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Motivational Interviewing Group to Address Cardiovascular Disease Risk Factors

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Motivational Interviewing Group to Address Cardiovascular Disease Risk Factors

by

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Each person whose signature appears below certifies that this doctoral project in his/her opinion is adequate, in scope and quality, as a doctoral project for the degree Doctor of Psychology.

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ABSTRACT

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The purpose of this doctoral project was to create a group treatment manual for adults diagnosed with cardiovascular disease, who were displaying adverse health behaviors that were modifiable by lifestyle change. In order to create the manual, an extensive literature review was conducted in the areas of the prevalence of chronic illness in the United States, cardiovascular disease and associated health risk factors, motivational interviewing, health behavior change, and group therapy with adults. The result is a manual consisting of 10 detailed weekly sessions, including pre/post outcome measures, complete with handouts and facilitator guidelines for working with this population.

CHAPTER 1

INTRODUCTION

Our healthcare system was built upon an acute care model; one germ one cure. Diseases such as tuberculosis, yellow fever, and smallpox were the leading culprits of deaths in past centuries. They each amounted to devastating losses of life on a pandemic level and left an indelible mark on history. Fortunately, vaccines were developed that eventually halted the course of these diseases, and in the case of smallpox, eradicated it altogether, making them irrelevant to modern society. Although we no longer face the threat of these once pernicious diseases, a new threat has emerged. Chronic illnesses have replaced them to become the leading causes of death and disability, resulting in 7 out of 10 deaths among Americans each year (Kung, Hoyert, Xu, & Murphy, 2008). In 2005, the World Health Organization reported that an estimated 133 million Americans were afflicted with at least one chronic illness, making that almost one out of every two adults (Wu & Green, 2000; World Health Organization [WHO], 2011). The Centers for Disease Control and Prevention (CDC) (2008) reported that one out of three adults were obese and one in five youths between the ages of six and nineteen were obese according to the standard Body Mass Index chart (Centers for Disease Control and Prevention [CDC], 2008; Ogden, Carroll, & Flegal, 2008). Anderson (2004) reported that approximately one-fourth of Americans have one or more daily physical activity limitations due to chronic conditions. Diabetes is the leading cause of kidney failure, nontraumatic lower-extremity amputations, and blindness among adults, aged 20-74, with arthritis being the most prevalent cause of disability (CDC, 2008; Hootman, Bolen, Helmick & Langmaid 2006). Because our current healthcare system was not designed to support these types of

long-term illnesses and diseases, and because people are living longer due to medical advances, the system is overburdened. Sobering projections by WHO (2005) indicate that the chronically ill population will increase by one percent per year by 2030. This will result in an estimated chronically ill population of 171 million, which will take up approximately 75% of healthcare costs each year, making the management of chronic illnesses in the U.S. the major contributor to overall health care spending (WHO, 2005; Robert Wood Johnson Foundation & Partnership for Solutions [RWJF], 2004; CDC, 2011).

Four major types of chronic illnesses exist. The first type includes life-threatening conditions such as myocardial infarction, stroke, AIDS, and fast growing cancers. The second type is manageable chronic illnesses like diabetes and hypertension; they are serious but not life-threatening. The third major type includes progressively disabling conditions such as Parkinson's disease, osteoarthritis, and rheumatoid arthritis. A fourth and last type of chronic illness are those illnesses with waxing and waning symptoms like fibromyalgia and chronic fatigue syndrome (Heron, 2007). Many risk factors for chronic illness, such as cardiovascular risk factors, can be treated through health behavior change.

While chronic illnesses differ in presentation, course, and treatment, their common element is that they are prevalent, costly, require a substantial amount of resources from the healthcare system, and many are preventable through healthy lifestyle choices. Some of these choices include physical activity, proper nutrition, and refraining from tobacco use and excessive alcohol consumption (Perry & Bennett, 2006; van Berkel, van der Vlugt & Boersma, 2000). These are simple behaviors that can often prevent these devastating and debilitating conditions. However, recent studies and

national surveys reveal a surprising number of people still engaging in poor health behaviors, and bring to light the battle against chronic illness. In spite of educational campaigns that highlight the deleterious effects of suboptimal health behaviors, the CDC (2008) reported that approximately one-third of American adults did not meet recommendations for physical activity based on established guidelines (see Table 1 below).

