Key Theories, Models, and Processes Relevant to Nutrition Education

California WIC Program

July 2002

Introduction

The chart that follows describes some of the key theories, models, and processes relevant to nutrition education. It was designed as a tool for WIC staff to better understand health behavior, adult learning, and program planning.

The theories, models, and processes are listed in the chart alphabetically. The chart consists of three parts:

1. **Theory/Model/Process**
   This section gives the name of the theory, model or process and is followed by the name of the main contributor(s)/author(s) and some suggested resources, where applicable.

2. **Description**
   This section gives a brief description of the key concepts of the theory, model or process.

3. **Application**
   This section gives some possible suggestions for applying the theory, model or process, as well as limitations for use and previous areas of application.

NOTE: For more information on many of these theories, you may wish to consult:
Health Behavior and Health Education: Theory, Research and Practice, 2nd edition, 1996, by Karen Glanz, Marcus Lewis, Barbara K. Rimer, Editors

Table of Contents

Key Theories, Models, and Processes Relevant to Nutrition Education

Theory/Model/Process -Major Contributor(s)	**Description** -Brief description defining concepts	**Application** -Previous use or possible use
Adult Learning Theory **-**M. Knowles & J. Vella *Learning to Listen, Learning to Teach: The Power of Dialogue in Educating Adults,* 1994, by Jane Vella. *The Making of an Adult Educator*, 1989, by Malcolm Knowles.	Adult learning theory is a set of ideas about how adults learn new skills or information. Adults learn best when they talk to others about their life experiences (**dialogue**) and relate these experiences to the learning process. Adult learning theory stresses: • **Respect:** Being nonjudgmental, showing politeness, listening without interruption • **Safety:** Creating trust in the learning environment: teacher, class design, objectives • **Immediacy:** Providing a learning experience that is of immediate usefulness to the earners • **Relevance:** Designing the learning to be of importance to and applicable to all learners • **Engagement:** Getting learners involved in their learning	Conduct a learning needs and resources assessment (LNRA) before designing the lesson. Identify the learning styles of the learners (auditory, visual, kinesthetic….). Set objectives that focus on what the learners will do with the content in order to learn it. Design the learning so that learners are involved in various interactive activities. Establish a learning environment that is emotionally and physically comfortable for all learners.

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Bright Ideas **-**S. Miller *Bright Ideas! … for Nutrition Education*, 1996, by Susan Miller.	Bright Ideas is a set of 10 principles for effective nutrition education. The principles are: 1. Look like you are an especially nice person! 2. Accept that it's natural for all of us to think *"What's in it for me?"* 3. Avoid making a participant feel defensive. 4. Help participant solve or prevent problems. 5. Cover just two, or maybe three main points. 6. Illustrate your points to help participant learn. 7. Find out the participant's solution. 8. Help participant set small, achievable goals. 9. Provide frequent positive feedback and support. 10. Let the participant wrap it up by telling you what she plans to do.	Show a caring attitude. Look for benefits that motivate. Avoid words such as "you should." Focus on what is relevant to the participant. Do NOT teach facts. Focus on a few main points. Use stories, demonstrations, visualizations. Find out what the participant thinks she should do. Have participant set a goal that she believes she can achieve. Nod, give praise, and smile. Have participant sum up what happened during the session.

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Child Feeding Principles -E. Satter *Child of Mine*, 1991, by Ellen Satter. *Kids Module: Parents and Children Sharing Food Tasks*, 1998, by University of California, Berkeley, EFNEP, 510-642-3080.	Child feeding principles include: 1. Children eat as much as they need. 2. Children eat inconsistently. 3. Each child's feeding habits are unique. 4. There is a division of responsibility between the child and the parent/caregiver: • The parent/caregiver is responsible for what the child is offered to eat. • The child is responsible for how much and whether she/he eats.	Engage parents/caregivers in such activities as dramatizations, case studies, or role plays that demonstrate the division of responsibility. Show and discuss videotape *Parents and Children Sharing Food Tasks*.

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Community Organizing Models	Although no single model of community organization exists, there are 5 key concepts central to this approach: 1. **Participation and Relevance:** Involvement of the community in the change process, "Starting Where the People Are" 2. **Empowerment:** Process by which communities, organizations, and individuals gain mastery over their lives 3. **Critical Consciousness:** Developing an understanding of the root causes of a problem 4. **Community Competence:** Community's problem-solving ability 5. **Issue Selection:** Identifying a problem that the community feels strongly about and focusing on a simple, specific, and attainable goal	Have community members create their own agenda. Have community members identify their problems to solve and develop action plans. Have community members engage in dialogue to look at root causes of the problem.

