

CHAPTER 2

Theoretical Foundations

Learning Objectives

- Recognize the importance of developing self-efficacy through a comprehensive skills-based health/social emotional learning (SEL) education program.
- Articulate how behavioral theories serve as the foundation of skills-based health/SEL education.
- Use behavioral theories to design skills-based health/SEL programs.

► Introduction

A well-developed theoretical premise for skills-based health/social emotional learning (SEL) education provides the foundation to apply research to improve program design, implementation, and evaluation.^{1,p50} With knowledge of the different behavioral theories and the particular needs of our students, we are better equipped to develop effective strategies for students to overcome unhealthy behaviors or reinforce healthy ones.

Our challenge as skills-based health/SEL educators is to develop theoretically sound assessment, instruction, and curricula that results in the maintenance or development of healthy behaviors.

► The Role of Self-Efficacy in Changing Behavior

One of the most important factors that contribute to behavior is **self-efficacy**. The SEL competency of self-awareness, includes the subcompetency of self-efficacy. Albert Bandura describes it as our beliefs about our capabilities to produce designated levels of performance that exercise influence over events that affect our lives.^{2,p1} In other words, we have confidence in ourselves to cope with life's challenges in a positive manner. The central questions we should ask are, "How does self-efficacy develop? Why are some people, but not others, highly efficacious?"

A person with high self-efficacy has a sense of control over life and the confidence to meet and overcome challenges. For example, the newborn Marla, a fictional character, develops self-efficacy when she learns that her actions bring results, such as a parent who responds to her crying. Marla soon recognizes that her behavior affects the environment to her advantage.

This awareness of her control gives Marla more confidence to find other ways to receive the same response. In order to develop a sense of personal self-efficacy, however, Marla must understand that she is distinct from others. She learns that feeding herself results in positive feelings, but watching someone else eat does not. As her relationships and experiences with others expand, Marla eventually sees herself as an individual.^{2,p8} Parents have a profound effect on efficacy because a child's first experiences generally occur within the family. Children explore their everyday lives by challenging their physical, social, and cognitive limits. When they engage in experiences parents provide through a nurturing environment, children increase their efficacy and enjoy accelerated social and cognitive development. In turn, the more parents observe this development, the more likely they are to provide additional opportunities.

As children understand language, they think about what they experience and how it makes them feel. They also respond to how others communicate about their abilities. Language helps Marla understand the value society places on her accomplishments, which, in turn, affect her efficacy.

School expands Marla's environment and her opportunities to experience efficacy-challenging events. As she grows older, her peers become important in the development of this self-efficacy. She develops more capabilities—from modeling a behavior observed in others to being social and socialized—and evaluates and compares her self-efficacy to others.

This experience explains why children are overly sensitive to their peer group ranking with regard to who is respected or popular. While a child with high social efficacy will have confidence in her relationships with peers, one with low social efficacy may withdraw, feel unaccepted, and experience low self-worth.^{2,p9}

The school provides the stage for learning academic and social skills, such as problem solving, communication, and developing relationships. Marla continuously compares to others what she knows and has learned in school. As she masters skills and demonstrates proficiency according to the teacher's expectations, her cognitive and social self-efficacy evolves.^{2,p10}

Coping with the risk factors inherent in adolescence provides a particular challenge to children and, when done in a healthy way, enhances self-efficacy. Marla must learn and practice new skills to prepare for adolescence and adulthood. Her adult self-efficacy is a result of navigating personal, higher education, life, and career choices successfully.^{2,p11}

Throughout the school years, the role of the health educator and goal of comprehensive skills-based health/SEL education are the same: increase student self-efficacy by teaching the knowledge and skills to develop and maintain healthy behaviors that engender the confidence to face life's challenges.

To reach this goal, students need to:

- have a foundation of functional health knowledge to protect, promote, and enhance health
 - be self-aware
 - be socially aware³
- understand how health behaviors are influenced by family, peers, culture, media, technology, etc.
- access valid information, products, and services to enhance health
- use interpersonal communication skills to improve health and avoid or reduce health risks
- make healthy decisions
- set goals to maintain or improve health
- practice healthy behaviors to avoid or reduce risks
- advocate for self, family, and the community.^{4,p38}

This process begins in pre-kindergarten and continues through grade 12. A comprehensive skills-based health/SEL education program, with the support of the Whole School, Whole Community, Whole Child (WSCC) team, district administration, families, and the community, helps students be efficacious, academically successful, and prepared for the 21st century.

► Theories of Behavior Change

This section discusses eight theories of behavioral change, including full explanations, examples of classroom utilization, research conducted, and the WSCC applications for each.

ATTRIBUTION THEORY

The attribution theory originated with Fritz Heider (1896–1988), an Austrian American who was born and

educated in Europe and immigrated to the United States in the early 1930s. The Clarke School for the Deaf in Northampton, Massachusetts, offered him a research position, and it was there that he met his wife. In 1947, the University of Kansas recruited him to continue the research begun in Massachusetts. In 1958, he published his most famous work, *The psychology of interpersonal relations*, from which the attribution theory emanated. He argues that people want to understand the cause and effect of what happens in their lives in order to see their social world as a predictable and controllable place.⁴

As educators, we use the attribution theory when we struggle to understand why students exhibit certain behaviors. “Why is Erin, a preschooler, calling Marissa names? Why is Connor, a middle school student, bullying Tom? Why does Katie, a high school junior, still go out with Evan, even though he is abusive?” By attributing a cause to these behaviors and explaining it to ourselves, we gain a sense of control and insight on how to cope in a healthy way.

Harold H. Kelley (1921–2003), a professor emeritus of psychology at UCLA,⁵ further developed the attribution theory in the 1960s and 1970s by suggesting the cause of behavior is

- particular to the person carrying out the behavior (distinctiveness). For example, Erin is a name-caller, unlike any of her siblings or friends;
- shared by others (consensus). All the teachers agree that Erin's name-calling causes problems in the classroom and on the playground;
- consistent long term (consistency over time). Erin has been a name-caller since preschool but does not do it as frequently as she did in earlier grades;
- the same in different situations (consistency over modality). Erin name-calls in the classroom, on the playground, and on the bus.^{6,p39}

Attributions are made according to the previously mentioned criteria and rated with regard to the influence. Erin may be rated as high distinctiveness, because she always exhibits this behavior, but also be rated low consistency over time due to the fact that she does not demonstrate name-calling behavior as often as she did as a preschooler.

The attribution theory has evolved further to redefine the dimensions of attributions.

- *Internal vs. external.* The reason for the failure is personal rather than the person who is judging the performance. “I didn’t make the soccer team because my skills were not good enough,” rather than, “I didn’t make the soccer team because the coach doesn’t like me.”
- *Stable vs. unstable.* The reason for the failure will always be present rather than the failure was specific to that one attempt. “I’ll never be an athlete. Every time I try out for a team, I am rejected,” vs., “I was sick during tryouts and could not show the coach my true skill. Bad luck!”

- *Global vs. specific. The cause of the failure influences other areas of my life rather than the failure only influenced that one event.* “I didn’t make the soccer team, so why should I try out for the lacrosse team?” as opposed to, “Oh well, just because I didn’t make the soccer team doesn’t mean I won’t make the lacrosse team.”
- *Controllable vs. Uncontrollable. The cause of the failure was controlled by me vs. uncontrollable by me.* “My skills are usually good, but during the tryout, I couldn’t control the ball. As a result, I didn’t make the team” compared to “The soccer ball was underinflated during the tryout, making it difficult to quickly move and kick the ball.”^{6,p39,8}

If our fictional character, Marla, was experiencing the previously mentioned, how could a health/SEL educator help her? Understanding why she interpreted the results of a situation as she did is essential. A skills-based health/SEL educator listens to her students, is empathetic to their needs, and offers suggestions to resolve problems. Coaching Marla to improve her self-awareness, communication, decision making, and advocacy skills and practicing health-enhancing behaviors improves her efficacy.

When Domingos, another fictional student, describes an attribution, it may be helpful to be more self-aware and discuss personal actions in contrast to ones he cannot control. The coach did not select him as the soccer team goalie and he is very upset. He may need encouragement to improve his skills to be more competitive or try a different activity. With increased skill development, self-efficacy improves, and Domingos may have the confidence to try again. He should understand the reason for the rejection: the coach did not need his skill, his performance notwithstanding.

Attribution Theory—Example from Research

The following research shows how attribution theory was applied to decrease aggressive behavior and increase the academic performance of elementary school children.

Researchers Cynthia Hudley, University of California, Santa Barbara; Sandra Graham, University of California, Los Angeles; and April Taylor, California State University, Northridge, studied the relationship between decreasing the drive to be aggressive and increasing the motivation to achieve academically among elementary children in grades 3–6. They utilized an intervention curriculum, Brain Power and Best Foot Forward, which is organized around the principle of the attribution theory.^{7,p252}

According to Hudley and Graham, youth aggression and violence are a significant problem in school that distracts the teacher from instruction and makes learning difficult. Students who display this behavior are more at risk to drop out of school and experience poor school adjustment and more delinquency in childhood and adolescence.

Aggression is a powerful predictor of low achievement and motivation, poor adjustment, and dropping out of high school.^{8,p251}

Attribution theorists are interested in why certain behaviors and events occur. One factor is locus of control, whereby the cause of the behavior or event is attributed to internal or external causes. Another is stability, meaning the cause is either constant or changes. The third element, controllability, asserts that the cause is under the control of the individual or not.^{8,p252}

Christopher demonstrates attribution bias when he overestimates harmful intent in others when, in fact, the behavior or event was accidental or nonexistent. He perceives that he has been wronged and retaliates with aggression, which causes others to respond accordingly. The intervention curriculum used in the study helps children recognize accidental events and, in so doing, become less likely to demonstrate angry aggressive responses.^{8,p252}

Brain Power, contains 12 lessons that teach students to distinguish between accidental causes of an event and deliberate intentions to do them harm. The first component explored intent, understanding feelings, social cues, and internal and external causes of behavior. Students learned skills to respond appropriately to different situations.⁷

While a second component taught students how to take personal responsibility for the success or failure of their interactions with other peers, a third focused on academics. It helped students recognize the value of undertaking a task of intermediate difficulty, setting long- and short-term goals, accenting improvement rather than result. They learned to concentrate on controllable factors, such as effort, when performing an unfamiliar task and not to attribute failure to uncontrollable circumstances, such as bad luck.^{8,p257}

The study demonstrated that a child’s attribution of success or failure in social and academic arenas improved with educational strategies. Socially, the children learned to presume that some ambiguous situations, such as books falling off a desk, have a non-hostile intent, to select nonaggressive responses to situations, to take personal responsibility for social transgressions, and to accept the explanation and apology from peers for any so presumed.

Academically, students learned to take risks, choose more difficult tasks, set realistic goals, consider improvement over performance, and attribute failures to circumstances under their control. These social and academic motivation skills were perceived as improved behavior in the eyes of teachers and parents.^{8,p258}

This study is consistent with the goals of the National Health Education Standards to increase or maintain healthy behaviors by learning knowledge and skills. Through Standard 1, Core Concepts performance indicators, students describe the relationship between healthy behaviors and personal health,^{9,p24} learn about their emotions and feelings, and understand behavioral intent, causation, and social cues.

The program used for the study evidenced several National Health Education Standards and SEL competencies when the students do the following:

- Interacted with one another in a respectful manner, which enhanced health and avoided or reduced the risks associated with aggression: Standard 4, Interpersonal Communication; SEL, social awareness, and relationship skills
- Set short- and long-term academic goals and strived to achieve them: Standard 6, Goal Setting; SEL, self-management
- Learned how to respond non-aggressively and took responsibility for their own actions rather than blaming others: Standard 7, Practicing Healthy Behaviors; SEL, self-awareness, social awareness, self-management, and relationship skills

Classroom Application of the Attribution Theory

Mr. Shultz is a fourth grade teacher at the Intervale Elementary School and is upset by increased student aggression. He asked his assistant principal if she had noticed an increase in fighting, and her data did indicate an escalation from the prior year. Mr. Shultz checked the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Survey (YRBS) and learned that 24.7% of ninth grade students had been in a physical fight one or more times during the previous year. He decided to investigate programs that decreased aggressive behavior.¹⁰

After researching, Mr. Shultz presented the Brain Power curriculum to the WSCC team, thinking it would be a good fit for his students. The local Rotary Club agreed to fund the purchase and train school staff, including the WSCC health team.