Table 1

Cardiovascular Disease: Modifiable and Non-Modifiable Risk Factors

Modifiable Cardiovascular Disease Risk Factors	Non-Modifiable Cardiovascular Disease Risk Factors
Hypertension	Age
High blood cholesterol levels	Gender
Obesity	Family history of cardiovascular disease
Diabetes	Race & ethnicity
Poor personal hygiene	
High stress	
Excessive alcohol consumption	
Tobacco use	
Poor diet	
Physical inactivity	

Moreover, close to 25% of American adults reported no physical activity outside of their normal daily routine in the preceding month (Carlson, Fulton, Galuska, & Kruger, 2008). Furthermore, in 2007, the CDC (2008) also reported that less than 22% of high school students and only 24% of adults consumed the recommended amount of fruits and vegetables per day (see Table 2 below).

Table 2

Recommended Daily Servings of Fruits and Vegetables by Age

	Food Group	
	Vegetable Group	Fruit Group
Children ages 2 to 6 years, women, some older adults (about 1,600 calories)	3	2
Older children, teen girls, active Women, most men (about 2,200 calories)	4	3
Teen boys, active men (2,800 calories)	5	4

Note. Adapted from "The Food Guide Pyramid, Home and Garden," *U.S. Department of agriculture, Center for Nutrition Policy and Promotion Bulletin, 252,* 1996.

With lung cancer rates on the rise and its strong correlation with smoking, it is surprising to discover that 43 million American adults and 20% of high school students reported to being current smokers according to 2007 and 2008 polls (National Center for Health Statistics [NCHS], 2007; CDC, 2008). Excessive alcohol consumption has also been implicated in the alarming rate of chronic illnesses. Despite strong evidence that alcohol abuse is a risk factor for liver cancer, nearly 50% of high school students report alcohol consumption in the past 30 days, and 60% endorse binge drinking in the past 30 days (Naimi, Brewer, Miller, Okoro, & Mehrotra, 2007). In light of these sobering statistics, it is no wonder why chronic illnesses continue to climb to staggering numbers.

CHAPTER 2

BACKGROUND AND THEORY OF MOTIVATIONAL INTERVIEWING

As a result of the attention that chronic illnesses have gained in recent years, more efforts have been made to understand and analyze this current health trend in an effort to develop more effective preventive measures that promote healthy lifestyle choices and behavior change, since they have been identified as important outcomes in disease prevention. An exciting, and relatively new, treatment approach for health behavior change that is increasingly making its way in medical school curriculum and healthcare settings is motivational interviewing (MI). First described in the literature in 1983, motivational interviewing was originally developed as a brief intervention to address alcohol abuse (Miller, 1983). Developed by clinical psychologists, Dr. William R. Miller and Dr. Stephan Rollnick, MI is defined as a client-centered, directive, counseling approach that focuses on eliciting behavior change through exploration and resolution of clients' resistance or ambiguity to change (Rollnick & Miller, 1995). Bundy (2004) describes MI as a cognitive-behavioral technique that attempts to alter behavior that may be placing an individual's health at risk for problems that can lead to a chronic condition. Central tenets of this type of approach are what Rollnick and Miller refer to as the "spirit" of MI. This spirit refers to three distinctive features encompassing this technique, which include being collaborative, evocative, and honoring patient autonomy.

Collaboration refers to a joint effort on behalf of the client and therapist to work together towards a therapeutic goal (Rollnick, Miller, & Butler, 2008). It conveys the idea of shared knowledge and mutual participation in the treatment process in which the client

is seen as the expert of themselves and the therapist is the expert of the process. In this sense, MI diverges from the power hierarchy between the therapist and client in traditional psychotherapy and traditional medical provider settings and strives to equalize the relationship and encourage the client to become an active participant in treatment.

