

Promoting Health Through the Teaching of Life Skills

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Collaborators

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Purpose

- Describe the rationale, development and psychoeducational intervention framework for two NIH—NCI school-based health grants.
- Discuss issues in designing health-oriented life skills programs

Life Development Intervention (LDI) as a Framework

- LDI is based on life-span developmental theory.
- The many critical life events (decisions or turning points) that we experience throughout life may lead to problems, little or no change in our life circumstances, or serve as a catalyst for personal growth.
- An individual's reaction to a critical life event depends on the:
 - a) resources one has prior to the event,
 - b) the level of preparation for the event, and
 - c) the past history in dealing with similar events.
- LDI is implemented by teaching a series of **life skills**

Bandura's Social Cognitive Theory as a Framework

- Goals provide incentives for developing health habits
- Long-term goals set the course for personal change but short-term goals guide immediate action
- Efficacy beliefs influence goals; the stronger the efficacy, the higher the goals are set
- Thinking that changing behavior is a skill increases efficacy beliefs
- Social support at the start increases long-term success.
- 4 component for success—a) information about health risks and benefits in a “fun” way; b) training in social and self-management skills; c) ability to rebound from temporary setbacks-resilience; and d) social support to maintain desired change—family and schools are critical

Life Skills and Health

- Because of the frameworks we adopted, we decided to pair learning about health with learning *life skills*.
- Life skills are defined as the skills that help us succeed in the different environments in which we live—school, home, neighborhood.
- The World Health Organization defines them as the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life.

Life Skills

Can be:

Behavioral--communicating effectively with peers and adults;

Cognitive--making effective decisions;

Interpersonal--being assertive; or

Intrapersonal-- setting goals.

Life skills are designed to be transferable across life domains or settings.

How We Teach Life Skills

- We remember only about 10% of what we are told, so lectures about life skills are minimally effective.
- Life skills need to be taught the same way all skills are taught.
- Individuals need to know–
 - why the skills are important;
 - see them modeled;
 - have opportunities to practice; and
 - receive feedback on their practice so they can improve.

Background for NCI Programs

- Cancer is the second leading cause of death in the U.S.
- 30% of all cancers can be prevented by changing diet (fat and fiber, fruit and vegetable consumption)
- Diets of today's youth are inadequate –
 - 34% instead of 30% of their calories from fat
 - 14 grams instead of 20 grams of fiber daily
 - 1.5 servings of fruit and 3 servings of vegetables instead of 5 servings per day
- Nearly 12% of middle school students reported using tobacco products regularly in 2004.

Our Intervention Assumptions

- Adolescence is an ideal time to teach students about health because of the multiple life changes going on.
- The future is important to youth--if they do not have positive future expectations they are at high risk for engaging in health-compromising behaviors.
- High-risk youth are not responsive to traditional health promotion program; if behavior and/or cognitions are to be changed, skills must be taught.

Our Intervention Assumptions (cont)

- Adolescence are seeking a sense of industry and competence. They must learn what to do rather than what to avoid--"just say no" does not work.
- Teaching skills is important because youth are active and we must accommodate to their learning style-- *I listen-- and forget. I see-- and remember. I do-- and understand.*
- Teaching skills requires planning and a time commitment.
- Peers and parents need to be involved for optimal success

Goals for Health

- **Focus**— Five-year project using trained high school student leaders to teach life skills and cancer preventing skills to 6th graders in rural Virginia and New York
- **Aims**--Increase fiber, vegetable and fruit consumption and reduce fat in 6th graders' diets.
- **Sample**--Twenty-three rural schools in Virginia (15) and New York (8) with n=2120 6th graders at baseline) surveyed 4 times-pre, post, 1 year and 2 year follow-ups.

What is Goals for Health?

- **5-year NCI funded community-based randomized trial to**
 - increase fiber and fruit and vegetable consumption
 - decrease fat consumption
 - prevent tobacco usein rural and minority adolescents
- **Innovative cancer prevention program based on existing life-skills program**
 - teaches life and health skills
 - uses peer leaders
 - emphasizes a focus on the future by teaching about dreams and goals

Design and Evaluation of GFH

- Randomized School-based Trial
(delayed intervention for control schools)
- 24 schools: 12 intervention, 12 control
 - 8 NY, 15 Virginia
- 4 time points: pre-sixth, post-sixth, post-seventh, post-eighth
 - Student Surveys
 - Cafeteria Observation
 - Parent Survey
 - Administrator Surveys
 - 24 hour recall interviews

Goals for Health (GFH)/Going for the Goal (GOAL)

- Dare to Dream
- *Dare to Be Healthy*
- Setting Goals
- Making Your Goal Reachable
- Making Your Goal Ladder
- *Setting a Health Goal*
- Building Your Ladder to Health
- Roadblocks to Reaching Goals
- Overcoming Roadblocks
- Rewards and Rebounds
- Building on Your Strengths
- Creating an Ideal Future

GFH Health Activities

- keeping a dietary log,
- reading nutritional labels,
- eating healthy snacks and
- viewing animated health-related videos
- Practicing health-related life skills

- **Key is not the content per se but the instructional technology and climate—using peers & lots of activities.**

Goals for Health—Initial Results

- a. Significant changes across 4 time points for fat and fiber knowledge, and diet-related self-efficacy.
- b. No significant results were found at two-year follow-up for fat, fiber, and fruit and vegetable food frequency scores.