In his goal-setting unit, Mr. Shultz designed a performance task that challenged his students to help a friend who was always getting into fights and blaming everyone else for his problems. In light of Standard 1 performance indicators, the students described the relationship between healthy behaviors (honesty, nonviolence, etc.) and personal health.^{9,p24} They then used Standard 6 and the SEL self-management competency to set a personal health goal of coping with anger in a healthy way and tracked progress toward its achievement.^{9,p34}

In his interpersonal communication unit, Mr. Shultz challenged students to help a friend who was threatening other students because he felt threatened in kind. The students used Standard 1 to describe ways to prevent common childhood injuries and health problems^{9,p24} and Standard 4 to demonstrate through a role-play passive, assertive, and aggressive communication and nonviolent strategies to manage or resolve conflict.^{9,p30}

After a year of implementation, aggressive behavior decreased. More positive peer interactions occurred, and

students who participated in the program demonstrated an improvement in their academic success. The district plans to extend the program to all its elementary schools in the next school year.

Implications for the WSCC School Health Team

Members of the WSCC school health team contribute activities to utilize the attribution theory. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Provide instruction regarding feelings and how to be socially aware by understanding and responding to social cues.
- Teach violence prevention content through Core Concepts (Standard 1), Interpersonal Communication (Standard 4), Goal Setting (Standard 6), and the SEL, self-management.
- Model healthy ways of resolving conflict and aggression.

Physical/SEL Education and Physical Activity

- Display posters that encourage self-awareness, social awareness, respect, responsibility, and self-control.
- Model healthy ways of resolving conflict and aggression.

Nutrition Environment and Services

- Provide nutritious meals that contribute to overall health.
- Display posters that encourage self-awareness, social awareness, respect, responsibility, and self-control.

Health Services

- Refer aggressive students to counselors or administration.
- Provide information regarding feelings, respect, responsibility, and self-control.

Counseling, Psychological, and Social Services

- Identify at-risk students who would benefit from knowledge and skills that decrease aggressive behavior and increase academic success.

Social and Emotional Climate

- Provide a supportive and safe social and emotional climate that encourages students to be self-aware and thoughtful about their behavior.

Physical Environment

- Display posters that illustrate self-awareness, social awareness, respect for others, and encourage peaceful problem solving.
- Monitor student behavior.
- Enforce student behavior policy.

Employee Wellness

- Provide training that identifies children who would benefit from an intervention program that targets aggressive behavior.
- Provide training to staff members interested in leading an intervention group.

Family Engagement

- Invite parents to participate in training to help their children decrease aggressive behavior and increase their motivation to succeed academically.

Community Involvement

- Invite community members to participate in training to help decrease aggressive behavior and increase motivation to succeed.

HEALTH LOCUS OF CONTROL

The health locus of control theory advances the internal vs. external dimensions of the attribution theory. If Jamal perceives that he is responsible for the events in his life, he has an internal locus of control. If Jamal blames others, fate, destiny, luck, or society for an event, he has an external locus of control. Some people experience a combination.

An internal locus of control is an advantage when changing behavior or managing lifestyle because it reinforces motivation and commitment and empowers us to take charge of our behaviors.^{11,p19} A person with an internal locus of control believes she has control over her own behavior, is self-driven, expresses her thoughts, and is true to her beliefs.^{12,p19} A person with an external locus of control, believes he has little control over his life and therefore finds it more difficult to make positive changes. He fears negative feedback from peers, is easily frustrated, and finds it easy to quit.^{12,p19} Jamal may have a genetic predisposition to diabetes, believes there is nothing he can do about developing the disease, and, therefore, chooses to lead a sedentary life and eat an unhealthy diet. On the other hand, Courtney, a student with an internal locus of control, may learn as much as she can about the disease and change the risk factors under her control in order to delay or prevent its onset.

Rachel, who has an external locus of control, learns to change or moderate it by researching the behavior she wants to confront, lists all the ways change enhances her health, determines which contributing factors require modification,

makes a plan to change, and then acts upon it. Success increases Rachel's self-efficacy to make other changes and nudges her locus of control closer to internal.^{11,p19}

Kenneth Wallston, associate professor of psychology at Vanderbilt University, one of the original developers of the health locus of control theory, created a self-test that measures the beliefs a person has about who controls his or her health. The results show whether Rachel believes she controls her health or if it is controlled by powerful others such as doctors.

To help students take personal responsibility for their health, it is worthwhile to determine whether they have an internal or external locus of control. There are a variety of content locus of control scales found online. The Dieting Beliefs Scale (**Worksheet 2.1, The Dieting Beliefs Scale**) measures personal belief about dieting. It is appropriate for the 6–8 and 9–12 grade spans. The Wallston Multidimensional Health Locus of Control Scale (**Worksheet 2.2, Multidimensional Health Locus of Control Scale**) is used at Vanderbilt University in the nursing program. It measures interval vs. external locus of control and is appropriate for adults.

Health Locus of Control—Example from Research

Vanessa Malcarne and Amy Drahota from San Diego State University, and Nancy Hamilton from Southern Methodist University, studied multiethnic children of both genders from different income levels and examined the relationship between health-related locus of control and health beliefs as predictors of positive or negative health behaviors.

Malcarne and Drahota examined the subconstructs of internal locus of control, such as health knowledge and attitudes, and psychological adjustment. External loci, such as undefined powerful others and the role of chance, were explored to determine their effects on health outcomes and behavior. The evidence indicates that external locus of control correlates to negative health behaviors and poor psychological adjustment.^{13,p48}

This study included children between the ages of 9 and 14. The researchers found that age was a factor in the development of health locus of control beliefs. Older children were less likely to see external factors as responsible for their health, whereas younger children believed the opposite. Caucasian and African American children demonstrated a decrease in external locus of control as they became older, but age was not related to health locus of control for Latino American children who were more likely to believe that fate, luck, or chance (external locus) controlled their health. African American children also displayed a trend toward powerful others as an external locus of control when compared with Caucasians.^{13,p55}

The role of family income and ethnicity had a varying effect on health beliefs. The higher income group of African American children had stronger beliefs in chance and

powerful others controlling their health behaviors than did children from lower income families.

Although previous studies indicate that boys exhibited a stronger belief in powerful others than girls,^{13,p56} Malcarne and Drahota detected no such gender differences among the various ethnic groups.

As skills-based health/SEL educators, we help students develop an internal locus of control by designing prompts that challenge them to discover the relationship between their behavior and its effects on their health. We examine and teach the benefits of being in control of one's health and behavior rather than believing someone else is. Because the summative assessment is authentic, students demonstrate, to themselves and others, the ability to use functional health knowledge when demonstrating a skill. The success of this assessment contributes to efficacy and the development of an internal locus of control.

Classroom Application of Health Locus of Control

Mr. Olivera has been the health/SEL teacher in a multiethnic, low- to middle-income elementary school for several years. Consequently, he knows many of the children and their families. He has observed that numerous younger students believe that their overall health is not a result of their behaviors but a consequence of external conditions, such as parents, teachers, the school, the community, and unpredictable factors, such as chance.

When Marina came to school with a bruise on her head, Mr. Olivera asked her about the injury. She told him that it was her brother's fault because he left his toy car on the steps. She slipped on it, fell, and hit her head. Knowing that unintentional injuries are a leading cause of death for children, he planned a performance task, including self-awareness, that would challenge his students to examine their role in protecting their health.

Mr. Olivera selected Standard 1, list ways to prevent common childhood injuries,^{9,p24} to gather information about seat belts, bicycle helmets, and accidents. He also chose Standard 7, Practicing Healthy Behaviors,^{9,p35} and distributed three prompts, back-up information, and the presentation rubric. One prompt contained the story of Melina who hated to wear her seat belt because it was uncomfortable. In another, Carlos wanted to go biking but could not find his helmet. The third described a child who lived in a house under renovation where ladders and tools were not safely secured at the end of the day. Each of the children also needed to become more self-aware in order to be safe.

The students were challenged to identify the hazard in the prompt, determine who controls it, and explain ways to prevent common childhood injuries. During the assessment, students demonstrated their knowledge of injuries and role-played the scenario showing the hazard, who controlled it, and how to protect their own health.

Mr. Olivera was so pleased with the results that he showed parents a videotape of the students' work during a school-wide Safety Week presentation. Parents became more aware of the danger of childhood injuries and told Mr. Olivera that they would be more vigilant about their child's safety.

Implications for the WSCC School Health Team

Members of the WSCC school health team contribute activities to utilize the locus of control theory. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Knowing that external locus of control has an adverse effect on health behaviors, design performance tasks that challenge children to modify that belief, help children become more self-aware, and direct them toward developing an internal locus.
- Realize that children have a variety of health beliefs that predict their health behavior.
- Focus internal locus of control instruction and self-awareness to young children and reinforce it through the grades to help students understand that their own behavior influences their health status.^{13,p57}
- Reinforce the principle that each student needs an accurate self-perception and is in control of his or her own behavior.

Physical/SEL Education and Physical Activity

- Reinforce social awareness, self-awareness, and self-control over behavior.
- Demonstrate the relationship between behavior choices and their effect on health.

Nutrition and Environment Services

- Encourage social awareness and self-awareness by displaying posters that encourage healthy eating practices.
- Maintain a clean and safe environment for eating.

Health Services

- Emphasize self-awareness by encouraging each student to be responsible for his or her own health.
- Display safety posters to encourage students to be self-aware and protect their health.

Counseling, Psychological, and Social Services

- Reinforce self-awareness and that each student is in control of his or her own behavior.

- Stress personal responsibility for health.
- Emphasize social awareness and the importance of accepting responsibility for actions rather than blaming others.

Social and Emotional Climate

- Provide a climate that encourages children to be self- and socially aware and take control of their behavior.

Physical Environment

- Display posters that illustrate self-awareness, social awareness, and personal responsibility for actions.
- Recognize students who take personal responsibility for their behavior.

Employee Wellness

- Provide in-service training that shows teachers how to empower students to be self-aware and socially aware and take personal responsibility for their health.
- Model personal safety.

Family Engagement

- Develop a parent education program that explains the importance of teaching children to be self-aware, socially aware, and take personal responsibility for their actions.

Community Involvement

- Encourage businesses to focus on community responsibility for health.

UNREALISTIC OPTIMISM

In 1983 and 1984, Neil **Weinstein**, a professor at Rutgers University, explained that people continue unhealthy behaviors because they think they are not at risk or susceptible to the dangers. He conducted research in which people examined a list of health problems and were asked if their chances of developing the problem were the same as or less than people their own age and sex. The results indicated that most people thought they were less likely to develop the problem.^{6,p21} This viewpoint is called unrealistic optimism.

In 1987, Weinstein described four factors and beliefs, which when present, contribute to unrealistic optimism.