Evocation is the technique of eliciting the client's own motivation and reasoning to make a positive behavior change based on their unique value system. Often times, therapists find themselves assuming the role of issuing goals the client should have and how they should go about achieving them. Evocation highlights the assumption that clients have a reason for making or not making change and MI is one way in which they can be assisted in attaining their goals.

Lastly, the notion of honoring patient autonomy reflects the idea that patients ultimately decide which direction to take their lives, which includes choosing to make behavioral changes or electing not to. This tenet in particular, is extremely relevant in the health psychology setting since this specialization focuses on behavioral change by understanding the biological, psychological, sociological, and cultural factors that are involved in health and prevention of illness (Rollnick et al., 2008). It also distinguishes this intervention from more traditional models of change because it places the onus for change on the patient and recognizes that the patient's level of motivation and readiness accounts for much of the change.

In addition to these three underlying components of the spirit of MI, four guiding principles exist, which are: (1) express empathy, (2) to develop discrepancy, (3) roll with resistance, and (4) supporting self-efficacy (Rollnick & Miller, 1995). Overall, MI seeks to evoke change by exploring the client's reasons for change, and not the health care

provider's, and having the client state their motivations and desires for change as well as their ambivalence surrounding change (Miller & Rollnick, 2002). Because traditional medical advice giving has not diminished or prevented the rapid rise of chronic illness cases and the associated risk factors, MI stands as a promising, and alternative approach that is supported by a growing body of research demonstrating its preliminary effectiveness in facilitating health behavior change; MI continues to broaden its application from addiction treatment to a larger population of psychological and health-related problems such as chronic illnesses (Emmons & Rollnick, 2001; Rollnick et al., 2008).

With one out of two adults suffering from a chronic illness, MI and other behaviorally-based evidence-based interventions are being utilized to enhance patient treatment outcome by addressing health-related behaviors. Such behaviors include treatment adherence, nutrition, physical activity, diabetes management, and smoking cessation (Butterworth, 2008; Ruback, Sandbaek, Lauritzen, & Christensen, 2005). A large part of MI's appeal lies in its ability to adapt to various health settings such as nursing, pharmacy, and family medicine. Additionally, its emphasis on brief, efficient interventions has garnered interest from both health researchers and professionals in health settings who are interested in enhancing current treatment approaches and prevention efforts (Britt, Hudson, & Blampied, 2004).

CHAPTER 3

CARDIOVASCULAR DISEASE AND HEALTH RISK FACTORS

A chronic illness that has responded to health behavior change interventions is cardiovascular disease which refers to heart conditions and stroke (National Academy on the Aging Society [NAAS], 2000). Heart disease, a type of cardiovascular disease, is a chronic illness that affects millions of individuals worldwide. It kills up to 40% of Americans and heart disease and stroke are the first and third leading causes of deaths among women and men in the United States (Heron et al., 2009). Different types of heart disease exist, but coronary heart disease, a condition in which there is an inadequate supply of blood and oxygen to the heart due to narrowing of the coronary arteries (NAAS, 2000), appears to be the most common type. Nearly half a million people died from this type of heart disease in 2005 (Heron, 2007). It is anticipated that for this year alone, costs for heart disease will be more than 300 billion dollars. This includes healthcare services, medications, and lost productivity (Lloyd-Jones et al., 2010).

The CDC uses the term "heart disease" to describe a category of heart conditions that involve the heart or blood vessels. These types of conditions can lead to heart attack, which is a sudden blockage to the coronary artery, angina, or chest pain, arrhythmias, which are unusual heart rhythms, and heart failure, which is generally considered to be the last stage in the disease, and often times, fatal (NAAS, 2000; CDC, 2009). Population based studies have shown that the precursors of heart disease begin in adolescence and as early as childhood (Vanhecke, Miller, Franklin, Weber, & McCullough, 2006). The disease slowly progresses until it is detected in adulthood, where it can quickly advance.

