

# Title: Quality Improvement Project to Manage Childhood Obesity in Outpatient Rural Health Setting

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## PROBLEM STATEMENT

- Childhood obesity is a complex, multifactorial condition that can lead to significant comorbidities
- If the rate of obesity continues to increase, 60% of Floridians will be obese by 2030.
- This condition disproportionately effects children of minorities and/or low socioeconomic status.
- A retrospective chart review of health maintenance visits of 141 adolescent patients, 10-18 years old, was completed within a rural primary care clinic and revealed 73% of the adolescents had a BMI greater than the 85th percentile.

## PROJECT PURPOSE

- The overarching aim is to decrease the rate of adolescents with BMI greater than 85th percentile
- **PICO-T:** In adolescent patients with a BMI greater than 85th percentile, will integrating a virtual weight management program compared to current practice result in a reduction of the patient's weight by at least 5 pounds within three months?

## Quality Improvement

### PDSA Model



## METHODS

### Subjects (Participants)

- Adolescents (10-18 years old) with BMI greater than 85<sup>th</sup> percentile that presents to clinic for health maintenance (HM) visit or school physical

### Setting

- Federally Qualified Health Center (FQHC) in a rural community

## Instruments/Tools

- Behavior Assessment Questionnaire (BAQ) Tool completed pre-and post-intervention (1 month and 3 month)

- 10 item questionnaire
- Validated tool to assess nutrition and lifestyle behaviors
- Responses range from zero to four- collective score multiplied by 100 is calculated
- Higher the score the total score the more likely the participant is practicing healthy nutrition and lifestyle behaviors

