

**ADOLESCENT, PARENT, AND NURSE PRACTITIONER CONTRACT FOR
BEHAVIORAL CHANGE: A BOOKLET TO GUIDE THE PROCESS**

by

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of the requirements for the degree**

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ABSTRACT

Many of the unhealthy behaviors which adults practice begin in adolescence. Reducing adolescent risk behavior increases the health of adolescents and the adults they become. Assisting adolescents to change health habits is one of the most difficult challenges for nurse practitioners. The Transtheoretical Model of change explains the process of changing unhealthy behaviors for health promoting habits. This model served as the framework for this project in developing a contracting booklet that could initiate the process of change in adolescents.

Literature was reviewed for behavior modification methods that have been useful in adolescent behavior change. The literature also provided information useful in the contracting process, developing booklets in the areas of visual appeal, readability, and organization.

A contracting booklet was developed to be used by an adolescent, parent, and nurse practitioner in initiating behavior change. The booklet was written at the fifth grade reading level with clip art appealing to the adolescent. A guide for using the booklet was also developed. A panel consisting of a family nurse practitioner, pediatric nurse practitioner, three parents, and three adolescents evaluated the booklet for visual appeal, readability, ease of following steps, logical order, perceived usefulness, and perceived personal use. The booklet was judged positively for visual appeal and readability but its usefulness in a nurse practitioner practice is undecided. The booklet will need to be revised and piloted further to determine usefulness.

CHAPTER 1

PROBLEM STATEMENT

In an ideal world, adolescents and their families would adopt health-promoting behaviors and eliminate health-damaging behaviors. This would significantly decrease the amount of mortality and morbidity due to such behaviors as tobacco use, physical inactivity, unhealthy dietary practices, alcohol and drug abuse, and unsafe sexual practices. Changing undesirable behaviors and replacing them with health generating behaviors is a difficult task. Many detrimental health behaviors are developed over decades, and some may be passed from generation to generation through the family's socialization of the child. Unfortunately, risk behaviors closely associated with the most common causes of death in adulthood are often begun in adolescence (Center for Disease Control [CDC], 1997).

The purpose of this project was to create a booklet that guides the adolescent, parent, and nurse practitioner in creating a contingency contract for changing behaviors that place the adolescent's health at risk. The contracting process in the booklet included:

- Defining the roles of the adolescent, family, and the nurse practitioner in the contract.

- Choosing a behavior to change.
- Assessing readiness to change.
- Developing goals and a plan to achieve goals.
- Determining rewards for accomplishing goals.
- Evaluating the effectiveness of the plan.

The contracting booklet could be applied to a variety of adolescent behavior changes including poor school performance, drug and alcohol use, tobacco use, acting out behavior, abstinence, exercise, nutrition, and medication regimes. This project presented adolescent obesity as a model for application of the contracting booklet.

Background of Problem and Significance

If knowledge of health promoting behavior were directly related to action, then health professionals would be some of the healthiest people in the nation. This of course is not true. Both health professionals and parents tend to select health behaviors based on the easiest choice available (Milio, 1976). These choices are not always the healthiest. Adolescents also tend to make unhealthy behavior choices, modeling habits of adults and risky behaviors of their peers. The pressure to engage in risky behavior is strongest during the eighth grade (Burns, Barber, Brady, & Dunn, 1996).

Health challenges for youth today are different from those of the past. Advances in vaccines and medications have virtually eliminated many of the infectious diseases that cut short the lives of yesteryear's youth. Instead, the

youth of today are bombarded with messages of sex, violence, drugs, and indulgence. What has not changed is that the health of adolescents and the adults they become is linked to the health behaviors they choose. A limited number of detrimental health behaviors, which are often established during youth, contribute to serious health problems. These behaviors include:

- Tobacco use.
- Unhealthy dietary behaviors.
- Inadequate physical activity.
- Alcohol and other drug use.
- Sexual behaviors that can result in sexually transmitted disease and/or unintended pregnancy.
- Behaviors that may result in intentional or unintentional injuries.

Adolescence is a period of risk-taking and experimentation. Risk-taking behavior in adolescence is inherent as adolescents move from the dependence on their parents and caregivers to become an independent entity (Burns et al., 1996; Murray & Zentner, 1997).

Many of the habits that adolescents develop have an immediate effect on their mortality and morbidity. Three of these are behaviors which result in intentional and unintentional injuries, alcohol and other drug use, and sexual behaviors. These behaviors are directly related to the four leading causes of death in 5 to 24 year-olds: motor vehicle accidents, homicide, suicide, and other accidental injuries such as falls, fires and drowning. However, some habits or

risk behaviors such as tobacco use, poor dietary patterns, and physical inactivity have long term health consequences. Sixty-seven percent of all deaths among adults 25 years of age or older result from cardiovascular disease and cancer which can be directly related to these health behaviors (Center for Disease Control [CDC], 1997). It is therefore essential that health-promoting behaviors be established before or during adolescence. This project was designed to provide a tool and process to guide parents and nurse practitioners in contracting with adolescents to facilitate healthy behavior change.

Theoretical Framework

The problem becomes one of making the healthier choices easier, and the more health damaging choices harder (Milio, 1976). This is not an easy task in adolescence. Many of the health behaviors adolescents choose to adopt are shaped by the environment in which they live or by their peers. Learning health-promoting behavior is not enough to motivate adolescents to change. Insight into how people change can be beneficial in assisting the process of change. The Transtheoretical Model is one method of explaining how these changes occur.

The Transtheoretical Model

The Transtheoretical Model seeks to describe the underlying processes that are common to all types of change (Prochaska & DiClemente, 1983). This model has been used most commonly to study health-related behaviors and health promotion behavior. It consists of six theoretical stages which are

important in understanding change: precontemplation, contemplation, preparation, action, maintenance, and relapse. The model, discussed in chapter two, also involves nine processes of change that are used by self-changers in the various stages.

Health promotion focuses on moving the individual from precontemplation of health promoting activities to contemplation and then to action. Nurse practitioners are committed to health promotion and disease prevention. It is the role of the nurse practitioner at each visit to “ask, advise, assist, and arrange” (Agency for Health Care Policy and Research [AHCPR], 1996). This includes identifying risk behaviors, asking the client about risk behaviors at each visit, advising changing their behavior, assisting the client in developing a plan of action, arranging support and motivation, and evaluating the plan while making necessary changes over time. Asking the client about their risk behaviors at each visit reinforces the helping relationship between the nurse practitioner and the client. Clients should be educated and supported through the stages of change due to the fact that adopting new health behavior may require several attempts and failures (Prochaska, 1991; Prochaska, Norcross & DiClemente, 1994).

Presenting health promotion information to adolescents, regardless of their stage of change, is part of the responsibility of nurse practitioners (Malat, 1998). However, health care providers have only short-term impact on the lives of adolescents because of limited exposure. Parents teach a majority of the

health promotion behaviors for adolescents through role modeling while peers teach many risk behaviors. An example of one such health risk is adolescent obesity. Many of the nutritional behaviors embraced by adolescents are modeled by adults and reinforced by peers through the pressure to be thin or eat certain types of foods (Epstein, Valoski, Wing & McCurley, 1994; Keller & Stevens, 1996; Whitaker, Wright, Pepe, Seidel & Dietz, 1997).

Obesity in Adolescents

Indications are that the current generation of children will grow into the most obese generation of adults in US history (National Institutes of Health [NIH], 1991; Schonfeld-Warden & Warden, 1997). With the poor success rate of weight reduction in adulthood, initiating healthy nutritional and physical fitness habits in adolescence becomes even more important and cost effective. Diet pills, menu plans, and exercise routines alone have not been able to curb the current increase in obesity and with the growth needs of adolescents, some weight loss methods can be detrimental (Division of Adolescent and School Health [DASH], 1996).

Government health goals for the year 2000 call for the incidence of obesity among adolescents to be no more than twenty percent (CDC, 1994). Current diet programs, exercise regimes, celebrity programs and books, and obesity research have fallen short of preventing an increase in obesity, let alone decreasing the incidence. Obesity among children and adolescents continues to grow as a nutritional health problem in the United States. Once established,

childhood and adolescent obesity become resistant to treatment and are likely to be followed by obesity in adulthood (Dietz, 1997).

Obesity has been recognized as a major contributing factor in many physical diseases of childhood and adulthood and can have devastating psychosocial consequences (Dietz, 1997; Gidding, Leibel, Daniels, Rosenbaum, Van Horn & Marx, 1996). Parents with children at risk for developing obesity are often told their child needs to lose weight, but are given very little information or guidance on how to improve their child's nutritional habits and behaviors. A complete change of an adolescent's and family's eating and exercise habits can be overwhelming. With the abundance of printed, audio, and video material available on dieting and nutrition, families as well as professionals and educators can be confused about how to help adolescents change eating habits while maintaining adequate nutrition.

Nurse Practitioner Role

The nurse practitioner's holistic and wellness approach is well suited to assume the preventative or therapeutic role in the long-term management of many habits detrimental to health which have beginnings in adolescence. Opportunities can be captured at each visit to assess the risk behaviors of adolescents and assist them and their families in the initiation of changes to promote health. Adolescents in the precontemplation stage of change who may have no intention of changing their behavior can be coaxed gently and gradually

toward contemplation of behavior change. Education presented at each visit raises the consciousness of the precontemplative adolescent to become more aware of the problem and the potential health consequences. Adolescents can be screened for a variety of risk behaviors and health problems and then advised to change or replace these behaviors with health promoting behaviors, gradually moving the adolescent from precontemplation to contemplation and then preparation (Malat, 1998; Prochaska et al., 1994).

The nurse practitioner's role includes health promotion activities. One of the aspects of health promotion is the primary prevention of disease. Primary prevention initiates health care before disease has begun, cutting costs and reducing pain and suffering (Burns et al., 1996). Working with clients who have developed chronic health problems has few rewards, is time consuming, costly, and discouraging. Improvements in health are slow or non-existent at times with the present level of functioning maintained at best.

Nurse practitioners must seize every opportunity to keep "tapping" on the shoulder of their clients to move them on to action to alter unhealthy habits and replace them with beneficial behaviors, thus preventing the development and progression of chronic disease. Moving the precontemplator on to contemplation must be done gently, without nagging. Because the precontemplator is virtually powerless to change without assistance, the nurse practitioner can be essential in providing the helping relationship, furnishing acceptance, honesty, and patience (Malat, 1998; Prochaska et al., 1994).

Nurse practitioners realize that effective intervention plans for adolescents include families, especially parents. Families teach adolescents about the values and the expectations of society. Adolescents are likely to model the lifestyles and habits of the adults in their family. In this way, unhealthy behaviors continue to propagate into the next generation as the adolescent becomes an adult. In the example of obesity, overweight parents tend to be less active and have less active children. They also provide reinforcement for poor dietary habits and food choices. A family centered approach to change to a healthy diet and engage in physical activity tends to be more successful (Coyne, 1996; Epstein, 1996).

The nurse practitioner's family wellness emphasis can assist families with changes in risk behaviors. A wellness approach can improve the health not only of the adolescent but the entire family. Because of a comprehensive knowledge base, the nurse practitioner is able to respond to parenting issues as well as health questions. Nurse practitioners can assess support systems, implement behavioral modification techniques, treat health problems, and make referrals as necessary (Malat, 1998).

Another role for the nurse practitioner is the referral of behavior patterns that are not amenable to simple behavioral techniques. Problems such as abuse, family chaos or divorce, attention deficit disorder, developmental delays, or a conduct or defiant disorder are out of the nurse practitioner's scope of practice. These problems require professional assessment, referral to

specialists, and intensive intervention. Nurse practitioners evaluate these problems, prescribe and monitor medications, refer when necessary, coordinate services, continue primary care of the adolescent, and provide support for the family (Novak, 1996).

The Transtheoretical Model can provide structure for the process and stages of the behavioral changes the nurse practitioner initiates. The nurse practitioner's role is to assess the current stage of change, develop and implement a plan of action, evaluate the plan, and revise as needed. Specific processes of change that will bring the adolescent to contemplation of behavior change and eventually action are consciousness raising and helping relationships. Consciousness raising comes from assisting the adolescent to recognize defenses to changing behavior, continuing education, and promoting goal setting or preparation to change. In developing a helping relationship with the adolescent, the nurse practitioner determines activities that will support the adolescent's decision to act on behavior change (Prochaska & DiClemente, 1983; Prochaska et al., 1994).

The nurse practitioner can also encourage the adolescent that behavior change does not usually take place quickly in a linear manner. Several attempts may be needed before success is achieved. Relapsing, or "recycling" is not seen as failure, but viewed instead as a learning process that is an integral part of change (Prochaska et al., 1994). The nurse practitioner acts as a guide and

supporter as the adolescent passes through behavior changes in the journey toward a healthy life.

Summary

Health behavior habits established in youth play a significant role in the major causes of mortality and morbidity in adolescents and adults. The National Center for Disease Control (1996) has identified the health of adolescents as one of its highest priorities. Nurse practitioners need to be aware of the risk factors and problems associated with adolescent risk behaviors. Many of the health risk behaviors of adolescents will resolve as they mature. However, some health behaviors have consequences into adulthood affecting their health and impacting their cause of death. For instance, obese adolescents have a tendency to become obese adults. Obesity is directly linked to two of the major causes of mortality in adults, cardiovascular disease and cancer. It is also linked to an increased incidence of diabetes, depression, psychological distress and low self-esteem.

Obesity has been resistant to many of the interventions implemented by health care practitioners. Diets and pills have not arrested the increase in adolescent obesity. Health problems of adolescents, including obesity, have not been responsive to programs which present change as a linear process, moving from unhealthy to healthy behavior. A more appropriate model may be a dynamic spiral model of change that includes resistance to change

(precontemplation) and relapse (recycle) as both learning experiences and pieces of the process of change.

Nurse practitioners influence the health of adolescents and the adults they become. Risk behaviors can be replaced with healthy behaviors by initiating early intervention and education, countering unhealthy behaviors with healthy behavior, and continuing assessment of risk behavior. The Transtheoretical Model is one method the nurse practitioner can utilize to guide in the assessment of the adolescent's stage of change and in the processes that will propel them to action. Principles from this model and steps pertaining to contingency contracting were combined in a booklet in this project to be used as a tool in moving the precontemplator to contemplation and preparation, acting on behavior change, tracking the progress, and evaluating improvement.

CHAPTER 2

LITERATURE REVIEW

The literature review was focused on the Transtheoretical model, adolescent psychosocial and cognitive development, long term change of adolescent risk behavior and methods of behavior modification for adolescents. The process of contracting for behavior change, parental or family role, and booklet development were also reviewed.