1. Lack of experience with the problem.
2. The problem can be prevented by personal action.
3. If the problem has not yet appeared, it will not in the future.
4. The problem does not occur very often.^{6,p21}

People who smoke misjudge the risks involved. Weinstein, along with Stephen Marcus, an epidemiologist for the National Cancer Institute, and Richard Moser, a research psychologist for the National Cancer Institute, conducted a telephone survey that examined smokers' beliefs about the risks involved. The results showed that smokers underestimated their risk of tobacco-related illness compared to nonsmokers and believed they had a lower risk of developing lung cancer than the average smoker. Likewise, smokers who believed the risks of developing cancer or lung cancer did not rise with an increased number of cigarettes smoked daily also illustrate unrealistic optimism.^{14,p55}

Skills-based health/SEL education overcomes unrealistic optimism by helping students understand the consequences of risk behaviors and how they affect health. Actively engaging students in a performance task requires them to resolve a challenge presented in the prompt. When planning the tasks, a skilled teacher makes the challenge appropriate to the age of students and concentrates on risks students actually experience. When presenting their projects, students reinforce the information that connects the risk to personal health and demonstrate the skill that overcomes the risk.

Unrealistic Optimism—Example from Research

Lennart Sjoberg from the Stockholm School of Economics, Lars-Erik Holm from the Swedish Radiation Protection Authority in Sweden, and Henrik Ullen and Yvonne Brandberg from the Department of Oncology, Karolinska Hospital in Sweden, used a questionnaire to investigate the attitude of Swedish teenagers, aged 13, 15, and 17, toward exposure to ultraviolet radiation, protective behavior, and risk perception of tanning.

According to the researchers, unrealistic optimism occurs when people perceive their risk taking as less dangerous than someone else's. Documented examples include smoking, alcoholism, and food risks. Not surprisingly, extreme levels of unrealistic optimism have been found among teenagers.^{15,p83}

The researchers reported that tanning increases the risk of malignant melanoma. They found that commercial tanning facilities make tanning more accessible, and younger people expose themselves to radiation more frequently and are, therefore, more at risk. Even though children and youths in the study had full knowledge of the associated dangers, they frequently tanned.^{15,p82}

This study demonstrated clear evidence of unrealistic optimism regarding tanning and melanoma for all age groups and both genders. Although females usually avoid risk, the girls in this study believed that a suntan made them more attractive and, thus, continued to tan, the risks notwithstanding. Unrealistic optimism remained constant, regardless of improved knowledge and greater risk awareness among the older respondents. Students exemplified unrealistic optimism when they perceived their personal risk of melanoma as less than the risk others assumed.^{15,p81}

This study suggests that increased knowledge does not always result in healthy behavior. Older students with enhanced risk awareness still believed that others were more at risk than they were (unrealistic optimism) for developing health problems due to sun exposure and tanning. This perception of the norm has dangerous consequences for students: they may engage in increased sun exposure to be accepted, thinking the behavior is expected and believing it is not overly dangerous.^{15,p91} Data indicates the trend continues into 2013 in the United States with 12.8% of grades 9–12 teens using an indoor tanning device; 20.2% of the users are high school girls, and 5.3% are boys.¹⁰ Sjöberg's research demonstrates that knowledge is not sufficient to change behavior. The challenge to the skills-based health/SEL educator is to align performance tasks with SEL competencies and combine Standard 1 content about sun safety with Standard 7, Practicing Healthy Behaviors, and challenge students to decrease sun exposure and increase sunscreen use. A unit addressing this problem includes a variety of prompts, modeling, verbal persuasion, consequences, experiments, technology, overcoming impediments to use, and personal stories.

Classroom Application of the Unrealistic Optimism Theory

Mrs. Gomez is a middle school wellness teacher. She teaches health/SEL and physical education to her students both indoors and out.

The CDC Youth Risk Behavior data for 2013 indicates that only 10.1% of 9–12th grade students routinely use sunscreen.¹⁶ Although Mrs. Gomez always applies sunscreen before going outdoors, her students rarely do. Their excuses include not having time to put on sunscreen, not having sunscreen, it is not cool to be seen putting on sunscreen, or it is not important to use sunscreen. They are young and think only older people get skin cancer.

In her Standard 2 unit, Analyzing Influences, Mrs. Gomez designs a performance task using Standard 1 to examine the likelihood of injury or illness if engaging in unhealthy behaviors, such as exposure to ultraviolet radiation.^{9,p25} She includes the SEL competency self-awareness and asks the students to examine how peers influence healthy (using sunscreen) and unhealthy behaviors (not using sunscreen)^{9,p26} and challenges them to design a peer-led program that would make it cool to use sunscreen when outside for physical education.

For the final assessment, students created posters that showcased their knowledge of the consequences of sun exposure, the influence peers have on their decisions, and a five-step, teen sun-safety program. They also videotaped public service announcements (PSAs; advocacy) to influence and support others to make the positive health choice^{9,p36} of using sunscreen. They showed how to apply sunscreen and why it is important to use it, encouraged friends to use it, and conveyed the message that they are self-aware, feel healthy, confident, and more attractive by

protecting themselves. The principal ran the video on the school television throughout the day and displayed the posters in the school foyer.

To support her students, Mrs. Gomez persuaded a member of the WSCC committee, a local store owner, to donate sunscreen so every student had access. The program changed the social norm: nearly all students now use sunscreen before going outdoors!

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to utilize the unrealistic optimism theory. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Demonstrate the sun's damage by inviting a guest speaker from the American Lung Association (ALA) to demonstrate April Age, the software program that shows students how the sun damages the skin, a condition that worsens over time.
- Provide instruction, case studies, and performance tasks and teach skills to be self-aware and challenge the social norm that tanning is healthy and attractive.

Physical/SEL Education and Physical Activity

- Encourage students to bring sunscreen to school and apply it before going outdoors for class.
- Provide information about the sun protecting factor (SPF) ratings of sunscreen.
- Offer positive role modeling by applying sunscreen before conducting class outdoors.

Nutrition and Environment Services

- Display sun-safety posters in the cafeteria.

Health Services

- Provide sun-safety posters and handouts for students.
- Encourage self-awareness by providing sunscreen samples for student and staff use.

Counseling, Psychological, and Social Services

- Encourage self-awareness by providing sun-safety promotional material in the waiting area.

Social and Emotional Climate

- Encourage a positive social and emotional climate that embraces self-awareness and taking control of personal health by using sunscreen.

Physical Environment

- Implement a school-wide sun-safety program.
- Broadcast PSAs throughout the day that promote sun safety.

Employee Wellness

- Implement an in-service sun-safety program to educate staff.
- Model sun-safety behavior.

Family Engagement

- Provide sun-safety education to parents because their attitudes about sun safety are decisive in a younger child's use of sunscreen.^{15,p91}

Community Involvement

- Engage the community in a sun-safety promotion.
- Seek community donations for sunscreen and dispensers.

PROCHASKA'S TRANS-THEORETICAL MODEL OF HEALTH BEHAVIOR CHANGE

James Prochaska, the director of the Cancer Prevention Research Center and professor of Clinical and Health Psychology at the University of Rhode Island, and Carlo DiClemente, professor and of the Department of Psychology for the University of Maryland, created the trans-theoretical model of health behavior change.^{17,p2988} This theory identifies

the stages a person travels through when trying to change an unhealthy behavior. It recognizes that change is a process and is used around the world for substance abuse prevention and treatment.^{17,p2919,11}

In 1982, while studying thousands of people who were attempting to change a behavior, Prochaska and DiClemente observed that, although they used different strategies, all participants in the study passed through six consistent stages of change (Figure 2.1).¹⁸

The *pre-contemplative* stage occurs when Julio, a teen smoker, has no plans to change his behavior. He may deny that smoking has any real risks for him or be unaware of the hazards. Perhaps he has tried to quit, failed, believes he cannot succeed, and blames others for his defeat. To move beyond this stage, Julio must think about how his smoking affects him and others. He can challenge himself to think about why a previous attempt to quit failed and how he could overcome it.^{11,p20}

Progress begins when Julio moves into the *contemplative* stage where he becomes aware of his problem, thinks, and learns about it. He understands the benefits of changing but weighs the difficulties of doing so. Julio considers where he could go for help and what he could do to overcome the behavior but is unsure of how to proceed.

At this point, it is helpful to examine the pros and cons of changing the behavior. When thinking about why change did not occur, Julio could enlist help, such as the American Lung Association, to find a way of overcoming the obstacle. As mentioned previously, the person must believe that the benefits of change are greater than status quo. This self-efficacy helps Julio move to the next stage. Perhaps he will envision himself as a nonsmoker, which may help him pursue the resources to quit.

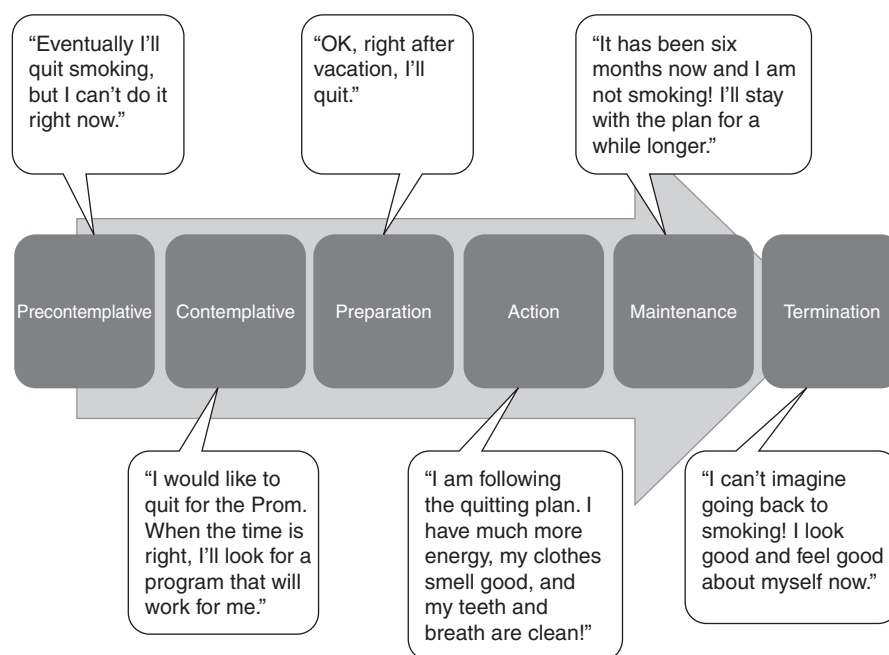


FIGURE 2.1 Trans-Theoretical Model of Health Behavior Change

In the *preparation stage*, Julio plans to take action within a month and makes small changes in his behavior. He creates a plan that details how the change will occur, sets a date and realistic goals, establishes rewards for meeting his short- and long-term objectives, and engages family and friends for support.

During the *action stage*, he changes his behavior. Julio is vulnerable to relapse at this point and needs all the plans, strategies, and help he designed during the preparation stage. It is wise for him to have a plan of action when tempted by the old behaviors. Visualization helps him view himself as a nonsmoker. Julio reviews the quit plan and embedded rewards and reminds himself of why he wants to change. He knows how much better he will feel, when he is successful.

In the *maintenance stage*, Julio has successfully maintained the nonsmoking behavior for 6 months. To increase his self-efficacy, he reviews his plan, enjoys his rewards, envisions himself demonstrating healthy behaviors, and is proud of his accomplishment. This stage can last 6 months to 5 years.

When his new habits are well established and the effort to change complete, Julio has entered the *termination stage*. Here, he is no longer tempted to return to smoking. Julio regards himself as a healthier person and has confidence he will not relapse.^{11,p20}

Although the stages are listed as occurring sequentially, Julio may stay in the preparation stage a long time then relapse into the contemplative stage if he does not find the help he needs to change. Once in the action stage, Julio may find the changes too difficult and revert to a previous stage.^{19,p22} Lapses occur during any of the stages, and when they do, Julio must reexamine why he wanted to change, adjust his plan of action, seek additional support, and recommit.^{11,p21}

A skills-based health/SEL educator helps students become self-aware and realize the need for behavioral change by using Standard 1 to gather information about the effects of risky behavior on health and encouraging them to take personal responsibility for their actions, and uses Standards 2–8 to teach the skills needed to overcome unhealthy behaviors.