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Dale's Cone of Learning -E. Dale	People more often remember what they learn when they practice or use their learning rather than when they only read or hear information. In general, people will remember: • 10% of what they read • 20% of what they hear • 30% of what they see • **50% of what they hear and see** • **70% of what they say** • **90% of what they say and do**	Design nutrition education that includes activities from the lower part (the "doing" part) of the "cone". Use demonstrations, such as how to prepare a low-fat meal. Use a facilitated group discussion about a topic WIC families have experience with. Have participants do a role play to practice what they would do.

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Diffusion of Innovations -E.M. Rogers, G. Zaltman, & R. Duncan	New ideas, products, and social practices spread based on: 1. **Relative Advantage**: Improvement over what it replaces 2. **Compatibility:** Consistency with the values, habits, experiences, and needs of the potential users 3. **Complexity:** Difficulty to use 4. **Trialability:** Degree to which it can be experimented with before a commitment to adopt it is required 5. **Observability:** Extent to which it provides results 6. **Impact on Social Relations:** Effect on social environment 7. **Reversibility:** Ability to be reversed or discontinued 8. **Communicability:** Ease of being understood 9. **Time Required:** Time needed to adopt innovation 10. **Risk and Uncertainty Level:** Risk and uncertainty involved 11. **Commitment:** Effectiveness with modest commitment 12. **Modifiability:** Ability to be updated and modified over time	Point out the innovation's benefits (monetary value, convenience, time saving). Make sure the innovation is easy to understand or use. Provide plenty of opportunity for "trying out" the innovation (free samples or introductory sessions). Share the experiences of others that have used the innovation.

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Fish! Philosophy -ChartHouse Learning *Fish!*, 2000, by Stephen C. Lundin, Ph.D., Harry Paul, and John Christensen.	The Fish! philosophy is a customer service model in which staff create a more satisfying and productive work environment. It is based on the following concepts: 1. **Play:** Find ways to have fun with co-workers and WIC families. 2. **Make Their Day:** Focus on people's needs - Each day provide a helping hand, a word of support, or a listening ear… 3. **Be There:** Stay focused in order to be present with WIC families and co-workers. 4. **Choose Your Attitude:** Make a choice of how you want to appear to others.	Use this philosophy to boost morale and improve results within the work environment. Design nutrition education sessions that are fun for WIC families. Address WIC families' needs. Stay focused on what is happening in the moment. Be respectful to WIC families. Show a positive attitude.

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Health Belief Model (HBM) -G. Hochbaum	The HBM suggests that a person's readiness to change a specific health behavior is dependent on: 1. **Perceived Susceptibility:** Individual's view of the likelihood of developing the condition or disease 2. **Perceived Severity:** Individual's view of how serious the condition and its consequences are 3. **Perceived Benefits:** Individual's view of what will be gained by changing the specific behavior 4. **Perceived Barriers:** Factors such as cost, inconvenience, time, that make it difficult for the individual to change the behavior 5. **Cues to Action:** Events that "trigger" the individual to take action 6. **Self Efficacy:** Individual's confidence in ability to take action	*Model does NOT incorporate the influence of social norms or peer influences.* Identify risks and consequences related to the behavior. Identify benefits of the desired behavior. Provide training and guidance in how to perform the desired behavior. Have learner brainstorm how barriers can be reduced or eliminated. Have learner set goals. This model has been applied to study such areas as exercising and compliance with diabetic and weight loss regimens.

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Multiple Intelligence Theory -H. Gardner *Multiple Intelligences: The Theory in Practice*, 1993, by Howard Gardner.	There are 8 distinct forms of intelligence: 1. **Verbal-Linguistic:** Ability to use words in thought, language or writing 2. **Logical-Mathematical:** Ability to recognize and solve problems, think logically, calculate, find patterns, determine relationships, work with abstract symbols, hypothesize 3. **Musical-Rhythmic:** Ability to use such musical elements as pitch, rhythm, and timbre 4. **Visual-Spatial:** Ability to recreate visual experiences, orient in the world 5. **Interpersonal:** Ability to communicate and relate to others 6. **Intrapersonal:** Ability to look within oneself, aware of thoughts and feelings 7. **Kinesthetic:** Ability to coordinate the body and mind in an agile fashion 8. **Naturalist:** Ability to make distinctions in the physical world and relate to nature	Give learners the opportunity to learn in their preferred intelligence(s). Design learning activities that appeal to different forms of intelligence. Assess learning by using measuring instruments that include multiple forms of intelligence.