Background and Significance

The Transtheoretical Approach

Many traditional behavioral theorists describe change as occurring quickly, dichotomously, leaving little or no room for relapse of the behavior. Prochaska (1991) suggested the concept that people do not change chronic behaviors quickly but move from detrimental health behaviors to health promoting behaviors gradually. Most people attempting to change behavior, for example, unhealthy eating habits, try many times spaced over several years. Within the Transtheoretical Model (Figure 1) six stages of change were identified:

1. Precontemplation: a stage in which people are not seriously thinking about changing in the next six months.
2. Contemplation: the period during which people are seriously thinking about changing an unhealthy behavior in the next six months.

3. Preparation: the individual becomes ready to move to action and prepares to handle unexpected challenges.
4. Action: the six-month period following a modification of an unhealthy behavior.
5. Maintenance: a period of continued change.
6. Termination: the exit from the process of change where the individual considers themselves free of the former behavior.

In the model, Prochaska, Norcross, and DiClemente (1994) discussed nine major processes of change which are used by individuals. For each of the processes there are dozens and even hundreds of techniques which could be employed to promote change. The processes included:

1. Consciousness raising is used by most methods of change or behavior modification. Increasing the amount of information available to an individual improves the chances of making intelligent decisions. This includes information about the problem and hidden thoughts or feelings.
2. Social liberation involves the alternatives the environment can provide to begin or support the effort to change behavior. Examples are no-smoking areas and low-fat meals in restaurants. Because social liberation is an external force, the individual may have positive or negative feelings about the environmental pressures imposed upon them.
3. Emotional arousal, also known as a catharsis, is an emotional experience which can result from a real life event. Emotional arousal can be

generated from dramatic films and public education. The profound depth of feeling moves individuals toward action.

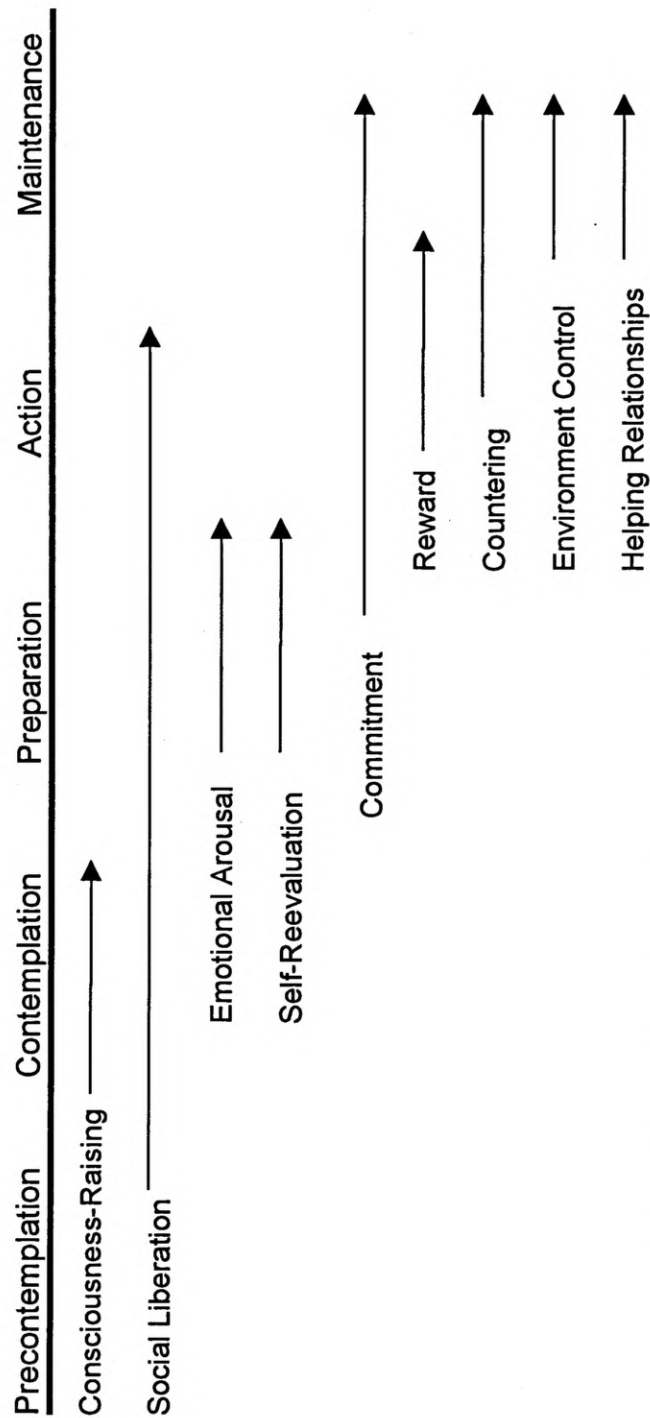
4. Self-reevaluation is an assessment of the problem and a consideration of the kind of individual one would become if the behavior were resolved. The individual sees themselves as improved when the undesirable behavior is changed and their life is significantly better.
5. Commitment is an acknowledgement that the individual is the only one responsible for changing the undesired behavior. The first step is private, with the individual choosing to change the behavior. The second step is public, with an announcement of the decision to change. The public announcement adds pressure to the individual to adhere to the program. A commitment may be kept private; however, public commitments are more powerful.
6. Countering is replacing detrimental behaviors with health-promoting behaviors. Any healthy behavior can be used as a countering activity such as walking instead of snacking or calling a friend instead of smoking. Countering adjusts individual responses to events that precipitate the behavior.
7. Environment control is restructuring the environment so that problem-causing events are reduced. Examples of environment control are removing cigarettes or alcohol from home.

8. Rewards are a reinforcement of desirable action or behavior and more successful in changing behavior than punishment. Rewards can be as simple as self-praise or as elaborate as a dream trip when a goal is attained. Rewards can be under the control of other people such as praise for losing weight.
9. Helping relationships are assistance from the significant people in the individual's life. The helping relationship is used most frequently to bring about change in health care. The helping relationship provides support, caring, understanding, and acceptance.

Successful change, according to the Transtheoretical approach, also includes evaluating the stage of the change which the individual has acquired. People who try to change behavior when they are not ready set themselves up for failure. In addition, people who spend too much time on tasks they have completed or attempting to understand their problem, often delay action (Prochaska et al., 1994).

Precontemplators will not automatically progress in a linear fashion to contemplation. Many will stay in this stage their entire lives. Precontemplation can be safe, allowing the individual to be free from guilt and the embarrassment of possible failure. Precontemplators deny their problem and resist change. They do not see their behavior as a problem at the present and blame others for their discomfort (Prochaska et al., 1994).

Figure 1. STAGES OF CHANGE IN WHICH PARTICULAR CHANGE PROCESSES ARE MOST USEFUL



Note. From *Changing for Good*, by J. O. Prochaska, J. C. Norcross, and C. C. DiClemente, 1994, New York: Avon Books, Inc. Copyright 1994 by J. O. Prochaska, J. C. Norcross, and C. C. DiClemente. Reprinted with permission.

It is not certain what moves the precontemplator to contemplation. Consciousness raising, social liberation and helping relationships are most likely the key processes in this dynamic. The more information the precontemplator receives about his or her behavior the more he or she becomes aware of defenses and the problem of the behavior. Social liberation also increases the precontemplator's consciousness of the problem through environmental controls such as "no smoking" areas. Honest and supportive helping relationships do not enable the harmful behavior of the precontemplator but encourage examination of the behavior as a potential problem. The precontemplator is powerless to change without the assistance of a helping relationship. The task of moving a precontemplator to contemplation may seem enormous, requiring patience and tenacity. Any small step toward contemplation is encouraged without pushing or nagging the precontemplator (Prochaska et al., 1994).

Once the precontemplator has moved to contemplation of the behavior change, consciousness raising, self-reevaluation, emotional arousal, and helping relationships appear to be most helpful in continuing to move the individual on to preparation. The contemplator asks questions about the problem behavior, collects more data, and analyzes the problem. He or she may actually set some goals and decide to change in the next month or some other time frame. The contemplator may further support his or her resolve with emotional arousal through movies or situations and scenarios related to the

behavior. Emotional arousal can be a powerful force giving the contemplator the energy to overcome procrastination that is so characteristic of the stage of contemplation (Prochaska et al., 1994).

Self-reevaluation arises naturally from the processes of consciousness raising and emotional arousal. Contemplators see their behavior as essentially in conflict with the new belief that their lives would be improved without the problem behavior. This can involve looking at themselves in a negative light with some self-loathing. A new positive self-image must be recreated or the self-reevaluation can actually become self-defeating. The helping relationship reinforces the worth of the contemplator through empathy and unconditional caring (Prochaska et al., 1994).

When the contemplator moves on to preparation, self-reevaluation generates a firm decision to change the behavior. Individuals in preparation believe in their ability to change the behavior, set a date to change, create a plan, go public with their resolve, and begin the process of taking small steps toward the change (Prochaska et al., 1994).

It is almost impossible for the individual in preparation to conceal the changes of this stage from family and other helpers. A public announcement of a plan to take action is beneficial in this stage. Those in helping relationships are willing to offer assistance but sometimes do not know what would be most beneficial. Individuals in the preparation stage can suggest activities and words that helpers can employ to support their plan of behavior change. Helping

relationships in preparation are most effective when tolerance and understanding is conveyed toward the individual (Prochaska et al., 1994).

Helping relationships appear to be the most important process of change when the individual moves into taking action. The stage of action can be overwhelming with the transition of replacing harmful habits with new behaviors. Calling upon friends and family for assistance can help ease the burden. Several techniques include (a) the buddy system, (b) controlling the environment, (c) contracting for change, (d) encouragement, and (e) rewards. The individual in the action stage of change also uses countering to substitute healthy behaviors for problem behaviors. Countering activities can include assistance from the helping relationship such as walking together or eating healthier foods. Other countering activities include keeping busy or action diversion, relaxation, exercise, and the use of cues or reminders such as recording progress (Prochaska et al., 1994).

A contract can be added during the stage of action to further strengthen the commitment to change. Written contracts and tracking of progress tend to be more powerful than spoken agreements. The written contract can include the starting date, goals, countering techniques that will be used, and any rewards. The helper's role in the action stage can also be specified at this time. It is important to be honest about what goal or progress is attainable at this point to avoid damaging self-esteem and creating a contract too difficult to follow (Prochaska et al., 1994).

When the goal is accomplished, the individual enters the change stage of maintenance, which can last a lifetime. Commitment to continue the change however must be renewed to avoid recycling or relapse. Environmental control continues to be important to maintain the new change as does countering with positive behaviors. Helping relationships can be extremely supportive during the action stage, but helpers tend to abandon the individual and change process during maintenance. Understanding helpers can be invaluable, especially when the individual in maintenance experiences a crisis that could lead to relapse (Prochaska et al., 1994).

Prochaska et al. (1994) proposed a spiral model to represent how people change over time. People with chronic behavior problems progress from precontemplation to contemplation to preparation and then action, and may relapse or recycle to any one stage of change. Linear progress from one stage to the other is a rare phenomenon. The spiral pattern is used to illustrate the concept that people learn from their relapses. Relapse becomes part of the process of change in this model, providing a learning experience (Prochaska et al., 1994).

Adolescent Psychosocial Development

Although each adolescent develops in a unique manner, all adolescents have milestones to complete during the move from childhood to adulthood. According to Piaget, during the early part of adolescence, thought processes

begin to develop into more adult-like, formal patterns or formal operations (Edelman & Mandel, 1994; Wong, 1995; Burns et al., 1996; Murray & Zentner, 1997). They can try out several possible solutions to a problem in their minds and imagine the outcome. The adolescent may totally discard reality while considering the way things could or ought to be. In early adolescence, cognitive capability gives rise to the adolescent's feeling of being exceptional, unique, and the focus of attention. These feelings and that of being "immune" give rise to the risk-taking behavior in adolescents (Edelman & Mandel, 1994; Wong, 1995).

Adolescents move from concrete thinking to formal operational thought between the ages of 11 and 14 years which includes thinking through such abstract concepts as attractiveness or happiness. They can begin to use a future time perspective in imagining possibilities that might occur such as a future occupation. Adolescent can imagine possible solutions to problems and compare them with what they think is possible. The ability to hypothesize gives the adolescent the capability to plan ahead or identify the consequences of present actions. This cognitive ability permits the adolescent to consider the long-term consequences of present health behaviors (Novak, 1996; Wong, 1995).

Cognitive development of the adolescent carries important implications for health promotion. Older adolescents may be able to consider some of the long-term negative consequences of risk behaviors such as poor nutrition or smoking. Health promotion for younger adolescents, who are concrete thinkers, is more

effective if immediate risks of the behavior, for example bad breath or the cost of smoking, are emphasized. Even with the best plan for health promotion, adolescents who have the capability of formal operational thought do not use these processes in the face of personal stress or time constraints (Burns et al, 1996; Wong, 1995).

Adolescents need to feel normal and have a sense of belonging to the group. Peer relationships are essential to the developmental tasks of the adolescent. Dr. James States in a lecture on adolescent health in 1997 at Gonzaga University called peer relationships “the work, not just the play of adolescence.” Through peer groups adolescents learn about forbidden subjects such as sex and drugs. Adolescents also learn socialization from their peer group: how to deal with dominance and hostility, and how to relate to people in authority (States, 1997). The peer group also can be a source of recognition not received from adults or authority figures (Wong, 1995).

Peers do not have to be a negative influence on teens but can have a positive influence on adolescent health. Adolescents of the same age or older can serve as role models and be the source of helping relationships in assisting adolescents to change behavior. The honesty of close friends can raise the consciousness of the adolescent, strengthen commitment to change, and assist in plans to counter unhealthy behaviors, all processes underlying a move to action (Prochaska et al., 1994; Novak, 1996; Wong, 1995).

The adolescent's feeling that he or she is a valued member of a group is an important milestone to adolescent development. Adolescents would rather behave carelessly in the eyes of their parents than be ridiculed by their peers. Peers serve as sources of information, act as role models for social behaviors, and social reinforcement. Peers act as mirrors reflecting back to the adolescent information about who she or he is and what she or he ought to be. Successful behavior modification includes the support of positive peer relationships. However, those who identify too strongly with peers in the absence of parental guidance are more prone to health compromising behaviors (Burns et al., 1996; Edelman & Mandle, 1994; Murray & Zentner, 1997; Wong, 1995).

Kohlberg's research on moral development of adolescents follows Piaget's work closely. Adolescents experience a variety of conflicts caused by comparing the advice of their parents and friends in attempting to decide on behavior and choices. These conflicts cause adolescents to contemplate what they themselves truly believe. Young adolescents tend to think in terms of a concrete set of rules of right and wrong. As they begin to mature, adolescents question the status quo, making more choices based on emotions (Edelman & Mandle, 1994; Kohlberg, 1984; Wong, 1995).

