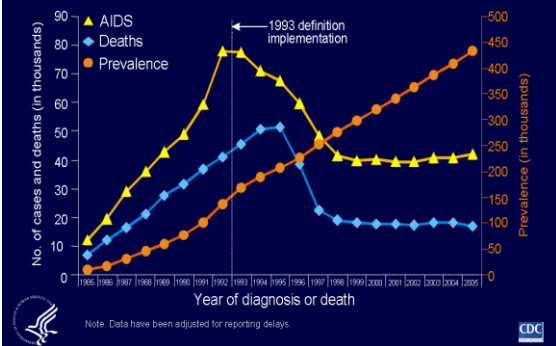
Presenter Disclosures

Jason R. Jagers

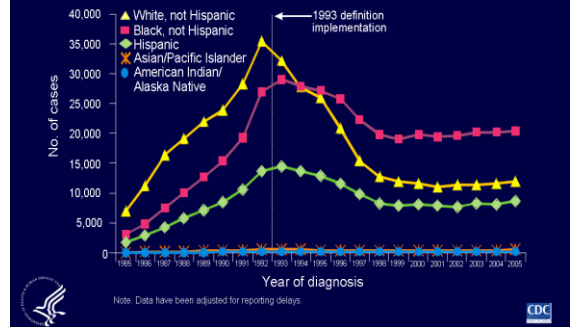
- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

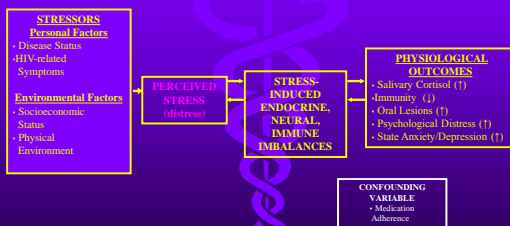
AIDS Cases, Deaths, and Persons Living with AIDS, 1985–2005—United States and Dependent Areas



AIDS Cases among Adults and Adolescents by Race/Ethnicity, 1985–2005—United States and Dependent Areas



Model for Stress-Induced Physiological and Psychological Outcomes in HIV-Infected Individuals



A Critical Point

In most cases, the stress response is more dependent on the individual's PERCEPTION of the stressor than on the stressor itself.

Acupuncture Treatment

- May reduce stress hormone levels, perceived stress and enhance immune function.
- Group setting offers a cost-effective treatment for HIV related symptoms.
- Wide variety of possible treatment settings.
- Few studies have examined the effects of acupuncture on stress-associated conditions in HIV+ populations.

EXPORT Funded Project

Principal Investigator: Dr. Gregory A. Hand

Purpose

- To determine the effects of real and placebo acupuncture (ACU) on markers of distress and immunity in HIV+ African-Americans.

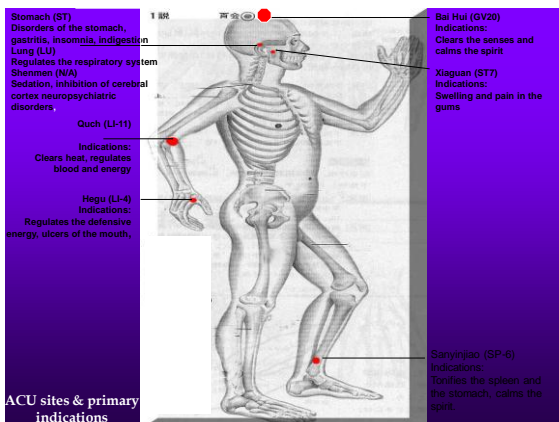


Methods

- Seventy-seven HIV infected African Americans were randomized into either a real (n = 37) or placebo (n = 40) acupuncture group.
 - Real ACU treatment group received standardized needling twice a week for 5 weeks.
 - Placebo ACU group received treatment using placebo needles identical in shape and size to the real needles.
 - Plastic rings were taped over sites for all participants which helped maintain placement of placebo needle without penetrating skin.

