Multidimensional Wellness Improvement Through Marketing and Technology Interventions

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Introduction

Topic

Obesity (BMI >/= 30.0) is an ongoing epidemic and a significant health issue in the United States (Kolotkin & Andersen, 2017). 42.7% of Americans are obese, and 9.2% are morbidly obese (BMI >/= 40.0) (CDC, 2021). Obesity is a co-morbid factor for other health concerns such as diabetes, hypertension, and COPD. Citizens in rural areas, with social determinants of health, food disparities, decreased accessibility to care, lower education, and lower-income households, are at greater risk of obesity. Obesity affects a person's physical health, and when one dimension of wellness is involved, so are the other seven of the eight dimensions of wellness (emotional, occupational, social, spiritual, intellectual, environmental, and financial).

Target Population

Rural Tennessee primary care clinic patients with BMI >/= 25.0

Problem

- Decreased attendance at weekly weight loss classes
- Lack of attendance limits patient health and patient-centered care
- Low percentage of possible patients (BMI >/= 25.0) to attend weekly weight loss program (.2% attendance rate) from November 2021 to December 2021.

Team

Owner, office manager, providers, medical assistants, & office staff

Aim

To increase attendance rate to weekly weight loss class of patients with a BMI of 25.0 or greater from 0.2% to 5% over an 8 week period.

Methods

Objectives

1. Improve patient weight loss motivation
2. Provide a support system for patients
3. Improve eight-dimensions of patient health

PDSA Cycle

Plan

- Update website & FB pages
- Update flyer & post flyers in the waiting room and each patient room
- Complete class sign up over the phone/in-person prior to class and update attendance
- Send class reminders 48h prior to class

Do

- Website, FB pages, and flyers updated
- Flyers posted in waiting room & patient rooms
- Reminders sent 48h prior to class
- Sign up and attendance rosters utilized

Study

- Analyze data for weight loss class over eight-week period
- Compare pre-cycle data to post-cycle-data
- Determine if intervention improved attendance

Act:

- Adapt: continuous marketing changes
- Adopt: continuous use for improvements

Measures

Number of patients attending weekly weight loss class (numerator)/ total number of clinic active patients available to attend weight loss class with a BMI >/= 25.0 (denominator = 1,863)

Results

Number of Attendees

Week	Pre-Intervention	Post- Intervention
1	0	4
2	3	0
3	0	0
4	0	5
5	0	3
6	0	2
7	0	2
8	0	3
Total	3/1,863 (0.002)	19/1,863 (.01)

Note: This table depicts weekly weight loss class attendance from Pre-intervention, November 2nd 2021 to December 20th 2021, to post-intervention, October 3rd 2022 to November 28th 2022.

Figure 1

Number of attendees pre and post weight loss intervention

Attendance (See Figure 1) among patient with BMI of 25.0 or greater increased from 0.2% (.002) to 1% (.01) post-intervention.

Attendance (See Figure 1) did not meet the aim of the project to increase attendance rate to weekly weight loss class of patients with a BMI of 25.0 or greater from 0.2% (.002) to 5% (.05) over an 8 week period.

Implications for Practice

Though the aim was not met, wellness was improved through marketing and technology interventions, which would support use in clinical practice.

Strengths: Electronic medical record **(**EMR) runs reports to identify patients with specified BMI for data reporting, stakeholder buy in

Limitations: Many extraneous variables could have altered results:

- 2021 data could have been skewed due to covid-19 restrictions in the county
- Social determinants of health
- Office staff availability changes during 8-week cycle
- Patients not willing/unable to attend class
- EMR system glitch with class reminder
- Results known throughout the 8-week cycle, could skew results

Future Study: Adapt current intervention; increase length of study, conduct pre and post surveys to determine patient reasons for non-attendance.

References