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PRECEDE and PROCEED Planning Models -L. Green & M. Kreuter PRECEDE= **P**redisposing, **R**einforcing, **E**nabling **C**auses in **E**ducational **D**iagnosis and **E**valuation PROCEED= **P**olicy, **R**egulatory, **O**rganizational **C**onstructs in **E**ducational and **E**nvironmental **D**evelopment	This planning model consists of 9 steps: **PRECEDE**: 1. **Social Diagnosis:** Identifying social problems of the target population 2. **Epidemiological Diagnosis:** Identifying health problems and factors related to quality of life issues 3. **Behavioral and Environmental Diagnosis:** Identifying health practices and other factors that may be linked to health problems identified in Step 2 4. **Educational and Organizational Diagnosis:** Identifying and selecting predisposing, enabling, and reinforcing factors that when modified will result in behavior change 5. **Administrative and Policy Diagnosis:** Addressing organizational concerns (resources, budget, personnel) **PROCEED:** 6. **Implementation:** Implementation of the program 7. **Process Evaluation:** Evaluation of the program's implementation 8. **Impact Evaluation:** Evaluation of the program's effectiveness in changes in predisposing, enabling, and reinforcing factors 9. **Outcome Evaluation:** Evaluation of the changes in health and social benefits	Use this model to design a health program that will: • be based on the needs of the people or community to be served • empower individuals to participate in improving their quality of life This model has been used to design programs such as the following: • High blood pressure control • Breast cancer screening • Breast self examination • Smoking cessation • Use of car safety seats

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Social Cognitive Theory -A. Bandura *Social Foundations of Thought and Action: A Social Cognitive Theory*, 1986, Albert Bandura.	Concepts in Social Learning Theory include: • **Environment:** Factors that are external to the person • **Situation:** Person's perception of the environment • **Behavioral Capability:** Skill to perform behavior • **Expectations:** Anticipatory outcomes of a behavior • **Expectancies:** Values placed on a given outcome • **Self-Control:** Personal regulation of goal-directed behavior • **Observational Learning:** Learning by watching others • **Reinforcements:** Responses to a person's behaviors that increase or decrease the likelihood of recurrence • **Self-Efficacy:** Confidence in performing a behavior • **Emotional Coping Response:** Strategies or tactics that are used by a person to deal with emotional stimuli • **Reciprocal Determinism:** Dynamic interaction of person, behavior and environment in which behavior is performed	Change the environment if it plays an important part in the behavior. Provide training on how to change the behavior. Provide information about benefits of the desired behavior. Approach behavior change in small steps. Provide opportunity for participant to engage in self-monitoring. Identify role models to follow. Have WIC families share experiences. Provide incentives, rewards, and praise. This model has been used with the "Gimme 5" school nutrition curriculum.

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Social Marketing Process *Promoting Nutrition and Physical Activity Through Social Marketing: Current Practices and Recommendations*, 2000, by the Center for Advanced Studies in Nutrition and Social Marketing, University of California, Davis.	A process that uses commercial marketing techniques and theory to develop behavior change programs. Steps include: 1. Planning and strategy development 2. Selecting communication channels and materials 3. Developing materials and pre-testing 4. Program implementation 5. Program evaluation 6. Refine/restructure program Social marketing uses the principle of **voluntary exchange** (people have resources such as time, money, effort, which they are willing to trade for a perceived benefit). Social marketing is founded on the 5 "P's": 1. **Product:** Behavior or health product the program planners want the target audience to adopt 2. **Price:** Cost of obtaining the product, such as psychological stress, money, time, physical discomfort 3. **Place:** Channels used to make the product available 4. **Promotion:** Efforts to make the audience aware of the product 5. **Positioning:** Placing products so that they maximize benefits and minimize costs	Use advisory panels to develop the program. Research consumer behaviors. Set objectives. Identify special target groups that share similar qualities. Identify message concepts and communication channels. Pre-test materials. Continuously refine and restructure program based on feedback results. Social marketing has been used in WIC, as well as such areas as "Five a Day", breastfeeding promotion and, prenatal care access.

