Fostering Self-Management to the Obese Patient

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Background

- Obesity is the second leading cause of preventable death in the United States.

- 86% of healthcare dollars are spent annually on obesity and concomitant diseases.

- 78 million (35%) American adults are obese.

- Evolution of healthcare

- Self-management is a key intervention.

Definition of Self-Management

- **Self-management** defined as an intervention to empower patients to engage in healthcare to make healthier decisions (Agency for Healthcare Research and Quality (AHRQ), 2016; Institute for Healthcare Improvement, 2011).

- **Self-management** allows for patient provider collaboration to assess problems, set goals, and develop problem solving skills to enhance one's own health.

Objective/Purpose

▶ The purpose of this quantitative pilot study is to evaluate the effectiveness of an individualized educational plan used to inform and engage obese patients in self-management.

Research Question

- Does the self-management intervention have a positive effect on obese patients as evidenced by changes in biomarkers?

Methods/Design

- Quantitative pilot study to assess the effectiveness of the self-management intervention in a sample obese population.

- Tools utilized include:
  - CDC HRA Part B form (self-evaluation)
  - Personal health goals (3 individualized per subject)
  - Pre/post biomarkers

Methods/Design

- Pre/post biomarkers
  - BMI
  - Waist circumference
  - Fasting blood sugar
  - A_1c
  - Lipid panel (Total cholesterol, HDL, LDL, TG)
  - Blood pressure readings

Subject Recruitment

- Patients were recruited from a regional managed wellness center in Prattville, Alabama.

- Patient's EHR was utilized to collect data.

- Recruitment was purposive on a first come first serve bases.

- Inclusion criteria

Subject/Recruitment

- Inclusion criteria
  - Male or Female 35-50 years of age
  - body mass index (BMI) >30;
  - high density lipoprotein (HDL) <60,
  - low density lipoprotein (LDL) > 100;
  - waist circumference greater than 35 inches;
  - history of glycosylated hemoglobin $A_1c(_{HgA1c})$> 8%;
  - hypertension (HTN)>140/90 per JNC-8 Guidelines,
  - heart failure (HF);ejection fraction <40
  - any patient with 2 or more chronic conditions

Subjects/Recruitment

- Demographics
  - Overall there were ten subjects.
  - Age range was 35-49 years of age.
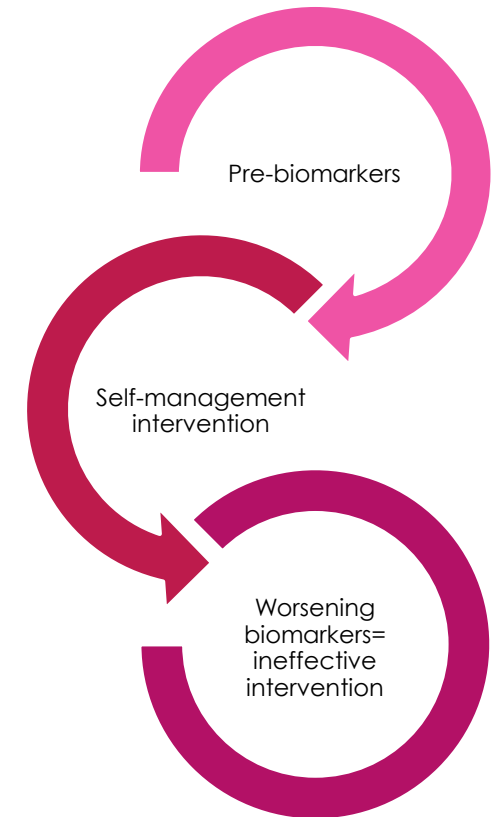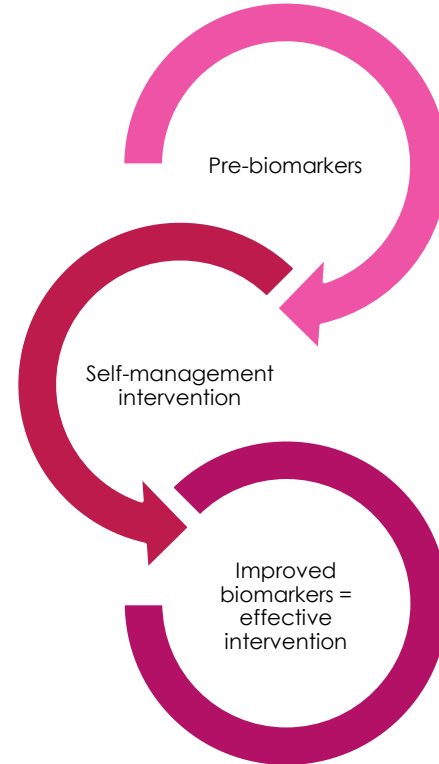
Sample Population Demographics (n=10)	n	%
White Male	4	40
Black Male	3	30
White Female	1	10
Black Female	2	20