Differences Between the Genders. It must be noted that Kohlberg's theory of moral development had its basis in research with an all-male population and does not reflect some of the subtle developmental differences found in female adolescents. Young adolescent females move from doing

“good” for reward to acquiring the ability for doing what is good for others, even to the point of self-sacrifice. The ideal of equality among people is not strong enough to nullify this concern about hurting others. As females move through adolescence, they achieve a balance between what is good for them and what is good for others around them (Gilligan, 1982; Gilligan, 1995).

Differences between the genders translate into an asymmetry in coping mechanisms in male and female adolescents as they attempt to control the life stresses which they encounter. Gilligan (1995) noted that adolescent boys are more often diagnosed with attention deficit disorder while adolescent girls are more predisposed to eating disorders and depression. Male’s problems from life stresses, according to this research, appear to have roots in childhood, while the females suddenly become at risk with the onset of adolescence. In childhood, males are more at risk for suicide and depression. Females are more at risk for depression and suicide during adolescence with the peak age 13 years. Girls’ suicide attempts outnumber boys’ suicide attempts during adolescent three to one. When families are faced with life stresses such as poverty, divorce, and war, boys are most likely to suffer in childhood and girls in adolescence. These findings appeared to be present despite racial and economic differences in families (Gilligan, 1995). New research in gender differences in adolescence continues to reveal differences in development and coping. Both genders, according to Gilligan (1995) have been “drugged” to a large degree to alleviate these problems. Nurse practitioners need to be aware of these differences and

remain current in research discoveries to work effectively with all teenagers (Burns et al, 1996; Edelman & Mandle, 1994).

The Problem of Adolescent Obesity

During the last two decades the prevalence of obesity among children ages 6 to 11 years has increased 54%, and in ages 12 to 21 years it has increased 64%(CDC, 1996). The increase in obesity has occurred despite increased research on the causes of obesity and the availability of weight reduction plans and appetite suppressive drugs. While the federal government, diet gurus, researchers, and health care practitioners watch, the waistlines of America continue to expand. It is estimated that nearly one-third of all adults in the United States are obese (Kuczmarski, Flegal, Campbell & Johnson, 1994). Although one of the federal government's health goals for the year 2000 calls for no more than 20% of adults to be obese, it is estimated that if the trend toward obesity continues in the next 20 years, 50% of the population will be obese. These trends in the adult population parallel a concurrent increase in obesity in children and adolescent populations (CDC, 1996).

The United States is a rich, industrialized nation with an abundance of inexpensive fat and sugar-laden food. Fatty foods, which are energy-dense, have a higher satiety level. Additionally, high fat foods are often very palatable, leading to over consumption. Children's consumption of fruits and vegetables is well below the current recommendations of the American Dietetic Association

(Duyff, 1998). Almost half of the second and fifth-graders in a 1997 survey ate no vegetables on the days studied (Birch & Fisher, 1998; Krebs-Smith, Cook, Subar, Cleveland, Friday & Kahle, 1996).

Fast-paced lifestyles have changed the way we eat. Family mealtime has disintegrated from home-cooked food to take-out and drive-through food which can be consumed on the go in the car. Continuing Survey of Food Intakes 1989 to 1991 revealed that 25% of the vegetables that one in five children consumed were french-fries (Birch & Fisher, 1998; Krebs-Smith et al., 1996). Meal planning and preparation takes time and commitment on the part of the family, and primarily on the part of mother figures. However, since the 1950's, mothers have been working at a job outside the home, leaving little time for planning and preparing nutritious meals.

Limited physical activity contributes significantly to the problem of obesity in children (Kohl & Hobbs, 1997). Time spent watching television averages 23 hours a week for children in the United States (Armstrong, Sallis, Alcaraz, Kology, McKenzie & Hovell, 1998). Studies have established a clear relationship between time spent watching television and levels of body fat (Burns et al., 1996; Kohl & Hobbs, 1997). Time spent watching television also increases the possibility that children will snack on high-fat, low nutrient food (Kohl & Hobbs, 1997). Modern conveniences have decreased calorie expenditure and hindered recreational activity. Machines wash dishes and

clothes, cut the grass, and drive the family to work and play. The elimination of many jobs requiring hard physical labor has produced an inactive society.

Obesity in childhood has become an important predictor of adult obesity. Overweight adolescents generally have a 50% to 80% chance of growing up to be overweight adults (Burns et al., 1996; Whitaker et al., 1997). This fact becomes even more relevant when observing the an increased risk for diabetes and some types of cancer. Obese adolescents are also at risk for bulimia, anorexia, depression, and poor self-esteem. In adults approximately two-thirds of all mortality can be directly linked to heart disease, cancer causes, and stroke. These diseases can be directly linked to three categories of behavior: tobacco use, dietary patterns, and physical inactivity (DASH, 1998).

Other Influences on Adolescent Obesity. Children of obese parents, especially two obese parents, are at greater risk of developing obesity than their peers who have thin parents. Although obesity has strong familial aggregation, the increased incidence of childhood and adolescent obesity cannot be wholly explained by genetics. Many of the health habits of children, including food intake and energy expenditure, have been taught in the family. Research results have suggested the family teaches some of the food preferences (Birch and Fisher, 1998; Whitaker et al., 1997).

Overweight children are at risk for poor self-esteem and body image. Magazines, television and movies present role models of slim, tall women and muscular tan men. In a study in which children age 4 to 11 years evaluated line

drawings or silhouettes, the children associated the overweight figures with poor fitness, health, social function and success in school (Schonfeld-Warden & Warden, 1994). School age children rated obese children more negatively than children with handicaps such as facial disfigurements and missing limbs (Brownell & Wadden, 1984). Obese children and adolescents were often seen as less disciplined and more self-indulgent than their normal weight peers (Cook & Grothe, 1996). Obese adolescent females completed fewer years of schooling, were less likely to marry, and had lower household incomes compared to adult females who were not overweight (Carpenter & Bartley, 1994). Compared with adolescents who had normal eating patterns, adolescents with eating disorders tended to have lower self-esteem; a negative body image; and feelings of inadequacy, anxiety, social dysfunction, depression, and moodiness (Trowbridge & Collins, 1993).

Low self-esteem can keep obese adolescents in the stage of precontemplation indefinitely. Many precontemplators have resigned themselves to their "fate" of obesity, believing that even to think about change is to risk failure. Precontemplators further protect themselves from the distress their problem behavior creates by using denial. The distress of remaining trapped in the stage of precontemplation perpetuates the cycle of indifference, helplessness, depression, and low self-esteem. Although some rare individuals may be able to disrupt this destructive cycle, most precontemplators need

outside intervention from someone in a helping relationship (Prochaska et al., 1994).

One study indicated that health care providers recognize and begin treatment for only about 20% of obese children (Schonfeld-Warden & Warden, 1994). Despite the abundance of diet programs, diet aids, diet books, exercise equipment and tapes for adults, few treatment options have been designed especially for the growing pre-adolescent. So far, the treatment options which have been studied show little lasting benefit. Claims of success were noted to be part of the diet industry's advertising but were largely unsubstantiated (Osiki, 1995).

Many adolescents practice unsafe weight-loss methods. Harmful weight loss practices such as diet pill use, skipping meals, and starvation have been reported among girls as young as nine years old (Maloney, McGuire, Daniels, & Specker, 1989). Eating disorders such as anorexia nervosa and bulimia often started in adolescence affecting as many as 3% of adolescents and young adult females (American Psychiatric Association Task Force on DSM-IV, 1994). Deliberate dietary restrictions over a long period of time led to poor growth and delayed sexual development (Lifshitz & Moses, 1988).

Adolescents restricting calories have had difficulty meeting the recommendations of the Dietary Guidelines for Americans. On average, adolescents obtained 33%-35% of their total calories from fat, 12%-13% of this from saturated fat. This amount of fat was above the recommended levels of

30% and 10% respectively (Devaney & Gorden, 1995). Unpublished data from the Youth Risk Behavior Survey (YRBS), 1993, indicated that 41% of high school students during the period surveyed ate no vegetables and 42% ate no fruits (Kann, Warren, & Harris, 1993). A major portion of their caloric intake was from snacks, high caloric convenience foods, and high fat foods with low nutritive value (Sherman, Alexander, Gomez, Miyong, & Marole, 1992).

With obesity remaining resistant to methods of caloric control and restrictive diets not recommended for the adolescent, methods which modify behavior and habits for a lifetime of maintenance are more desirable and may be more successful. The process of changing nutritional and exercise habits begins with assisting the precontemplating adolescent to become aware of the health consequences of obesity through consciousness raising. Honest, caring helping relationships and environmental forces support the precontemplator in the move to contemplation, preparation, and action. Relapses, or recycles, become learning experiences and an integral piece of the change process. The adolescent not only feels accomplishment with increased health and decreased body fat but also feels positively about the entire process of change (Prochaska & DiClemente, 1983; Prochaska, 1994).

Behavior Modification Methods

Primary prevention of health problems and reduction of risk behavior is the best option for the adolescent. However, many health care providers are not

involved until unhealthy behaviors have been established. A majority of behavior problems in adolescence can be resolved through the use of basic behavioral techniques. Behavior modification is the application of learning theory coupled with conditioning to teach alternative behavior. These techniques can assist a person in gaining control over their behavior and environment. Various techniques have been used with success in multiple health disciplines since the early 1970's. Breaking behavior changes into small steps and reinforcing positive behaviors each time they occur shapes new behavior. One of the main elements necessary for effectiveness is the consistency of the reinforcement (Murray & Zentner, 1997; Blackham & Silberman, 1974).

Behavior, according to Skinner, is a response externally caused and controlled by the consequences (Murray & Zentner, 1997). The external environment determines how a person reacts or does not react to a situation. People constantly and sometimes unconsciously prompt others to modify their behavior by ignoring or reinforcing behavior. Any attention, even negative attention, reinforces a behavior. This process is called operant conditioning and forms the basis of behavior modification programs. In operant conditioning, behaviors which are reinforced are more likely to reoccur, whether positive or negative. Desirable behavior can be strengthened through initiation of a pleasing stimulus (Blackham & Silberman, 1975; Murray & Zentner, 1997).

Some behavior modification techniques are not suitable for the adolescent or the situation, and a few have become controversial. Corporal punishment, including spanking has been found to decrease self-esteem and increase emotional distress impeding the change process (Prochaska et al., 1994). Use of extinction or ignoring as methods of behavior modification requires careful selection of the type of problem on which it is used. Some behaviors are not appropriate because of life-threatening consequences during an age when risk taking is at its peak. In addition, ignoring behavior of the adolescent further disrupts communication between parent and child (Novak, 1996; Wong, 1995).

Positive Reinforcement. New behavior can be conditioned or reinforced using a positive or negative reinforcer, token, or reward. The behavior desired is defined for the adolescent with instructions on strategies to accomplish the behavior. Every time the desired behavior is observed or undesirable behavior is avoided, the adolescent is given a reward. The rate of acquiring a new behavior has a relation to the schedule of reinforcement. More opportunities to reinforce the behavior produce quicker outcomes (Blackham & Silberman, 1975; McLaughlin & Williams, 1988).

The reward or reinforcer can be anything the adolescent desires such as money, a movie ticket, hugs from parent, or praise. Tokens can also be used such as poker chips which are traded in for a predetermined prize. It is important to pick only one or two behaviors at a time to change and choose

rewards which motivate the adolescent. A system of charting should be used to track behavior and rewards. Because the adolescent can conceptualize the meaning of delayed gratification, tokens or rewards can be saved toward a privilege. Rewards or tokens can accompany contracts to increase compliance and effectiveness (Blackham & Silberman, 1975; McLaughlin & Williams, 1988; Novak, 1996; Wong, 1995).

Rewards or tokens should not be earned too easily nor given for behavior that does not meet the goals. A lack of motivation may occur if the adolescent easily earns the reward. Smaller rewards should be given for behavior changes that are easier for the adolescent, and larger rewards should be given for more difficult changes. Rewards or tokens may also be forfeited for undesired behaviors. As behavior changes the rewards can eventually be faded or decreased, promoting the new behavior itself as the reward (Blackham & Silberman, 1975; McLaughlin & Williams, 1988).

Extinction or Ignoring. Ignoring or extinction of an undesired behavior, if used consistently, will eventually minimize the act. This approach is difficult to implement consistently and parents often “give in” which serves to reinforce the undesirable behavior further. Parental attention must be the reinforcer for desired behavior. Ignoring works best when parents are patient enough to wait for results. Ignoring works well in behavior problems such as temper outbursts (Murray & Zentner, 1997; Novak, 1996; Wong, 1995).

However, this method of behavior modification may not be suitable in all areas of management of adolescent risk behavior for several reasons. Ignoring can be useful when dealing with sibling or peer conflict and fighting. Staying out of the conflict and ignoring screams and tattling forces adolescents to resolve arguments themselves. Parents should intervene, though, when the adolescent is in danger of bodily harm. Some examples are comments related to suicidal thoughts or violence. Ignoring this behavior could be lethal to the adolescent and construed as maltreatment. Ignoring an adolescent's behavior is also counterproductive to the need for facilitating increased communication between parent and adolescent. A more active approach is usually effective for the type of risk and the developmental level of the adolescent (Dreikurs, 1964; Murray & Zentner, 1997; Novak, 1996; Wong, 1995).

Reasoning. Reasoning is a behavior modification technique used to explain to adolescents why an act is wrong. Adolescents must be able to "walk in someone else's shoes" for this method to be effective. Reasoning is most effective in situations involving moral issues. The parent must be cautious that reasoning does not turn into scolding, shaming or criticism as these activities can have negative consequences for the adolescent's self esteem (Wong, 1995).

Reasoning is not effective without some type of action or consequence if the behavior is not changed. The action should not be a "threat" of a harmful consequence to the behavior. Reasoning is age appropriate for the adolescent

because of cognitive maturity but takes time and thought on the part of the caregiver and a plan of action if the behavior is not changed (Dreikurs, 1964; Wong, 1995).

Self-Monitoring. Self-monitoring plays an important role in identifying unhealthy behaviors and monitoring progress. It involves active participation by the adolescent in assessment and management of his or her problem. Self-monitoring consists of three stages including (a) awareness of a target response or behavior (b) recording the target response in a systematic method and (c) self-evaluation (Mace & Kratochwill, 1988; Schonfeld-Warden & Warden, 1997).

Recording behaviors and thoughts can provide a baseline for targeting the potential behavior change, the frequency of the behavior, and the relationship of the behavior to antecedent events. The adolescent can use self-awareness to increase consciousness of the problem, one of the processes that move pre-contemplators to action. Self-monitoring can provide information concerning the adolescent's behavior, increasing self-awareness of a problem and providing information about the solution (Mace & Kratochwill, 1988).

Systematic tracking includes times and frequency of desired or undesired behaviors. The tracking system works optimally if the behavior is recorded daily or immediately after the occurrence of a task. The tracking system or diary can be reviewed weekly by the health care provider and can be used to evaluate the effectiveness of the plan and develop any modifications needed. The record can also track feelings, thoughts, exercise, or any other events pertinent to the

behavior. The daily tracking of behavior reinforces commitment to change. Periodically the self-monitor evaluates progress against a predetermined standard or goal and revises the plan as needed (Brownell & Wadden, 1984; Mace & Kratochwill, 1988).