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Spectrum of Prevention -L. Cohen	This model provides a framework for public health planning. It outlines six (6) levels of intervention: 1. Strengthening individual knowledge and skill 2. Promoting community education 3. Educating providers 4. Fostering coalitions and networks 5. Changing organizational practices 6. Influencing policy and legislation	Focus on the learner's knowledge and skills that relate to the specific behavior to be changed. Provide information and resources to the communities that have a large WIC population. Educate community service providers that serve WIC families. Bring together groups and individuals to form a coalition that will focus on the specific health problem or issue to be addressed. Adopt agency regulations and policies that may change norms to improve health outcomes. Work with legislators and policy-makers to change laws and policies. Spectrum of Prevention is currently being used in the Fit WIC Project.

Key Theories, Models, and Processes Relevant to Nutrition Education

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Theory of Reasoned Action -M. Fishbein & I. Ajzen	Theory specifies that the most important determinant of behavior is **Intention** which is dependent on: • **Attitude:** Positive or negative beliefs and expected values toward performing a behavior • **Subjective Norm:** Beliefs that others expect one to perform or not perform the behavior and the motivation to comply with these expectations	*Theory applies only to behaviors that are under the individual's control and assumes that people are always rational and make systematic decisions.* Use this theory to identify factors that determine behavior. Theory has been applied to study breastfeeding, dieting, exercising, and family planning.
Theory of Planned Behavior (Updated version of the Theory of Reasoned Action) -I. Ajzen	Theory specifies that the most important determinant of behavior is **intention** which is dependent on: • **Attitude:** Positive or negative beliefs and expected values toward performing a behavior • **Subjective Norm:** Beliefs that others expect one to perform or not perform the behavior and the motivation to comply with these expectations • **Perceived Behavioral Control:** Belief concerning how easy or difficult performing the behavior will be	Use this theory to identify factors that determine behavior.

Key Theories, Models, and Processes Relevant to Nutrition Education

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Touchpoints Model – T. Brazelton *Touchpoints: Emotional and Behavioral Development*, 1992, by T. Berry Brazelton.	The model is a framework for developing supportive interactions between providers and parents/caretakers of children. **Touchpoints** are those times, usually just before a surge of rapid growth in the child's motor, cognitive, or emotional growth, when for a short time the child's behavior regresses or "falls apart'." This may cause the family to feel disorganized and to fear that the child is developing problem behaviors. The model assumes that: • The parent is the expert on his or her child. • All parents have strengths. • All parents want to do well by their child. • All parents have something critical to share at each developmental stage. • All parents have ambivalent feelings. • Parenting is a process built on trial and error. • Each practitioner is the expert within the context of his/her practice setting. • Practitioners want to be competent. • Practitioners need support and respect of the kind they are asked to give to parents. • Practitioners need to reflect on their contribution to parent-provider interactions.	Acknowledge that the child will go through difficult stages. Recognize what you bring to the provider-parent/caretaker interaction. Provide opportunities for mastering skills. Focus on the child's behavior. Value the relationship between you and the parent/caretaker. Be willing to discuss matters that go beyond your traditional role. Focus on the parent/caretaker-child relationship. Value passion wherever you find it. Touchpoints has been used in primary healthcare settings and in WIC.

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Transtheoretical Model (Stages of Change) -J. Prochaska & C. DiClemente *Changing for Good*, 1994, by James Prochaska, J.C. Norcross, and Carlo DiClemente.	The model suggests that behavior change is a process, NOT an event. People vary in how "ready" they are to change. Behavior change occurs in 5 stages: 1. **Pre-Contemplation:** Person is not usually aware of the problem and has not thought about a change 2. **Contemplation:** Person realizes she/he has a problem and begins to think about changing behavior 3. **Preparation:** Person makes a plan to change behavior 4. **Action:** Person takes specific steps to change 5. **Maintenance:** Person has changed behavior and maintained new behavior for 6 months or more	*Model focuses mainly on individual change.* Identify which stage the learner is currently in and then tailor the education accordingly. For pre-contemplation stage, provide information to increase awareness and consciousness. For contemplation stage, provide opportunity to discuss benefits and barriers and hear from role models. For preparation stage, provide guidance in developing a realistic plan that incorporates social support, rewards, and incentives. For action and maintenance stage, discuss self-monitoring techniques and relapse prevention strategies.