Goals for Health—Secondary Results

- When we looked at the effects of implementation quality as it pertained to the results, interesting differences were found.
- We found that higher levels of implementation led to better post-intervention scores. For example, significant effects in the predicted direction were also found for fiber total score and fat scores.

Participants' Perceptions Differed and How the Perceptions Affected the Results

- When we studied participants' perceptions of the GFH Program we found differences and that led to differences in results:
- Females and African Americans consistently rated the GFH Program higher than males and Caucasians
- Overall program perception significantly predicted changes in:
 - Self-efficacy for eating five fruits and vegetables a day
 - Self-efficacy for eating healthy
 - Tobacco attitudes

Discussion

- One year improvements: knowledge and self-efficacy
- Future studies should maximize the effectiveness of the youth leaders
 - Simplifying sessions/reducing amount of information that high school students teach
- Students like the program better when the youth teach it, and that youth do better in programs they like (Forneris, manuscript under review).
- Interventions must include more opportunities to practice and maintain skills throughout middle school
- Food tasting = success according to student ratings
 - did not translate into long-term behavior change

Conclusions

- GFH – a program adolescents liked that met developmental needs and was sensitive to underserved groups.
- Program outcomes may be affected by participants' perceptions.
- Outcomes may be affected by implementation quality (fidelity)
- Examining components and different instructional technologies may improve outcomes
- Having parents will be important in any similar future program

BRIDGE—Building a Bridge to Better Health

Focus: Two-year project for 9th graders to teach them to be their own health historians by teaching them genealogy and a variety of health and life skills. Program taught by Life Skills Center health educators.

Sample: conducted in a large suburban county school system. N=1460.

Presentation today will focus on pilot data (N=178).

BRIDGE-Aims

- **Aims:**
 - Awareness/knowledge of cancer risks,
 - Health history/genealogy program knowledge,
 - Intentions to change diet, tobacco use, sun screen use, and self-examination behaviors,
 - Self-efficacy for changing diet, tobacco use, sunscreen use, and self-examination behaviors (breast, testicular, skin).
- **Target**--Awareness and skills proficiency not behavior change although we have some interesting behavioral findings for BSE & TSE.

Teaching BRIDGE—the Pilot

- Introduction to Genealogy: You and Your Family
- Discovering Your Family's Health History
- Genes and Cancer: Taking Charge of Your Destiny (taught by geneticist)
- Environment and Behavior: How Life Style Influences Cancer
- Screening and Prevention: Check It Out (taught by Hadassah)
- Setting Goals for a Healthier Lifestyle

BRIDGE-Results

Pilot project (N=178) results:

- Significant pre-to-post intervention changes for genealogy knowledge,
- Significant pre-to-post intervention changes for personal health genealogy,
- Significant pre-to-post intervention changes in self-efficacy to perform self-examinations (breast, testicular, and skin),
- Significant pre-to-post intervention changes in self-efficacy for eating a high fiber/low fat diet,
- Significant pre-to-post intervention changes in intention to practice self-examinations, eat high fiber foods, and consume less fat.

BRIDGE Pilot-Test on Self-Exams

- 20 randomly chosen students (10 intervention (I) & 10 Control (C) -5 boys and 5 girls in each group) asked to demonstrate self-exam skills on synthetic models
- BSE (6 components)--I group got 4 of 6 correct; C group got 1 of 6.
- TSE (5 components)--I group got 5 of 5; C group got 1 of 5.
- Detecting lumps on models (at least 1):
 - BSE --- Intervention-100%; Control-20%
 - TSE--- Intervention-80%; Control-40%

BRIDGE- 2 year NCI funded project

- Taught last year to Chesterfield 9th graders
- Some of you were involved in teaching
- Data collected and analyzed
- Added a component to determine how family affects behavior intention and self-efficacy
- Presently, writing up results.

Where We Go From Here

The Life Skills Center has 7 programs;

- health-oriented--GFH and BRIDGE,
- LIFT (Living Free of Tobacco) has been piloted in a number of rural counties. We have added family, booster and healthy eating components to LIFT and applied for a grant from VTSF.
- non-health programs:
- GOAL—taught to some 20,000 in a number of countries
- SUPER (Sports United to Promote Education and Recreation)-a sports-based life skills program,
- ARTS (A Roadway to Success)-uses the arts to teach life skills
- FREE 4 VETS-new program for returning deployed veterans

Where We Go From Here with Health Programs

- I am very interested in translational and diffusion research. For example, can teachers teach BRIDGE effectively?
 - Can we use our programs and others to improve the health of all residents—
 - students at all levels, teachers, families who have a member who is a county employee and others
 - by bringing together
 - schools, credit unions, fitness centers, grocery stores, hospitals, health insurers, the media and county and state government?
- We are going to try.

The Role of Health Psychologists

- Developing programs that others can teach requires that you learn how to be instructional technologists
 - Know your material
 - Identify the essence (what is essential to teach)
 - Know your leaders and how skilled they are
 - Conduct extensive training
 - Provide support and feedback
 - Make it fun and interesting
 - Provide recognition to those who teach