- Height, weight, and body mass index (BMI) compared pre-and post intervention

## Intervention and Data Collection

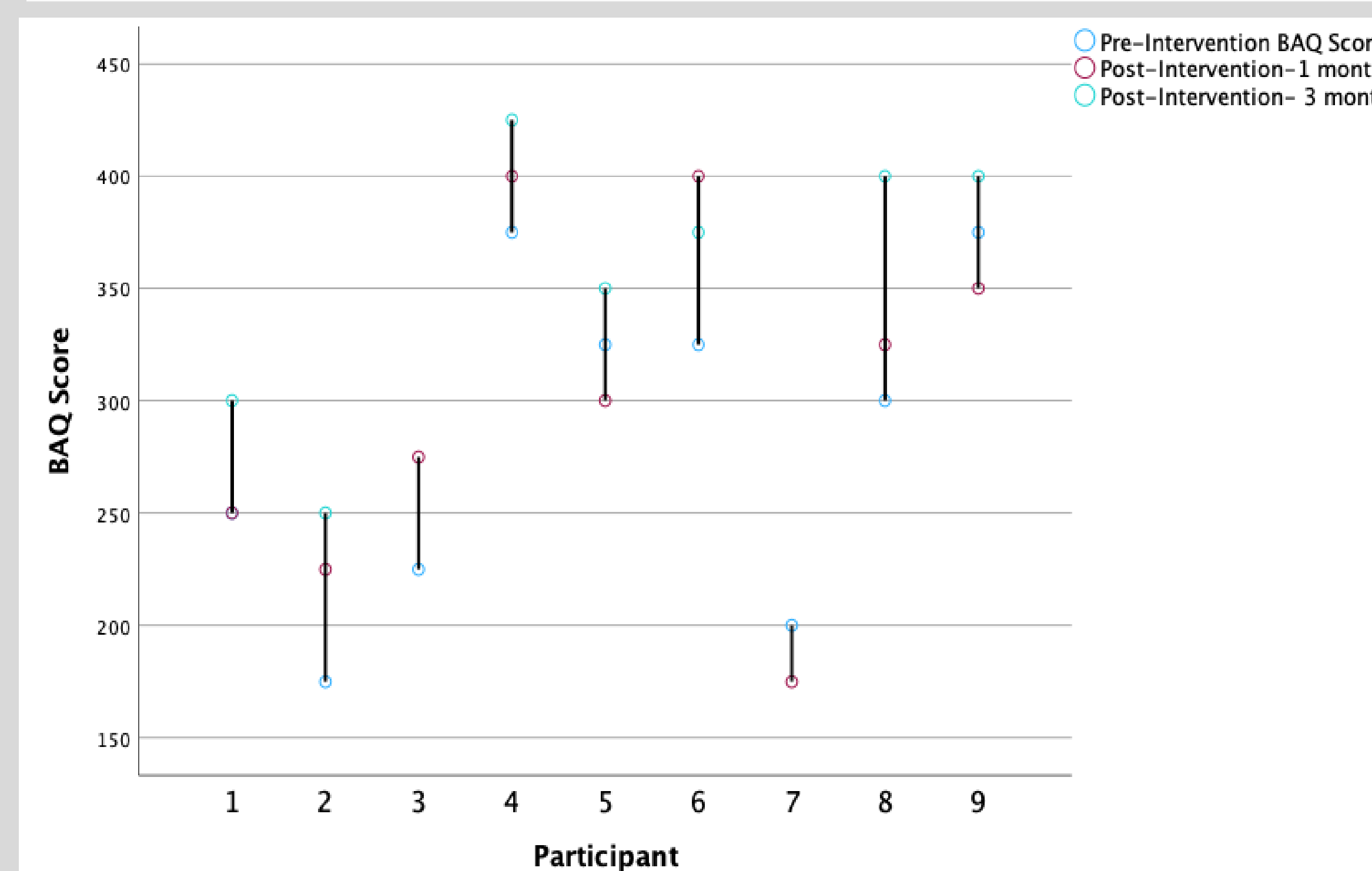
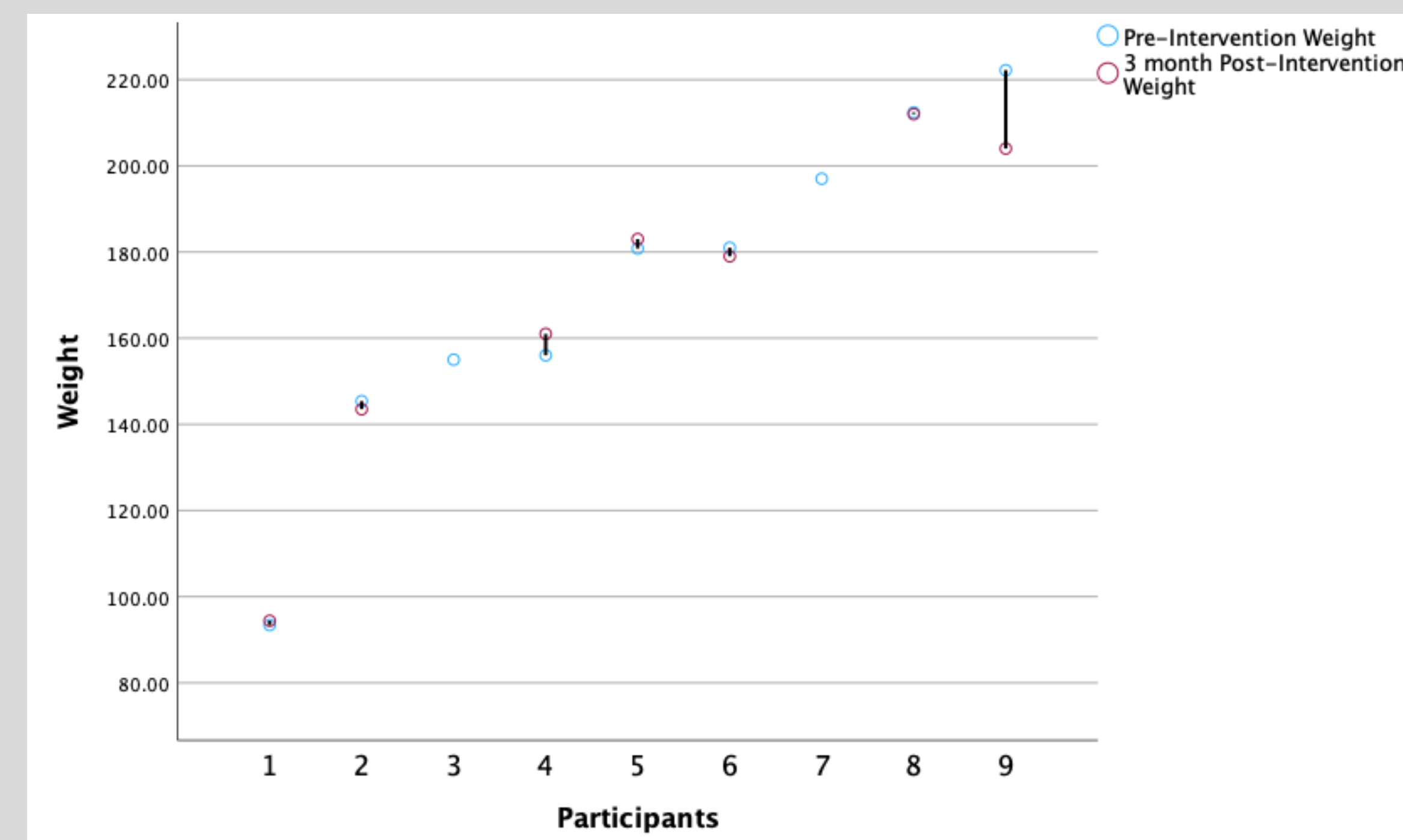
- Participants were given BAQ tool and journals to document meals and physical activity daily for 3 months
- Education on American Academy of Pediatric healthy lifestyle recommendations "5-2-1-0"