Consequences. Using consequences to change behavior involves the stimulation of desired behavior through the natural flow of events or a constructed situation. Consequences must be meaningful to the adolescent to be effective. The strategy of consequences involves three types:

1. Natural or those that occur without any intervention.
2. Logical or those directly related to a rule, such as not being able to have a friend over until their room is clean.
3. Unrelated or those that are imposed deliberately such as use of time out with defiant behavior.

Consequences allow the adolescent to experience the results of their behavior or poor choices. After the adolescent experiences the consequence, he or she may try to blame the parent for imposing the rule. Consequences of poor choices are inherent to all ages. Letting adolescents experience what can happen when poor choices are made can also be beneficial as long as the consequences are not harmful or life-threatening (Dreikurs, 1964; Wong, 1995).

If consequences are used as a threat or prescribed in anger they become punishment. Adolescents can be quick to distinguish the difference and act in rebellion. An example is an adolescent who is chronically late for dinner. When

the parents threaten the adolescent with “going hungry,” the results no longer become consequences but have become punishment. When the parents appear totally unconcerned about the adolescent, the child has to solve the problem alone and suffer the consequences of hunger (Dreikurs, 1964).

Consequences are also not appropriate for situations which may be harmful to the adolescent. Allowing the adolescent to overeat, for example, and experience the consequences of obesity is not appropriate because of health and self-esteem implications. Another example of harmful consequences would be adolescents who are allowed to stay out late with peer groups that are a negative influence. Countering, or offering limitations and alternatives with more suitable foods or activities, or allowing the adolescent to assist in determining a suitable curfew would be more beneficial (Dreikurs, 1964; Prochaska et al., 1994).

Corporal Punishment. Corporal punishment most often takes the form of spanking. Spanking has fallen out of favor as a method of behavior modification because of the increased awareness of family violence and abuse. Inflicting pain through spanking only causes a short-term decrease in behavior. Although it is advocated by some child care experts in some situations, it is not recommended as a technique to be used with adolescents. Literature shows that spanking has been linked to teaching violence, promoting parental rage with the need to dominate, and increasing the child’s tolerance for more severe spankings with paddles or whips (Dreikurs, 1964; Wong, 1995). Also, spanking

also does not enable the adolescent or child to discover alternatives increasing the possibility of returning to the undesired behavior. Punishments also tend to decrease self-esteem and increase emotional distress, both of which are barriers to the change process (Murray & Zentner, 1997; Novak, 1996; Prochaska et al., 1994; Wong, 1995).

Time Out. Time out can be accomplished by sending the adolescent out of the environment temporarily to his or her room. It is based on the premise that the adolescent is removed from the reinforcer, which is the attention or satisfaction the adolescent is receiving from the activity. Time out can avoid some of the problems of other methods because no physical punishment is required, and the parent does not need to be present for all of the time out. Time out contributes to consistency because it is easy to apply and reinforce. It also affords the adolescent and the parent time to “cool off.” To be most effective, time outs should be planned to include exact rules and conditions. Time out can be effective in adolescents with attention seeking behavior (Murray & Zentner, 1997; Novak, 1996; Wong, 1995).

Educational Approach. Education has been used widely in the process of behavior change. In the Transtheoretical model education is equated with consciousness raising, an important ingredient in moving individuals from precontemplation through the stages of change (Prochaska et al., 1994). Important elements which facilitate the education process are a comfortable environment conducive to learning, a client need for learning, assessment of

readiness and style of teaching appropriate to the inherent style of the learner. A well-planned education plan includes various methods that are interactive, involving listening, reading, and doing (Burns et al., 1996; Meeks et al., 1996).

Health education, which increases consciousness raising in the beginning stages of change, must also be age appropriate to be effective. Health education materials written for the developmental level of adolescents appeal to adolescents in design and language. The adolescent must also be ready to learn and motivated (Murray & Zentner, 1997; Prochaska et al, 1994).

Education is an important aspect of consciousness raising but has not been sufficient to arrest many of the health risk behaviors of adolescents. Education needs to be employed in conjunction with other methods of behavior modification to be successful in behavior change. Education raises consciousness of the problem and also provides additional information to make changes. Change involves a number of strategies and techniques of which education is an important piece (Prochaska et al., 1994).

Contracting. Contracting first appeared in health education in the early 1970's and in nursing literature in the late 1970's. It has been used successfully in several disciplines including nursing and medicine for the control of alcohol and drug abuse, for the control of pain, and for client compliance with medications. Contracting is based on the principle that behavior is shaped by reinforcing factors (Kittleson & Hageman-Rigney, 1988). Contracting includes the following definitions:

1. The systematic arrangement for providing a reinforcement in return for the performance of a specified behavior (Steckel and Swain, 1977).
2. An agreement between the health professional and client. It may also be called setting goals or self-care activities (Herje, 1980).
3. Two parties, one who desires to change a behavior and another who will assist in the process, decide on terms to change the behavior and on the reinforcement used to reward the performance of a desired behavior (Swain and Steckel, 1981).
4. A formal written agreement between a client and an instructor designed to systematically change a behavior within the client's lifestyle (Petroska, 1984/1985).

By setting rules, a contract specifically describes the goals, the means, and the consequences of fulfilling the contract. According to Carns and Carns (1994), three important factors contribute to the success or failure of contracts: careful defining of the desirable behavior, the number of demonstrated desired behaviors necessary to earn a reward, and the reward for the desired behavior. To be effective, contracts must be written in precise terms with clearly defined goals and means of fulfilling the contract. To set a magic number to earn a reward, the number of times per day the behavior occurs must be known. Gradual improvement or diminishing of the undesired behavior is encouraged in a time frame that is acceptable to the adolescent. The reward can be as simple as

special time with a significant person. The most successful reward systems include families and the home environment (Carns & Carns, 1994). The adolescent and the health care professional should mutually agree upon the contract terms. Each party in the contract must define their responsibilities clearly in achieving the goals (Carns & Carns, 1994; Langford, 1978; Herje, 1980; Saxon, 1979; Steckel, 1980).

Contingency Management. Contingency is a concept of adding conditions to the contract, which reinforce or strengthen the desired behavior. This is most often a reward for fulfilling the terms of the contract. When a reward system is used in conjunction with a contract to change an undesired behavior, the results are improved (Allen & Kramer, 1990; Carns & Carns, 1994). Eyberg and Johnson (1974) found greater cooperation in families using contingency contracting to improve behavior. The families also were able to solve more problems and complete assignments, and had a lower dropout rate during treatment than families who did not use contingency with contracting (Eyberg & Johnson, 1974).

The principles of contingency are similar to positive reinforcement. Instead of tangible awards, however, contingency can take the form of events or activities. Opportunities to perform a desired activity are utilized to reinforce an infrequently performed response such as taking out the garbage. Success of the plan or program increases when the adolescent is allowed input into selecting contingencies that have positive value. The criterion for successful completion

of the behavior or task is clearly indicated. Reinforcing activities are selected and a written contract or agreement is created and signed by the involved parties (Blackham & Silberman, 1975; Kazdin, 1989).

Parental Involvement

When developing behavior modification plans, it is important to consider the parent's level of available time and energy. Parents may be initially resistant to behavior modification for a variety of reasons. They may have cultural or religious preferences in child rearing, or they may suffer from their own negative childhood memories. Additionally, conflict may exist between parents because of different belief systems. Working couples or single parents may feel that they have limited time and resources to initiate a behavior modification plan. If they see their child for only a few hours in the evening, they may want avoid any unpleasantness. Furthermore, parents may feel overwhelmed or unqualified to assist their adolescent in changing health habits or risk behaviors (American Academy of Family Physicians, 1996; Hahn & Rado, 1996; Novak, 1996; Reed, 1997; Schonfeld-Warden & Warden, 1997; Soldano & Markell, 1997).

Research data indicates that the majority of parental participants in programs for health promoting or risk reducing activities are mothers (Coyne, 1996; Faulkner, 1996; Hahn & Rado, 1996). Faulkner (1996) found that mothers were the primary managers of diabetes regimens. The parents of children with diabetes also displayed more involvement in the overall care of the child, a time

commitment not reflective of other families (Faulkner, 1996). Parents who were more likely to have a high degree of involvement in and adherence to programs may be more receptive to a behavior modification program (Faulkner, 1996; Hahn & Rado, 1996).

The challenge of including families in behavior modification is to attract those families who are not actively involved in health-promoting behavior (Soldano & Markell, 1997). Another challenge is to attract more fathers to participate in the health promotion programs for their children (Faulkner, 1996). This task involves acknowledging the barriers to parent participation, creating a welcoming environment for parents, and engaging parents as partners in their child's health (Hahn & Rado, 1996; Hopper, Gruber, Munoz & MacConnie, 1996; Novak, 1996; Soldano & Markell, 1997).

Parent participation in health care is a complex, multi-dimensional and ongoing process. Coyne (1996) conceptualizes the principles of control and negotiation as essential for parent participation. The most common barriers to involvement cited by parents are issues of access, scheduling difficulties, lack of information and understanding of the process, feeling they have nothing to contribute, feeling intimidated, and logistical concerns (Hahn & Rado, 1996). Some parents need to feel empowered in order to take on an active parenting activity. Eliminating barriers for parents may increase involvement in their adolescent's care and development (Soldano & Markell, 1997).

Although several factors contribute to adolescent risk behavior, it is clear that parental modeling is one of the most influential factors (Strickland, 1997; Soldano & Markell, 1997). If the generational cycle of risk behaviors continued from generation to generation is not broken, it will continue to propagate to the next generation. Nurse practitioners are in an excellent position to aid adolescents and their parents in dealing with risk behaviors and initiating the change to healthy habits (Strickland, 1997).

Nurse Practitioner Role

One of the roles for the nurse practitioner in the adolescent's health is to "ask, advise, assist and arrange" each meeting with the adolescent and the family (AHCPR, 1996). The nurse practitioner must evaluate the individual's stage of change related to risk behaviors and be honest and direct about the consequences of continuing these behaviors. Since change involves movement over time through the processes of change, the adolescent must initially be assessed and encouraged over time. Measurement of progress from one stage to the next is likely to teach the adolescent more about the dynamic and recycling process of change (Prochaska, 1991, Prochaska et al., 1994).

Nurse practitioners need to provide an environment which is both welcoming and accepting of adolescents in order to establish rapport, as adolescents may be hesitant or too embarrassed to voice their concerns. If the adolescent is more comfortable talking with the provider alone without the

parent, this request should be honored. Asking the adolescent's permission to discuss small issues in the presence of the parent early in the provider-client relationship helps establish trust (States, 1997). Asking permission establishes a trusting, helping relationship of acceptance and caring essential to behavior change (Prochaska et al., 1994). Confidentiality is stressed, but the provider is honest that life-threatening information such as suicidal thoughts will be reported to parents for the adolescent's protection. Adolescents should be encouraged to talk with their parents about all issues, but the relationship of confidentiality is maintained whenever possible (Malat, 1998; States, 1997).

As health care providers, nurse practitioners are trained to relieve pain and suffering. Adolescents with risk behaviors, including overeating, are using their behavior as a defense against psychological pain. However, the pain the adolescent is masking can actually be useful in the process of changing the behavior. The pain of the behavior enables the adolescent to become aware of defenses through emotional arousal and self-reevaluation (Prochaska et al., 1994). Taking away the pain of adolescents who are acting out actually hinders their progress toward change by eliminating emotional arousal that emotional pain produces (States, 1997). The processes of emotional arousal and self-reevaluation are present in all the stages of change but can contribute most moving the contemplative adolescent on to preparation and action. The nurse practitioner walks through the pain with the adolescent through the development

of the helping relationship but does not take away the pain (Prochaska, 1994; States, 1997).

The nurse practitioner must assess the adolescent for any concurrent physical problems which could contribute to either the risk behavior or to the inability to resolve unhealthy behaviors. Specific questions should be asked about food intake, safety, drug and alcohol use, sexual activity, physical exercise, and moods. Questions should be asked in a manner which allows the adolescent to be open (Malat, 1998).

Booklet Development

Effective patient teaching and counseling includes the use of written materials. Health care providers have relied on written materials to reinforce verbal instructions and increase the client's compliance to medication and treatment regimes. Consumers of health care also use written information to bridge gaps in the health care system, reinforce teaching provided by health care providers, and increase their knowledge (Wilson & McLemore, 1997).

Readability and Comprehension. Many of the educational materials patients receive are written at a reading level which is too high to be understood by a majority of patients. About 50% of patients have serious difficulty understanding reading materials, and many cannot read instructional materials written at the fifth grade level (Spadero, 1983; Doak & Doak, 1980). Readability

assessment of educational materials reported in the literature reflect an average readability level above the eighth grade (Spadero, 1983; Mumford, 1997).

Because the reading difficulty of educational materials influences comprehension, systematic procedures to evaluate reading materials have been developed. Two basic methods are used: one takes into account the length of words and sentences in a large section of text and calculates a score or grade level. The other uses a standardized list of words to predict the approximate grade level (McLaughlin, 1969; Spadero, 1983).

The SMOG Grading Formula for readability is a simple method utilizing the idea of counting polysyllabic words to identify the reading difficulty of a text. Ten sentences are sampled from three different parts within the written piece. From this sample of thirty sentences, all of the words containing three or more syllables are circled and totaled. A square root of the total polysyllabic words is estimated. Three is then added to this number to give the reading grade level. Because the SMOG formula is based on 100% comprehension, the standard of error is only about 1.5 grades (McLaughlin, 1969; Spadero, 1983).

Booklet Design. A well-designed booklet can give the reader a compelling first impression of the educational content. The cover illustration or graphics should catch the eye and hint about the information inside the booklet. The illustration should also be age appropriate to the target audience. A professional graphics artist or designer may be employed for a professional appearance, but the cost can be prohibitive. Many computer programs contain a

variety of graphic clip art, which can enhance the appearance of the booklet (Mongold, 1992; Rosenblum, 1994).

The booklet should begin with a rough draft to determine size and layout. White space is important in booklets to allow the eye somewhere to rest. Too much white space, however, can be just as unattractive as too much print. All capital letters “shout” at the reader. Varying capitals with lower case letters also adds white space (Mongold, 1992; Rosenblum, 1994; Yale, 1998).

Headings for the booklet need to be carefully planned and follow a logical sequence. The amount of type under each heading should be closely balanced to other headings. Information should be concise and to the point. Use of bulleted text is a strategy to enhance white space and avoid overwhelming the eye with information (Mongold 1992; Rosenblum, 1994; Yale, 1998).

