Developing Self-Efficacy and Self-Regulatory Skills in Adults with Metabolic Syndrome

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Background and Significance

Prevalence and Significant Economic Burden
- 78.6 million Americans are obese (N = 10, 5 men and 5 women)
- Ages: 56
- Department
- Healthcare Center
- Health People 2020 initiative to promote community health programs to reduce the expected healthcare and economic burden of chronic conditions such as MetSyn

Office of Disease Prevention and Health Promotion have funded the Health People 2020 initiative to promote community health programs to reduce the expected healthcare and economic burden of chronic conditions such as MetSyn.

Prevalence of MetSyn among United States Adults 2015
- 78.6 million Americans are obese
- 13 adults & 16 adolescents are obese
- 28 million Americans have T2DM
- Obesity related healthcare costs - $860 billion/year
- T2DM related healthcare costs - $245 billion/year
- Metabolic Syndrome (MetSyn) is a Cluster of 5 Conditions: To be diagnosed with MetSyn you must have 3 of these 5 conditions:
  - abdominal obesity, Hypertension, Elevated Triglycerides, Low HDL cholesterol, and insulin resistance (This study focused on the two most common causes of MetSyn: abdominal obesity and T2DM)
- Millions of Americans are diagnosed with MetSyn each year
- Millions of Americans are unknowingly at risk of developing MetSyn

Evidence

- 30:30 charts reviewed reported BMI of 26 or greater
- Clinic currently provides a Diabetes Education and Exercise Program (DEEP program)
- Clinic health & wellness department reworking DEEP curriculum
- Ten studies provided evidence supporting education about the risks of MetSyn, setting measurable goals, and about recognizing personal or environmental sabotaging cues that may jeopardize goals, will likely enhance already established weight loss and exercise programs
- Evidence supports the use of goal setting and recognition of personal and environmental sabotaging cues to enhance weight loss and exercise education programs.

To introduce self-efficacy and self-regulatory skills into the DEEP curriculum to increase long-term maintenance benefits primarily through the development of goal making skills and the recognition of self-sabotaging cues that undermine ones goals.

Methods

Approval
- IRB: ASU Exempt Status received September 2016
- Healthcare Center granted permission. October 2016

Inclusion Criteria
- Adults aged 19 years or older
- Enrolled in the Diabetes Education and Exercise Program (DEEP)
- Participants were invited to participate and consent signed

Intervention Instruments
- Education, handouts, discussion, and practice goal setting were provided in both English and Spanish during scheduled DEEP program sessions

Instruments
- Likert surveys were completed pre- and post-interventions
- Goals were assessed for quality using the Goal-Setting Evaluation Tool for Diabetes Scale (GET-D)

Writing Goal:
- Observable outcome should be measurable
- Feasible action plans and time frame

"I will decrease my hemoglobin A1c to 5.8 by walking 2 miles a day 5 days a week for 6 weeks"

Results

- N = 10 (5 men and 5 women)
- Ages: 56-70 (70%), 41-55 (20%), & 19-25 (10%)
- Race: Hispanics (N=3), Caucasian (N=2), Native American (N=2), Black (N = 1)
- Education: Primary (N=1), High School (N=4), College (N=2), Graduate (N=1)
- No significant difference was found in the results (Z = .255, p>0.05) in the pre- and post liked Likert surveys.
- 28 million Americans have T2DM

Data Analysis
- SF-36 was used to describe the sample and variables. A Wilcoxon test examined self-efficacy results pre & post intervention.
- No significant difference was found in the results (Z = -2.255, p<0.005) in the pre- and post Likert scale.
- Pre self-efficacy results were not significantly different from post self-efficacy results.
- Discussions about self-sabotaging cues & goal making.
- 3 out of 10 completed it Quality of goal setting using GET-D was not run due to insufficient number completed

Conclusion

- 30 participants were recruited and completed pre- and post-survey only 10 surveys could be included in the data analysis because confusion occurred when using self-selected ID numbers.
- Project is sustainable – Education about self-efficacy and self-regulatory skills have been incorporated into the DEEP curriculum.
- Participants and staff provided positive feedback – No additional costs to participants or the healthcare clinic.
- Exclusion of assessing quality of written goals due to lack of interest – Perhaps writing ability – enjoyed discussions.
- The enhancement of DEEP was in line with the Healthy People 2020 initiative to have a positive impact on chronic conditions, like MetSyn, by combating obesity and T2DM in a community healthcare setting.

Message

Everyone has their bags packed with something that sabotages their goals ... Some of this baggage may be slowing us down, some may be giving us strength to move forward. But, No matter our goals, no matter how hard our journey may be, it is important to have our bags packed with skills!

Acknowledgements

Dr. Margaret Yancy, ASU Faculty & Staff, Healthcare Center’s Health & Wellness Department staff, Patients, Friends & Family

Prevalence of Self-reported obesity among United States Adults 2015