Increasing Prediabetes Awareness and Screening in an Underserved Hispanic Community

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Background

• The age-adjusted % of patients diagnosed with diabetes was 11.2% for Texas in 2015; 9.8% for Galveston County in 2013, and 12.2% for TX Hispanics in 2015.

• The American Diabetes Association (ADA) defines Prediabetes as a fasting blood glucose 100-125 mg/dl, an impaired glucose tolerance test 140-199 mg/dl, or a hemoglobin A1C 5.7-6.4%.

• 86 million Americans (1 in 3 adults) are currently Prediabetic; 90% are unaware.

• Without effective prevention, 30% of adults with Prediabetes will advance to Type 2 diabetes within 5 years.

Purpose

To increase awareness & screening for Prediabetes to prevent/delay the onset of Type 2 diabetes in the Hispanic community. Population was primarily uninsured, undocumented persons living in Galveston County, Texas who are members of a Christian Community Church.

Intervention

• Target population: Hispanics 18 years and older, non-pregnant, or diagnosed with diabetes. Project was IRB approved.

• Recruitment flyers with study description study were distributed 2 weeks prior to initial screening activity.

• Prediabetes educational material (English and Spanish) was distributed to church members at 3 recruitment sessions.

• Participants were screened using the Prediabetes Risk Test (PRT).

• Participants with PRT scores >=5 were offered an HbA1c POCT to confirm or refute a diagnosis of prediabetes or diabetes.

• Participants with HbA1c (and any family member present) received a one-hour written and verbal educational intervention about Prediabetes and how it can be treated.

• Participants were surveyed to assess the efficacy of the educational intervention.

Tools

Survey of Educational Intervention

1. What prediabetes knowledge do you have before this intervention?
2. How likely are you to make lifestyle changes now that you know if there is risk of diabetes?
3. What lifestyle changes do you believe are important to impact your risk of diabetes?
4. Do you consider health care easy or difficult to access?
5. How likely are you to seek medical follow up after this intervention?

Results

Survey of Educational Intervention

• 90% are unaware.

• 86 million Americans (1 in 3 adults) are currently Prediabetic; 90% are unaware.

• Without effective prevention, 30% of adults with Prediabetes will advance to Type 2 diabetes within 5 years.

Prediabetes Risk Factors by Gender

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>P value*</th>
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<tbody>
<tr>
<td>Overweight</td>
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<td>0.88</td>
<td>0.208</td>
</tr>
<tr>
<td>History of Hypertension</td>
<td>0.34</td>
<td>0.39</td>
<td>0.37</td>
<td>0.3729</td>
</tr>
<tr>
<td>Family History of Diabetes</td>
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<td>0.21</td>
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<td>0.0746</td>
</tr>
<tr>
<td>Gestational Diabetes</td>
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*P-value from Fisher’s Exact test comparing the difference between male and female participants

Discussion

• Created Community partnership between a Community Health Clinic, UTMB, and a Community Christian Church. Sustainable and expanding partnerships can reduce ethnic disparities for prediabetes and diabetes care.

• Lack of health insurance coverage is a barrier that limits access to traditional clinic-based preventive care for prediabetes.

• Language Barrier/lack of English proficiency affects preventive medical care & affects access to social services and other available resources.

• Lack of knowledge about Prediabetes impairs the Hispanics’ ability to seek screening and/or medical treatment.

• Preference of diet vs exercise. More studies are needed to assess Hispanics’ perceived benefits, barriers, and self-efficacy with respect to physical activity for prevention of prediabetes and diabetes.

• Males are at higher risk for Prediabetes and Diabetes; however, Hispanic males are underrepresented in community-based diabetes prevention programs.

Conclusion

• Participants in the project expressed a clear need for more screening and education about Prediabetes.

• Cultural and ethnic strategies specific to the Hispanic population are needed for prevention and management of prediabetes.

• Strategies need to include interventions focused on early detection and lifestyle changes.

References

AICR, American Diabetes Association (2016). Diagnosis and classification of diabetes mellitus: Diabetes Care, 39(11), S11-S20.
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