Promoting Healthy Behaviors for Childhood Obesity Prevention

Healthy Families and Communities Strategic Initiative Conference
August 25, 2010
Promoting Healthy Behaviors for Childhood Obesity Prevention

I. Introduction
   - Role of ANR from California Department of Education perspective

II. Addressing Complexity of Issue

III. School Community & University Partnership

IV. Conclusion
Introduction

Role of ANR from California Department of Education perspective

- University has a critical role
- Leader:
  - Address complexity using research-base;
  - Determine most effective strategies, and communicate;
  - Inform policy from evidence-based perspective
Introduction (cont.)

- Help to address barriers:
  - School budget issues; state and local funding
  - Family economics
  - Teachers: high stakes testing as focus

- School staff DO want to be part of the solution; two-way communication is key
  - Caring and talented teachers
  - School nutrition program mission
Introduction (cont.): Health, Education, and Agriculture

- Role in directing partnerships/leveraging resources/linkages:
  - Governor, legislature, state agencies
  - County governance
  - Voluntary health agencies, NGOs, commodity boards
  - Communities, families, schools, local coalitions, advocacy groups (example)
Farm to School: Opportunity for Collaboration

“Place-Based Education”
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Variety of Conceptual Models, Frameworks, Theories

- Ecological perspective: multiple levels of influence
- Nutrition Education and Health Behavior Theories
  - Stages of change
  - Social cognitive theory
  - Educational philosophy: critical thinking
Comprehensive, Coordinated Approach

- Importance of recognizing complexity of issue and view through wide lens
- Unique needs and diversity of community settings within California
- Planning frameworks/models
  - Community-Based Participatory Research
  - Genuine involvement of stakeholders, involved in shaping research question and specifying desired outcomes
Biologically determined behavioral predispositions:
- Taste/pleasure
- Sweet, sour, salt, bitter
- Hunger/satiety mechanisms
- Sensory specific satiety
- Brain mechanisms

Physiological conditioning:
- Familiarity: learned safety
- Conditioned preferences
- Conditioned satiety

Social conditioning:
- Models
- Rewards
- Social affective context

Interpersonal factors:
- Social norms
- Cultural norms

Intra-personal factors:
- Beliefs
- Attitudes
- Expectancies
- Benefits
- Barriers
- Self-efficacy
- Self identity
- Ethical/moral obligations
- Ethnic identities
- Stage in change process
- Knowledge & skills

Environmental factors:
- Social environment:
  - Social networks & relationships
  - Cultural practices
- Physical environment:
  - Food availability (under & over)
  - Technology
- Economic environment:
  - Resources
  - Price/cost

Informational Environment:
- Advertising
- Education
- Media

Ecological Perspective (McElroy, 1988)
Eating and physical activity behaviors are influenced by a complex network of factors.
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Rationale for School Setting

- Advantages:
  - Community center
  - Opportunity for reaching students, parents, school staff, other partners
  - Need: many opportunities to make a difference
School Setting: Unique Characteristics

• CONTEXT: Within context that education and health are influenced by immensely complex ecological systems. *(Process, not Program)*

• Each “place” has its own history, traditions, and unique characteristics that strongly influence what happens in that place/community (CBPR).
School Setting: Opportunity

• Core curriculum integrated with reinforcing, interactive experiences
  ➢ Instructional gardens, kitchen classrooms, recycling programs, farm-to-school programs, farm visits;
• Appreciation of California’s key role as the nation’s largest agricultural producer; and
• Participation in policy development
  ➢ Example: build environments that support nutritious eating patterns and an increase in physical activity.
School and University Partnership Model

- Community-Based Participatory Research (CBPR)

- Key Elements:
  - Recognizes importance of social, political, cultural, and economic systems to health behaviors and outcomes
School and University Partnership Model (CBPR)

- Key Elements (cont.):
  - Engages community members in selecting research topics, developing projects, collecting data, and interpreting results
  - Puts high priority on use of research to inform/change policy and practice (positive change for population studied)
  - Research methodology

- Example of planning model:
I. Purpose: Determine Goals/Vision (Health & Education) and Select Priority Health Issue/s, Problem/s

II. Causes: Determine Factors Affecting the Health Issue/Problem (Predisposing, Enabling, Reinforcing)

III. Develop Realistic Program Plan: Select Target Factors, Program Components, and Appropriate Construct/Theory

IV. Implement, Monitor, and, Modify as Needed

Needs Assessment/Strategic Planning, Outcome Evaluation

Process Evaluation

Research, Theory

Impact Evaluation

School-University Partnership (CBPR) Adapted from Green (Precede-Proceed Model)
CBPR: Step II, Select Intervention