### IDEAS FOR LIVING A HEALTHY ACTIVE LIFE

- 5** Eat at least **5** fruits and vegetables a day.
- 2** Keep screen time (like TV, video games, computer) down to **2** hours or less per day.
- 1** Get **1** hour or more of physical activity every day.
- 0** Drink **0** sugar-sweetened drinks. Replace soda pop, sports drinks and even 100% fruit juice with milk or water.

- 1 month follow up was conducted virtually to assess lifestyle changes and address questions
- 3 month follow up completed to re-assess lifestyle changes, BMI, height, weight, and BAQ tool.

## Results



Participants N=7	Pre - Intervention	Post- Intervention	P-Value
Weight Mean	170.17	168.13	0.5007
Standard Deviation	43.65	40.01	
BAQ Scores Mean	303.57	357.14	0.0018
Standard Deviation	71.34	71.34	

## DISCUSSION

- 7 out of 9 participants completed the program
- Implementation of a standardized weight management program was not statistically significant for weight loss.
- There were some patients that did decrease their weight.
- There was statistical significance for BAQ scores of participants.
- BAQ scores did improve for majority of participants which means the DNP project did improve healthy lifestyle and behavior choices

## Limitations

- Decreased sample size
- Lack of parental involvement
- Lack of enthusiasm of adolescents
- Limited duration of project

## Implications for Advance Practice Nursing

- Improve lifestyle behaviors in adolescents
- Decrease BMI
- Decrease risks of negative health outcomes and comorbidities prior to adolescent enters adulthood

## Sustainability

- Promotion of healthy lifestyle nutrition and behaviors
- Promotion of accountability of adolescents for their health
- Incorporation of a cooking class to increase compliance to life long healthy lifestyle choices
- Nutritionists within primary care practices
- More community resources to assist with access to healthier food choices



See references here

Implementation of a standardized weight management program demonstrates statistical significance in healthy lifestyle changes but not for weight loss.