Trans-Theoretical Model of Health Behavior Change—Example from Research

Your Decisions Count—Alcohol, Tobacco and Other Drugs, is a middle school multicomponent computerized tailored intervention program that utilizes the trans-theoretical model of behavior change to track cessation progress of teens. Based on the results of a questionnaire, students were placed in a stage of change and received individual feedback to increase knowledge, skills, self-awareness, and self-efficacy.^{20,p1013} During the initial 3-month review, results showed a 39.6% cessation rate of current users during the first posttest and 36.9% rate during the second posttest. More students in the intervention group stopped using

drugs and moved into the Action or Maintenance Stage compared to the control group.^{20,p1014} However, during the 14-month follow-up, treatment differences were not significant. A meta-analysis of teen smoking conducted by Sussman et al., indicated that interventions less than five sessions had little or no effect. Perhaps increasing the treatment beyond three half-hour sessions over 3 months would improve the results.^{20,p1015}

A 2004 study, *Helping Adolescents Quit Smoking: A Needs Assessment of Current Former Teen Smokers*, compared the survey responses of current and former adolescent smokers, aged 15 to 17, to learn what strategies would help adolescents quit smoking. The needs of the smokers and former smokers were consistent with Prochaska and DiClemente's trans-theoretical model of health behavior change.^{21,p192}

Attempts to help teens quit smoking have been unsuccessful because smoking gives teens a sense of autonomy, independence, intimacy, identity, bonding with peers, maturity, and a positive social image, all of which fulfill their developmental needs. Teens who are motivated to quit smoking want to be involved in treatment decisions, set their own goals, and progress at their own pace.^{21,p184} The stages of change model as a process to quit smoking seems consistent with the needs of teens. Figure 2.2 lists the attitudes teens reported in each stage of the trans-theoretical change.

For the pre-contemplators, we can direct instruction to addiction, the hazards of smoking, and the difficulties in quitting. Former teen smokers are socially aware and share quitting techniques (Standard 7) and the importance of receiving support from others. They may explain the impediments to quitting and how to change them into opportunities to succeed. They remind the teens that despite the difficulties of quitting, reaching that goal (Standard 6) is highly satisfying.

Contemplators need confidence to move toward the action stage. Former teen smokers might act as role models and support for them. To empower contemplators to move to the preparation stage, the former smokers share useful quitting strategies (Standard 7) and how to plan rewards for successfully moving to the next stage. They also share self-management strategies of how to cope with stress, sadness, anger, and worry without using cigarettes (Standard 1).

Preparers are close to the action stage and require continuing support to increase their efficacy. Teachers, staff, family members, and friends assure the young people that they are able to quit and that support is available, and encourage the teen to self-manage and find a cigarette substitute such as chewing gum, watching television, and talking to friends, to overcome the cigarette void.²¹

Figure 2.2 lists the attitudes of teens in each of the stages of change when asked their thoughts about quitting. Such information is valuable when planning smoking cessation programs for this age group because the facilitator is prepared to encourage self-awareness and utilize positive self-talk,

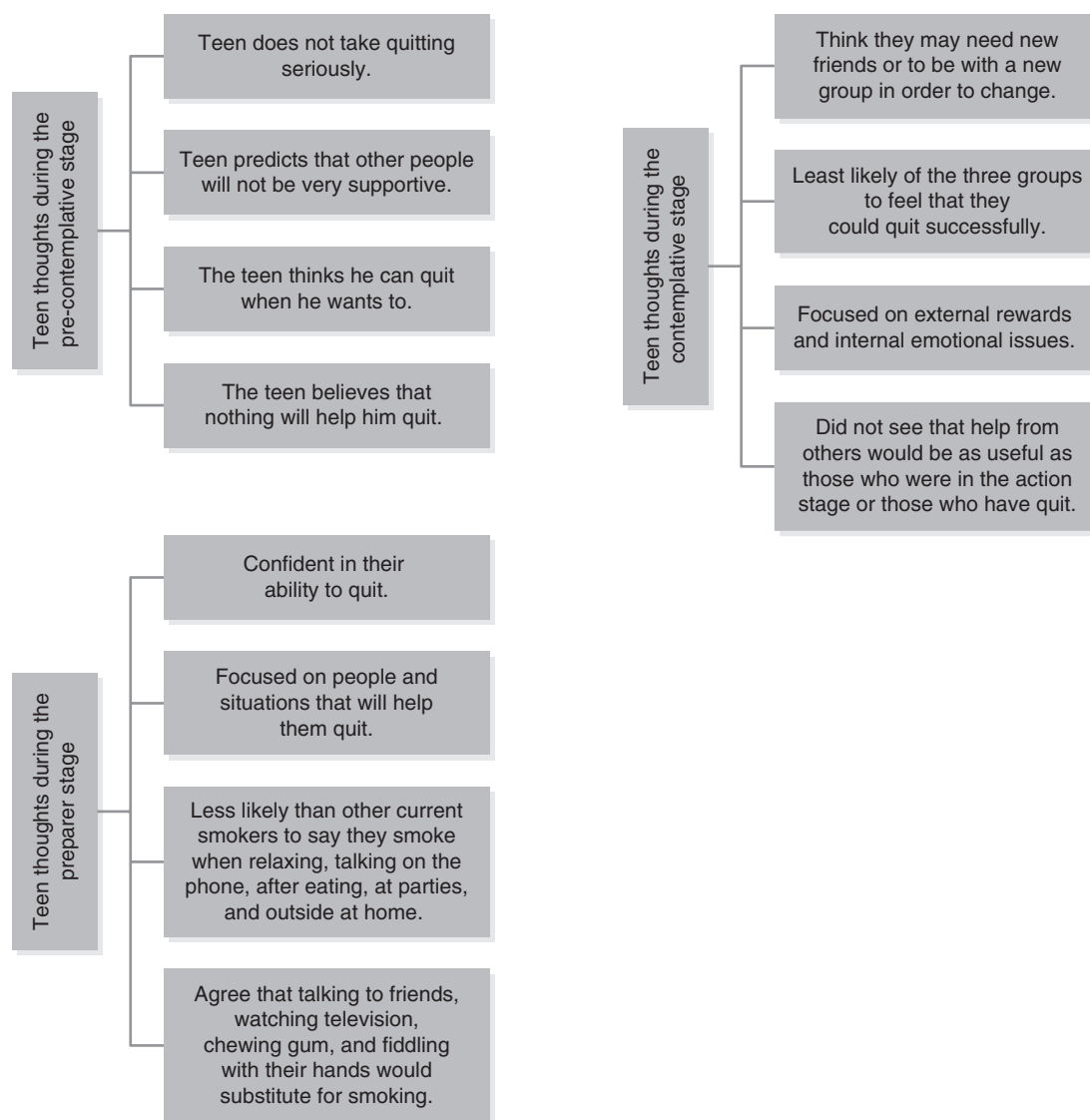


FIGURE 2.2 Teen Attitudes Toward Quitting, Based on Prochaska's Trans-Theoretical Stages

refocus the thoughts of the teens, remind them of the benefits of reaching their goal, and boost their self-efficacy.

What Would Help a Teen Smoker Quit?

The National Health Education Standards and the SEL competencies help the facilitator target content and skills to assist teens when quitting tobacco.

- Standard 1—Provide content about tobacco and quitting.
- Standard 2 and SEL, self-awareness—Help teens understand the influences that causes them to smoke.
- Standard 3 and SEL, self-management—Access and distribute valid and reliable information about tobacco and quitting strategies.
- Standard 4 and SEL, relationship skills—Teach the skill of interpersonal communication to empower teens to ask for help and support.

- Standard 5 and SEL, responsible decision making—Navigate the problem-solving and decision-making model to empower teens to make a health-enhancing decision to quit tobacco.
- Standard 6 and SEL, self-management—Instruct how to make a long-term goal to quit smoking supported by several short-term goals.
- Standard 7 and SEL, self-management—Encourage teens to participate in a teen smoking cessation program.
- Standard 8 and SEL, social awareness—Engage students to advocate for a smoke-free school, home, and community

It is important to know what motivates teens to want to quit. From the smokers in the research who quit, we learn the importance of family and friend support. The health/SEL educator uses the information from **Table 2.1** to plan

TABLE 2.1 What Would Help a Teen Smoker to Quit?

1. Receiving a reward, such as money or a gift certificate.
2. A friend wanted to quit smoking with me.
3. Learning ways to cope with cigarette cravings.
4. Learning ways to deal with stress.
5. Learning ways to deal with sadness, anger, or worry.
6. Knowing more about how to keep my mind off smoking.
7. My friends/brothers/sisters believed I could quit smoking.
8. My parents/guardian/adult family member stopped buying me cigarettes.
9. My friends/brothers/sisters did things with me where I couldn't smoke.

an intervention that includes the SEL competencies and the content and skills of the National Health Education Standards.

When planning with the end in mind, it is important to understand the factors that are important to the teen when trying to quit smoking. Note the importance of family and friends, access to valid and reliable information, and skills/SEL training. These factors provide strong evidence for a skills-based approach to teen smoking cessation.

Classroom Application of the Theoretical Model of Health Behavior Change

Mr. DiFranza is a ninth grade health teacher and cross country-coach at Holton High School. He caught a few students smoking after school and during meets. He checked the school YRBS data and found that 20% of his 12th grade students are current frequent cigarette users as compared to 15.7% of the students surveyed nationally.¹⁰

When he talked to his students, many of the smokers told him that they tried to quit several times but could not do it. Mr. DiFranza designs a performance task that challenges the students to devise a smoking cessation program for teens. The requirements include predicting how healthy behaviors (quitting smoking) affect health status^{9,p25} and using resources from home, school, and community that provide valid health information about quitting.^{9,p29} Students design a multifaceted approach to quitting (Standard 7, Practicing Healthy Behaviors; SEL, self-management) that explains how a student moves through the stages of behavior change, and receives rewards for progress to reduce the health risks of smoking.^{9,p35}

When assessed, the students provided PSAs explaining the benefits of quitting smoking, where teens access

help to quit, and use incentives to keep working their way through the stages of behavior change. A posttest showed that 10% of teens who smoked stated they were ready to quit.

Mr. DiFranza has agreed to facilitate the first teen smoking cessation program, using Prochaska's stages of change theory as the foundation.

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to utilize Prochaska's stages of change theory. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Explain the trans-theoretical model of health behavior change and how it is used as a self-management strategy to quit smoking.
- Design performance tasks that challenge students to use information about cessation to design a multi-approach quit program for teens.
- Be a positive anti-tobacco role model.

Physical/SEL Education and Physical Activity

- Display posters and information that illustrate how smoking affects physical performance.
- Display smoking cessation program information and encourage smokers to sign up and self-manage.
- Be a positive anti-tobacco role model.

Nutrition and Environmental Services

- Display posters that encourage students to self-manage and eat healthy as a way of coping with the craving to smoke.

Health Services

- Provide informational pamphlets that promote being smoke free.
- Offer a self-management smoking cessation program for teens and family members.
- Design motivational rewards for students and staff who successfully quit.
- Be a positive anti-tobacco role model.

Counseling, Psychological, and Social Services

- Supply students with a list of community smoking cessation resources.
- Provide referrals to smoking cessation programs.
- Be a positive anti-tobacco role model.

Social and Emotional Climate

- Provide a school climate that is socially and emotionally safe and supportive and encourages students to self-manage and seek help for addiction.

Physical Environment

- Display posters that show friends quitting smoking together or having fun without cigarettes.
- Enforce the smoking policy.

Employee Wellness

- Provide smoking cessation programs.
- Supply information on how to refer a student for cessation.

Family Engagement

- Offer a smoking cessation program for family members.
- Be a positive anti-tobacco role model.

Community Involvement

- Be socially aware and offer a smoking cessation program for community members.
- Invite medical professionals in the community to provide smoking cessation.
- Be a positive anti-tobacco role model.