Developing the interior of the booklet first and the front cover last often works best. Artwork may be included on the front of the booklet. Ideas can come from other booklets, flyers, and advertisements. Only uncopyrighted artwork should be used or permission should be obtained for reproduction as required by law. A letter requesting permission to use the material should be sent to the originator along with how the artwork will be used (Mongold, 1992).

Summary

Adolescents are individuals with great potential who face many immediate and long-term risks to their health. The developmental stage of the adolescent makes him or her a unique and challenging client. The adolescent's changing of risk behaviors cannot occur in isolation but must be accomplished in concert within the values and support of the family.

Changing risk behaviors can be a slow, frustrating process for nurse practitioners, adolescents and their parents. The stages of change appear to follow a sequential pattern according to the Transtheoretical Model for change. Within the model are six stages of change with nine defined processes. Moving individuals through the stages of change appears to begin with consciousness raising and helping relationships, both of which are strengths of the nurse practitioner's clinical practice.

This project has combined the basic concepts of the Transtheoretical model, the process of contracting and positive reinforcement, into an easy to read and use booklet written especially for the adolescent. This booklet was designed for use with the adolescent in changing health risk behaviors

CHAPTER 3

METHODS

The purpose of this project was to develop a contingency contracting booklet to be utilized by an adolescent, parent, and nurse practitioner in the process of initiating healthy behavior changes in the adolescent. The booklet was developed to be attractive and easily understood by the adolescent with clear guidance through the process of change. The contracting tool was initially called a pamphlet, but an informal poll of adolescents, ages 9 to 14 years revealed the word "booklet" was found to be a more familiar term; that designation has been made.

Process of Contracting

Contracting has been widely used as an effective method of behavior change for clients and families (Boehm, 1992; Burns et al., 1996; Herje, 1980; Jensen, 1985; Kittleson & Hageman-Rigney, 1988; Saxon, 1979). Because the involvement of all relevant parties in the contracting process would assure the greatest success, it was decided that a family approach to contracting behavior modification of adolescent's risk behaviors would be best suited for an intervention in the nurse practitioner practice. This involvement provided a support system and constructive feedback for the individual attempting a

behavior change. Additionally, involving the family alerts the nurse practitioner to any weaknesses or barriers the adolescent must overcome in the family unit in order to make the behavior change.

The process of contracting is not always clear or easy for the lay person to understand. Resources for contracting are found in professional literature from such disciplines as psychology, education, nursing, and medicine (Blackham & Silberman, 1974; Boehm, 1992; Burns et al.; Carns & Carns, 1994; 1996; Kazdin, 1989; Witt, Elliot, & Gresham, 1988). Hence, the description of the process is often written for the professional. Most of the literature explains the process but does not lay the contracting procedure out in a step by step format. Consequently, accessing this literature may be difficult and time consuming for active families.

This project provided the nurse practitioner and families with a step by step written guide to contingency contracting for reinforcing a behavioral change. The guide, a contract, was designed to be easy to use and understand for the adolescent and the family. The booklet included information to:

- assess the current stage of change of the adolescent in relationship to the chosen behavior
- plan interventions in which the adolescent, parent, and nurse practitioner can collaborate to assist the adolescent in the change process
- plan rewards or reinforcers that can be implemented on a daily and

weekly basis

- track progress through the change
- evaluate the plan and progress
- revise the plan as needed.

Process of Booklet Development

The steps in the nursing process guided development of a plan of family behavioral changes: needs assessment, problem identification, goal setting and intervention (developing the booklet content), and evaluation of the process (by a panel of adolescents and their parents and a nurse practitioner). The first step, the needs assessment was adapted from the Goals of the Healthy People 2000 and DASH Division of the CDC (DASH, 1998; USDHHS, 1991). The age group of early adolescents was selected from the literature as the target population. Adolescent risk behaviors and the health consequences also came from the literature (Burns et al., 1996; Wong, 1995; DASH, 1998; USDHHS, 1991). Goals were developed which included development of a contracting booklet for promoting behavior change supported in the literature (Boehm, 1992; Carns & Carns, 1994; Epstein, et al, 1994; Jensen, 1985; Haddock, Shadish, Klesges, & Stein, 1994). A plan of intervention was created from the Transtheoretical Model, adolescent development and behavior modification methods (Blackham & Silberman, 1975; Burns et al., 1996; Dreikurs, 1964; Gilligan, 1995; Kohlberg, 1984; Murray & Zentner, 1997; Prochaska et al., 1994;

Wong, 1995). Evaluation of the goals and plan also was developed from behavior modification methods (Blackham & Silberman, 1975; Kazdin, 1989; Mace & Kratochwill, 1988).

Booklet Structure. The booklet content was developed through the application of resources from the literature review. The Transtheoretical Model was used as the framework for behavior change process within the booklet. The contracting process in the booklet was developed through the use of guidelines adapted from the Iowa Intervention Project Nursing Interventions Classification (NIC) (Boehm, 1992) and Patient Contracting (Jensen, 1985). Steps for the contracting were identified as:

- Problem identification and prioritizing problems
- Contract development and delineating the responsibilities of the involved participants
- Contract implementation, including specific tasks to accomplish the goals and tracking progress
- Contract evaluation and renegotiations of the terms of the contract as needed (Jensen, 1985)

In the contracting process delineated in the booklet, the adolescent was to identify one behavior he or she desired to change or improve. This behavior was not to be one that was selected by the family or the nurse practitioner. The initial changes would be small and manageable, fostering more success (Eyberg & Johnson, 1974). The change or goal would be stated in easy to

understand language using positive terms. The adolescent then outlined three interventions or methods which assisted them in this change. These were written in the adolescent's own words in the booklet.

The parent and the nurse practitioner provided guidance and support for the behavior change through helping relationships with the adolescent (Prochaska et al., 1994). Both agreed to three items which would support the behavior change of the adolescent. These were recorded in the contracting booklet.

The adolescent, family, and nurse practitioner identified rewards or reinforcers for short and long-term goals. Rewards were identified for daily and weekly accomplishments. Sanctions or consequences for not fulfilling the contract were also established if appropriate. Resources, which support the goal, were identified along with circumstances that may interfere with the goal. A flow chart to track progress toward the goal was also initiated. This was included in written form in the booklet.

All parties to the contract signed and received a dated copy. The adolescent, family, and nurse practitioner decided a target date for evaluation. The contract was evaluated and reviewed at the target date. The adolescent would assess the plan's success and how he or she felt about the progress. A new plan and contract would be initiated at that time with goals and plans redirected as needed.

Instruction sheets to be used as guides were developed for the nurse practitioner, the parent, and the adolescent. The instruction sheets clarified the purpose of the contracting booklet and explained the process of using each section of the booklet. The instruction sheet for the nurse practitioner included a brief overview of the Transtheoretical Theory and the stages of change. This was included to assist in the assessment of the adolescent's present stage of change and the processes that may be helpful in supporting the behavior change. The parent's instruction sheet was briefer, including suggestion for use of the booklet. The adolescent instruction sheet was written with suggestions for following all the steps of the booklet. Clip art on the instruction sheet matched the booklet for visual appeal.

Booklet Visual Design. Guidelines for brochure development were constructed from the literature. Guidance for booklet development included literature on booklet development, the Internet, and a packaged computer program, Microsoft Publisher 97 (Microsoft, 1997). Other popular educational materials for adolescents guided the process of developing the booklet. Color, clip art, page layout, language and size and type of print assisted in the creation process (Heit, Meeks, & Page, 1996; Rosenblum, 1994; United States Department of Agriculture [USDA], 1996). The booklet contained colorful pictures and space for writing and recording progress. Ideas for graphic design were collected from uncopyrighted materials, clipart, and artwork for children and adolescents. Several ideas were combined. A booklet style that would

accommodate the material was adopted. Attention was given to the amount of white space to keep the pages less cluttered for the reader's eye. White space added contrast, interest, and gave the eyes a place to rest. A combination of capital and small letters was also added to the amount of white space.

Pages were kept short to facilitate readability and retain the reader's interest. The information contained under each heading was brief and to the point to retain the adolescent's attention. Objectives for the process of contracting were concisely stated in terms the adolescent and parent would understand. The booklet was written in familiar conversational style and composed on computer for ease of modification (Glasper & Burge, 1992; Microsoft, 1997; Rosenblum, 1994; Vaillancourt & Wexler, 1997; Yale, 1998). The booklet was named with ideas from the author's adolescent children.

Readability of Material. The SMOG Grading Formula (McLaughlin, 1969) was used to evaluate readability of the material. Each section of the booklet was written according to the guidelines of the SMOG Grading Formula (McLaughlin, 1969; Spadero, 1983; Youderian, 1998). Because the booklet and instruction sheet both contained less than 30 sentences, the following SMOG Grading Formula was used:

- All of the polysyllabic words in the text were counted.
- The number of sentences was counted.

- The average number of polysyllabic words per sentence was calculated as follows: $\text{average} = \frac{\text{total number of polysyllabic words}}{\text{total number of sentences}}$.
- The number of sentences short of 30 multiplied by the average.
- That figure was added to the total number of polysyllabic words.
- The square root was calculated and the constant of "3" added.
- The product was the SMOG grade or reading level (McLaughlin, 1969, Spadero, 1983).

The final readability of the booklet was at the fifth grade reading comprehension to target the population of the young adolescents and their families. The instruction sheet as written was evaluated between the sixth and seventh grade reading level. A higher reading level was used to include theory behind the contracting booklet and increase parent and adolescent understanding of the steps of the booklet. Minimal guidance from the parent would be required to increase younger adolescents understanding of the guide. The SMOG Grading Formula was not applied to the instruction sheets for the nurse practitioner or parent.

Evaluation Panel

The process of booklet evaluation included the use of a panel of nurse practitioners, parents, and adolescents. These included one family nurse practitioner, one pediatric nurse practitioner, three parents of adolescents in

middle school, and three adolescents attending middle school (Table 1). Three separate evaluation forms with related questions were developed for the members of the panel focusing on different areas of the booklet (Appendices C, D, and E). A manila envelope containing the booklet (Appendix B), letter requesting assistance in evaluating the project and instructions, information concerning how to use the booklet and evaluation form, and a stamped, self-addressed envelop were delivered to each evaluator. Instructions included returning only the evaluation form, allowing the evaluator to keep the remaining materials if desired.

A family nurse practitioner (FNP) was selected to evaluate the booklet for usefulness in the primary care setting. The nurse practitioner was asked to evaluate the booklet for ease of visual appeal, readability, ease of following steps, and logical order of the booklet. The nurse practitioner was also asked to state an opinion about the effectiveness of the booklet and to say whether or not she would use a contract to change adolescent behavior. Three open-ended questions were included to determine the least and most helpful aspects of the pamphlet and to elicit any additional comments. The time required to evaluate the booklet was also recorded on the evaluation form. The nurse practitioner selected had a master's degree in nursing, had worked in a clinic setting in a Montana population center for three years with patients across the lifespan, has been utilized as a consultant by her colleagues, and reported a large clientele.

A pediatric nurse practitioner (PNP) was also asked to evaluate the booklet for expertise in adolescent health care. The pediatric nurse practitioner evaluated the booklet using the nurse practitioner questionnaire. The nurse practitioner was also asked to include any additional comments and to state an opinion of the effectiveness of this booklet with adolescents. This nurse practitioner also held a master's degree in nursing, has worked in a Montana population center, specialized in the care of children ages birth to 18 years, was utilized as a consultant by her colleagues, and reported a large clientele.

Table 1. Summary evaluation panel

	Gender	Highest Grade Completed	Years Experience	Occupation
Nurse Practitioner A	Female	MS	4	PNP
Nurse Practitioner B	Female	MSN	5	FNP
Parent A	Female	Baccalaureate degree		Family Support Specialist
Parent B	Female	BSN		Faculty College of Nursing
Parent C	Female	MN		Faculty College of Nursing
Adolescent A	Female	7 th		
Adolescent B	Female	9 th		
Adolescent C	Male	8 th		

Three parents of adolescents were recruited from the staff of the local college of nursing to evaluate the booklet for visual appeal, readability, ease of following the steps, and logical order of the information. They were asked to state an opinion about the booklet effectiveness for changing adolescent behavior and to indicate whether they would use a contract to change their child's behavior. The parents were asked to record the amount of time required evaluating the booklet. The parents were also asked to include additional comments on the booklet concerning the most and least helpful aspects. The parents varied in educational level: one had a master's degree in nursing, one had a bachelor's degree in nursing, and one had baccalaureate degree in education.

Three adolescents were recruited from the staff and parents of the college of nursing to evaluate the booklet. There was no intent to recruit adolescents and parents from the same family. In two cases this occurred, but not in the third. The adolescents varied in grade level from seventh through ninth grade and from age 12 years to 14 years. Two of the adolescent participants were female and one was male. The adolescents were asked to read the booklet and then evaluate it according to the following: visual appeal of the booklet, readability, and ease of understanding the steps. They were also asked for an opinion on whether they believed the booklet would work to help change a behavior and to indicate if they would use the booklet. One open-ended item

asked adolescents to identify certain portions of the booklet as a way to validate understanding. All of the adolescent participants were asked to include the most and least helpful aspects of the booklet and include any additional comments.

Statement on Protection of Human Subjects

This project involved the construction of a booklet for use in developing a contingency contract between the nurse practitioner, parent, and adolescent. It was not a research project and did not involve research subjects. A panel involving nurse practitioners, parents, and adolescents were invited to assist in the evaluation process of the booklet. There were no formal relationships between the author and members of the evaluation panel. All panel members participated willingly and without coercion. Human Subjects Review was not deemed necessary by the project committee nor the chair. Panel participants were not identified except by role.

The nurse practitioner, parents, and adolescents agreed to participate when contacted verbally. All evaluators were given ample opportunity to refuse to assist in the process. A letter of request and instructions (Appendices C, D, and E) was presented to each evaluator along with the booklet (Appendix B) and evaluation materials (Appendices C, D, and E). No payment was given for participation. Confidentiality was guaranteed. Data reporting did not specify identity and was grouped as was possible.

Data Analysis

Demographic information related to the evaluation panel was summarized. This included education, profession, gender, and age (see Table 1). Evaluation results obtained from adult members of the panel were separated from those of the adolescent panel due to differences in numbering questions and language used within the Likert scales. Additional changes to the adolescent evaluation form included a question evaluating the adolescent's understanding of the steps of the booklet. A mean score of below 4.0 or any single score of 3.0 or below in any area of the evaluation was evidence that the booklet would not be useful as currently designed.

Evaluation of Contracting Booklet

Evaluation Tool. Six areas from the literature review regarding booklet development were selected to be included in the evaluation tool. These included the visual appeal, readability, ease in following steps, logical sequence of the topics, usefulness to change behavior, and perceived effectiveness. Three open-ended questions were also included to gather more general impressions of the booklet and project. One additional three-part question was included on the adolescent evaluation to determine the comprehension of steps in the booklet. The evaluation panel totaled eight members, five of which were

adult members (three parents and two nurse practitioners) and three adolescents.

