Lifestyle, Evaluation, & Counseling

- 10:15 am
- Panel
- Anne Marie Navar, MD, PhD
Lifestyle Management

Martha L. Daviglus, MD, PhD, FAHA

Edmund Foley Professor of Medicine
University of Illinois at Chicago
Race/Ethnic Disparities and the Role of Lifestyles
Serum Total Cholesterol $\geq 200\text{mg/dL}$

Age-Adjusted Trends in Prevalence of Serum Total Cholesterol $\geq 200\text{mg/dL}$

Mean Serum Total Cholesterol Levels

Among HCHS/SOL Participants by Sex and Hispanic/ Latino Background

*Age standardized to the Census 2010 US population

Davignon et al. JAMA 2012;308:1775-84
Challenges to Overcoming Disparities

Persons from race/ethnic minority backgrounds may experience barriers to physical activity and healthy diets.

- **Personal-level Barriers**
  - Health literacy
  - Lack of time (work or family/caregiver commitments)

- **Sociocultural barriers**
  - Access to culturally appropriate dietary guidelines
  - Culturally acceptable types of physical activity

- **Neighborhood-level barriers**
  - Residence in food desert areas
  - Lack of sidewalks, green space, or recreational facilities
  - Neighborhood crime

- **Health insurance and access to care**
  - Awareness of cholesterol levels
  - Medication affordability
Culturally Specific Lifestyle Strategies
BAILAMOS: Balance & Activity In Latinos, Addressing Mobility in Older Adults

- Innovative culturally appropriate dance program developed by Dr. David Marquez at UIC based on focus group input from older, sedentary community-dwelling Latinos in collaboration with accomplished Latin dance instructor.
- A pre-post 3-month pilot of BAILAMOS demonstrated program feasibility.
- Improvements in self-reported lifestyle physical activity and physical function.
Comprehensive public health agenda established in 2011. Recognizes that “the improvement of the public’s health in Chicago requires a commitment to health equity and the elimination of racial and ethnic disparities.”

Strategies include:
For smoking cessation: expansion of smoke-free environments; support for vulnerable populations (smoking cessation clinics, nicotine patch therapy).
For obesity prevention: expansion of access to health foods in food-desert areas; healthy vending; pedestrian plan; promotion of bicycling.
Measurable targets to be achieved by 2020.

Healthy Chicago - Initiatives

Increasing Access to Healthy Food

Citywide Food Plan
- Build healthier neighborhoods
- Grow food
- Expand healthy food enterprises
- Strengthen the food safety net
- Serve healthy food and beverages
- Improve eating habits

Healthy Vending
- Healthy vending machines in all City buildings
- Launched Healthy Vending Challenge
- Follow efforts of Parks and CPS

Increasing Access to Healthy Food

Produce Carts
- 15 carts in neighborhoods for 2013
- 15 planned for 2014
- ~20 jobs created
- 40 persons trained in retail sales

Urban Farms
- Partnership with Growing Power
- 5 acres of vacant lots available
- Training for local farmers and help installing equipment
- 15 acres overall operate as farms or breaking ground

From: “Healthy Chicago: 2013 Year in Review.” A presentation by Bechara Choucair, MD, Commissioner, Chicago Department of Public Health, March 2014
Increased Opportunities for Physical Activity

Divvy Bike Share Program
- 2,035 bikes, 130 stations
- 122,523 annual memberships
- 131,964 24-hour passes
- 761,700 trips, >1.7 million miles

Dearborn St. Complete Street
- 200 miles of on-street protected, buffered and shared bike lanes
- More than 13,000 bike racks; and sheltered parking
- A 645-mile network of biking facilities by 2020 will provide a bicycle accommodation within half mile of every Chicagoan.

From: “Healthy Chicago: 2013 Year in Review.” A presentation by Bechara Choucair, MD, Commissioner, Chicago Department of Public Health, March 2014
• Comprehensive, multifaceted public health approaches – both targeting individuals and aimed at upstream factors such as neighborhood structures, programs, and policies -- are necessary to prevent development of adverse cholesterol levels starting early in life.

• Departure from focus on individual responsibility to emphasis on social determinants and on social policies and programs.

• Effective incorporation of culturally sensitive approaches to increase physical activity and promote healthy diets among race/ethnic minority groups in the US is required.
Lifestyle Management

Lilian Tsi Stielstra

Stroke Survivor
Janet M. de Jesus, MS, RD*
Program Officer, Implementation Science

National Institutes of Health
National Heart, Lung, and Blood Institute
Center for the Translation Research
and Implementation Science

*No conflicts. The information presented does not necessarily represent the NIH, NHLBI.
Discussion Overview