THE HEALTH BELIEF MODEL

Irwin Rosenstock initially designed the health belief model in 1966, but Marshall Becker and his colleagues later modified it in the 1970s and 1980s. The model explains that the core beliefs of Tyler, a high school student, predict whether he will make a behavior change.^{6,p48} Tyler is more likely to change an unhealthy behavior, such as being overweight, if certain beliefs are present.

He must be self-aware and do the following:

1. Perceive that his present behavior has serious health consequences.
2. Consider the seriousness of being overweight vs. doing nothing about the problem. The more he perceives the effects of the behavior as serious, the more likely Tyler is to change his behavior. To wit, he must acknowledge that being overweight has a negative impact on his life.^{12,p15}
3. Recognize that he is susceptible to the harmful effects of being overweight. For example, Tyler must believe that being overweight can make him susceptible to developing diabetes.^{12,p15}
4. Acknowledge that his taking action to lose weight has beneficial effects. Tyler might say to himself,

“I will look much better and be more physically active without getting winded and tired!”^{12,p15}

5. And also be aware of the barriers to changing behavior but realize that the benefits of change outweigh the hurdles. Tyler might say to himself, “It will be difficult going to a fast-food restaurant with my friends and staying on my diet so I will check the menu online, make my choice, and be prepared with my order when I get there. I’ll feel better knowing I made a good choice.”^{6,p49}
6. Identify specific internal and external cues to action associated with the change.^{6,p49} An external cue occurs when Tyler sees his friends and family having fun eating high-calorie, high-fat foods. An internal cue occurs when he wants to join them.

The health belief model is cognitive. Each of the six elements above are overcome with information provided by Standard 1, Health Concepts, of the National Health Education Standards. This standard provides information to people engaged in unhealthy behaviors to help them be self-aware and comprehend their personal susceptibility and understand that changing is beneficial to their health. Moreover, they examine the barriers to change and available supports and identify the internal and external cues for change.

The model does not include, however, the skills that help the person use the information to overcome the problem behavior. Whereas Standard 3, Accessing Valid Information and the SEL competency of social awareness, teaches how to access valid and reliable sources of information, products, and services for healthy dieting,^{9,p29} Standard 7, Practicing Healthy Behaviors, and SEL, self-management, provides the framework to demonstrate a variety of healthy practices, such as choosing healthy foods.^{9,p35} The combination of knowledge and skill equips Tyler to confront his unhealthy behavior and uproot it.

The Health Belief Model—Example from Research

Project ALERT is a middle school drug and alcohol prevention program designated as a Model or Exemplary Program by the U.S. Department of Health and Human Services and the Department of Education and listed on the National Registry of Evidence Based Programs and Practices. In 2005, it was the most prevalent prevention program in the country.²²

A 2003 study on the results of a large-scale trial of Project ALERT in middle schools indicated that the prevention program curbs cigarette and marijuana initiation, current and regular cigarette use, alcohol misuse, and inhalant abuse.^{23,p1830}

The program attempts to change student beliefs about drug norms and the social, emotional, and physical consequences of using drugs. Teens identify and resist pro-drug

pressures from parents, peers, the media, and others and build resistance self-efficacy. Project ALERT utilizes question, answer, and small-group activities that contribute to its effectiveness.^{23,p1831}

The Project ALERT curriculum utilizes three theories of behavior change: the health belief model, the social cognitive learning model, and the self-efficacy theory of behavior change. The health belief model concentrates on cognitive factors that motivate healthy behavior. The social cognitive learning model emphasizes social norms, the SEL competency of social awareness, and significant others as key determinants of behavior. The self-efficacy theory proposes that a person can accomplish a task if he or she exhibits self-awareness and self-management and believes in succeeding.^{23,p1831}

The Project ALERT lessons were taught to ninth and eighth grade students with booster lessons administered in the ninth grade. According to the data collected, Project ALERT curbed cigarette initiation by 19%, reduced current and regular smoking by 23%, and curtailed marijuana initiation by 24%. Alcohol misuse was lower than a control group, as was drinking that resulted in negative consequences.^{23,p1833}

Classroom Application of the Health Belief Model

The number of students who smoke marijuana in the Josiah Frances Middle School in New Mexico is increasing. Smokers feel it is a rite of passage and think it will not become a permanent habit or result in any harm. Mrs. Becker, the health/SEL teacher, knows that 15.7% of eighth graders have tried marijuana at least once, 40.7% of the high school population has tried it, and 27.8% of them are current users.¹⁰ She is worried more students will become regular users unless she intervenes.

During an in-service, Mrs. Becker learned about an evidence-based curriculum founded upon the health belief model and decided to use it in the interpersonal communication unit. She always teaches content and skill to her students. Learning a skill increases a student's confidence to cope with challenging situations in a healthy way.

Mrs. Becker began her unit by examining the likelihood of injury or illness when engaging in unhealthy behaviors,^{9,p25} such as smoking marijuana. She informed her students about the hazards and consequences of marijuana because she wants them to know how dangerous it is to the body and mind. Mrs. Becker also wants them to know that their bodies are susceptible to damage every time they smoke. She introduced Standard 4, the skill of Interpersonal Communication, and the SEL relationship skill of communication by asking, "How would you resist peer pressure to smoke weed?" They brainstormed many ideas, including refusal, using "I" messages, asking for help from an adult, and walking away.^{9,p3}

Wanting to make the topic personal, Mrs. Becker contacted the American Lung Association and invited to class a guest speaker who brought a pig's lungs. The speaker inflated the lungs with a pump. While one lung was blackened by cigarette smoke, damaged by emphysema, and barely inflated, the other was healthy and inflated easily and fully. The students were amazed at the damage smoking did to the lungs. They became even more distressed, however, when they learned that marijuana smoke damages the lungs more than cigarette smoke.

The guest speaker also shared several stories about middle school students who smoked marijuana and how it interfered with relationships and school achievement and how difficult it was for them to quit. Angela, one of Mrs. Becker's students, was shocked by one of the stories because it sounded just like her. For the first time, she thought about quitting and liked the idea of people thinking of her as a nonuser, but worried that she might have the same difficulty quitting as some of the young people in the stories.

After school, Angela and some of her friends from Mrs. Becker's class went to the park. As Angela's friends lit up, she knew she had to resist the pressure to smoke and refused when offered the weed. She remembered the damaged pig's lungs and the stories read by the guest speaker, and decided to stand with her friends who did not smoke. "It will be easier not to smoke if I hang with nonsmokers," she thought. This step was her first in changing an unhealthy behavior.

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to the health belief model. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Develop instruction using evidence-based curriculum.
- Utilize social awareness and social norms to help students understand that most teens do not use drugs, alcohol, tobacco, and inhalants.
- Collaborate with physical education teachers to provide a consistent message about drug use.
- Teach National Health Education Standards skills and SEL competencies to increase a student's efficacy in refusing drugs, alcohol, tobacco, and inhalants.

Physical/SEL Education and Physical Activity

- Collaborate with health/SEL education teachers to provide a consistent message about drug use.
- Display wellness posters that show students being socially aware and involved in healthy behaviors.

Nutrition and Environment Services

- Display posters showing children practicing self-management by eating healthy snacks and having fun.

Health Services

- Provide training to the health service staff that makes them attentive to the signs and symptoms of substance abuse.

Counseling, Psychological, and Social Services

- Provide a list of community resources for students who need help with substance use/abuse.

Social and Emotional Climate

- Promote a social and emotional climate where students with a substance use and abuse problem are comfortable seeking assistance and practicing self-management.

Physical Environment

- Enforce the alcohol, drug, and tobacco policy.
- Provide safe, fun, and healthy enrichment activities before and after school.

Employee Wellness

- Provide staff training to teachers implementing evidence-based instruction.
- Train staff to identify signs and symptoms of drug use or abuse.
- Provide addiction services and referrals to the school faculty.

Family Engagement

- Provide parent training for evidence-based substance abuse education so that students hear a consistent message from parents, school, and community.
- Train family members to identify signs and symptoms of drug use or abuse.

Community Involvement

- Provide community training for evidence-based substance abuse education so that students hear a consistent message from parents, school, and community.
- Train community members to identify signs and symptoms of drug use or abuse.

THE PROTECTION MOTIVATION THEORY

Ronald W. Rogers, professor at the University of Alabama, developed the protection motivation theory (**Figure 2.3**).

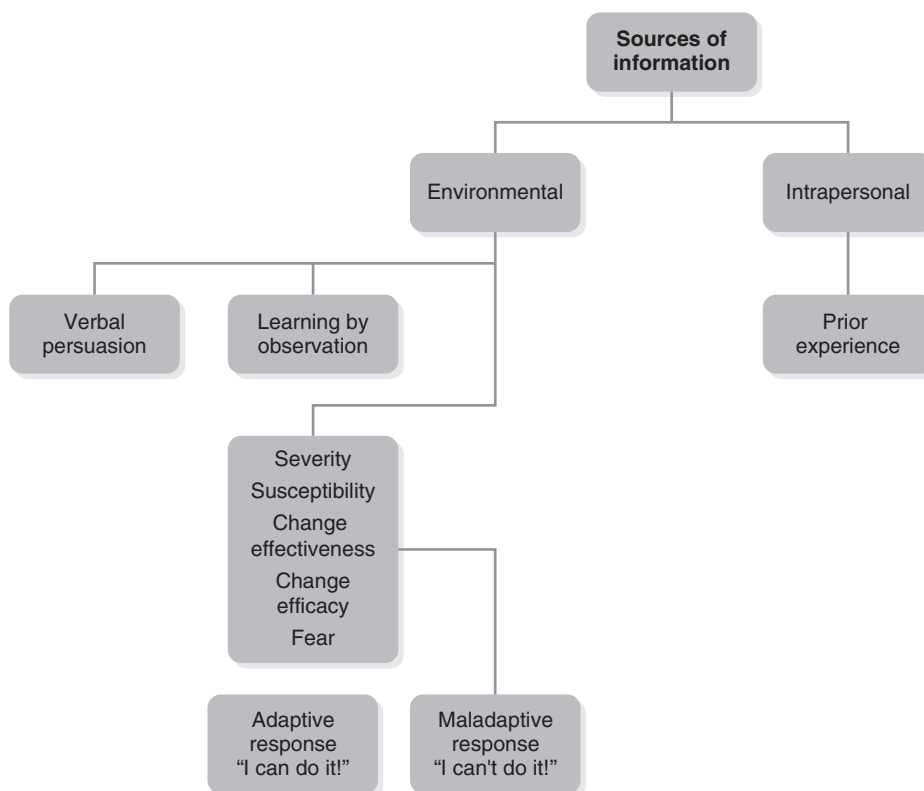


FIGURE 2.3 Protection Motivation Theory

It expands the health belief model and suggests that a person is motivated to protect himself or herself by assessing the threat of a potentially harmful behavior against how well the person thinks he or she can cope with it.^{6,p50-51}

The protection motivation theory states that health-related behaviors are a result of the following:

- How a person assesses the severity of the problem.
- How susceptible the person feels he or she is to the problem.
- How effective the change will be to solve the problem.
- The person's confidence in performing the risk-reducing behavior.
- Fear resulting from being educated about the problem.^{7,p27}

The model states there are two sources of information that influence a decision about changing behavior: environmental and intrapersonal. While the environmental source includes verbal persuasion and learning by observing, the intrapersonal encompasses the person's prior experience.

These sources of information influence the five components of the protection motivation theory and result in either an adaptive response—making positive choices to change behavior—or a maladaptive response that results in no change.^{19,p28} Figure 2.3 illustrates how these sources of information influence an individual's health behavior choices.

Skills-based health/SEL education uses the protection motivation theory in planning for successful behavioral change in students. Standard 1, Health Concepts, provides the information needed to persuade a student to think about changing an unhealthy behavior. It offers a framework for learning about the severity and susceptibility of a harmful behavior,^{9,p25} a process that may motivate change. The model may also illustrate that change can occur and be effective.