The questions on the evaluation tool (nurse practitioners, parents, and adolescents) were tabulated for means of responses. Because the booklet was in the initial stages of development, a mean of 4.0 was chosen as adequate for acceptance of each item for nurse practitioners, parents and adolescents. Responses from the evaluations of adult members of the panel were divided into nurse practitioners and parent panel members. Responses of each group were tabulated. Any mean of 4.0, a single response of 3.0 or below would question the usefulness of the booklet. Incorrect answers for any portion of question eight which asked specific questions concerning three different areas of the booklet was also considered to be an indication that the adolescents did not understand the steps of the booklet and brought into question the readability of the booklet.

Qualitative information from the comment and suggestion section was examined for general patterns and responses. These responses were grouped as much as possible into reoccurring themes or statements. The qualitative data also provided knowledge about the overall impression, acceptability, and weakness of the booklet. A response "no, I would not use it," by any member of the evaluation panel on any of the qualitative items would call into question the usefulness of the booklet.

A decision to use the contracting booklet for initiating behavior change in adolescents was based on a) a mean of 4.0 or greater for visual appeal for adults and adolescents; b) a mean of 4.0 or greater rating for readability by adults and adolescents; c) a mean of 4.0 or greater for ease of understanding steps by adults and adolescents; d) a mean of 4.0 or greater for logical sense for adult responses; e) a mean of 4.0 or greater for the perception the booklet would work for adults and adolescent responses; f) a mean of 4.0 or greater for possible use of the booklet; g) any single score of 3.0 or below would question the usefulness of the booklet; h) overall favorable impression from the open-ended responses.

Evaluation of the Use of Panel

When determining whether this type of panel was useful in the process of booklet development, several elements were considered. These included ease of contacting the nurse practitioner, parents, and adolescents; their willingness to participate; the time and effort required in evaluating the booklet; timely return of the evaluations; and time required analyzing the responses. The usefulness and quality of the responses for evaluation and any bias of the evaluation panel were also considered.

Summary

A contracting booklet for behavior change in adolescents was developed to be used by the nurse practitioner, parent, and adolescent. The booklet was

developed using the Transtheoretical theory of change (Prochaska et al., 1994), adolescent development, behavior modification principles, and booklet development guidelines. Essential elements of the stages of change were included throughout the booklet.

Booklet design was guided by the literature review regarding booklet development, readability using the SMOG assessment scale, and essential elements for contracting and changing behavior. Commercial clip art was applied to increase visual appeal for the adolescent. Microsoft Publisher '97 (Microsoft, 1997) was utilized to increase the organization and professional layout of the booklet.

The booklet's visual appeal, readability, ease of understanding, predicted workability, and perceived use was evaluated by a panel. A five point Likert scale was used to obtain scores on each of the six areas. An area for qualitative information was included to elicit general impressions and opinions about the booklet. The mean scores and general responses and impressions about the booklet guided the final decisions regarding the usefulness of the contracting booklet and process for the nurse practitioner practice with adolescent behavior change.

CHAPTER 4

ANALYSIS OF FINDINGS

One of the most difficult and frustrating responsibilities of the nurse practitioner is assisting clients in changing behaviors that are detrimental to their health. Many health damaging behaviors have beginnings in adolescence. These habits are often modeled after the habits and behaviors of adults and peers, for instance, poor nutritional and sedentary habits beginning in adolescence lead to adolescent obesity. Obesity beginning in adolescence has been linked to adult obesity and morbidity (Whitaker et al., 1997).

The purpose of this project was to develop a contracting booklet which could be applied in a variety of situations, like obesity, to facilitate adolescent behavior change. The booklet was developed to be used by an adolescent with the assistance of a nurse practitioner and parent. A panel consisting of two nurse practitioners, three parents, and three adolescents evaluated the contracting booklet for perceived usefulness in the process of changing unhealthy behaviors in adolescents. The booklet was evaluated for visual appeal, readability, ease of following steps, logical sequence of topics, usefulness to change behavior, and perceived effectiveness (Boehm, 1992;

Glasper & Burge, 1992; Vaillancourt & Wexler, 1997). Results of the analysis of the evaluation data follow.

Evaluation Outcomes

An evaluation form was developed with five Likert scale questions (range 1 to 5) for the adolescent and six questions for the adult members of the panel. These responses were tabulated for means and raw data were analyzed for inconsistencies (Table 2). The evaluation form also contained open-ended questions. Data from the open-ended questions were grouped as possible for similarities.

Description of Evaluation Panel

The evaluation panel consisted of eight members including a family nurse practitioner, a pediatric nurse practitioner, three parents of adolescents, and three adolescents. The nurse practitioners were known in the community and contacted by phone. The parents were contacted verbally through the college of nursing. Adolescents were contacted through their parents for permission from both the parents and the child. A packet containing a letter of instructions, the booklet, a guide for using the booklet, an evaluation form, and a self-addressed, stamped envelope were delivered to each participant. Evaluations were returned in a timely manner, three with a one day turn-around time. Time spent evaluating the booklet by the adult participants varied from 10 minutes to one participant who needed 20 minutes. Time spent by the adolescent participants

evaluating the booklet varied from 5 minutes to 15 minutes. These figures demonstrated reasonable time involvement.

Description of Findings

A mean score of 4.0 or above was deemed acceptable for all areas of evaluation in the nurse practitioner, adult and adolescent evaluation panels. Results were divided into nurse practitioner, parent, adult, adolescent and total panel member roles and then grouped for differences and similarities (Table 2).

Nurse Practitioner Results. On the first question "the booklet is visually appealing," nurse practitioner "A" responded 4.0, or "agree" and nurse practitioner "B" responded 5.0, or "strongly agree." Responses of the nurse practitioner evaluation panel for visual appeal had a mean score of 4.5. Nurse practitioner "A" and nurse practitioner "B" both had scores of 4.0, or "agree" for readability. Easy to read and understand had a mean of 4.0 for the nurse practitioners. Nurse practitioner "A" and "B" both scored ease of following steps 4.0, or "agree." The nurse practitioner mean for ease of following the steps was thus 4.0. Nurse practitioner "A" and "B" both scored logical order 4.0, or "agree." Responses for the nurse practitioners' evaluation of logical order of steps had a mean of 4.0. Nurse practitioner "A" scored perceived usefulness 3.0, or "undecided." Nurse practitioner "B" scored perceived usefulness 5.0, or "strongly agree." Responses of nurse practitioner panel members had a mean of 4.0 for perception that the booklet would be effective in behavior change. One nurse practitioner scored a 3.0 on usefulness raising the question for further

Table 2
Raw Scores and Question Means

	Nurse Practitioner					
	Q1 Visual Appeal	Q2 Easy to Read & Under- stand	Q3 Steps Easy	Q4 Logical Order	Q5 Would Work	Q6 I Would Use
NP A	4.0	4.0	4.0	4.0	3.0	4.0
NP B	5.0	4.0	4.0	4.0	5.0	5.0
Mean	4.5	4.0	4.0	4.0	4.0	4.5
	Parent					
	Q1	Q2	Q3	Q4	Q5	Q6
A	4.0	4.0	4.0	4.0	3.0	4.0
B	5.0	5.0	5.0	5.0	4.0	4.0
C	5.0	4.0	5.0	5.0	4.0	4.0
Mean	4.7	4.3	4.7	4.7	3.7	4.7
Adult Mean	4.6	4.2	4.3	4.3	3.8	4.3
	Adolescents					
	Q1 Like Looks	Q2 Easy to Read	Q3 Steps Easy	Q4 Would Help	Q5 I Would Use	
A	5.0	5.0	5.0	5.0	5.0	
B	4.0	5.0	5.0	5.0	3.0	
C	4.0	5.0	5.0	4.0	4.0	
Mean	4.3	5.0	5.0	4.6	4.0	
Combined Means	4.5	4.4	4.6	4.1	4.2	

analysis. Nurse practitioner “A” scored perceived personal use or “I would consider using a contract” 4.0, or “agree.” Nurse practitioner “B” scored perceived personal use 5.0, or “strongly agree.” Responses of the nurse practitioner panel had a mean of 4.5 for considering using a contract.

Parent Results. Parent “A” scored “visually appealing” 4.0. Parents “B” and “C” scored visual appeal 5.0. Score results of the parent panel had a mean of 4.7. Parent “A” and “C” scored “easy to read” 4.0, or “agree.” Parent “B” scored readability 5.0, or “strongly agree.” The parent participant’s mean for easy to read was 4.3. Parent “A” and “C” scored the ease of following the steps 4.0. Parent “B” scored ease of following steps 5.0. The responses for the parent panel members had a mean of 4.3. Parent “A” scored logical order 4.0, or “agree.” Parents “B” and “C” scored logical order 5.0, or “strongly agree.” Results of parental members had a mean of 4.7.

Parent “A” scored perceived effectiveness and usefulness 3.0, or undecided. Parents “B” and “C” scored this area 4.0, or agree. The parental responses had a mean of 3.7. The score of 3.0 in this area raises questions concerning the parental perceived usefulness and requires further evaluation. Parent “A,” “B” and “C” scored perceived personal use of contract 4.0, or “agree,” thus a mean of 4.0.

Adult Panel Results. Total mean of adult responses (nurse practitioners and parents) was 4.6 for visual appeal. Adult mean for “easy to read” was 4.2. Adult mean for easy to follow steps was 4.3. Adult mean for steps in a logical

order was 4.3. Total adult response mean was 3.8 for perceived effectiveness. Despite acceptable means on the individual items, “perceived effectiveness” mean of 3.8 requires further analysis. Total mean for perceived personal use or “ I would consider using a contract” in the adult panel members was 4.3.

Adolescent Results. Adolescent “A” scored visual appeal 5.0, or “yes, it’s great.” Adolescent “B” and “C” both scored visually appealing 4.0, or “agree.” Thus the adolescent mean for visual appeal was 4.3. Adolescents “A,” “B” and “C” scored readability 5.0, or “yes, it’s great.” Adolescents “A,” “B,” and “C” each scored “the steps are easy to understand” 5.0.

Adolescent “A” scored usefulness 5.0, or “yes, it’s great.” Adolescent “B” scored usefulness 3.0, or “I don’t know.” Adolescent “C” scored usefulness 4.0, or “it’s good.” The adolescent panel member’s response had a mean of 4.6. The lower 3.0 score from one adolescent and the overall variability raises questions for adolescent perceived usefulness and warrants further evaluation. Adolescent “A” scored perceived person use or “ I would use this booklet” 5.0, or “yes, it’s great.” Adolescent “B” scored perceived personal use 3.0, or “ I don’t know.” Adolescent “C” scored perceived personal use 4.0, or “it’s good.” The adolescent responses had a mean of 4.0. Again, the lower 3.0 score on this item and the variation in responses raises question requiring further examination.

The three specific items to cross check understanding of the booklet, “I understand what I would write for each step,” “I found the area where my mom or

dad would write,” and “I found the area where a nurse or doctor would write, “ were answered correctly by the three adolescents. Thus, the adolescent understanding of the purpose of these areas of the booklet was confirmed.

Combined Panel Results. Results of all three panel member groups were tabulated for means (Tables 2 and 3). The mean for nurse practitioner, parents, and adolescents was 4.5 for visual appeal. The mean for easy to read for all of the panel members was 4.4. The combined mean for easy to follow steps was 4.6. The adolescents were not questioned about the logical sequence and therefore there was no combined mean. The mean for perceived effectiveness was 4.1. Perceived personal use had a mean of 4.2 for all of the panel members.

Table 3. Table of means of questions

	NP	Parent	Total Adult	Adolescents	Combined Panel
Visual Appeal	4.5	4.7	4.6	4.3	4.5
Easy to Read	4.0	4.3	4.2	5.0	4.4
Steps Easy	4.0	4.7	4.3	5.0	4.6
Logical Order	4.0	4.7	4.3	--	--
Would Work	4.0	3.7	3.8	4.6	4.1
Would Use	4.5	4.0	4.3	4.0	4.2

Note. Dashes indicate question not asked of adolescent panel.

Qualitative Information

The qualitative information from the open-ended questions was grouped into nurse practitioner responses, parent responses and adolescent responses. General responses from the entire evaluation panel were then grouped for similarity and differences to ascertain strengths and weaknesses of the booklet

Nurse Practitioner Responses. In answer to “what is most helpful about the booklet?” the nurse practitioners found a written contract most helpful. One nurse practitioner wrote, “instructions clear” and “format for a contract with succinct steps instead of free forming,” as responses. The other nurse practitioner gave this input, “written aspect and ability to file in chart for future reference,” most helpful. She also wrote that the ability to give the parents a copy would be helpful.

In response to “what is least helpful about the booklet?” one of the nurse practitioners wrote that some of the wording of the booklet was unclear. Specifically she wrote the wording was unclear on page 2 “pick one thing you want to change” and added that the words “about yourself” might be more helpful. She also wrote the instructions were unclear in the item “pick three things you can do now that will help you change” and “tracking progress”. The other nurse practitioner wrote the “behavior change the adoles[cents] may not want parents, etc. to know about (sexual, alcohol, drugs)” was least helpful about the booklet. She also wrote that the practitioner “needs to have a strong, ongoing relationship with the adolescent” for the teen to “come back and update

information and review goals.” She continued that “this [booklet] would be good for counselors.” Included in additional comments, one of the nurse practitioners wrote, “visually pleasing booklet, nice colors, uncluttered, cool! This will be a very practical tool.”

Parent Responses. Parental responses to “what is most helpful about the booklet included “easy to follow, lots of support with child, parent. Evaluation is important.” Another parent wrote, “ it gives you a tool to use. Oftentimes it makes negotiating behavior changes easier if you have the ‘contract’ written versus a verbal agreement.” Another response was “definition of [the] contract is important. [Booklet] progresses logically, succinct and to the point.”

In response to “what is least helpful about the booklet one parent wrote, “in some instances or with some kids it [the booklet] may be too long.” Another parent wrote, “I’m not sure how to use the ‘tracking progress’ chart.” The third parent wrote that “nothing” was least helpful about the booklet.

Additional comments included “might be important to ask ‘why’ they want to change” referring to page 2 of the booklet “pick one thing you want to change.” Another parent commented it might be helpful to “add ‘be specific’ to goal area and three things that will help you change.” The third parent commented “ depending on the child’s attention span you may not be able to go through the entire booklet in one session.” Two parents also added “ I like the booklet.”

Adolescent Responses. The adolescent responses to “what would be most helpful about the booklet” included two comments about “ Being able to keep track of what my goal is a great thing and is helpful (sic)” and “It gave me a making progress chart.” One response also included “ the most helpful thing about the booklet is to know how a contract schedule works.”

The adolescent response to “what is least helpful about the booklet” included that the booklet is “ too short, needs to give kids advice” and “ to have a care provider sign it. Why would that be necessary?” One adolescent wrote, “ everything is helpful about your booklet” and “great job!”

