

Health Education in FQHC



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Federally Qualified Health Centers

- FQHC community based health centers funded by HRSA
 - Primary care provided in underserved areas
 - Care provided on sliding fee based on ability to pay
 - Operating under a governing board that includes patients
- May be Community Health Center, Migrant Health Centers, Health Care for the Homeless, and Health Centers for Residents of Public Housing
 - Often have a blended population
- Primarily moving toward interdisciplinary care
 - Often offer Primary Care, Dental, Women's Health, Behavioral Health, Pharmacy, Lab, and Radiology Services under one roof

Obesity Statistics

- Prevalence of obesity 42.4% in 2017-2018
 - 1999-2000 prevalence was 30.5%
 - Prevalence of severe obesity increased from 4.7% - 9.2%
- Non-Hispanic Black adults 49.6% (highest)
 - Followed by Hispanic adults (44.8%)
 - non-Hispanic White adults (44.2%)
 - non-Hispanic Asian adults (17.4%)
- Age prevalence
 - 20-39yo (40%)
 - 40-59yo (44.8%)
 - 60 and older (42.8%)

Obesity and Socioeconomic Status

- Typically a bell-curve distribution
 - The lowest and the highest income groups typically suffer from obesity the least
 - Small differences interracially, not statistically significant though
 - But why?
 - Open discussion!

Peasant-King Paradox in Obesity

- 500 years ago, obesity was the disease of privilege
 - Access of resources and foods
- Today, the wealthiest among us trend toward a more health conscious diet
 - Low-calorie, plant based, more akin to the lower SE peoples of a different time



Our Low-Income Youth

- The statistics strategically ignore the affluent youth of our world
 - Typically low income (college/graduate students, young tradespeople and entrepreneurs)
 - Typically better access to health education



The Sugar Diabetes

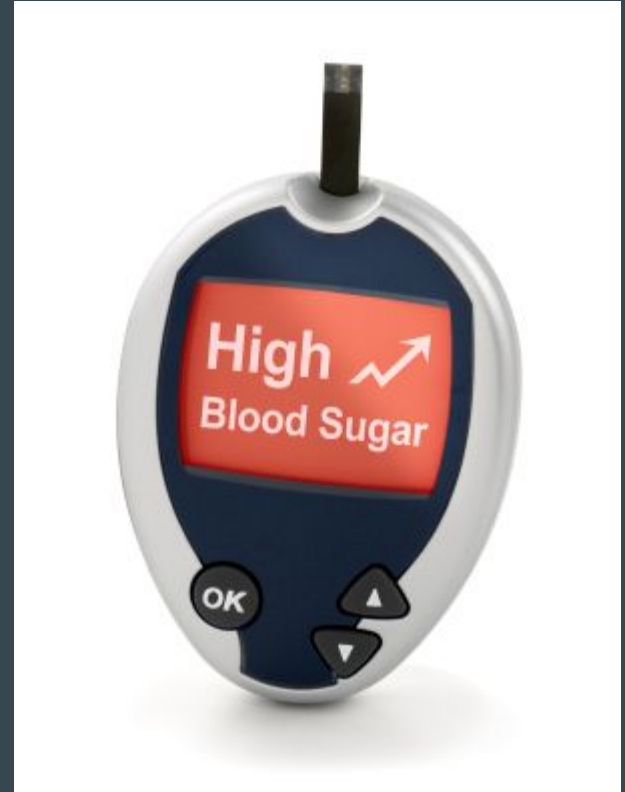
- Diabetes (here referring to T2DM) follows a more predictable model
 - 4.2% 18-44yo
 - 17.5% 45-64yo
 - 26.8% greater than 65yo
- 12% biologic females, 14% biologic males
- Race
 - Hispanic 14.7%
 - Asian, non-Hispanic 14.9%
 - Black, non-Hispanic 16.4%
 - White, non-Hispanic 11.9%
- Overall, 10.5% of the US population suffers from diabetes