- Role of diet in cholesterol management
- Research on innovative diet management
- NIH nutrition research
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<th>Total Fat (% kcal)</th>
<th>SFA (% kcal)</th>
<th>Carbohydrate (% kcal)</th>
<th>Protein (% kcal)</th>
<th>Baseline LDL-C of Participants</th>
<th>Effect on LDL-C (Compared With Control)</th>
<th>Effect on HDL-C and/or TG (Compared With Control)</th>
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<td>27</td>
<td>6</td>
<td>55</td>
<td>18</td>
<td>&lt;160 mg/dL</td>
<td><strong>−11 mg/dL</strong></td>
<td>HDL-C: −4 mg/dL</td>
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<td>DASH: Control</td>
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<td>14</td>
<td>51</td>
<td>14</td>
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<tr>
<td>DASH-Sodium</td>
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<td>58</td>
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<td>&lt;160 mg/dL</td>
<td><strong>−13 mg/dL</strong></td>
<td>HDL-C: −4 mg/dL</td>
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<td>TG: +5 mg/dL</td>
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<td>DASH-Sodium: Control</td>
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<td>15</td>
<td>49</td>
<td>13</td>
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<td>DELTA: Low Saturated Fat</td>
<td>26</td>
<td>5</td>
<td>59</td>
<td>15</td>
<td>“Healthy”</td>
<td><strong>−11%</strong></td>
<td>HDL-C: −11%</td>
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<tr>
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<td>TGs: No change</td>
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<td>DELTA: Step 1</td>
<td>29</td>
<td>9</td>
<td>55</td>
<td>15</td>
<td></td>
<td><strong>−7%</strong></td>
<td>HDL-C: −7%</td>
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<td>TG: +9%</td>
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Mediterranean Diet: PREDIMED

- Supplementation of olive oil or nuts
- Behavioral counselling
- Reduced the risk of cardiovascular disease by approximately 30%.

“Toward testing the effects of a Mediterranean dietary pattern on cardiovascular and other diseases in the United States.”

**Summary**

- Discussed the feasibility of, and provided recommendations for, testing the effects of a Mediterranean dietary pattern on CVD and other disease morbidity and mortality in adults in the US.
• Power Practice-based Opportunities for Weight Reduction (POWER) Trial*

• Early Adult Reduction of weight through Lifestyle intervention (EARLY) Trials: Using Innovative Technologies in RCTs
  - 7 trials - modestly effective
  - Conclusion:
    “Effective intervention may require the efficiency of technology, the social support and human interaction of personal coaching,...” (Svetkey, PI)

Diet Management Innovations

- Mobile applications for diet and physical activity tracking
- Online and virtual social support
- Meal delivery
The Nutrition Research Task Force - established to coordinate and accelerate progress in nutrition research and guide the development of the first NIH nutrition-research strategic plan.

The Task Force charge:
- Identify scientific opportunities and research gaps and promote interdisciplinary work to achieve common goals in nutrition.
- Solicit feedback from the scientific community
  - https://ideabuzz.com/a/buzz/nih/strategic-plan
- Appoint a senior leadership group to guide implementation of the plan.
NIH Nutrition Research

Estimated NIH Nutrition Research Funding, FY 2016

Nutrition Research
Total $: ~1.6 Billion
Total # grants: 4211

www.niddk.nih.gov/about-niddk/advisory-coordinating-committees/nih-nutrition-research-task-force/
Implementation Research

NHLBI Role

Knowledge Generation

Evidence Synthesis

Implementation Research

Practice Guidelines
- Writing guidelines
- Disseminating guidelines
- Helping implement guidelines

Gaps in Evidence

Gaps in Implementation

Conclusion

• Lifestyle change is critically important in cholesterol management.

• New strategies for lifestyle management have been studied but personal/human (remote or in person) interaction is still important.

• Behavior/nutrition counselling should be incorporated in healthcare systems.

• Implementation research is needed to identify strategies to speed up widespread adoption of dietary guidelines.

Thank you
Enhancing Communication & Motivation to Help Patients Lower their Cholesterol

Barbara J. Fletcher, RN, MN, FAHA, FAAN
University Of North Florida
Jacksonville, Florida
Communication Methods

Communication Mainly Occurs Through:

• Written Word
• Spoken Word
• Visuals

To motivate, one must communicate
• 20% of adults read at or below a 5\textsuperscript{th} grade level
• For those over 65 or inner-city minorities, 40% read below a 5\textsuperscript{th} grade level
• 75-80\% of individuals read materials easily at a 6\textsuperscript{th} grade level
• Healthcare professionals write at a 7-9\textsuperscript{th} grade level
• Low literacy costs millions of $$ in longer hospital stays and readmissions
Dyslexia

- Is a reading disorder associated with impairment of the ability to recognize and comprehend the written word
- Results from how the brain processes the written word
- Estimated prevalence in our population with dyslexia is 40%
- Does Not Reflect One’s Intelligence
Written Communication to Lower Cholesterol

• Use 13-16 type font
• Use short words and sentences (under 15 words)
• Give examples to explain hard words
• Include interaction
• Repeat important information
Motivating People to Lower Cholesterol

- Goal Setting
- Problem Solving
- Short Educational Messages (1-3 Minutes)
- Teach Back Method
- Motivational Interviewing
- Coaching
Maintaining Motivation for Lowering Cholesterol

- Self-Monitoring Tools
- Skills for Long Term Behavior Change
  - Relapse Prevention
    - Self Monitoring
    - Problem-Solving Support
Key Points

• Keep the Message Clear and Simple
• Ask the Patient How they Learn Best
• Motivate at that Teachable Moment