Sweet as Sugar

Impact of Diabetes on African American Families

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Today’s Talk

- Diabetes – The Numbers
  - African American Women & Diabetes
- Diabetes Impact
  - Physical
  - Social and Psychological
- Reducing the Impact of Diabetes
Diabetes in Adults

- ~21 million or 7.0% of the US population has diabetes
- About one-third (6.2 million) **do not know** they have diabetes
Estimated age-adjusted total prevalence of diabetes in people aged 20 years or older, by race/ethnicity—United States, 2005

Source: For American Indians/Alaska Natives, the estimate of total prevalence was calculated using the estimate of diagnosed diabetes from the 2003 survey database of the Indian Health Service and the estimate of undiagnosed diabetes from the 1999–2002 National Health and Nutrition Examination Survey. For the other groups, 1999–2002 NHANES estimates of total prevalence (both diagnosed and undiagnosed diabetes) were projected to year 2005.

African Americans and Diabetes

- **13.3%** of all African Americans have diabetes
- **25%** of African Americans between 65 and 74 years of age have diabetes
- African Americans are **1.8 times** as likely to have diabetes as non-Hispanic whites

African American Women

- 1 in 4 African American women over 55 years of age has diabetes.
- In women with diabetes, deaths from heart disease have increased 23 percent over the past 30 years compared to a 27 percent decrease in women without diabetes.

Source: American Diabetes Association
Impact of Diabetes

- Blindness
- Kidney disease (nephropathy)
- Nerve damage (neuropathy)
  - Lower Extremity Amputations
- Blood vessel and heart disease
Every 24 HOURS

- New Cases – 4,100
- Deaths – 810
- Amputations – 230
- Kidney Failure – 120
- Blindness - 55

Pre-Diabetes

- Impaired glucose tolerance and impaired fasting glucose seen before diabetes diagnosis
- Increases risk for diabetes and heart disease
- 54 million people in the United States have pre-diabetes
Diagnosis of Pre-Diabetes

- Fasting Plasma Glucose
- Oral Glucose Tolerance Test
Reducing the Impact

What can we do?
Risk Factors for Diabetes

- Older age
- Overweight (BMI ≥ 25)
- Hypertension
- Abnormal lipid levels
- Family history of diabetes
- Race/ethnicity
- History of gestational diabetes
- History of vascular disease
- Signs of insulin resistance
- Poly-Cystic Ovarian Syndrome (PCOS)
- Previous IGT or IFG
- Inactive lifestyle

## Risk Test

1. My weight is equal to or above that listed in the chart below?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

2. I am under 65 years of age and I get little or no exercise during a usual day?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

3. I am between 45 and 64 years of age?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

4. I am 65 years old or older?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

5. I am a woman who has had a baby weighing more than 9 pounds at birth?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

6. I have a sister or brother with diabetes?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>

7. I have a parent with diabetes?  
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pts</td>
<td>0 pts</td>
</tr>
</tbody>
</table>
Your Risk Test Score

- **Total Score: 3-9 points**
  You are probably at low risk for having diabetes now. But don't just forget about it -- especially if you are Hispanic/Latino, African American, American Indian, Asian American, or Pacific Islander. You may be at higher risk in the future.

- **Total Score: 10 or more points**
  You are at greater risk for having diabetes. Only your health care provider can determine if you have diabetes. At your next office visit, find out for sure.

Reducing Your Risk

- Convincing evidence
  - Intentional weight loss in overweight/obese people
  - Physical activity

- Probable
  - Non-starch polysaccharides
The Diabetes Prevention Program

Question:
Can you delay the onset of diabetes in people whose blood glucose is elevated (pre-diabetes)?
DPP Study

- **Study** – 3000 participants with 45% minority populations
- Compared a lifestyle intervention to drug treatment
- **Lifestyle intervention**
  - Weight loss of 7%
  - 150 minutes of PA per week
- **Results** – lifestyle intervention reduced the risk of diabetes onset by 58%
How does caring for family and others impact diabetes self-care among African American women?
Familial Multiple Care-giving Roles

- 12 items; 2 subscales; internal reliability 0.72-0.76

Sample items:

- Taking care of family and friends interferes with caring of myself.
- Being available for family and friends is important to me.
- It’s hard to say “no” when friends and family come to me for help.