Diabetes and Socioeconomic Status

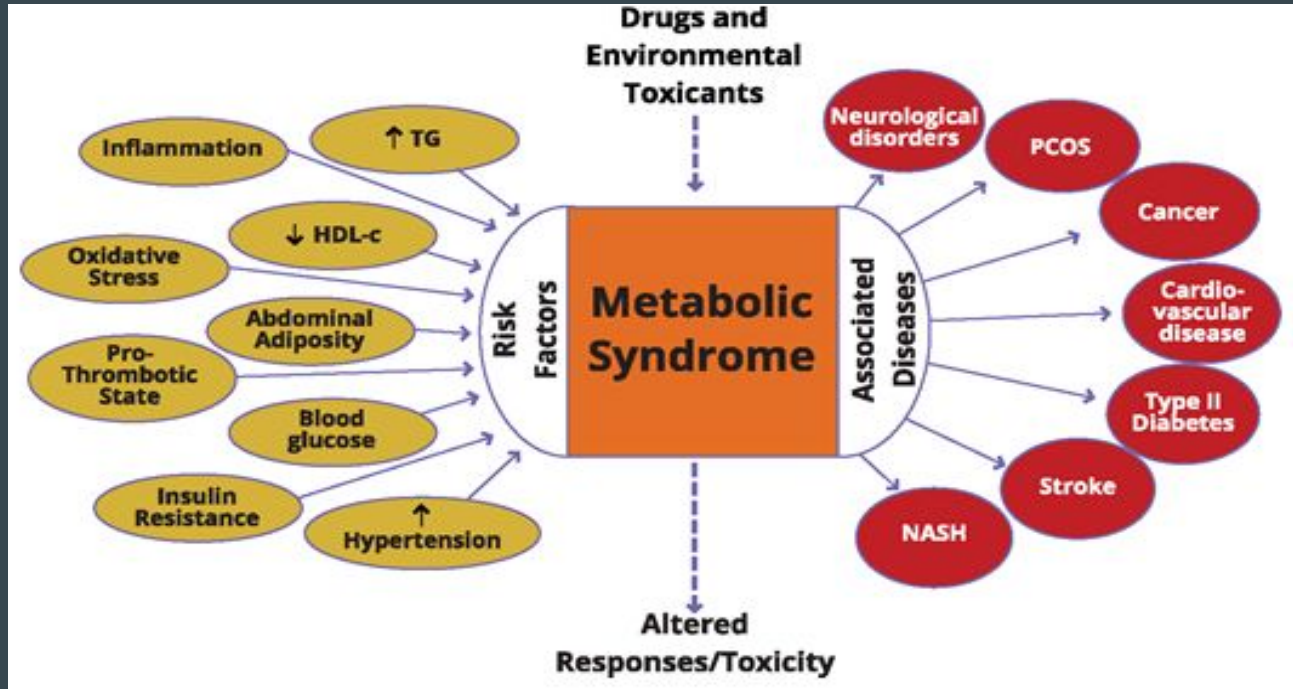
- Poverty has become such a factor in the rates of T2DM, that even in the presence of Universal Health Coverage, it is still correlated with an increased incidence of the disease (Hsu 2012)
- Factors that place patients at an ***INCREASED*** risk for T2DM
 - Lower level of education
 - Lower income
 - Unstable housing (multifactorial)
 - Toxic exposures
 - Food access/security/availability
 - Access to healthcare (**conflicted**)
 - Affordability
 - Quality
 - Social cohesion and support

Associated Co-Morbidities of T2DM

- Hypertension
- Chronic Kidney Disease
- Retinopathies and associated ophthalmic disorder
- Hyperlipidemia
- State of chronic low-grade inflammation
- Smoking
- **Mental Health Disorders (reflexively)**



Metabolic Syndrome & The Social Determinants of Health



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<https://doi.org/10.1093/toxsci/kfx233>

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Our Project

- *Health Education for Patients Suffering from Type II Diabetes Mellitus and Class III Obesity at an FQHC: A Quality Improvement Project*
- Our facility has an abundance of resources
 - Primary Care Physicians
 - Behavioral Health
 - Diabetic Education and Diabetes Clinic
- But still, disproportionate numbers of chronic disease
 - Uncontrolled T2DM
 - Class III Obesity
 - HTN
 - Metabolic Syndrome

Selection Criteria

- For Type II Diabetes
 - HgA1c >6.5%
 - Consent to Health Education separately from Diabetic Education
 - New or prior diagnosis
- For Class III Obesity
 - BMI > 39.9
 - Consent to Health Education separately from Diabetic Education
 - New or prior diagnosis

Goals and Standards

- Set a standard for Health Education in FQHCs
- Identify resources for **dedicated** Health Educator position
- Show that the Health Education position is a necessity in FQHCs
- Help our patients control get better control of their weight and T2DM

Our Intervention

- Dedicated Health Educator role for 1 month
 - Offered and available to all patients in the clinic
 - For study purposes, included only those that met criteria
 - 1-2 meetings, usually during visit
 - In-depth counseling on nutrition and exercise
- Resources for Nutrition
 - Included
 - Cost effective grocery shopping/guided shopping trips
 - Food choices
 - Meal planning/recipes
- Resources for Activity
 - Included
 - Cost effective activity resources
 - Schedule management
 - Expectation counseling and value of activity

Example Clinic Day

- Health Educator during clinic hours on-call service
 - Similar to some Behavioral Health Models
- Patient consents to Health Education
 - Patient seen after provider has completed their visit
- Spends as much time as needed going over interventions
 - Provide paper or electronic copies of resources
- Follow either in-person or virtually 1mo, 3mo, 12mo, or as needed

Example Encounter

- Dietary Interventions
 - Low starch or “slow-carb” approach
 - Grocery store perimeter:
 - Whole unprocessed meat, fruit, vegetables
 - Minimize anything in a box or in a can
 - Toxin exposure discussion
 - Consistency and adherence is the most important factor
- Exercise Interventions
 - Attainable goals
 - 3-4 days of 15-30min high intensity exercise for most people
 - ~3 days 20-30min low-to-moderate intensity exercise for more disabled
 - Resources:
 - Park/outdoor gyms
 - Silver Sneakers or other health facility programs
 - Used equipment
 - creativity

Our Results

- 11 patients met criteria for BMI
 - 5 followed up; average of 41.4BMI
- 17 for HbA1c
 - 7 followed up, average of 9.23%
- Many others screened and requested intervention from Health Educator but were excluded for not meeting criteria
- Significant issues related to provider turnover at our clinic
- BMI decreased to average of 38.70 SD 2.82
- HbA1c decreased to average of 8.06% SD 1.78

How to Implement?

- Food Lists
- Exercise templates
- Dedicated Health Educator
 - Can be a paid position
 - With the resources we had available (multiple universities, medical schools, and a chiropractic school) we were able to fill this position for two years for free as part of an internship exchange for clinical experience
 - Many of these allied health professional studies need clinical exposure

Discussion: Is Access the Issue? Or Is Information?

- Problem: Despite a successful implementation of *quality* access to care, health disparities still exist in these communities
- Project: address this by providing dedicated Health Education to patients
- Results: **improvements in metabolic biomarkers**, even with small interventions
- The goal going forward is to create a template for *any clinic* to implement this intervention in a *cost-effective* way

Resources

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