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## WeCan Implementation for Parents of At-Risk Hispanic Adolescents in Middle School

Shannon Leigh DeVita

University of San Diego, shannondevita@sandiego.edu

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UNIVERSITY OF SAN DIEGO  
Hahn School of Nursing and Health Science

DOCTOR OF NURSING PRACTICE PORTFOLIO

by

Shannon Leigh DeVita, MSN, RN, CNL

A portfolio presented to the  
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Kathy James, DNSc, APRN, FAAN, Faculty Chair

Mary Jo Clark, PhD, RN, PHN, Seminar Faculty

Jill Milton, MSN, FNP, Clinical Mentor

*WeCan!* IMPLEMENTATION FOR PARENTS OF AT-RISK HISPANIC  
ADOLESCENTS IN MIDDLE SCHOOL

Shannon DeVita DNP, MSN, RN, CNL  
University of San Diego  
Hahn School of Nursing and Health Science  
San Diego, CA  
shannondevita@sandiego.edu

Kathy James, DNSc, APRN, FAAN  
Associate Professor  
University of San Diego  
Hahn School of Nursing & Health Science  
San Diego, CA  
kjames@sandiego.edu

Mary Jo Clark PhD, RN, PHN  
Professor  
University of San Diego  
Hahn School of Nursing & Health Science  
San Diego, CA  
clark@sandiego.edu

Jill Milton MSN, FNP  
Clinical Mentor  
San Diego Unified School District  
La Maestra Community Health Centers  
San Diego, CA  
jmillton@lamaestra.org

## Abstract

CDC-reported childhood obesity rates have tripled in the past three years. Among children in grades five, seven and nine, 30% are overweight or obese, with Hispanic students more likely to be overweight than White students. This evidence-based project examined the effectiveness of NHLBI's *WeCan!* for at-risk middle-school-age Hispanic children and parents. The program was implemented at school in two weekly sessions, and its effectiveness was evaluated using the *WeCan!* survey. The program resulted in improved knowledge, behaviors, and attitudes related energy balance, portion size, healthy foods, physical activity, and screen time and may be useful in other school settings.

## Background

The Centers for Disease Control and Prevention (CDC, 2012) reported that childhood obesity rates have tripled in the past three years. Nearly 33% of adults in San Diego are overweight and 26% are obese (County of San Diego, Health & Human Service Agency, Public Health Services, Community Health Statistics Unit, 2014). Among children in grades five, seven and nine, nearly 30% are overweight or obese, and Hispanic students are more likely to be overweight than White students (CDC, 2013).

## Local Problem

According to NHBLI (2007) the percentage of children and teens that are overweight has doubled in past 30 years and approximately 16% of children (2–19 years) are overweight. Overweight is particularly prevalent in African American and Mexican American children. San Diego County is home to more than 3 million residents. The Centers for Disease Control and Prevention reported that nearly 33% of the adults in San Diego are overweight and 26% are obese. Only 23.3% of Hispanic students meet physical fitness standards, compared to 40% of Asians and 41% of White students (CDC, 2013).

San Diego County was one of the 50 communities identified by the CDC as in need of the Communities Putting Prevention to Work (CPPW) program. In 2010 the CDC awarded funding to these 50 communities that are working to prevent obesity and tobacco use; the two leading preventable causes of death and disability in the United States (CDC, 2013). The CPPW is a program designed to make healthy living easier and more accessible by promoting environmental

changes at the local level. San Diego County's enrollment in this government program further supports why this identified population would greatly benefit from a local and focused intervention.

#### Intended Improvement

*WeCan!* was introduced in 2005 by the National Heart, Lung, and Blood Institute (NHLBI) as an education tool for families with children ages 8-13 years, in promoting healthy family lifestyles. The *WeCan!* program's pilot study was implemented in 14 community sites across the United States. At the completion of the program all 14 sites showed statistically significant improvements among participating families in 12 of the 15 behavioral measures (NHLBI, 2007). The purpose of this evidence-based project was to determine the effectiveness of the *WeCan!* program by assessing changes in knowledge, behaviors, and attitudes related to energy balance, portion size, healthy foods, physical activity, and screen time in the family.

#### Ethical Issues

This project was deemed an evidenced-based practice implementation and was approved by the Vice Principle of the participating school and the Medical Director of the affiliated health clinic. Permission was granted to implement the program and utilize the data collected during the program for publications and professional presentations. All data have been cleansed of any patient, student or institutional identifiers. The Institutional Review Board of the University of San Diego approved the dissemination of the de-identified findings.

## Setting

This program was implemented at a middle school in a classroom setting in San Diego County, California where there is a large Mexican American population. The project was implemented with the parents of Hispanic youth ages 8-13 years identified as at-risk, overweight, or obese.