Adolescent comments to “tell me anything else you think about this booklet” included “ good book,” and “it is a good booklet and fairly easy to understand. It will help kids set goals and accomplish them.” Another adolescent wrote “I don’t have really anything else to say besides, it’s a great booklet and I think it will really help kids who need help.”

Discussion

Use of Panel for Evaluation

The use of a small panel of evaluators was helpful for initial evaluation of the booklet and its usefulness. The parental panel was easily contacted through the college of nursing. The adolescent members of the evaluation panel were contacted through their parents and then received a letter if they indicated interest in participating. The nurse practitioners were known in the community

and were first contacted by telephone and then given a letter of request.

Contacts were easy to make and participants were eager to assist. Time spent by all of the participants evaluating the booklet was minimal. Suggestions and advice from the evaluation panel directed the decisions concerning the booklet and the plan for revision.

The information obtained from the evaluation panel was deemed useful in further development of the booklet. Suggestions from the panel would be incorporated into the booklet before introduction into a pilot study.

Distributing the material. The material was distributed to the evaluators by hand with the exception of one nurse practitioner who preferred that the packet be mailed to her. This difference was through personal preference of the nurse practitioner. Evaluations were returned in a timely manner, three of them with a one day turn-around time. All evaluations were returned before the determined deadline. This method of distribution was practical for the small panel size but would be difficult with a larger evaluation panel.

Decisions Regarding the Booklet

Visual Appeal. The level of agreement through the evaluation panel indicated that the booklet was generally visually appealing. No negative comments were given by the panel regarding the booklet's appearance. The color was pleasing to the evaluators as indicated by their comments. There was some level of disagreement between all of the panel members, one nurse practitioner, one parent and two adolescents rating the booklet 4.0 or "agree"

and the remaining four panel members rating the booklet 5.0. The adolescents gave no additional suggestions or comments about the appearance of the booklet. The graphics and color of the booklet were acceptable and would not be altered for future use.

Decisions Related to Readability. Rating of readability varied throughout the adult and adolescent members of the group. The adult members of the panel scored readability a mean of 4.2. The adolescents rated readability a mean of 5.0 suggesting that the booklet is easy to read for the adolescents. The adult's qualitative responses from the open-ended questions reflected a problem of understanding requirements of the contract steps and did not directly address a problem of readability. Since the evaluation of easy to read and understand was combined in one question, it may be presumed that the lower scoring of readability by the adult panel members is related to understanding the requirements of each step of the contract. The booklet needed additional instructions with each section to improve the understanding. The comment by one adolescent that the booklet was too short substantiated this assumption. The booklet was easy to read, but the clarity of the requirements of each step was lacking.

More explanation of the contract would be needed within the booklet to increase the understanding of the steps. Also, the directions in the booklet needed to be more explicit increasing the adult and adolescent understanding of each section of the booklet. This change could be accomplished by including

the instruction guide for the nurse practitioner, parent and adolescent at the back of the booklet. The instructions for the nurse practitioner and the parent could be combined with some expansion. Some basic instructions from the adolescent instruction guide needed to be incorporated into some of the sections of the booklet providing more information concerning the process of change and contracting steps.

Decisions Related to Following Steps. The ease of following the steps of the booklet was also rated somewhat differently for the adult and adolescent members of the evaluation panel. Adult panel member comments about adding or rewording instructions for some of the steps illustrate the booklet had inadequate directions. The adolescent panel commented the booklet was easy to understand but needed to contain more advice. This feedback again suggested that clearer instructions would improve the booklet. More explanation of each step in the adolescent's language would improve the booklet.

Decisions Related to Logical Order of Topics. Logical order of topics was rated positively by the adult members of the evaluation panel. This question was not included in the adolescent evaluation. The general consensus was that the booklet progressed logically and was "succinct." It was decided no alterations would be made in the order of topics or steps for future use.

Decisions Related to Booklet Would Help Change Behavior. The perceived usefulness of the booklet in adolescent behavior change was rated positively by both the adult and adolescent members of the evaluation panel but

with some inconsistencies. One nurse practitioner questioned the usefulness with risk behavior that an adolescent may want to keep confidential. This nurse practitioner and one parent rated this area “undecided.” The two low responses question the usefulness of the booklet as designed for changing adolescent behavior.

Despite the evidence in the literature that contracting has been shown to have a powerful influence on changing behavior, the adults in this panel indicated they are undecided about the usefulness of the booklet (Boehm, 1992; Carns & Carns, 1994; Fatis & Konewko, 1983). To better determine if the booklet would work, pilot application by adolescents, parents and nurse practitioners to an adolescent behavior change in the clinical setting would be helpful. That is beyond the scope of this current project but provides direction for the future.

Decisions Related to Perceived Personal Use. The adult and adolescent panel also rated the personal use of a contract inconsistently. One nurse practitioner who was “undecided” if the booklet would work to change behavior rated “ I would consider using a contract 4.0 or “agree.” One parent also rated the “this booklet would work” a 3.0 or “undecided” rated “I would consider using a contract” 4.0 or “agree.” Neither respondent wrote qualitative information to explain the inconsistencies in replies. No conclusions therefore can be drawn from this information. However, attention to inconsistencies in a pilot would be warranted.

Each adolescent answered differently from “I don’t know” to “yes, it’s great” to the question “I would use this booklet.” These inconsistencies also raise the question of the usefulness of the booklet in initiating behavior change. Literature supported the inclusion of a contract in behavior change to increase the expectations of success (Fatis & Konewko, 1983). Inclusion of a written contract, such as this booklet provided, had been shown to be a concrete reminder of the behavior changes and a commitment to change. A written contract could be evaluated and modified as needed. It is uncertain whether the members of the evaluation panel would use this booklet or a contract to change an adolescent behavior despite the literature to support the effectiveness of contracts. A pilot use of the booklet in a primary care setting with a small sample of adolescents would elicit more information.

Adolescent Understanding of the Steps of the Booklet. All of the adolescents correctly answered question number eight, a cross check of understanding, regarding what they would write for three specific steps of the booklet and identified where the parent and care provider would write. Although completing the booklet with a behavior change would better assess the understanding of the different steps and sections of the booklet, the adolescents appeared to be able to follow and understand the steps of the booklet. Additions of more instructions throughout the pamphlet would enhance the understanding of the requirements of each section.

Decisions Related to Qualitative Impressions of Booklet. Overall

impressions of the booklet were positive with all but one of the panel members stating in some form that they liked it. Most important to the evaluation of this project were the impressions of the adolescents which were all favorable.

The “tracking progress” area in the booklet had the widest range of responses. Some of the adult comments included that the “tracking progress” was “unclear” and “ I don’t understand how it is used.” The adolescent comments were more favorable including “ Being able to keep track of what my goal is, is a great thing and is helpful,” and “It gave me a making progress chart.” Progress charts have been proven useful in identifying behavior areas that need to change (Duyff, 1998; Schonfeld-Warden & Warden, 1997). Charting behaviors and progress assists in consciousness raising and self-reevaluation, both important processes of change in the Transtheoretical Model (Prochaska et al., 1994). Directions or suggestions for use of the daily tracking tool, not provided in this booklet, were needed to increase understanding of the benefit of the progress chart.

Comments by one nurse practitioner and one adolescent also questioned usefulness of such a process in the nurse practitioner practice. The nurse practitioner wrote that the booklet would be “good for counselors.” The adolescent wrote that “to have a care provider sign it” would be the least helpful and “why would that be necessary?” This may be a lack of familiarity with contracting or with the process of changing behavior.

Contracting has been used in various disciplines and situations, including health care since the 1970's (Kittleson & Hageman-Rigney, 1988). A contract clarifies desired outcomes, improves goal setting abilities and increases awareness of the process of change (Petroska, 1985, Prochaska et al., 1994). The use of contracting for facilitating behavior change in the adolescent was supported by the literature (Allen & Kramer, 1990; Blackham & Silberman, 1975; Boehm, 1992; Burns et al., 1996; Carns & Carns, 1994; Eyberg & Johnson, 1974; Herje, 1980). Involving the family in the process of change was also well supported by the literature (American Academy of Family Physicians, 1996; Burns et al, 1996; Coyne, 1996; Epstein et al, 1994; Epstein, 1996; Eyberg & Johnson, 1974; Fatis & Konewko, 1983; Faulkner, 1996; Schonfeld-Warden & Warden, 1997).

Involving the nurse practitioner, the parent, and the adolescent together in the process of developing a contract and initiating behavior change was a unique approach and the purpose of this project. The panel was requested to evaluate a novel instrument, the contracting booklet, in an office setting that could be perceived as unconventional for the process of contracting. The nurse practitioner who suggested the booklet would be "good for counselors" reflected a common use of contracting in the counseling or education setting. Nurse practitioners routinely counsel adolescents concerning risk behaviors although many nurse practitioners may feel uncomfortable in that role. The adolescent may be unfamiliar with the nurse practitioner role and scope of practice. Both

comments reinforce the necessity of exploring the unusual combination of a contracting booklet and the support of a parent and health care provider to facilitate adolescent behavior change. The usefulness of contracting in the primary care setting, including a nurse practitioner's practice, has been supported by the literature (Boehm, 1992).

The panel was not asked specific questions concerning their impressions of the area of the booklet titled "Where I am today," so no conclusion could be drawn regarding the usefulness of this self-evaluation of the stage of change. Additionally, no comments were asked or received about the booklet guide. The usefulness of these two sections of the booklet was unknown. Questions about the self-evaluation and booklet guide would have provided more information and would be included in further study.

Implications and Recommendations

Several modifications would have to be made before the booklet could be used in a pilot study. The visual appeal of the booklet was acceptable to all of the panel members. Color used in the pamphlet and clip art would be not changed. No additional pictures would be included in the finished booklet to give white space and a place to rest the eyes.

The sequence of steps was also generally accepted and would not be altered. An adolescent's statement of why they want to change would be included with the behavior the adolescent wanted to change. This information

would increase understanding by the care provider and parental with regard to the problem and provide more insight into how to best assist the change.

Recording the adolescent's initial reason or motivation for the change would also renew any waning commitment. A few words giving more guidance for the adolescent, parent, and nurse practitioner would be added to increase understanding steps of the booklet. This addition would also decrease the amount of explanation need on the booklet instruction guide.

The instructions for use of the booklet would be incorporated into the back pages with all of the information available to the nurse practitioner, parent and adolescent. This decision for modification was made because of the lack of understanding and comments concerning increasing understanding the steps of the booklet. Inclusion of the instructions within the booklet would also increase the clarity and the convenience of the booklet making it more likely to be useful in behavior change between the adolescent and parent. It would also be an economical modification by consolidating information and preventing repetition.

The booklet should be tested with a small group of parents and adolescents assisted by a nurse practitioner and by a group of parents and adolescents without a nurse practitioner to determine the usefulness in the contracting process and its purpose in the primary care setting. One of the nurse practitioners who participated in this project expressed interest in testing the booklet in her practice.

Contracting has been used to change behavior in many different disciplines since the 1970's. Contracting with adolescents can assist in motivating change of risk behaviors. The process of contracting can begin while the adolescent is still in a stage of precontemplation of the problem and can be used to move the teen forward through the stages of change. The skills the adolescent acquires from the process of contracting and change in such a booklet could be applied to various behaviors throughout life. A pilot in practice, after modification of the booklet, would be of great use in continuing the process of developing and refining such a contract and answering the several questions on usefulness demonstrated in this project.

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APPENDICES

APPENDIX A

Permission Letters

March 1, 1999

Carlo C. Di Clemente, Ph.D.
University of Maryland Baltimore County
Department of Psychology
1000 Hilltop Circle
Baltimore, MD 21250

Dear Dr. DiClemente,

I am writing to seek permission to use a model of the Transtheoretical theory printed in Changing for Good, page 54, printed by Avon Books.

I am presently a graduate student at Montana State University working toward a Masters of Nursing in the Family Nurse Practitioner program. My professional project uses the Transtheoretical Model as the framework for developing a contracting pamphlet for behavior change. The pamphlet was developed to be used in the primary care setting with an adolescent, parent and nurse practitioner.

To better explain and illustrate the processes of change in the Transtheoretical Model for my professional paper, I would like to insert a copy of the stages of change and the change processes that are most useful.

Thank you for your assistance.

Sincerely,

Deanna L. Babb, RN
MSU Graduate Student

Subject:

Re: Permission to reproduce Model

Date: Wed, 3 Mar 1999 22:40:03 -0500 (EST)

From: diclemente carlo <diclemen@umbc.edu>

Deanna,

I would be glad to give you permission to use the model in Changing for Good. That model has been printed in other materials as well. As long as you give the proper acknowledgement where you took the model, there should be no problem.

Carlo

Carlo C. DiClemente, Ph.D.
Professor and Chair
University of Maryland Baltimore County
Department of Psychology
1000 Hilltop Circle
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Tel. (410) 455-2415
Fax (410) 455-1055
Internet: DICLEMEN@UMBC.EDU

March 15, 1999

Cancer Prevention Research Center
University of Rhode Island
Kingston, Rhode Island 02881

Dear Dr. Prochaska,

I am writing to seek permission to use a model of the Transtheoretical theory printed in Changing for Good, page 54, printed by Avon Books.

I am presently a graduate student at Montana State University working toward a Masters of Nursing in the Family Nurse Practitioner program. My professional project uses the Transtheoretical Model as the framework for developing a contracting pamphlet for behavior change. The pamphlet was developed to be used in the primary care setting with an adolescent, parent and nurse practitioner.

To better explain and illustrate the processes of change in the Transtheoretical Model for my professional paper, I would like to insert a copy of the stages of change and the change processes that are most useful.

Thank you for your assistance.

Sincerely,

Deanna L. Babb, RN
MSU Graduate Student

FAX: 1-406-452-3935

*Permission granted.
Janet Smith
3/22/99*

APPENDIX B

Booklet

IT'S US!

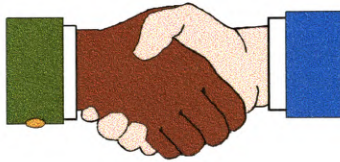
CONTRACTING



MAKING CHANGES

WHAT IS A CONTRACT?

A CONTRACT IS AN AGREEMENT TO CARRY OUT A SPECIAL ACTION IN A GIVEN TIME PERIOD. A CONTRACT MAY BE WRITTEN OR SPOKEN. IT IS USUALLY MADE BETWEEN TWO OR MORE PEOPLE.



 **Pick one thing you want to change:**



WHERE I AM TODAY

Check all that apply:

___ I am working on this problem.

___ I have tried to fix this before and failed.

___ I am going to fix this problem in the next month.

___ I am going to fix this problem in the next six months or year.

___ I don't need to fix this problem.

___ I have fixed my problem.

Or write how you feel _____



**PICK THREE THINGS YOU CAN DO NOW
THAT WILL HELP YOU CHANGE**

1.