## Care-Giving & Other Psychosocial Factors

<table>
<thead>
<tr>
<th>N=299</th>
<th>MC-Role</th>
<th>MC-Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress level (past month)</td>
<td>0.08</td>
<td>0.31 <em>p</em>&lt; .0001</td>
</tr>
<tr>
<td>Positive diabetes competence</td>
<td>0.17 <em>p</em>&lt; .01</td>
<td>-0.12 <em>p</em>&lt; .05</td>
</tr>
<tr>
<td>Perceived negative control of diabetes</td>
<td>-0.08</td>
<td>0.35 <em>p</em>&lt; .0001</td>
</tr>
<tr>
<td>Negative Dietary Competence</td>
<td>-0.03</td>
<td>0.33 <em>p</em>&lt; .0001</td>
</tr>
<tr>
<td>Social well-being</td>
<td>0.00</td>
<td>-0.36 <em>p</em>&lt; .0001</td>
</tr>
<tr>
<td>Mental well-being</td>
<td>0.05</td>
<td>-0.40 <em>p</em>&lt; .0001</td>
</tr>
</tbody>
</table>
Care-Giving & Self-Care Behaviors

Comparison of means* (n=298)

- Women who reported they were not following a diet for diabetes also reported more people who regularly depend on them for help/support (p< .05)

- No other significant findings with diet or PA
Multiple Care-giving & Family

In summary ...

- Multiple care-giving role barriers were positively associated with:
  - Number of children in the home
  - Number of adults in the home

- No association between care-giving barriers and the number of people who are regularly provided with help or support

- Barriers associated with dietary behaviors
In Summary…

Is there more stress/strain when there are more people who are provided with help/support?

- While the number of people helped/supported was not associated with MC-barriers, it was associated with higher perceived stress levels.
In Summary…

Difficulty saying ‘no’ to family and friends seems to be related to many negative psychosocial outcomes.

- Difficulty saying ‘no’ was associated with:
  - Higher stress
  - Higher perceived self-care barriers
  - A reduced sense of well-being (mental and social)

- Same relationships found with care-giving barriers
Coping Styles in Diabetes

How do African Americans cope with having diabetes?
Coping with Diabetes

- Study among **185** African Americans with diabetes (65% women)
- Participants were/had on average...
  - 59 years of age
  - 9 years of diagnosed diabetes
  - 12 years of education
  - Lower income (46% with annual incomes less than $50,000)

Coping with Diabetes – Findings

- Passive and emotive styles were used most frequently.
- Frequent use of emotive coping was related to poor dietary portion control and poor mental well-being.
- Active coping had both positive and negative effects.

Coping with Diabetes – Findings 2

- Active coping predicted better dietary behaviors (↑ number days following diet for diabetes)
  - Less frequent use of active coping meant better diabetes mental well-being
- Church involvement played a positive role in general and diabetes mental well-being

Family Interactions

What do African American family members think?
What do African Americans living with diabetes think?
Family Interactions

- New study using focus groups
- Sample of 67 African Americans
  - 32 family members (no diagnosis of diabetes)
  - 35 persons with diabetes

What are people saying?
So What Now?

How do we reduce the negative impact of diabetes on families?
Potential Key Areas

1. Develop culturally appropriate **behavior change** and skill-building **strategies**
   - Coping & Problem-solving

2. Let **community voices** (storytelling) enhance behavior change strategies

3. Increase the visibility of **positive role models** and exemplars
Potential Key Areas

4. Train Community Diabetes Advocates (linking patients to community resources)

5. Strengthen informal support systems

6. Test the effectiveness of family-based interventions for adults
Your Comments & Questions

Thank You!
Diabetes Info & Programs

www.diabetes.org

www.niddk.nih.gov

http://www.smallstep.gov/

http://www.kidney.org/

www.ndep.nih.gov

www.healthierus.gov