## Intervention

The *We Can!* program was chosen for this project due to its focus on parental involvement, feasibility, and successful outcomes in similar population groups. The *WeCan!* program has been shown to be effective in decreasing obesity in multicultural populations. Face-to-face education regarding healthy lifestyle choices was provided in a small classroom setting. The 10 participants in the program were primarily Spanish-speaking, therefore all printed materials were provided in Spanish and a district-appointed interpreter supplemented the oral presentation. Childcare was provided for participants during each of the two 3-hour sessions.

Obesity programs that are child-focused and school-based have identified problems with compliance with the program due to conflicting diet and activity practices at home versus the time spent at school. Because the *We Can!* program focuses on the education of parents, there is a greater probability that practices taught and learned will be carried out in the home. This program is unique because it is based around a school setting, but it is parent-focused. Also, presenting this material to an older audience, adults versus adolescents may increase the retention of information provided. Expected outcomes from this

intervention include improved knowledge, behaviors, and attitudes related to energy balance, portion size, healthy foods, physical activity, and screen time in the family.

The Ways to Enhance Children's Activity and Nutrition (*We Can!*) program was developed by the National Heart, Lung, and Blood Institute (2007) and is part of a national movement to give parents, caregivers, and communities the tools to prevent childhood obesity. This is an evidenced-based government-sponsored program that has been established to fight childhood obesity. This program differs from other interventions because the primary focus of *We Can!* is on educating parents about healthy life style practices. Children learn what they live. Therefore, it is the expectation that these parents will implement healthy practices in their homes and these will become the life style behaviors of their children. This program is a family-based intervention that emphasizes nutritional education, increased physical activity, and reduced screen time among children and adolescents (NHLBI, 2007).

A study by James, Connelly, Gracia, Mareno, and Baietto (2010) examined the effect of the 4-week intervention program on Latina mothers of school-aged children. This was a level three quantitative study with 18 mothers and 17 children. This study supported implementation of the *We Can!* intervention in a school setting. This study identified inconsistent attendance and participant retention as limitations in obtaining optimal results. Overall, though, the intervention had a positive outcome; participants expressed improved attitudes to change and adopting healthier lifestyle practices such as increased fruit and



vegetable consumption, limiting screen time and increasing physical activity (James et al., 2010).

### Evaluation plan

Evaluation of program results employed pre- and post-program testing using the *WeCan!* Survey. Measures included: knowledge, behaviors, and attitudes related to energy balance, portion size, healthy foods, physical activity, and screen time in the family. The *WeCan!* survey consisted of 47 items comprising 15 subscales as indicated in Table 1.

### Results

Project results with respect to each of the 15 foci of the *WeCan!* program are depicted in Table 1. As indicated, improvement was noted in several areas. The exceptions were decreases or lack of change with respect to portion size, healthy eating knowledge and attitudes, and physical activity knowledge and attitudes. Scores on all behaviors improved except those related to portion size.

Table 1: *WeCan!* Survey Results

<b>Measure</b>	<b>Pre-Test Score (N=10)</b>	<b>Post-Test Score (N=10)</b>	<b>Score Change</b>
Energy Balance Knowledge	67%	80%	13%
Energy Balance Attitudes	78%	88%	10%
Portion Size Knowledge	67%	63%	-4%
Portion Size Attitudes	88%	88%	No Change

Portion Size Behaviors	42%	37%	-5%
Healthy Eating Knowledge	77%	77%	No Change
Healthy Eating Attitudes	95%	95%	No Change
Healthy Eating Behaviors	85%	92%	7%
Healthy Food Behaviors	89%	91%	2%
Physical Activity Knowledge	73%	73%	No Change
Physical Activity Attitude	71%	70%	-1%
Physical Activity Behaviors	84%	92%	8%
Screen Time Knowledge	90%	93%	3%
Screen Time Attitudes	77%	94%	17%
Screen Time Behaviors	81%	91%	10%

### Discussion

In the area of energy balance, there was an increase in knowledge and attitude. There was a negative score change in the areas of knowledge and behaviors related to portion size and no change in portion size attitudes, thus an area for future emphasis. In the area of healthy eating, there was no change in knowledge or attitude, but a 7% increase in healthy eating behaviors. Screen time

was the only topical area that showed improvement in all areas tested knowledge, attitude, and behaviors.

### Conclusions

This project was completed in two 3-hours sessions as suggested as one of the implementation options by the program guidelines. There is a lot of material to be covered in that condensed amount of time; the project might have yielded different results if the sessions were increased in number and decreased in length. Two limitations were clearly identified in this program. The first is program retention. For session 1 there were 13 participants, for session 2 there were 15 participants. In the end only 10 participants completed the entire program. Participants were awarded a pedometer and water bottle with their certificate of completion. Language was the second barrier identified. The participants were primarily Spanish-speaking, and a districted-appointed interpreter supplemented the oral presentation, which was distracting for the presenter and interrupted the delivery of information. The program might have been more effective if presented by a native Spanish speaker.