Well-established risk factors for cardiovascular disease have been identified including high levels of LDL cholesterol, high blood pressure, diabetes, obesity, sedentary lifestyle, diet, tobacco use, and alcohol use. In addition, being male, a post-menopausal woman, and being of African-American, Native American, or Mexican-American descent are also seen as risk factors (American Heart Association [AHA], 2010). Heredity plays a role as well as heart disease has been shown to run in families. However, in most cases, it is likely the interaction between genetics and the environment that increase the risk (CDC, 2009).

Treatment of Cardiovascular Disease

When cardiovascular disease is detected early, the risk of developing a fatal heart attack or stroke is reduced. The typical treatment approach for heart-related medical conditions and other chronic illnesses includes medication and altering the modifiable risk factors, which are those risk factors that can be changed or treated (see Table 3).

Table 3

Recommended Physical Activity Guidelines by Age

	Age	
	Children 5-17	Adults 18-64
Moderate-intensity aerobic activity (e.g. walking briskly [at least 3 mph], water aerobics, bicycling ≤ 10mph, ballroom dancing, etc.)	60 minutes, three days per week	2.5 hours per week
Muscle-strengthening activities that work all major muscle groups e.g., back, arms, legs, etc. for adults and climbing on trees, tug-o-war, resistance bands, etc. for children)	3 days per week	2 or more days

Note. Adapted from *Physical Activity Guidelines for Americans,* 2008

These include physical activity, balanced diet, avoidance of tobacco, and excessive alcohol intake. Keyes (2004) identified psychological factors that are contributing factors to heart disease, such as stress and depression. Kilbourne and colleagues (2009) found that veterans with psychosis were more likely to die from heart disease than those that were not psychotic. Therefore, treatment of psychological disorders is part of the multi-modal treatment approach to cardiovascular disease.

The traditional method of addressing risk factors and encouraging health behavior change is to inform patients of the associated risks with the idea that if patients were made aware of the dire consequences of their behaviors, this will bring about change (Tuckett, Boulton, Olson, & Williams, 1986). This type of approach operates under the assumption that people will believe what they are told, especially if the information is coming from a reliable, credible source such as a physician or nurse. The problem with this approach is that many patients do not like to feel as though they are being told what

to do (Stott & Pill, 1990). More progressive methods of health promotion on the other hand, consider the thoughts and beliefs surrounding health and illness and how they are related to behavior (Bundy, 2004). While evidence exists that these types of health promotion techniques promote better health behaviors (Puska et al., 1985; Multiple Risk Factor Intervention Trial [MRFIT], 1982), patients with health problems that are engaging in risk behaviors seldom attain permanent change in these risk behaviors (Bundy, 2004). Additionally, contrary to common belief, a diagnosis such as myocardial infarction, does not necessarily translate to change in health risk behavior. For example, in studies looking at smoking cessation upon experiencing a heart attack, only half of sufferers actually quit smoking (Rea et al., 2002, van Berkel, van der Vlugt, & Boersma, 2000). With regards to poor medication adherence, Ley (1974) found that approximately 40% of patients are non-compliant with taking antibiotics and about 38% of people infected with tuberculosis that need to take medication do not do so. These findings suggest a lack of motivation for many patients to follow through with medical advice, even when the consequences may be severe. Additionally, self-efficacy, which is a person's confidence to perform a behavior to attain a certain goal, and is an important component to successful health behavior change, also appears to be lacking (Sol, van der Graaf, van der Bijl, Goessens, & Visseren, 2008). In chronic illnesses such as heart disease, a sustained level of motivation and confidence in one's ability to make changes must be present in order to deal with the longevity of the disease and to manage it effectively (Bundy, 2004).