School Community Context
- Economics
- Urban vs. Rural
- Culture, Traditions
- Ethnicity
- Geography, Climate

Laws, Regulations, Policies

Environment

Enabling (External) Factors:
- Environmental Cues (e.g. types of foods available)
- Experiential Learning: Gardens, Farms, Farmers’ Markets

Physiological Factors:
- Gender, Age
- Genetics
- Special Needs

Predisposing Factors:
- Knowledge
- Skills
- Attitudes
- Values
- Self-Efficacy
- Motivation
- Preferences

Reinforcing Factors:
- Family, Community, Peers
- Teachers, Other School Staff
- Satiety
- “Power,” Energy
- Ability to Compete
- Reward/Prize
- Recognition

Dietary Patterns

Behavior

School – University Partnership Conceptual Model
School-University Partnership (CBPR)

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Adapted from Green (Precede-Proceed Model)
Step IV: Monitor and Modify as Needed

- Assist with monitoring, process evaluation, and outcome evaluation

- Example: Rubric to assess school actions in supporting positive nutrition behaviors.
# School and Community Actions for Nutrition (SCAN) Rubric

<table>
<thead>
<tr>
<th>Points</th>
<th>Not in Place</th>
<th>Developing Plan/Partially in Place</th>
<th>Meets Standard</th>
<th>Exceeds Criteria</th>
<th>Score</th>
</tr>
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## I. Wellness Policy

1. **A wellness policy that meets federal requirements in place.**
   - The district does not have a wellness policy.
   - A district wellness policy is in development.
   - The district has a wellness policy meeting all federal and state requirements, including a plan for monitoring.
   - The school site uses innovative strategies and model practices in implementation of the school wellness policy.

2. **A wellness policy coordinator is designated.**
   - No school staff are assigned to coordinate the district wellness policy.
   - District administrators are developing a plan for coordination of the wellness policy.
   - A district wellness policy coordinator is designated and is coordinating Policy implementation.
   - The district wellness policy is implemented by a coordinator at the school site.

3. **A wellness policy advisory committee is in place.**
   - No wellness policy committee is in place.
   - Planning for a wellness policy committee is in place.
   - A district wellness policy committee is in place.
   - Key school, parent, and community members are represented on a wellness committee that meets at least quarterly.

4. **A process evaluation system for monitoring the implementation of the wellness policy is in place.**
   - No wellness plan monitoring or evaluation process is in place.
   - Planning is underway for monitoring and/or evaluating the implementation of the wellness policy.
   - A process evaluation system to track success in the implementation of the wellness policy is in place at the district level.
   - Process evaluation and/or monitoring occur at the school site to provide feedback on wellness policy implementation procedures.
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- Critical role of University in serving as leader in promoting healthy behaviors for childhood obesity prevention

- Setting: schools as focal point, to reach students, families, and community

- University-school partnerships using CBPR framework.
Conclusion (cont.)

- Contribute to development of students’ critical thinking skills
- Increase knowledge and appreciation of the relationship of California agriculture, the environment, and health.
- Develop and utilize innovative, evidence-based programs
- Assist with communication of best practices and effective, evidence-based resources
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SUCCESS STORIES

LATEST UPDATES & NEWS

CNS researchers implement garden-enhanced nutrition education among developmentally disabled
First Lady Michelle Obama announces "Let's Move" campaign
California continues to lead the way in edible garden movement
Nutrition info sheet available about energy drinks
"Connecting the Dots", a preschool resource guide for nutrition education, is now available online

WELCOME TO CNS

UC Davis established the Center for Nutrition in Schools (CNS) in response to the needs of teachers and administrators for nutrition education resources and professional development opportunities.

We invite you to explore the wide variety of resources available on our site including curriculum, training opportunities, and up-to-date information about nutrition.

CNS RESOURCES

Curriculum
Check out our curriculum page for the latest materials for teachers, students, parents, and school nutrition professionals.

Nutrition Info Sheets
Need quick, reliable information about a topic in nutrition? Check out our nutrition info sheets.

Garden-Based Learning
Find information about garden-based learning, garden-enhanced nutrition education, and resources for starting your own instructional school garden.

District Wellness Policy
Need help enhancing or assessing district wellness policies? We have the tools for you!

Research
Want information about the scientific basis for CNS curriculum and training materials? Have a look at our research page.

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