The SEL competency of self-awareness and Standards 2–8 are the skills needed to develop the confidence to make a change. When one student observes another modeling a healthy behavior, the student initially believes he or she is able to perform the behavior. The student recalls practicing healthy behaviors and this contributes to his or her efficacy in skill building. For students to use skills, the teacher explains why the skill is important and the steps of learning the skill; shows what the skill looks like in action; provides time for the student to practice and show proficiency; and uses formative assessments for feedback and improvement.^{9,p14} Building efficacy for change occurs when a student becomes self-aware and uses self-management, information, and skills to prevail over the unhealthy behavior.

Protection Motivation Theory—Example from Research

In the article, *What to convey in antismoking advertisements for adolescents: The use of protection motivation*

theory to identify effective message themes, the authors revealed that certain advertisement themes increased the adolescents' nonsmoking intentions by enhancing their perceptions that smoking poses severe social disapproval risks.^{24,p1-18}

The seventh and tenth grade students examined advertisements with the following message themes: Disease and Death, Endangers Others, Cosmetics, Smokers' Negative Life Circumstances, Refusal Skills Role Model, and Marketing Tactics. After viewing the advertisements, they completed a survey about how these advertisements affect their intention to smoke.

The Death and Diseases message demonstrated how smokers suffer from serious disease and oftentimes die prematurely. According to the protection motivation theory, the goal was to increase perceptions of health risk severity.^{24,p3}

The Endangers Others message stressed the severe risks of smoking by showing the harmful effects of cigarettes on others and the strong social disapproval that smokers experience from nonsmokers. According to the protection motivation theory, these messages seek to increase the perceived severity of the health and social disapproval risks of smoking.^{24,p4}

The Cosmetics message emphasized that smokers cope with unattractive and annoying side effects of smoking, such as bad breath, smelly clothes, and stained teeth. Researchers found this theme ineffective because the respondents believed they could use various products to counteract the side effects.^{24,p4}

The Smokers' Negative Life Circumstances message portrayed smokers as losers of whom other teens would disapprove because of their smoking. According to the protection motivation theory, this strategy enhances the perception of the severe social disapproval risk by smokers.^{24,p5}

The Marketing Tactics message argued that tobacco firms use powerful marketing devices, such as image advertising, to influence teens to smoke. According to the protection motivation theory, this approach increases adolescents' knowledge of marketing practices in order to increase efficacy to resist them.^{24,p6}

Those researching the protection motivation theory discovered the following:

- The messages of Endangers Others, Refusal Skills Role Model, and Smokers' Negative Life Circumstances increased adolescents' intentions not to smoke by conveying that smoking cigarettes poses severe social disapproval risks (susceptibility portion of the protection motivation theory).
- The Cosmetic message sought to influence social risk severity perceptions but failed because the adolescents believed that they could use breath sprays, toothpaste, or mouthwash to decrease the unpleasant side effects of cigarettes.

- The refusal skills role model did not increase an adolescent's self-efficacy to refuse cigarettes, but was predictive of behavioral intentions not to smoke.
- Adolescents did not indicate that the Disease and Death and the Selling Disease and Death messages contributed to their perception of the severity of disease. Few of the respondents felt vulnerable to the health risks of smoking.
- Marketing Tactics and Selling Disease and Death messages failed to influence the teens' self-efficacy at resisting tobacco marketing tactics and did not contribute to the intention not to smoke.

The researchers found that self-efficacy perceptions had twice as much influence over the adolescents as did the risk of severity. To increase self-efficacy (SEL, self-awareness), the researchers recommend that schools implement a media literacy program that gives students time to examine advertisements and practice refusal skills (Standard 4, Interpersonal Communication; SEL, relationship skills). This approach is consistent with the performance indicators of Standard 2, Analyzing Influences; SEL, self-awareness; Standard 4, Interpersonal Communication; SEL, relationship skills; and Standard 7, Practicing Healthy Behaviors.

The researchers discovered that stressing the severity of long-term health risks is not an effective strategy, whereas emphasizing that teens are highly vulnerable to the health risks of smoking may be a better method. For example, an advertisement shows Courtney explaining how quickly she became addicted to cigarettes and how much she has suffered as a result.

Classroom Application of the Protection Motivation Theory

Steuban High School is located in southern California. Mr. Mascierello, the health teacher, is overwrought about the potential for melanoma because his students are always outdoors and knows that only 10.1% of high school students routinely use sunscreen.¹⁰ After studying various theories of behavior change for his master's degree, he selects the protection motivation theory for his Standard 2 unit, Analyzing Influences, including self-awareness. Standard 1, Health Concepts, includes information on the dangers of sun exposure and the benefits of using sunscreen.

Mr. Mascierello begins the unit by teaching about the dangers of melanoma and proposing ways to reduce or prevent injuries and health problems¹⁶ by using sunscreen. He explains the SPF of sunscreen and models, along with other students who routinely use it, how quick and easy it is to apply.

Mr. Mascierello designed a performance task that directed the students to design a survey with two goals: discover the number of Steuban High School students who use sunscreen vs. those who do not and analyze the influence personal values and beliefs about sunscreen

have on their decision.^{9,p27} Based on that information, the students create an advertisement that influences high school students and makes them more self-aware to use sunscreen. The advertisement explains the five hazards of sun exposure, susceptibility to danger without using sunscreen, ease of application, and how cool it is to use it. The advertisements were displayed throughout the school for 2 weeks.

To support the student efforts, staff received training during a faculty meeting on the benefits of using sunscreen, and the principal asked them to encourage students to wear sunscreen outdoors.

The students conducted the same survey once the advertising campaign ended and discovered that more students used sunscreen after the program than before.

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to the protection motivation theory. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Implement performance tasks that include content and skill.
- Use verbal persuasion, modeling, and a student's prior experience to teach new content and skills.
- Increase student self-awareness and self-efficacy so he or she has the confidence to practice health-enhancing behaviors.

Physical/SEL Education and Physical Activity

- Display posters that promote teens using sunscreen.
- Model the application of sunscreen.

Nutrition and Environment Services

- Display foods that are good for healthy skin.
- Hang posters that show young people being socially aware and enjoying a picnic in the shade of a tree.

Health Services

- Display posters that show students using sunscreen.
- Display posters that encourage students to self-manage and take personal responsibility for their health.

Counseling, Psychological, Social Services

- Encourage students to self-manage and take personal responsibility for their health.

Social and Emotional Climate

- Encourage a social and emotional climate that promotes self-management and supports students using sunscreen.

Physical Environment

- Increase social awareness by developing a school-wide sunscreen campaign.
- Provide sunscreen dispensers and samples of sunscreen for student and faculty use.
- Plant trees for esthetics and shade from the sun.

Employee Wellness

- Provide information and training about the dangers of sun exposure and the role of sunscreen in protecting the skin.
- Be a positive role model by always using sunscreen before going outdoors.

Family Engagement

- Provide parents with information about the importance of applying sunscreen.

Community Involvement

- Ask community businesses to hang posters that encourage teens to use sunscreen.
- Inaugurate a spring festival that includes free sunscreen samples and how to properly apply sunscreen.

THEORY OF PLANNED BEHAVIOR

In 1989, Icek Ajzen, a professor of psychology at the University of Massachusetts, developed the theory of planned behavior. It assumes that people are rational and reasoning determines behavior. The theory supposes that a person's attitudes about a behavior predict whether he or she will engage in it (see **Figure 2.4**). **Ajzen** proposed that

behavior is best established by intention, which, in turn, is determined by attitude toward the behavior (favorable or unfavorable), subjective norm (perception of social pressures to either perform or not perform the behavior), and perceived behavioral control (perception of ease or difficulty in performing the behavior).^{25,p276}

Before Estella arrives at the point where she intends to change, three factors will influence her decision: her attitude toward the change, the subjective norms of friends and family, and whether or not Estella believes she has control over the process and outcome.²⁶

Her attitude toward the change depends on whether she believes the outcome of the change will result in what she wants to happen.²⁶ If Estella is trying to lose weight, she must believe that eating healthy and exercising results in weight loss. She must also believe that when she evaluates the potential outcome, the results will be positive. For example, losing weight will result in her looking and feeling healthy.

Another factor that influences Estella's intention to change is how subjective norms affect her decision making and how much she feels she must comply with them.²⁶ Estella may have health-conscious friends and family whom she respects and admires. If she believes that they want her to lose weight, the influence of those norms will affect her decision to eat healthy and exercise more.

The third factor that influences Estella's intent to change is her perceived control of the behavior change. Estella must feel that she is capable of making the desired change and that, if made, the result will be what she intended.²⁶ For Estella to eat healthy and establish how much exercise she needs to lose weight, she must first learn about nutrition and exercise. Going to MyPlate.gov and completing the Super Tracker²⁷ helps Estella make a self-assessment that serves as the foundation for examining her eating habits and level of exercise. The Super Tracker makes suggestions to improve diet and adjust exercise. Having the knowledge of how to make the change and the self-management skills to do it empowers Estella by increasing her self-awareness and self-efficacy to complete the task successfully.

Skills-based health/SEL educators use this theory when planning health instruction. Standard 1, Health Concepts,

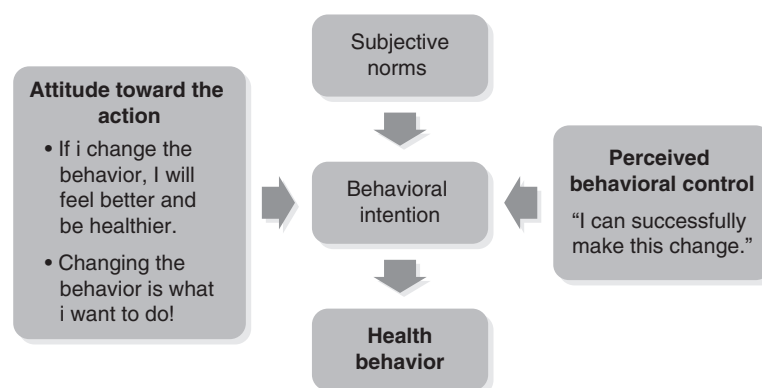


FIGURE 2.4 Theory of Planned Behavior

provides the framework for predicting how healthy behaviors affect health status^{9,p25} and ensures that the results, such as losing weight and increasing exercise, are desirable.

The health/SEL teacher effectively uses social awareness and social norms^{9,p27} to demonstrate that many students do not engage in risky behaviors and that nonparticipants are in the majority. In addition, using social norms helps students understand that the people who care about them support a change in their behavior. These factors help Estella increase her behavioral intent and efficacy to change.

The health/SEL educator then infuses the content into Standards 2–8 so students have the skills and knowledge to change.

Theory of Planned Behavior—Example from Research

Dilek Sultan Acarli and Melek Yaman Kasap researched the smoking behavior of Turkish students using the theory of planned behavior. They determined that students with a positive attitude toward smoking were most likely to smoke and would do so regardless of the complications. Subjective norm and perceived behavior control followed precipitously. Subjective norm had a weak effect on intention to smoke because students did not behave according to parent expectations or the social environment. They believe their own decisions were more effective. Perceived behavior control had the least influence on smoking behavior because cigarettes were easily accessible. Students with a negative attitude toward smoking were unlikely to become smokers. To increase knowledge and have an impact on attitude, the researchers suggest engaging the media in an antismoking campaign and designing experiments that demonstrate the negative effects of smoking on health.^{28,pp178–179}

The 2004 research conducted by Nada O. Kassem from Loma Linda University, and Jerry W. Lee, identified factors that influenced regular soda consumption by North Los Angeles County male high school students, aged 13–18. They used the theory of planned behavior to predict the intention to drink soft drinks in the future among a population that already did. Through a survey, Kassem and Lee learned that attitude, subjective norms, and perceived behavioral control were significant predictors of intention to drink regular soda.^{25,p273}

Three facts predicted attitudes toward drinking soft drinks. The students reported they enjoyed the taste of the drink, believed it quenched their thirst, and thought it was not unhealthy.