CHAPTER 4

MOTIVATIONAL INTERVIEWING INTERVENTION FOR CARDIOVASCULAR DISEASE

Many studies have examined the effects of MI on several cardiovascular disease risk factors including hypertension, physical inactivity, smoking, poor nutrition, and treatment non-compliance. Cardiovascular disease is one such chronic illness that has benefited from MI in eliciting positive health behaviors. Several studies on MI and heart disease have come out in recent years supporting this particular type of therapeutic approach as an effective means for reducing health risk behaviors associated with heart disease (Thompson et al., 2011). In a randomized controlled trial examining MI-informed counseling sessions with patients at risk for coronary heart disease in a primary care setting, Hardcastle, Taylor, Bailey, and Castle (2008) found that patients receiving this intervention were more active, had a reduction in weight, and lowered their blood pressure and cholesterol when compared to the control group that received usual care. Ogedegbe et al. (2008) examined poor medication adherence in hypertensive African Americans, a population especially at risk for heart disease, and found that participants enrolled in the MI intervention group were able to maintain a steady level of medication adherence compared to the usual-treatment control group that saw a decline in consistent medication use. In addition to medication adherence, physical activity plays a large role in the progression of the disease. Research has established that individuals that lead sedentary lifestyles are more at risk for congestive heart failure. This in turn leads to poor quality of life because of limited physical activity and autonomy, high mortality rates, and costly hospital stays. Brodie and Inoue (2005) found that patients with congestive

heart failure in the MI and combined groups which promoted physical activity, reported a better quality of life in certain aspects of the outcome surveys than the standard treatment group at five months post baseline. Riegel et al. (2006) examined MI's impact on self care in congestive heart failure patients and found that 71% of patients showed improvement in self care after receiving a motivational intervention. In a recent pilot trial investigating coronary heart disease among overweight smokers with a non-acute psychotic disorder, Baker et al. (2009) found that participants assigned to the multi-component treatment group of MI/cognitive-behavioral, and nicotine replacement therapy had better outcomes than the usual treatment group and had reductions in coronary heart disease risk scores, weight, and smoking frequency. These results suggest that smoking and other heart disease-related health risk behaviors may respond better when MI is part of their treatment, even with individuals that suffer from severe mental illness such as psychosis. More research is still needed in the field of MI and specifically within the heart disease population, but the existing research is very encouraging for MI as an alternative, effective, and efficient approach to health behavior change. This in turn, marks a new course in health-related behavioral change (Miller & Rollnick, 1995; Knight, McGowan, Dickens, & Bundy, 2006).

Group Therapy Format

Due to limitations of resources and time, group therapy has become a widely used therapeutic tool across various settings. Group therapy reaches a broader audience and has inherent qualities that facilitate treatment such as cohesiveness, peer support, and

imparting information (Yalom & Leszcz, 2005). In addition to being more efficient and cost-effective, studies have shown the effectiveness of group therapy in treating various disorders and illnesses, making it more attractive than traditional one on one therapy (Rubak et al., 2005). Lincourt, Kuettel, & Bombardier (2002) found that court-mandated substance abusers who attended a motivational enhancement group program prior to receiving usual treatment, were significantly less likely to meet diagnostic criteria for substance dependence, attended more treatment sessions, and were more likely to complete their treatment program than those clients that did not attend the group. In addition, research has demonstrated that group therapy is more effective than individual therapy in treating certain health issues (Rubak et al., 2005). Renjilian et al. (2001) found that obese patients enrolled in a group therapy treatment modality produced greater weight loss than those obese patients enrolled in an individual therapy treatment modality. Factors that contribute to the effectiveness of a group therapy setting include gaining support from other group members, identifying with other members, listening to different perspectives on the issue at hand, and having a safe environment to listen and be heard in (Rubak et al., 2005). Therefore, a group therapy intervention that involves increasing internal motivation and resolving ambivalence to change may be a powerful tool in the ongoing effort to treat cardiovascular patients that deal with a variety of symptoms including hypertension, high cholesterol, and obesity. Moreover, promoting self-efficacy in a group setting may also lead to the desired behavior changes because it encourages self-management.

