A Randomized Clinical Trial of the Biblically-based Eating Awareness Training (BEAT) Obesity Program to Reduce Weight in African American Adolescents

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BEATObesity

• A pilot study will be conducted to test the feasibility of the BEATObesity Intervention Program.
Why Worry About Adolescent Obesity?

- Approximately 17% (or 12.5 million) of children and adolescents aged 2—19 years are obese.

- Since 1980, obesity prevalence among children and adolescents has almost tripled.

Source: [http://www.cdc.gov/nchs/data/hestat/overweight/overweight_child_03.gif](http://www.cdc.gov/nchs/data/hestat/overweight/overweight_child_03.gif) accessed 7/21/11
Why Worry About Adolescent Obesity in African Americans?

**Figure 2. Prevalence of obesity among boys aged 12–19 years, by race/ethnicity: United States, 1988–1994 and 2007–2008**

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**Figure 3. Prevalence of obesity among girls aged 12–19 years, by race/ethnicity: United States, 1988–1994 and 2007–2008**

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NOTE: Obesity is defined as body mass index (BMI) greater than or equal to sex- and age-specific 95th percentile from the 2000 CDC Growth Charts.

Mindfulness: An Intervention

- Mindfulness practices involve the intention to notice, without judgment, the thoughts, emotions, sensations, and other experiences that arise in each moment.


BEATObesity

• A culturally-sensitive Biblically-based mindfulness intervention program called the (BEAT) BEATObesity Intervention

• Biblically-based

• Eating

• Awareness

• Training
Specific Aim:

- Compare BEATObesity to an established lifestyle intervention protocol, the Diabetes Prevention Protocol (DPP), and their effects on the following:
  - Weight loss and maintenance (BMI %ile)
  - Energy expenditure levels (kcal/week)
  - Laboratory indicators for obesity. (HbA1C, hsCRP, Lipid Panel)

We Hypothesize that compared to DPP, the study participants in The BEATObesity Intervention Program Protocol will have:

- Increased compliance and better maintenance at 18 months follow up.
Study Population

• We will recruit participants from identified Christian churches in the Washington, DC Metropolitan, Maryland, Virginia (DMV) Area.
Study Population

• **Inclusion criteria:**
  - Ages 12-17 yrs old
  - BMI > 85%ile
  - Self Identified African American Descent
  - Be willing to commit to 16 sessions in a 24 week period of time.
  - Have a parent/guardian willing to attend sessions with study participant
  - Be available for follow up for 18 months at program completion

• **Exclusion Criteria**
  - Type II Diabetes Mellitus
  - Uncomfortable in participating in a Biblical scripture-based prevention program.
Randomization

BEATObesity

• The BEATObesity is a 16 session intervention weight reduction program

• The initial 8-session biblically based mindfulness intervention (mindfulness, eating awareness, scripture meditations)

• 8 sessions of mindfulness tool reinforcement, nutrition and physical activity education

DPP protocol

• A 16-session weight loss and physical activity protocol

• “Core curriculum” of nutrition and physical activity education with specific goals

• An emphasis on tailoring the intervention to make it more appropriate for specific populations
The BEATObesity Intervention Program

• Session 1: Introduction to BEATObesity and Mindful Eating
• Session 2: Foundations of Mindfulness, Meditation and Mindful Eating
• Session 3: Self Image and Self Care
• Session 4: Cultivating Awareness of Positive Experiences
• Session 5: Working with Thoughts and Unpleasant Events
• Session 6: Coping Strategies and Empowering Resilience
• Session 7: Forgiveness
• Session 8: Review of Mindful Eating and Exercise
The BEATObesity Intervention Program

- **Initial 8 Sessions:**
  - Review of Session Theme
  - BMI Measurement
  - Physical Activity Log Record and Review
  - Set Weekly Nutrition and Physical Activity Goals
  - Daily Scripture Meditation
  - Scripture References

- **Example Session:**
  - Review Mindfulness and Mindful Eating Terms
  - BMI: now 90%ile (improved from 93%ile)
  - Physical Activity: Danced for a total of 3 hours this week, Walked with mom 2 x this week, etc…
  - Will dance 30 minutes to videos everyday, Walk with mom more, eat 5 mindful meals this week
  - Daily Scripture: **Psalm 34:8**
    Oh, **Taste** and **see** that the LORD is good; blessed is the one who trusts in Him!
BEATObesity Study Protocol

Recruit and Enroll Study Participants

BEATObesity

Baseline
BMI, BP
HbA1C, hsCRP, Lipid Panel

Repeat BMI, BP
HbA1C, hsCRP, Lipid Panel
6 months
12 months
18 months

DPP

Baseline
BMI, BP
HbA1C, hsCRP, Lipid Panel

Repeat BMI, BP
HbA1C, hsCRP, Lipid Panel
6 months
12 months
18 months

All Measurements will be made by blinded study staff
Methods

• Comparative Analysis
• $t$-test
• Wilcoxon rank sum
Strengths/Limitations

**Strengths**
- Innovative
- Culturally Tailored and Empowering
- Cost-Effective Solution

**Potential Limitations**
- Peer awareness participation
- Retention
- Level of maturity and/spirituality
Significance

- Implementation of the BEATObesity Intervention Program
- Church ministries
- Community programs
- Private/Charter school curricula.
- Community Partnerships for Future Research
BEATObesity

????QUESTIONS?????
GOD BLESS YOU
HAVE A GREAT WEEK