The most independent predicting factor of subjective norm was the parent. This influence is not surprising, considering the parent provides available food, acts a role model, and contributes to the frequency of eating out where soda is often part of the meal. Friends, teachers, coaches, doctors, and fast-food restaurant owners are influential to a lesser extent.^{25,p290}

The strongest predictor of perceived behavioral control was the availability of regular soda at home. Students reported that having ready access to soda made drinking it easy. The second predictor was their seeing advertisements that encourage drinking soda. Students reported that they have access to many advertisements that encourage soda consumption.^{9,p291}

Both research studies used theory to predict behavior. Absent were the skills to make a behavior change. To affect a change in attitude toward smoking or drinking soda, health/SEL educators utilize Standard 1 to explain the consequences of use on health. To assist the Turkish students in the Arcarli and Kasap research, the implementation of a Standard 2 unit may impact a change in attitude by increasing self-awareness of how the family, peers, culture, media, and technology influence health behaviors. Standard 7, practicing healthy behaviors unit, provides the self-management framework for smoking cessation and for the children in the Kassem research, a unit that concentrates on substituting soda with a healthier, low-calorie drink and determining whether the change results in a decrease in weight. This tactic provides knowledge and skill to quit smoking and how to change beverage choices.

To affect a change in subjective norms in the Kassem research, parents and friends support a change that substitutes drinking soda for a lower calorie, healthier drink. Doing so encourages the student to change because the people who care about him or her want it.

For the student to perceive that change is possible, the student needs knowledge and skill to choose healthier drinks and the will power to do so. Once the student becomes self-aware, self-efficacy is increased and the student believes he or she can alter the behavior, he or she will try.

Classroom Application of the Theory of Planned Behavior

Mr. Donellen is concerned about the body Mass index (BMI) report he received from the nurse during the coordinated school health meeting. The nurse informed the group that, according to the CDC, 77.7% of high school students drank a can, bottle, or glass of soda or pop at least one time during the 7 days prior to the YRBS.¹⁰ The nurse explained the negative effects soda has on health and asked the group to think of what the school could do to help students decrease consumption.

In planning his Standard 5, Responsible Decision Making, unit, Mr. Donellen challenged his students to make good decisions about healthy eating. He developed a performance task that asked students to help a friend who had a moderately overweight BMI, did not exercise much, and drank a lot of soda. The challenge was to help the friend make healthy choices about exercise, food, and drinks.

Mr. Donellen explained that for anyone to make a change in behavior, three elements must be present. Their classmate, Vaniece, for example, would need a positive

attitude, a belief she can change, and a recognition that people who care about her want her to change.

The students apply Standard 1, which describes the relationship between healthy behaviors and personal health^{9,p24} by explaining BMI and food input vs. energy output, and providing examples of healthy drinks. The students utilize Standard 5, Responsible Decision Making, to identify the problem, brainstorm healthy alternatives, predict the outcome of each solution, make a healthy choice, and reflect on the result.^{9,pp32–33} In addition, students tell a story about a young person who readied himself to make a behavior change to improve diet and exercise by addressing the three theory of planned behavior elements.

At the next WSCC school health team meeting, the group planned the foyer exhibits for the spring Open House. The exhibits highlighted ways to improve family wellness such as quick, healthy meals; family fun exercises; portion sizes for children and adults; and healthy snacks.

Mr. Donellen brought examples of the students' projects to the meeting. Knowing that parents are a powerful influence over the food choices available to their children, the team asked the class to present their projects in the school foyer during Open House. Parents enjoyed learning about the responsible decision-making model and reading the student stories about behavior change. A few students role-played their stories and were a big hit with the parents!

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to the theory of planned behavior. The following examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Teach information about the health effects of drinking soda (Standard 1, Health Concepts) and the skills to make healthier choices (Standard 5, Decision Making; SEL, responsible decision making) as well as analyzing media messages (Standard 2, Analyzing Influences; SEL, self-awareness) about soda consumption.
- Introduce a variety of drinks that taste good and are healthy.
- Use Standard 8; SEL, relationship skills, to teach students how to advocate for healthier drink choices.

Physical/SEL Education and Physical Activity

- Teach students how to self-manage by hydrating and emphasizing that drinking soda furthers dehydration in thirsty people.^{25,p290}

Nutrition and Environment Services

- Make delicious and healthy drinks available.
- Post the nutritive value of different types of drinks.

Health Services

- Provide information about the hazards of drinking soda and ways to decrease consumption.
- Talk to students about self-management and the health effects of drinking soda, including weight gain and dental caries.

Counseling, Psychological, and Social Services

- Provide information about healthy eating and the effects of drinking soda.
- Stock the vending machines with healthy drinks.
- Promote physical activity and healthy eating.

Social and Emotional Climate

- Encourage a social and emotional climate that supports healthy drink choices.
- Encourage a social and emotional climate where drinking healthy beverages is the norm.

Health Promotion for Staff

- Encourage staff to model use of thirst-quenching healthy drinks.

Family Engagement

- Solicit family members to donate healthy drinks to the school.
- Encourage parents to adopt healthy eating behaviors by providing parent education programs that teach knowledge and skills for healthy eating.

Community Involvement

- Solicit community members to donate healthy drinks to the school.
- Lobby community organizers to provide healthy drinks during community events.
- Advocate the local media to decrease their promotion of soda and increase the promotion of healthier drinks.

SOCIAL COGNITIVE THEORY

The social cognitive theory developed by Albert Bandura, professor at Stanford University, proposes that the social environment (vicarious experiences, personal accomplishment, verbal persuasion, goal setting, barriers, supports, and outcome expectancies), behaviors, and cognition (values, perceptions, beliefs, expectations, emotional arousal, and self-efficacy)

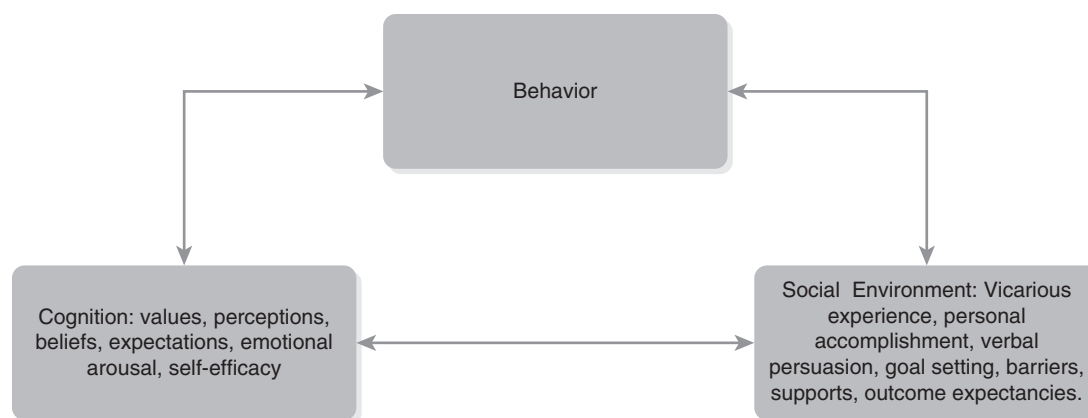


FIGURE 2.5 Social Cognitive Theory

Data from Donnatelle, R. J. (2012). *Access to Health*. San Francisco, CA: Pearson.

interact to promote and motivate change. Changes in the social environment and the cognitive world cause changes in behavior and conversely, behavior causes changes in the social environment and cognitive world (see **Figure 2.5**).

According to this theory, behavior change occurs because a person—in this case Kevin—believes he is able to change an unhealthy behavior. His self-efficacy is enhanced by personal accomplishment/mastery, vicarious experience, verbal persuasion, and emotional arousal.

Although personal accomplishment/mastery is the greatest source of self-efficacy, Kevin must believe that he is responsible for the accomplishment and is able to repeat it.^{29,p129} Vicarious experience occurs when we believe we are able to complete a difficult task because we observed someone else, like ourselves, succeed. Our efficacy is also enhanced through verbal persuasion, when respected others assure us that we are able to perform a certain task. Emotional arousal influences efficacy when Kevin confronts a situation and determines he has the skills to resolve it.^{29,p130}

Self-efficacy influences all components of the social cognitive theory and has a powerful effect on behavior. Without self-efficacy, Kevin does not meet his goal or make behavioral changes. With high self-efficacy, he has confidence to face challenges and believes he has the skills to cause a favorable outcome. Self-efficacy is also associated with better social integration and a strong sense of being able to cope with life's challenges. Low self-efficacy is associated with depression, apprehension, or helplessness.^{29,p128}

The other key component of the theory is outcome expectancies, or what people expect to happen as a result of the action they take. Kevin uses this component to decide if he can set a realistic goal for behavior change. If he expects success, Kevin will continue; if not, the process ends.

Outcome expectancies have three dimensions: area of consequences, positive or negative consequences, and short- or long-term consequences. Area of consequences includes physical outcomes, such as withdrawal when quitting smoking; social outcomes, such as family

members and friends being proud of the quit attempt; and self-evaluative outcomes that occur when the person anticipates experiences related to the behavior change—being uncomfortable with friends who continue to smoke, for example.^{29,p131}

Goal setting is central to the social cognitive theory. Goal setting affects a person's self-efficacy and ability to reach the goal, and whether he or she thinks the pros and cons of completing it are worth the effort. As mentioned earlier, outcome expectancy is crucial to changing, and self-efficacy is vital to completing change. However, even though setting a goal is a predictor of behavior change, it is not a guarantee that the goal will actually be reached.

Socio-structural factors are the conditions in Kevin's life that act as barriers or supports to reaching his goal. A person with high self-efficacy recognizes opportunities to overcome barriers to reach a goal, whereas someone with low self-efficacy may be unable.^{29,p132}

Skills-based health/SEL education augments self-efficacy by increasing knowledge about health promotion and disease prevention, teaching life skills that enhance self-efficacy and personal health. PreK–12 skill development provides students with personal accomplishment, vicarious experience, verbal persuasion from the teacher to perform and demonstrate proficiency, and emotional arousal to act in a health-enhancing manner. Students learn to weigh the consequences of their actions when participating in responsible decision making and set goals that enhance their health when practicing self-management. Through performance tasks and age-appropriate prompts, they learn how to use knowledge and skills to help others and themselves change an unhealthy behavior.

The Social Cognitive Learning Theory—Example from Research

Kimberly Rinderknecht and Chery Smith used the social cognitive theory to demonstrate that a nutrition intervention

program implemented for 7 months during an after-school program was an effective way to improve the dietary self-efficacy of urban Native American children, aged 5–10, and adolescents, aged 11–18. Data was gathered by administering a pre- and posttest designed and approved by the University of Minnesota's Institutional Review Board for Human Subjects.^{30,p299}

The intervention was based on the constructs of the social cognitive theory: performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. One 30- to 60-minute lesson was taught each month. Self-efficacy was improved by exposing the children and adolescents to healthier foods, giving them the opportunity to choose such foods, discussing how to maintain an energy balance of food intake vs. energy output, and conducting learning activities with peer groups that included modeling.