Data Collection

- Data collected at pre and post treatment:
 - Plasma viral load
 - Perceived stress scale
 - Symptom Distress Scale
- Data was analyzed using a two way repeated measures ANOVA with p value ≤ 0.05



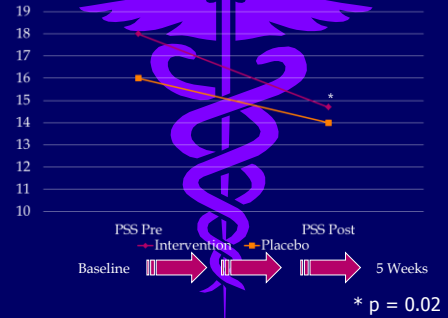
Acupuncture Sites and Primary Indications

| Number | Name | Location | Indications |
|--------|--------------------------------|--|--|
| SP-6 | Sanyinjiao 3 Yin Intersect. | Medial aspect of the lower leg, 3 cun above the medial malleolus close to medial crest of the tibia | Tonifies the spleen and the stomach, calms the spirit. |
| ST7 | Xiaguan Below the joint | Lower edge of the zygomatic arch in depression anterior to the condyloid process of the mandible | Swelling and pain in the gums |
| GV20 | Bai Hui 100 Meetings | Midline at vertex of the head, 8 cun posterior to glabella and 6 cun superior to external occipital protuberance. | Clears the senses and calms the spirit |
| N/A | Shenmen | Triangular fossa, superior/medial to intersection of the superior and inferior crura of the anhelix | Sedation, inhibition of cerebral cortex neuropsychiatric disorders |
| ST | Stomach | Lies in the cavum of conchae at the end of the crus of the helix | Disorders of the stomach, gastritis, insomnia, indigestion |
| LU | Lung | Lies 1/2 inch above and just below the center of the cavum of conchae | Regulates the respiratory system |
| LI-4 | Hegu Joining Valley | Dorsal surface of the hand, between the first and second metacarpal bones, midpoint of the second metacarpal bone and close to radial border of the second metacarpal near the radial border | Regulates the defensive energy, ulcers of the mouth |
| LI-11 | Quchi Pool at the Creak | At the elbow, midway between tendon oficeps brachii and lateral epicondyle of the humerus, at the lateral side of the transverse cubital crease | Clears heat, regulates blood and energy |

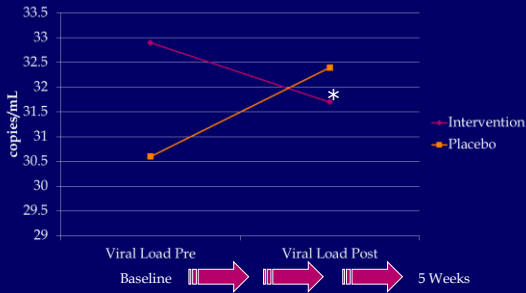
Participant Demographics

| | Real (N=37) | | Placebo (N=40) |
|------------------------|------------------------|--|------------------------|
| Age | 43 | | 44 |
| Sex | 20 17 | Male Female | 25 15 |
| HIV Status | 25 12 0 0 | HIV Asymptomatic HIV Symptomatic AIDS Decline | 22 15 2 1 |
| Route of Infection | 27 1 2 - 7 | Intercourse IV Drugs Blood Accident Other | 33 3 0 - 4 |
| Currently taking HAART | 25 12 | Yes No | 30 10 |

Perceived Stress Scale

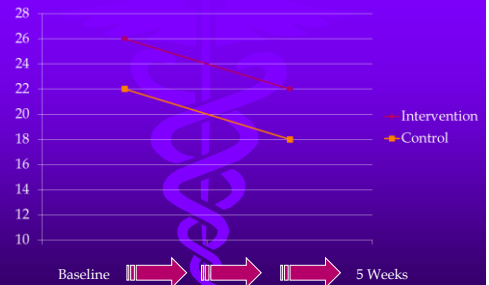


Viral Load

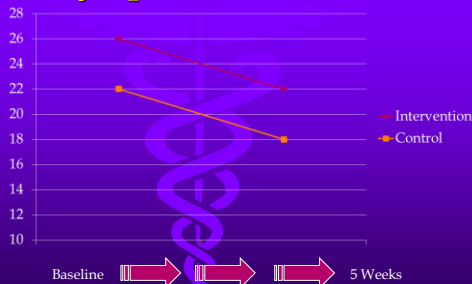


Viral load significantly decreased in the intervention group.

Symptom Frequency



Symptom Distress

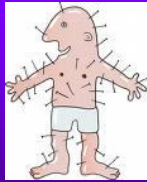


Conclusions

- These data show that 5 weeks of acupuncture twice a week can help reduce perceived stress and possibly viral load.
- Unable to determine potential effects of long term acupuncture.
- 5 weeks of acupuncture did not effect the frequency of HIV-related symptoms nor the associated distress.
- Additional research is warranted to determine potential benefits of acupuncture as a form of complementary alternative medicine in HIV-infected population.

Acknowledgements

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Questions??



The road to recovery is full of treatment options. With so many exits and quicker routes available we ignore the longer and unfamiliar alternate routes.