Ninos Obesos: “Moving On” Project in Hispanic & Non-Hispanic Children

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The prevalence of pediatric obesity has more than tripled during the past decades in USA BMI >95th percentile for age and sex (www.cdc.gov)

Florida ranks 35th in overall prevalence with 33.1% of children considered either overweight or obese (www.nichq.com)

Hispanic children are at a greater risk for obesity with ↑prevalence with 34.3% overweight/obese in Florida and 41% nationally.

In Miami-Dade County, Florida 20% of children are obese, especially boys. Obese children are more likely to develop Diabetes Type 2 and cardiovascular diseases (RWJ & NCSL, 2012).
Background

- Miami Chapter National Association of Hispanic Nurses (NAHN) designated as one site for Muevete USA™ Project (Millan, 2012).
- Michelle Obama *Let’s Move Moving On Project*
- [https://letsmove.obamawhitehouse.archives.gov/](https://letsmove.obamawhitehouse.archives.gov/)
Purpose of the Project

- To demonstrate awareness and understanding of Nutrition Facts Labels.
- To identify daily portions of fruits, vegetables, grains, dairy and protein needed each day.
- To describe importance of incorporating daily physical activity and exercises.
- To engage children doing exercise with a Physical Fitness instructor to Hip Hop Spanish music or other exercises and games.
Methodology

• A descriptive exploratory research design was used.
• The children completed 5 pre & post tests with 4 responses; otherwise yes or no answer.
  – 1st test “My Plate”
  – 2nd test “Food Label”
  – 3rd test “Physical Activity and Exercise”
  – 4th test “Healthy Snacks”
  – 5th test “Goal Setting”
• Content validity was established.
Implementation

• Prior to the event, a nutrition seminar was presented by a nutritionist to prepare the nursing students on the five lessons and assist them in creating their storyboards.

• Community Health ASN & BSN students participated in “Moving On”, receiving 10 community hours for 2 hour nutritional seminar, 1 hour orientation and a 7 hour “Moving On” event.

• The children were divided into 12 groups with two students/group; taking food cutouts and making plates with appropriate portions, nutritional requirements, reading labels.

• MDC School of Nursing NAHN officers, members and community health students collaborated with MDC Continuing Education & Professional Development who offers a summer camp.
Implementation

- Nursing faculty facilitated the event while two certified physical fitness instructors presented the HIP HOP fitness session.
- Student made posters outlining nutrition aspects and obesity health risk factors.
- An ASN student constructed two life-like cardboard dolls (7’ male chef and 5’8” waitress) with meal portions.
Results

• The children (5-12), were divided into 12 groups with two students per group.
• The children took the food cutouts and made plates with appropriate portions, nutritional requirements, reading labels.
• Most were complete, even with younger children progressing to kindergarten; They were able to understand all the information.
• When small flags from different countries were distributed, the children identified their native country.
• NAHN member @ Barry University collaborated with MDC faculty to conduct a “Moving On” session.
Findings from MDC Kendall Campus

• 1st year 130 children participated in 2013
  – ages 5-12; males 50%, females 50%; mostly Hispanics
  – All mean scores increased from pre-to posttest
  – 1st test 3.13 to 4.67 3rd test 3.50 to 4.55
  – 2nd test 2.94 to 3.72 4th test 3.50 to 4.13 5th test 2.96 to 3.52

• 2nd year 125 children participated in 2014
  – ages ranged 4-15 mean= 8 years, kg-8th grade
  – males-62%, females 38%
  – Hispanic 55%, White 30%; Black 9% Asian/other 6%
  – pretest-posttest scores increased from 9.40--10.68, 13.62% change

• 3rd year 128 children participated in 2015
  – ages ranged 4-15 mean= 8.51 years, kg-8th grade
  – males- 59%, females 41%
  – Hispanic 74%, White 20%; Black 5% Asian/other 1%
  – pretest-posttest scores increased from 9.77--11.81, 42% change
Findings from Homestead, Florida

- 2nd site 102 children at Homestead, 1st site 2014
  - ages ranged 4-15 mean= 9 years;
  - males- 54% females 46%.
  - Hispanic 41%, Black 38%, White 13%, Asian-8%
  - pretest-posttest scores ↑ 8.33-9.45, a 13% change.
- 2nd site 109 Migrant children at Homestead 2nd in 2015
  - ages ranged 5-12 mean= 8.51 years;
  - males- 65% females 41%.
  - Hispanic 41%, Black 36%, White 22%, Asian-1%
  - pretest-posttest scores ↑ 9.77-11.81, a 21% change
Findings from Homestead, Florida

- **2nd site (VG)** - 102 children
  - Ages 4-15; M 54% F 46%
  - Hispanic 41%, Blacks 38%, Caucasians 13%, Asians-8%
  - Pre-posttest scores ↑ 8.33-9.45, a **13% change**.

- **3rd site (Homestead)** - 109 children
  - Ages 5-12; males- 65% females 35%
  - Hispanic- 41%, Blacks 36%, Caucasians 22%, Asians-1%
  - Pre-posttest ↑ 9.77-11.81, a **21% change**.

- **4th year (Homestead)** - 56 children
  - Ages 5-12
  - 58% M 42% F
  - Hispanic 76%, white 24%
  - Scores 10.4% to 13.2% **change 34%**
Findings from Doral, Florida

- **4th year (Doral)** 42 children in 2016
  - ages 10 - 12
  - 45% M, 55% F. All were Hispanic
  - Scores went from 10.5-12, a **23% change**
- **5th year (Doral)** 101 participants in 2017
  - 71% males; 39% females
  - 45% M, 55% F.
  - Hispanic-98%, 8% White- 8%; 38% White; 1% Asian Many children identified with two groups.
  - Scores went from 11.3-11.6, a **5% change**
Findings

• Community Health ASN & RN-BSN students from a college and university participated in five Muevete projects at three different sites over three years, receiving 10 community hours.

• Aerobic exercises were provided with hand washing teaching provided by Federal Drug Administration (FDA).

• Parents received nutrition classes.

• Children with pretest-posttest scores increased in all sites over the three years.

• The most missed question: "How much Sodium is in this entire food product"? Although Sodium was 440 mg it was for 4 servings so the correct answer was 1760 mg.
Conclusion

• Over 1004 children participated from 2013-2017
• The children loved the program as they received healthy snacks and exercised.
• The children understood the need to manage childhood obesity according to pre/post test results.
• Younger children are more motivated to learn about diet and exercise to combat the obesity problem.
• The implementation of this program helped to reduce the number of Hispanic and other children with obesity.
• This should decrease the level of obesity in Hispanics and reduce the associated costs.
Exercise to Zumba

Exercise to You Tube
Physical Activity for 6 to 17 years old
Recommendation-BMI

Birth Date:
• Month: Day: Year:

2. Date of Measurement:
• Month: Day: Year:

3. Sex:
• Boy  Girl

4. Height, to nearest 1/8 inch:
• Feet inches  (12 inches = 1 foot; Example: 4 feet, 5 1/2 inches)

5. Weight, to nearest 1/4 (.25) pound:
• Weight (pounds): Fractions of a pound:
  (8 ounces = 1/2 pounds; Example: 75 3/4 pounds)
Obesity patient in Mexico
Amaranth, an ancient grain-answer to Mexico’s obesity solution
References


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Mexico tries taxes to combat obesity http:online.wsj.com/news/articles/SB10001424052702304864504579141462546165155
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Questions?