

Increasing Physical Activity in Women with Obesity to Promote Weight Loss

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Significance of Problem

- Obesity impacts 42.8% of U.S. adults (CDC, 2021b)
- Obesity costs the U.S. \$48-66 billion per year (Eaton, et al., 2016)
- Sedentary behavior and unhealthy dietary habits are a determinant of obesity (Meurer, et al., 2019)
- 25-30% of adults in Indiana are physically inactive (CDC, 2021a)

PICOT Question

In women with a BMI greater than or equal to 25.0 kg/m² newly enrolled in the existing wellness program at a private obstetrics and gynecology practice in Northwest Indiana, will implementing a structured physical activity intervention that includes goal setting, self-monitoring, feedback, and supplemental materials compared to standard office protocol result in a greater decrease in body mass index over a twelve-week period?

Review of Literature

Author/yr	Database(s)	Level of Evidence/Type	Quality/Tool
Department of Veteran's Affairs (2020)	TRIP	I/CPG	Strong/CASP
Eaton, et al. (2016)	PubMed	II/RCT	Strong/CASP
Khanh-Dao Le (2021)	JBI	I/Evidence Summary	Strong/CASP
Lison, et al. (2020)	PubMed	II/RCT	Moderate/CASP
Meurer, et al. (2019)	CINAHL	II/RCT	Strong/CASP
Oh, et al. (2018)	PubMed	II/RCT	Moderate/CASP
Schroder, et al. (2018)	PubMed	II/RCT	Strong/CASP
U.S. Department of Health and Human Services (2018)	Citation Chased: "Clinical practice guideline for the management of adult overweight and obesity"	I/CPG	Strong/CASP
Villareal, et al. (2017)	CINAHL	II/RCT	Strong/CASP

Best Practices

- Individualized, face-to-face intervention
- Sessions should occur in a weekly to monthly manner
- Supplemental materials via e-mail or printed hand-outs aid in providing reference materials between sessions
- Sessions should be conducted by a trained healthcare provides
- Sessions should include SMART goal setting
- Intervention should include self-monitoring consisting of physical activity logs

Implementation

Participants: 20 newly enrolled wellness patients who were women, over the age of 18, with a BMI \geq 25 mg/kg²

Setting: Private OB/GYN practice in NWI with 4 OB/GYN MDs and 2 APRNs

Intervention: Individual visits were conducted by a provider that included physical activity SMART goal setting and continuous feedback in a weekly to monthly manner over a 12-week period. Participants were e-mailed supplemental materials every 4 weeks.

Evaluation

Primary Outcome: Change in BMI at 12 weeks and change in BMI at 6 weeks

	2020		2021		t (19)	p value
	Mean	SD	Mean	SD		
% Change in BMI at 6 weeks	-2.38%	2.96%	-2.08%	2.03%	-0.335	0.742
% Change in BMI at 12 weeks	-2.78%	4.12%	-3.42%	3.28%	0.476	0.639

Secondary Outcome: Rate of attrition in 2020 group vs 2021 group

- 2020 group: 55% of participants failed to complete the 12-week intervention
- 2021 group: 30% of participants failed to complete the 12-week intervention

Conclusion and Recommendations

- Structured physical activity intervention resulted in a modest difference in BMI decrease at 12 weeks
- The intervention resulted in a decrease in rate of attrition
- Iowa Model is a useful tool for implementation of EBP practice change
- Future research should include a larger sample size and longer timeframe

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