2.

3.



What could others do to help ?

1.

2.

3.



Parent or Guardian Agreement

Three Things I Will Do:

1.

2.

3.



Health Care Provider Agreement

Three Things I Will Do:

1.

2.

3.

REWARDS

Daily Rewards:

- 1.
- 2.
- 3.
- 4.



Weekly Rewards:

- 1.
- 2.
- 3.
- 4.



The goal of this plan is:

By this date:

Signed by _____

Parent/guardian _____

Health care provider _____

Tracking Progress

Su	Mo	Tu	We	Th	Fr	Sa



Evaluation

Did this work?

What were the reasons?

How do you feel?

What can we do next?

1.

2.

3.

YOU WIN!



APPENDIX C

Nurse Practitioner Evaluation Tool

If you have any questions, please contact me at:

Phone # 452-3935

or you may contact my advisor:

Daryl T. Ries, PhD, RN
Montana State University College of Nursing
Great Falls campus
2800 11th Avenue South
Suite 4
Great Falls, Montana 59405
(406) 455-5615

I would be happy to send you a copy of the completed evaluation of the pamphlet. Check the space provided below if you would like a report.

Thank you for timely attention to this matter and for your invaluable opinion and assistance. Any additional comments or suggestions will be especially valuable to me.

Sincerely,

Deanna Babb, RN, BSN

_____ Please send me a report.

Nurse Practitioners Guide to Using “It’s Us!” Contracting booklet

Purpose:

“It’s Us!” Contracting booklet was designed for use in generating behavior change in adolescents. The booklet is written for the adolescent to read and use with guidance from a parent or guardian and the nurse practitioner. The adolescent chooses one behavior they would like to change and records it on the booklet. The booklet can be utilized for changing a variety of risk behaviors.

Examples include:

- Beginning an exercise program
- Improving dietary habits
- Smoking cessation
- Improving self esteem
- Drug awareness
- Sexual abstinence

Theory of change:

The booklet was developed from the Transtheoretical Theory of change. Change has basic stages, each one equally important to the process of making behavior changes. These stages are ***precontemplative, contemplative, preparation, action, maintenance, and termination***. This process rarely follows a linear progression. Instead, a person attempting change may recycle back and forth through the stages of change several times before reaching their goal.

Guide for stage of change “WHERE I AM TODAY”

The checklist was developed to quickly assess the adolescent’s stage of change. The statements correspond to the following states of change:

- “I am working on this problem.” **action**
- “I have tried to fix this before and failed.” **precontemplation or contemplation**
- “I am going to fix this problem in the next month.” **contemplative and preparation**
- “I am going to fix this problem in the next six months or year.” **precontemplative or contemplative**
- “I don’t need to fix this problem” **precontemplation**
- “I have fixed my problem.” **Termination**

Change begins with **precontemplation**. **Precontemplators** are not ready to change their behavior. The tools to help **precontemplators** move into contemplation include:

- consciousness raising of their problem
- a helping relationship or directly confronting the behavior change

Contemplators may be “stuck” in this stage for a long time, knowing they need to change. Two tools that are helpful in moving contemplators on to action are:

- Increased consciousness raising of their problem
- Specific goal setting

Action is the stage of change with the most activity. Three important tools for the stage of action are:

- A written contract of the behavior change
- Reward of desirable behavior
- Helping relationships to support the change

Note: Any change from one stage to another represents progress.

Developing the Plan:

- The adolescent thinks of three activities they can do right now to work toward the desired change. This can include reading more about their problem or eating three vegetables per day for example.
- The parent or guardian and the nurse practitioner agree to each do three activities that will support the adolescent's change.

Rewards:

The adolescent and parent agree on rewards that will be given on a daily basis for more immediate gratification. Some suggestions for daily rewards:

- uninterrupted time with the parent
- a special low calorie dessert
- trip to the library
- 15 minutes phone time
- saving "points" for a weekend reward

Weekly rewards are given when the plan is followed for a week. Suggestions for weekly rewards:

- rollerblading at the park
- a movie
- bike trip with family
- dinner at favorite restaurant
- afternoon with friends at the mall

Progress through the week can be tracked on the record provided.

Signing the Contract:

- The nurse practitioner, adolescent, and parent clarify the goal.
- The adolescent, parent, and nurse practitioner then sign the contract.
- A copy of the contract can be placed in the adolescent's record.

Evaluation and Follow-up:

- A date to evaluate the progress is planned according to the behavior to be changed.
- The adolescent evaluates if the plan worked, why or why not, and how they feel.
- The adolescent then writes three things they may do to continue the behavior change. A new booklet may be used to continue to progress on the change.

For More Information:

Changing for Good by James Prochaska, John Norcross, and Carlo DiClemente (1994) published by Avon Books, New York.

Nurse Practitioners Booklet Evaluation form:

Note the time you start _____

Read through the "It's Us" contracting booklet. Refer back to the booklet as needed to answer the following questions. Circle the number that best describes your impression of the booklet.

- | | <i>Strongly
Disagree</i> | <i>Disagree</i> | <i>Undecided</i> | <i>Agree</i> | <i>Strongly
Agree</i> |
|--|------------------------------|-----------------|------------------|--------------|---------------------------|
| 1. The booklet is visually appealing. | 1 | 2 | 3 | 4 | 5 |
| 2. The booklet easy to read and understand for adults and adolescents. | 1 | 2 | 3 | 4 | 5 |
| 3. The steps for making the contract are easy to follow. | 1 | 2 | 3 | 4 | 5 |
| 4. The steps are in an order that makes logical sense to me. | 1 | 2 | 3 | 4 | 5 |
| 5. This booklet would work to change adolescent behavior. | 1 | 2 | 3 | 4 | 5 |
| 6. I would consider using a contract to help a child change behavior. | 1 | 2 | 3 | 4 | 5 |
| 7. Specifically, what is most helpful about the booklet? | | | | | |

8. What is least helpful about the booklet?

9. Suggestions and additional comments are greatly appreciated:

10. Please complete the following information about yourself:

Highest degree held _____

Title _____

Years of experience _____

Time finished _____

Thank you for your time.

APPENDIX D

Parent Evaluation Tool

February 8, 1999
(Address)

Dear (Parent evaluator),

Thank you for your willingness to participate in my professional project as a volunteer. Several people are being asked to evaluate my work by reviewing a contracting pamphlet and reporting their impressions. Your opinion and input concerning the usefulness of the contracting pamphlet is an integral part of my project. It will be used to evaluate the usefulness of this contracting pamphlet in initiating behavior change in adolescents.

The professional project is part of the requirements for the Master of Nursing degree from Montana State University's Family Nurse Practitioner program. The purpose of this project is to develop a contracting pamphlet specifically for adolescents to initiate changing a risk behavior. It is designed to be used with a variety adolescent risk behaviors.

Enclosed you will find the contracting pamphlet, instruction for its use, an evaluation tool, and an envelop to return the evaluation materials. All responses will be confidential and no evaluators will be identified by name.

Instructions

1. Note the time you begin the evaluation. This gives me a rough estimate of the time needed to use the pamphlet.
2. Read through the evaluation form.
3. Look at the pamphlet and read through the nurse practitioner's guide.
4. Record your impressions on the evaluation form provided.
5. Record any additional comments.
6. Note the time when you are finished and record this on the evaluation form.
7. Return the evaluations to me in the enclosed envelope by Feb. 16, 1999 or if you call me I will pick it up at your office. The pamphlet and the instructions are yours to keep.

If you have any questions, please contact me at:

Phone # 452-3935

or you may contact my advisor:

Daryl T. Ries, PhD, RN
Montana State University College of Nursing
Great Falls campus
2800 11th Avenue South
Suite 4
Great Falls, Montana 59405
(406) 455-5615

I would be happy to send you a copy of the completed evaluation of the pamphlet. Check the space provided below if you would like a report.

Thank you for timely attention to this matter and for your invaluable opinion and assistance. Any additional comments or suggestions will be especially valuable to me.

Sincerely,

Deanna Babb, RN, BSN

_____ Please send me a report.

Parent's Guide to "It's Us!" Contracting booklet

The "It's Us!" Contracting booklet was designed to use to assist behavior change in adolescents. The adolescent chooses one behavior they would like to change and records it on the booklet. The booklet can be utilized in a variety of risk behaviors.

These may include:

- Beginning an exercise program
- Improving dietary habits
- Smoking cessation
- Improving self esteem
- Drug awareness
- Sexual abstinence

The booklet is written for the adolescent to read and use with guidance from a parent or guardian and a nurse practitioner. It is based on the theory that change does not progress from one step to the next but may take many attempts until there is success.

"WHERE I AM TODAY"

This self-assessment exercise:

- Helps determine the adolescent's present feelings about the behavior change.
- Identifies the adolescent's present stage of change
- Assists the health care provider and parent in planning the best way to help the adolescent make the behavior change

Rewards:

The adolescent and parent agree on rewards that will be given on a daily basis for achieving daily goals. Some suggestions for daily rewards:

- uninterrupted time with the parent
- a special low calorie dessert instead of high fat snacks
- trip to the library
- 15 minutes phone time

Weekly rewards are given when the plan is followed for a week. Suggestions for weekly rewards include:

- rollerblading at the park
- a movie
- bike trip with family
- dinner at favorite restaurant
- afternoon with friends at the mall

Progress through the week can be tracked on the record provided.

Signing the Contract:

The nurse practitioner, adolescent, and parent clarify the goal.

The adolescent, parent, and nurse practitioner then sign the contract.

Parents Booklet Evaluation form:

Note the time you start_____

Read through the "It's Us" contracting booklet. Refer back to the booklet as needed to answer the following questions. Circle the number that best describes your impression of the booklet.

- | | <i>Strongly
Disagree</i> | <i>Disagree</i> | <i>Undecided</i> | <i>Agree</i> | <i>Strongly
Agree</i> |
|--|------------------------------|-----------------|------------------|--------------|---------------------------|
| 1. The booklet is visually appealing. | 1 | 2 | 3 | 4 | 5 |
| 2. The booklet easy to read and understand for adults and adolescents. | 1 | 2 | 3 | 4 | 5 |
| 3. The steps for making the contract are easy to follow. | 1 | 2 | 3 | 4 | 5 |
| 4. The steps are in an order that makes logical sense to me. | 1 | 2 | 3 | 4 | 5 |
| 5. This booklet would work to change adolescent behavior. | 1 | 2 | 3 | 4 | 5 |
| 6. I would consider using a contract to help my child change behavior. | 1 | 2 | 3 | 4 | 5 |

7. Specifically, what is most helpful about the booklet?

8. What is least helpful about the booklet?

9. Suggestions and additional comments are greatly appreciated:

10. Please complete the following information about yourself:

Male____ Female____

Highest level of education completed:

Grade school

High school

GED

Vocational

College degree

Master's degree

Doctorate degree

Occupation_____

Time finished_____

Thank you for your time.

APPENDIX E

Adolescent Evaluation Tool

February 8, 1999
(Address)

Dear (Middle school evaluator),

My name is Deanna Babb and I am a nurse who is going to school like you. I spoke with your mom about helping me with a project that is part of my schoolwork. My homework project is to make a booklet especially for kids in middle school. It is about making a special kind of agreement called a contract that can be used to help change a bad habit to a good habit. Other people your age are looking at my booklet to tell me how to make it better.

In this envelope you will find four things:

- 1) "It's Us!" contracting booklet**
- 2) Middle schooler's guide**
- 3) A blue question sheet**
- 4) Envelope**

There is no one right or wrong answer. Your name will not be given to anyone.

Instructions:

1. Look at the time when you begin and write this on the top of the blue question sheet.
2. Read the booklet.
3. Circle your answers on the blue question sheet.
4. Tell me things you like about the booklet or things that would make it better for kids.
5. Look at the time when you finish and write this on the bottom of the blue question sheet.
6. Put the blue question sheet in the envelope.
7. Mail to me by Feb. 16, 1999.

The booklet and the guide are yours to keep. If you would like to talk to me about my booklet my number is 452-3935.

I will send you a copy of the booklet after it is finished.

Thank you for helping me.

Sincerely,

Deanna Babb
Registered Nurse





Your Guide to “It’s Us!” Contracting booklet

The “It’s Us!” Contracting booklet was written especially for you. It was made to help you begin a change that you may have wanted to do for a long time.



- First, pick one thing you want to change. Be as exact as you can be. Examples are:
“I want to exercise 3 times per week.”
“I would like to eat healthy foods.”
- Then pick 3 activities you can do to help with this change. Be as clear as you can be. Some examples are:
“I will ride my bike for 20 minutes on Monday, Wednesday, and Friday.”
“I will eat fruit after school for a snack instead of potato chips.”

What Could Others Do?

What could mom or dad do to help you? Could they let you help plan meals? Could they go for a walk with you after dinner? Could they play a game of chess with you instead of watching television? Think of three things others could do that would help you the most right now.

Rewards:

Rewards help keep you working toward your goal or change.

- Pick three things you would like as a reward when you follow your plan during the day. For instance, if you ride your bike 20 minutes, you might reward yourself with a hot bath after dinner
- Think of rewards you would like for following your plan a whole week. You could pick a bike ride with your family in the park if you ate fruit all week after school instead of potato chips or go to a movie with a friend if you did all of your homework on time this week.

Signing the Contract:

Make sure your mom and dad understand exactly what you want to change. Then you all sign it to “close the deal.”

Tracking Progress:

Writing down what you do every day to make your change can help you see:

- how far you have come
- how hard you are working
- what might be helpful

What If You Fail? That’s okay! Making a change takes time and many people fail. The key is to keep trying. Every time you make a plan and try, you learn new things about yourself and how to solve a problem. Keep trying, you are a **WINNER!**



Question sheet for Middle Schooler

Time started_____

Read through the “It’s Us” contracting booklet. Look back at the booklet as you need to answer the following questions. Circle the number that fits your feelings about the Booklet the best.

	<i>No</i>	<i>Very little</i>	<i>I don't Know</i>	<i>It's good</i>	<i>Yes, it's great</i>
1. I like the way this booklet looks.	1	2	3	4	5
2. The booklet is easy to read.	1	2	3	4	5
3. The steps in the booklet are easy to understand.	1	2	3	4	5
4. This booklet would help someone my age change something about themselves.	1	2	3	4	5
5. I would use this booklet to change something about myself.	1	2	3	4	5

Now write your answers:

6. What would be most helpful about the booklet?

7. What would be least helpful about the booklet?

8. Now look at the booklet again.

a. I understand what I would write for each step of the booklet. Yes____No____

b. I found the area where my mom or dad would write how they would help on page_____.

c. I found the area where a nurse or doctor would write how they would help on page_____.

9. Please tell me anything else you think about this booklet:

10.About you:

Male_____Female_____

Grade_____

Age_____

Time completed_____

Thank you.