A Food Label Literacy Intervention Tool To Fight Obesity Among Vulnerable Populations

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Faculty Disclosure

• Faculty Name: Susan Allen, DNP, MSN, MA, FNP-c
• Conflicts of Interest: None
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• Objectives:
  › To share research findings and encourage additional research.
  › Enhance nursing knowledge through application of EBP research to impact nursing outcomes.
  › Adapt the Nutrition Detectives program for utilization across global populations to prevent childhood obesity.
  › Creative replication of the original research study.
I Chose This Topic Because...

- school nurse (6 years)
- high school secondary teacher (23 years)
- Mother of 4 daughters
- Concern for the future of children
- Interest in Topic
- As a school nurse I observed a syndrome:
  - Lack of nutritional breakfasts
  - Lack of sleep
  - Lack of exercise
  - High consumption of soda, flavored milk, and fruit juice

There were students in my school with BMIs higher than the calculator on the CDC website could calculate.
Background

• Obesity is a global epidemic
  – 1/3 of children are overweight or obese
  – Obese children are more likely to become obese adults

• Affects children’s health
  – Serious and Chronic
    • Hypertension
    • Type 2 Diabetes Mellitus
    • Hyperlipemia
    • Coronary artery disease
    • Degenerative joint disease
    • Sleep apnea
Background

• Affects low socio-economic status disproportionately

• Parents only moderately aware that foods posed a health threat

• Meals prepared using large amounts of sodium, sugar, fats, and frying oil
Factors That Lead to Obesity

• Lack of nutritional knowledge
• Soda Pop and Juices
• Non-nutritional breakfast
• Lack of exercise
• Lack of sufficient sleep
• Mother’s low level of education
Factors That Lead to Obesity

• Parents prefer foods that are
  – Easily accessible
  – Easily prepared

• Children often mirror parents’ food choices

• Parenting is paramount to reduction of childhood reduction
Purpose/PICOT

Will a 2-week nutrition education program improve food label literacy immediately after attending a 2-week program for parents of elementary school children?
Secondary Areas of Assessment

These 3 characteristics disproportionately effect obesity

Language

Income

Education
Research Design

This study used a pre-post quasi experimental design
Subjects

• Used convenience sampling from two local public elementary schools in southern California

• English/Spanish speaking parents of 5-11 year olds
CDC Definition of Parents

Adult primary caregiver(s) of a child’s basic needs (safety, food)
Enrollment

• Enrollment
  – Assessed for eligibility n=51
  – Not meeting inclusion criteria n=1

• Follow Up
  – Lost to Attrition n=17
  – Dropped due to scheduling conflict n=16
  – Dropped due to work conflict n=1

• Analyzed
  – Total included in the study n=33
Nutrition Detectives Program

• Easy to use
• DVD’s prepared for children and thus accommodated those with a lower education level
• Presented material in common language (with exception of certain food ingredients)
• Very active and people in DVD appeared to be having fun
• Available in English – Can be translated to any language
Intervention

Curriculum given in two 45-minute sessions

Day 1
– Signed consent forms – Participation number assigned
– Sociodemographic questionnaire filled out
– Food Label Literacy for Applied Nutrition Knowledge (FLLANK) Pre-test taken
– Lessons 1 and 2 were taught
  • Link between food choices and health
  • The struggles of eating well in the modern world
Intervention (cont’d)

Day 2

– Lessons 3-5
  • Five clues to help interpret food labels, the importance of fiber, whole grains, and fruits and vegetables
– Parents were divided into groups with bags of groceries for each group
– Parents divided the groceries into
  • “Clued-In” (More Healthy)
  • “Clue-Less” (Less Healthy groups)
– Discussion and Q & A session

Day 3

– Parents took posttest
  n=33
Reliability/Validity

- Test/Re-test Reliability – correlation $r = 0.068$

- Internal consistency – Alpha Cronbach .77

- Face Content (ONQI) with items on the FLLANK

- Content Validity – the mean scores on the FLLANK were compared with the ONQI

- Findings – high scores on the ONQI were significantly different than the low scores
Results

Food label literacy was increased in parents of elementary school students after a two-week education program. This score occurred for all parents regardless of:

• socioeconomic status,
• education level
• language preference
• time lived in the US
Clinical Significance for Nurses

All nurses, but especially School Nurses, must address the following:

– Education of teachers
– Education of parents
– Education of students
Future Research

• What are the implications for other people groups?
• In a longer study, would using a similar intervention change short and long term knowledge and behavior?
• Over time, would a similar intervention decrease obesity?