Researchers and after-school staff reviewed lessons and provided verbal reinforcements and practice to the participants regarding how to choose healthier foods when in a different environment, such as a fast-food restaurant. By focusing on personal and environmental factors, the researchers hypothesized that the participants would improve their dietary self-efficacy and selected dietary behaviors.^{30,p300}

The results showed that children were open to a program that helped them with their weight. The dietary self-efficacy of the 5- to 10-year-old boys and girls in the study increased, and the overweight 5- to 10-year-old children significantly improved their dietary self-efficacy as compared to their normal-weight and at-risk overweight peers. The self-efficacy of the 11- to 18-year-old adolescents did not significantly increase. Their lack of progress may have been influenced by verbal persuasion and decreasing peer support for healthful eating.^{30,p302}

This study links strongly with the National Standards and SEL competencies. Rinderknecht and Smith used Standard 1, Health Concepts, when they taught the relationship between healthy eating and personal health,^{9,pp24–25} such as maintaining an energy balance. They incorporated Standard 2 (Analyzing the Influence of Family, Peers, Culture, Media, Technology and SEL, self-awareness) when they influenced the students by modeling healthy behaviors,^{9,pp26–27} Standard 5 (Responsible Decision Making) when teaching how to choose healthy foods,^{9,pp32–33} Standard 7 (Practicing Healthy Behaviors; SEL, self-management) when demonstrating healthy practices^{9,p35} when eating out with others at fast-food restaurants, and Standard 4 (Interpersonal Communication; SEL, relationship skills) when teaching how to refuse unhealthy foods and communicate needs.^{9,pp30–31}

Classroom Application of the Social Cognitive Theory

Ms. Bloom, a high school health teacher, is apprehensive about beginning her cardiopulmonary resuscitation (CPR)

unit in the Standard 7, Practicing Healthy Behaviors unit. Before class, she asked her students how many of them would give CPR, if they knew how. Only a few students said they would. The rest said they would be afraid or thought it was gross. She needed a way to change their attitudes.

She knew her students would be curious but intimidated by the mannequins. To address this concern, she lined the mannequins up in front of the classroom and held one in her arms as the students entered. As they passed, Ms. Bloom used her ventriloquist skills to have the mannequin welcome the students. When all were in class, she allowed them to examine the mannequins by tilting the head and compressing the chest. In this way, she increased student efficacy.

Ms. Bloom began her unit by predicting how healthy behaviors, such as knowing how to administer CPR, affects health status.^{9,p25} She explained the function of the heart, lungs, and circulatory system. When students demonstrated confidence in that knowledge, she read them a scenario (emotional arousal) about a teen who had collapsed on the athletic field. She challenged them to analyze the role of individual responsibility in enhancing health^{9,p35} by assessing the pulse and breathing of the injured person and administering CPR. She modeled the procedure so students could observe how to perform the skill.

She placed mats on the floor, lined up eight mannequins, and directed one row of students to the front of the room while others worked on CPR assignments. She taught the class how to clean the mannequin face with isopropyl alcohol and place their face masks over the mouth to offset any fear of contamination. Ms. Bloom then talked the students through performing each step of CPR. They practiced repeatedly until they were ready to demonstrate the skill. On cue, the students performed the skill from assessing pulse and breathing to a reassessment after compressions. In time, the students embraced the unit and enjoyed the final assessment where they read different prompts and responded appropriately.

Ms. Bloom successfully used the social cognitive theory in planning and implementing this unit. She increased the self-awareness and self-efficacy of her students through personal mastery, vicarious experience, verbal persuasion, and emotional arousal. She persuaded them that they were able to accomplish the challenge (SEL, self-awareness) and that the outcomes would be positive. Mrs. Bloom helped students overcome any impediments they had toward working with the mannequins to reach the goal of being competent in performing CPR. She also changed their behavior from not wanting to learn the unit skills to being eager to demonstrate them.

Implications for the WSCC School Health Team

Individual members of the WSCC health team contribute activities to the social cognitive theory. The following

examples illustrate how the theory, along with the specialized expertise of each team member, is applied in coordinating policy, process, and practice while improving learning and health.

Health/SEL Education

- Plan and implement skills-based health/SEL education to increase the self-efficacy of students.
- Model skills to students so they see how they are completed and visualize themselves performing them.
- Encourage student performance by increasing self-awareness and assuring them they can perform a skill.
- Provide prompts that are personal and evoke an emotional arousal.
- Use information from valid and reliable sources to explain the positive consequences of performing CPR.
- Provide positive feedback when students have completed the skill.

Physical/SEL Education and Physical Activity

- Display posters showing how to give CPR.

Nutrition and Environment Services

- Provide heart-healthy food choices.

Health Services

- Train staff to perform CPR skills.

Counseling, Psychological, and Social Services

- Increase student self-awareness and efficacy by congratulating them on completing their CPR training.

Social and Emotional Climate

- Encourage a social and emotional self-management climate that encourages and supports students to learn new skills.

Physical Environment

- Provide defibrillators throughout the school.
- Display posters illustrating heart-healthy self-management practices.
- Display posters showing teens performing CPR.
- Broadcast PSAs that promote heart health.

Employee Wellness

- Provide CPR training.
- Provide defibrillator training.

Family Engagement

- Invite parents to view students completing their final assessment in CPR.
- Organize a parent program where students demonstrate CPR skills.
- Provide CPR training for parents.

Community Involvement

- Provide CPR training for community members.
- Encourage community businesses and restaurants to purchase defibrillators and train their employees.

Review Questions

1. Why is it important to use theories of behavior change in planning skills-based health/SEL education?
2. Describe how health/SEL educators help students improve their self-efficacy?
3. Why do humans like to attribute behavior?
4. Describe how a health/SEL educator helps a student develop an internal locus of control?
5. What is the value of students completing self-assessments?
6. Develop a teen smoking cessation program using the trans-theoretical model of behavior. (**Worksheet 2.3, Trans-Theoretical Model—Teen Smoking Cessation Program**)
7. What classroom strategies, consistent with the health belief model, do health/SEL educators use to help students change an unhealthy behavior?
8. Using the protection motivation theory, develop a plan to reduce marijuana use among students. (**Worksheet 2.4, Protection Motivation Theory—A Plan to Reduce Marijuana Use Among Students**)
9. Using the theory of planned behavior, develop a plan to decrease dating violence. (**Worksheet 2.5, Theory of Planned Behavior—Decrease Dating Violence**)
10. Use the social cognitive theory to target and reduce a risk factor. (**Worksheet 2.6, Social Cognitive Theory to Reduce a Risk Factor**)

References

1. Gilbert, G. G., Sawyer, R. G., & McNeill, E. B. (2000). *Health Education Creating Strategies for School & Community Health*. Burlington, VT: Jones & Bartlett Learning.
2. Bandura, A. (1994). Self-efficacy. In V. S. Ramachandran (Ed.), *Encyclopedia of Human Behavior* (Vol. 4, pp. 71–81). New York: Academic Press.

3. CASEL. (2017, September 24). *Social Emotional Learning, Competencies*. Retrieved from CASEL: <http://www.casel.org/wp-content/uploads/2017/01/Competencies.pdf>
4. New World Encyclopedia. (2016, January 25). *Fritz Heider*. Retrieved from New World Encyclopedia: http://www.newworldencyclopedia.org/entry/Fritz_Heider
5. Raven, B. H. (2016, January 25). *In Memoriam*. Retrieved from the University of California: <http://senate.universityofcalifornia.edu/inmemoriam/HaroldH.Kelley.htm>
6. Ogden, J. (2012). *Health Psychology*. (5th ed.). Boston, MA: McGraw-Hill Open University Press.
7. The Brain Power Program. (2009, June 6). *The Brain Power Program*. Retrieved from The Brain Power Program: <http://brainpowerprogram.com/index-1.html.p2>
8. Hudley, C. G., Graham, S., & Taylor, A. (2007). Reducing aggressive behavior and increasing motivation in school: The evolution of an intervention to strengthen school adjustment. *Educational Psychologist*, 252.
9. Joint Committee on National Health Education Standards. (2007). *National Health Education Standards, Second Edition, Achieving Excellence*. Atlanta, GA: American Cancer Society.
10. Centers for Disease Control and Prevention. (2016, January 22). *Youth Risk Behavior Surveillance System (YRBSS)*. Retrieved from Centers for Disease Control and Prevention: <http://www.cdc.gov/healthyyouth/data/yrbs/index.htm>
11. Insel, P. M. (2008). *Core Concepts in Health*. New York: McGraw Hill.
12. Donatelle, R. J. (2012). *Access to Health*. San Francisco: Pearson.
13. Malcarne, V. L., Drahota, A., & Hamilton, N. A. (2005). Children's health-related locus of control beliefs: Ethnicity, gender, and family income. *Children's Health Care*, 34 (1), 47–59.
14. Weinstein, N. D., Marcus, S. E., & Moser, R. P. (2005). Smokers' unrealistic optimism about their risk. *Tobacco Control*, 14(1), 55–59.
15. Sjoberg, L., Holm, L.-E., Ullen, H., & Brandberg, Y. (2004). Tanning and risk perception in adolescents. *Health, Risk & Society*, 6(1), 81–94.
16. Centers for Disease Control and Prevention. (2014, June 13). *Youth Risk Behavior Surveillance—United States, 2013*. Retrieved from CDC: https://www.cdc.gov/mmwr/pdf/ss/ss6304.pdf?utm_source=youth.gov&utm_medium=Feature-Article&utm_campaign=2013YRBSS
17. Prochaska, J. O. (2009, June 23). *PhD Thesis*. Retrieved from Johns Hopkins University: <http://innovatorsawards.org/innovators>
18. Hahn, D., Payne, W., & Lucas, E. (2009). *Focus on Health*. (9th ed.). New York: McGraw-Hill.
19. Ogden, J. (2004). *Health Psychology*. New York: McGraw-Hill.
20. Evers, K. E., Paiva, A. L., Johnson, J. L., Cummins, C. O., Prochaska, J. O., Prochaska, J. M., Padula, J., & Gökbayrak, N. S. (2012). Results of a transtheoretical model-based alcohol, tobacco and other drug intervention in middle schools. *Addictive Behaviors*, 37(9), 1009–1018.
21. Pingree, S., Boberg, E., Patten, C., Offord, K., Gaie, M., Schensky, A., . . . Ahluwalia, J. (2004). Helping adolescents quit smoking: A needs assessment of current and former teen smokers. *Health Communications*, 16(2), 185–194.
22. Ellickson, P. L. (2014). You've shown the program model is effective. Now what? *New Directions for Youth Development*, 95–105.
23. Ellickson, P. L., McCaffrey, D. F., Ghosh-Dastidar, B., & Longshore, D. L. (2003). New inroads in preventing adolescent drug use: Results from a large-scale trial of Project ALERT in middle schools. *American Journal of Public Health*, 93(11), 1830–1836.
24. Pechmann, C., Zhao, G., Goldberg, M. E., & Reibling, E. T. (2003). What to convey in antismoking advertisements for adolescents: The use of protection motivation theory to identify effective message themes. *Journal of Marketing*, 67(2), 1–18.
25. Kassem, N. O., & Lee, J. W. (2004). Understanding soft drink consumption among male adolescents using the theory of planned behavior. *Journal of Behavioral Medicine*, 27 (3), 273–296.
26. Taylor, S. E. (2006). *Health Psychology*. Boston, MA: McGraw Hill.
27. United States Department of Agriculture. (2016, January 30). *My Foods, My Fitness, My Health*. Retrieved from SuperTracker: <https://www.supertracker.usda.gov/>
28. Acarli, D. S., & Kasap, M. Y. (2015). Explanation of high school students' smoking behavior: A structural equation model approach with the theory of planned behavior. *Journal of Baltic Science Education*, 14(2), 172–182.
29. Conner, M. N. (2005). *Predicting Healthy Behavior*. (2nd ed.) Boston MA: McGraw-Hill.
30. Rinderknecht, K., & Smith, C. (2004). Social cognitive theory in an after-school nutrition intervention for urban native american youth. *Journal of Nutrition Education and Behavior*, 36(6), 298–304.
31. CASEL. (2017, November 10). *Core SEL Competencies*. Retrieved from CASEL: <http://www.casel.org/core-competencies/>
32. Vanderbilt. (2016, January 25). *Form A*. Retrieved from Vanderbilt: <http://www.nursing.vanderbilt.edu/faculty/kwallston/mhlcforma.htm>