Intervention

- Self-management power point presentation with emphasis on nutrition, physical activity, medication compliance and high risk life style behaviors.

- Tools of self-management intervention

  - Problem solving

  - Decision making

  - Resource utilization

  - Patient provider rapport

  - Action planning

- Develop three realistic individualized healthcare goals.

- Telephonic sessions at weeks 3, 6, & 10.

Analysis

► The subjects were asked to complete pre and post biomarker evaluation to measure the effectiveness of the self-management intervention.

Pre-biomarkers

Self-management intervention

Improved biomarkers = effective intervention

Pre-biomarkers

Self-management intervention

Worsening biomarkers= ineffective intervention

Results

Pre/post results				
	Pre M	Post M	Pre Range	Post Range
BMI	36.61	35.25	30.1-44.1	27.4-43.9
WC	42	40.3	38-44	36-44
FG	159.2	129.4	100-328	91-236
A1c	7.37	6.94	6-10.8	6-9.3
TC	200.6	168.9	133-309	123-225
LDL	102.1	85.2	47-183	55-142
HDL	46.6	46.9	22-82	22-84
TG	277.3	169.1	67-1179	87-315

Results

- There was notable decrease in:
  - BMI
  - Waist circumference
  - Total cholesterol
  - Triglycerides
  - LDL
  - Fasting blood glucose levels
  - HgA_1c

Conclusion of Study

- Three areas of interest
  - Selection of subjects
  - Assessing subjects readiness to change
  - Expand the amount of time pilot study is conducted with a greater variation in population as well as increase the number of subjects

- Overall the pilot study shows that utilizing self-management as an intervention to effect lifestyle change over a 12-week period is realistic and feasible for patients with multiple chronic concomitant conditions.

Advancement of Study

- Provide educational opportunities to health care professionals in regards to coding and billing adequately for these sessions.

- Incorporate both pharmacological and non-pharmacological interventions to help aid the obese patient with health care goals.

Coding and Billing

- Code based on BMI: (Refer to NIH Website)

  - Underweight = <18.5   ICD10: R63.6

  - Normal weight = 18.5–24.9

  - Overweight = 25–29.9 ICD10: E66.3

  - Obesity = BMI of 30 or greater   ICD10: E66.9

  - Other Obesity ICD10: E66.8

- Other Important Codes:

  - Abnormal Weight Gain ICD10: R63.5

  - Abnormal Weight Loss ICD10: R63.4

Pharmacological Assistance

▶ Vitamin B 12 Injections (Supplement)

▶ Caffeine (Supplement)

▶ Conjugate Linoleic Acid (CLA) (Supplement)

▶ Phentermine (Adipex/Qsymia c Topiramate-DEA)

▶ Orlistat (Alli-OTC)

▶ Metformin (Glucophage)

▶ Bupropion (Wellbutrin-Off label use)

Final Remarks

- References available on attached handout.

- Questions???

- Thank you kindly for your time!!!!