Dissemination

In addition to group therapy, MI techniques are slowly finding their way into medical school curriculum. Physicians know that when they communicate effectively with patients, treatment adherence increases. In spite of this, only a fraction of medical schools include health behavior training in their curricula, which typically places an emphasis on acute care (Bell & Cole, 2008; Abramowitz, Flattery, Franses, & Berry, 2010). With a growing body of evidence supporting health behavior change interventions in healthcare settings, medical schools are increasingly recognizing their efficacy and incorporating these techniques into their required curricula. For example, a study that compared 3rd year medical students who received a 4-week MI techniques curriculum consisting of four 2-hour sessions to students who received no training, found that those with training showed a significant improvement in knowledge, confidence, and skills in health behavior change (Bell & Cole, 2008). Haeseler and colleagues (2010) produced similar results when they examined the implementation of a brief and targeted MI curriculum amongst Yale University medical students as compared to their peers that did not participate in the 2-hour curriculum. Students with training were significantly more proficient in their use of the MI ruler techniques and a training effect was reached and maintained for approximately seven months. Additionally, research examining the development and incorporation of MI curriculum into an internal medicine residency training , as part of the chronic care model, found it to be a feasible, doable process. Moreover, residents' confidence to deliver health behavior change counseling could be improved, leading to better treatment outcomes (Abramowitz et al., 2010). While further

studies are needed to link MI curriculum to clinical outcomes, these preliminary findings are encouraging news for the healthcare community.

CHAPTER 5

CONCLUSIONS

Given the percentage of Americans living with chronic illnesses and the resources that are required to manage such illnesses, there is an increasing demand for interventions that target health-related behaviors that may hinder or negatively impact patients' prognosis and further strain the available resources. Professionals from various health settings, including nursing, medicine, and pharmacy, all deal with various aspects of this alarming health crisis, which does not appear to be improving. Furthermore, patients that are being treated for chronic illnesses are being seen at alarming young ages than ever. Ogden and colleagues' research (2008) revealed that 1 in 5 children and adolescents, ranging in age from 6 to 19, are obese, a major risk factor for several chronic illnesses. Traditional methods of treating chronic illnesses include advising patients on managing symptoms and conditions through diet, exercise, and medication adherence. Given the state of the current healthcare system in which insurances have placed more pressure on health care providers to deliver efficient interventions that are evidenced-based, more than ever there a need for effective treatment interventions that improve the course of illnesses in an efficient manner.

Motivational interviewing as an evidence-based treatment intervention in the chronically ill population is gaining support and recognition within the healthcare community (Bundy, 2004). MI has been shown to increase physical activity (Perry & Bennett, 2006), promote smoking cessation, and facilitate weight reduction (Baker et al., 2009), behaviors that are known to contribute to cardiovascular disease. MI as an effective intervention in facilitating health behavior change not only has implications on

the individual level, but on the global level when dealing with the alarming prevalence of chronic illnesses in this country and the need for effective preventive and health promotion programs. Therefore, the purpose of this manuscript was to create a 10-week treatment manual for qualified healthcare providers to utilize in order to facilitate group therapy sessions for adults with cardiovascular disease risk factors. Specifically, the sessions are geared towards providing psychoeducation on cardiovascular disease and increasing intrinsic motivation towards reducing risk factors that are modifiable by lifestyle change. This 10-week treatment manual consists of weekly agendas for the facilitators, weekly handouts for the group participants, and pre and post outcome measures.

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Appendices

Appendix A

Motivational Interviewing Group Therapy Course Overview

Weekly Group Topics
Class 1: Orientation, Healthy Lifestyle Exploration
Class 2: Stages of Change
Class 3: Benefits and Costs of Lifestyle Habits
Class 4: Looking Ahead to the Future
Class 5: Exploring Values
Class 6: Change Success Stories
Class 7: Planning for Change
Class 8/9: Exploring Importance, Readiness, Confidence, and Desire for Change
Class 10: Relaxation Techniques

Appendix B

Class 1: Group Introduction and Exploration of Healthy Lifestyle

Objectives:

1. To administer Pre-Intervention Outcome Measures Packet.
2. To introduce the purpose of the motivational group and to set group rules, structure, length of intervention, expectations of group leaders and members, and other clinical guidelines.
    a) 10-week intervention; 60 minutes per class.
    b) Closed group format.
3. To define cardiovascular disease and explore lifestyle and daily activities among group members as it relates to their health.