The *WeCan!* program is effective in promoting behavior change in Hispanic families with school-age children. This program was successfully implemented in this practice setting. Future implementation of the program by a student or volunteer would be recommended. A 4-session program may yield greater positive outcomes allowing participants more time to absorb and implement the lifestyle changes being introduced.

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## WIN Abstract

CDC-reported childhood obesity rates have tripled in the past three years. Among children in grades five, seven and nine, 30% are overweight or obese, with Hispanic students more likely to be overweight than White students. This evidence-based project examined the effectiveness of NHLBI's *WeCan!* program for at-risk middle-school-age Hispanic children and parents. The program was implemented at school in two weekly sessions, and its effectiveness was evaluated using the *WeCan!* Survey. The program resulted in improved knowledge, behaviors, and attitudes related energy balance, portion size, healthy foods, physical activity, and screen time and may be useful in other school settings.

# WeCan! IMPLEMENTATION FOR PARENTS OF AT-RISK HISPANIC ADOLESCENTS IN MIDDLE SCHOOL



Shannon Devita MSN, RN, CNL, DNP-student  
University of San Diego  
Hahn School of Nursing and Health Science  
San Diego, CA

Kathy James, DNSC, APRN, FAAN  
Associate Professor  
University of San Diego  
Hahn School of Nursing & Health Science  
San Diego, CA

Mary Jo Clark PhD, RN, PHN  
Professor  
University of San Diego  
Hahn School of Nursing & Health Science  
San Diego, CA

Jill Milton FNP  
Clinical Mentor  
San Diego District  
La Mesa/Escondido Community Health Centers  
San Diego, CA

## BACKGROUND

- The Centers for Disease Control and Prevention (CDC, 2012) reported that childhood obesity rates have tripled in the past three years.
- Nearly 33% of adults in San Diego are overweight and 26% are obese
- Among children in grades five, seven and nine, nearly 30% are overweight or obese, and Hispanic students are more likely to be overweight than White students (CDC, 2013).

## AIM/PURPOSE

- The purpose of this evidence-based project was to determine the effectiveness of the WeCan! program, developed by the National Heart, Lung, and Blood Institute (NHLBI, 2007), in promoting knowledge of ways to increase activity and improve nutrition habits in at-risk middle-school-age Hispanic adolescents and their parents.

## EVIDENCE

- Introduced in 2005 by the National Heart, Lung, and Blood Institute as an education tool for families with children ages 8-13 years of age in promoting healthy family lifestyles.
- The WeCan program's pilot study was implemented in 14 community sites across the United States and at the completion of the program all 14 sites showed statistically significant improvements in 12 of the 15 behavioral measures in participating families (NHLBI, 2007).

## PRACTICE INNOVATION

- The program was implemented at a middle school in San Diego County, California.
- Project was implemented with parents of Hispanic youth ages 8-13 that were identified as at risk, overweight or obese.
- The 4-session program curriculum was modified to be implemented in two sessions to promote participant retention.

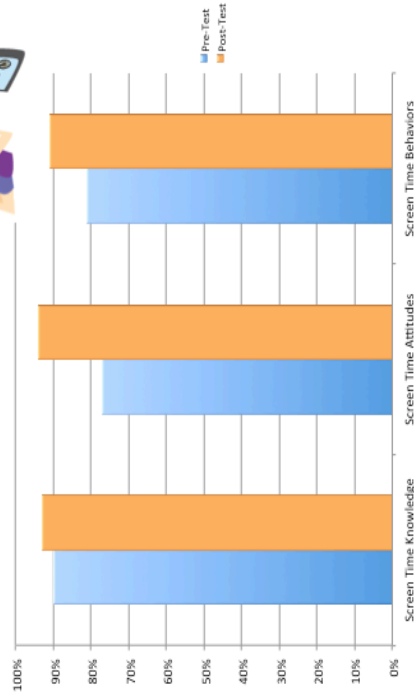
## EVALUATION METHOD

- Pre Test and Post Test using the WeCan! survey
- Measures include: knowledge, behaviors and attitudes related to energy balance, portion size, healthy foods, physical activity and screen time in the family.

## TABLES/GRAPHS



SCREEN TIME



## IMPLICATIONS FOR CLINICAL PRACTICE


The WeCan! program is effective in promoting behavior change in Hispanic families with school-age children.

- Limitations:**
  - Program Retention
  - Language Barrier: District appointed translator
- Recommendations:**
  - Student or volunteers for program continuation
  - 4-Session program model

## REFERENCES

- Available upon request

## Stakeholder Presentation



**we can!**  
Ways to Enhance Children's Activity & Nutrition

A national education program working with parents and caregivers to address the growing problem of overweight in our nation's youth.

### Childhood Obesity: A National Public Health Problem

- 1 in 3 children between the ages of 2-19 are overweight or obese
- 80% of children who were overweight at ages 10-15 were obese at age 25
- The current generation may have a shorter lifespan than their parents




- Overweight is having a greater effect on minorities, including African American and Mexican American children
  - There are serious health problems related to overweight and obesity
- Heart disease, high blood pressure, type 2 diabetes, asthma, low self-esteem, isolation, eating disorders, and more

**Helping children helps our families!**




### Intervention

- Two 3-hour sessions
- Participants n=10



### Evaluation Method

- Pre/Post Test with WeCan! survey
- Measures include: knowledge, behaviors and attitudes related to energy balance, portion size, healthy foods, physical activity and screen time



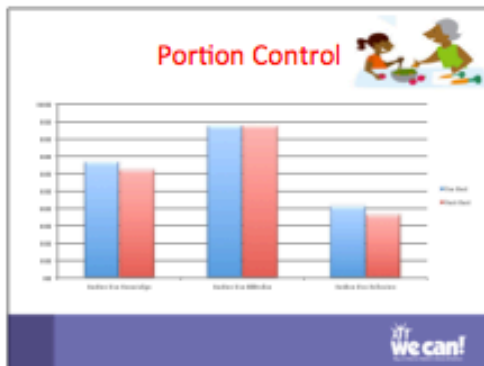
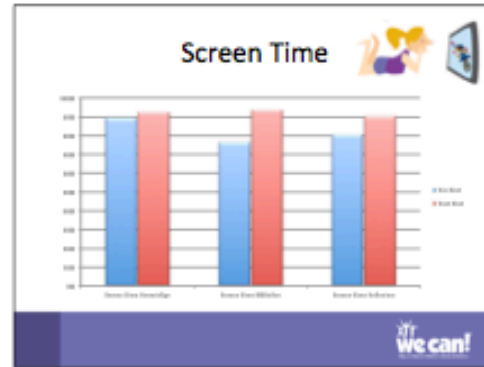
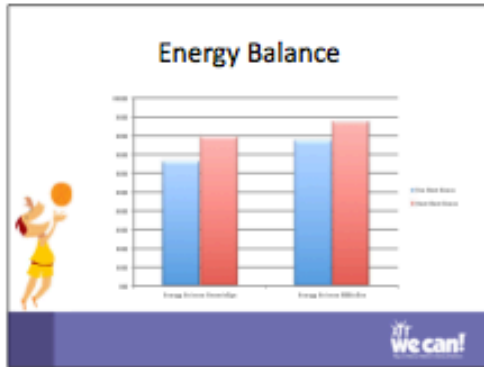
# Results




Metric	Pre-Test Score	Post-Test Score	Score Change
Energy Balance Knowledge	57%	60%	3%
Energy Balance Attitudes	76%	86%	10%
Portion Size Knowledge	57%	63%	6%
Portion Size Attitudes	60%	60%	No Change
Healthy Food Knowledge	62%	67%	5%
Healthy Food Attitudes	77%	77%	No Change
Healthy Eating Attitudes	65%	65%	No Change
Healthy Eating Behaviors	65%	62%	-3%
Healthy Screen Behaviors	69%	61%	-8%
Physical Activity Knowledge	73%	73%	No Change
Physical Activity Attitudes	71%	76%	+5%
Physical Activity Behaviors	64%	62%	-2%
Screen Time Knowledge	66%	63%	-3%
Screen Time Attitudes	77%	74%	-3%
Screen Time Behaviors	61%	61%	0%





### Limitations

- Program Retention
- Language Barrier



## Recommendations

- Future WeCan! Program: Student/Volunteer
- Four Session Interval

## Estimated Cost

- Printing, location, child care, food and beverage, incentives



## Acknowledgements

- Jill Milton FNP La Maestra Community Health Centers - Clinical Mentor
  - Dr. Kathy James University of San Diego - Faculty Mentor
  - Dr. Mary Jo Clark University of San Diego - DNP Faculty
- Richard Del Principe Monroe Clark Middle School - Vice Principal
- Rocio Agiss Monroe Clark Middle School - Parent Center Coordinator




## Congratulations!





## Congratulations!





## Thank You!

Shannon DeVita MSN, RN, CNL, DNP-Student  
 University of San Diego  
 shannondevita@sandiego.edu

For Additional Information:  
<http://www.nhlbi.nih.gov/health/educational/wecan/about-wecan/index.htm>