Materials/Supplies Needed:

1. Pre-Intervention Outcome Measures Packet (see Appendix C).
2. Group Rules handout (see Appendix D).
3. Daily Activity handout (see Appendix E).

Content:

1. Describe purpose of group, facilitate group introductions, introduce group rules, review structure and format of group, and distribute group schedule handout.

2. Exploration of Healthy Lifestyle: Introduce group to today's topic, Healthy Lifestyle. Encourage members to share their definition of the term. Build upon the responses by defining lifestyle as the overall pattern of behaviors and choices that a person makes in organizing their life. State that a person's lifestyle can have effects on their physical and mental health, relationships, and goals. Elicit examples from group. After a general discussion about healthy lifestyles, introduce the topic of cardiovascular disease as related to physical health. Encourage members to share their definition of cardiovascular disease. Build upon the responses by defining cardiovascular disease (aka "heart disease") as a class of diseases that affect the heart or blood vessels. Review basic prevalence rates and statistics (i.e., cardiovascular disease is the leading cause of death, etc) and be mindful of presenting content in a straightforward, nonjudgmental manner. Ask members to take a few moments to think about how their present life is affecting their health and discuss how cardiovascular disease fits in with these issues.

3. Ask for members to share examples, and if they're feeling comfortable, examples about their own lifestyles. To get them thinking about their daily routine, have them take a few minutes to complete the Daily Activity handout. To get as much detailed information as possible, ask them to complete it based on what they did yesterday. Once they have completed it, pose questions such as "What is a typical

day like for you?" and "What are some of your habits?" Develop an understanding of a typical day and typical week, writing responses on the whiteboard. Ask how their lifestyle affects their physical health, mental health, relationships, and achievements/goals. Ask if other members can relate to this member's lifestyle. Then ask the group "What about diet and exercise? How do they fit in?" If there are no volunteers, consider stimulating discussion with broader topics.

4. Summary of the Session: Five minutes before the group is to end, summarize the key points of today's class. Close by affirming members for coming and expressing hope that members will find the group useful and return.

Appendix C

Pre and Post Intervention Outcome Measure Packet

All outcome measures and scoring instructions can be obtained from:

Stanford Patient Education Research Center
1000 Welch Road, Suite 204
Palo Alto CA 94304

(650) 723-7935
(650) 725-9422 Fax

self-management@stanford.edu
http://patienteducation.stanford.edu
Funded by the National Institute of Nursing Research (NINR)
http://patienteducation.stanford.edu

Self-Rated Health

In general, would you say your health is:.....(Circle one)

Excellent.....1

Very good.....2

Good.....3

Fair.....4

Poor.....5

Idler & Angel., 1990; Schoenfeld, Malmrose, Blazer, Gold, & Seeman, 1994; U.S. Bureau of the Census, National Health Interview Survey, 1985; Ware, Nelson, Sherbourne, & Stewart, 1992; Wolinsky & Johnson, 1992.

Adapted Illness Intrusiveness Ratings

The following items ask about how much your illness(es) and/or its treatment interfere with your life. Please circle the one number that best describes your current life situation. If an item is not applicable, please check (□) the box to indicate that this aspect of your life is not affected. Please do not leave any item unanswered.

How much does your illness (es) and/or its treatment interfere with:

1. Your feeling of being healthy? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

2. The things you eat and drink? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

3. Your work, including job, house work, chores, or errands? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

4. Playing sports, gardening, or other physical recreation or hobbies? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

5. Quiet recreation or hobbies, such as reading, TV, music, knitting, etc.? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

6. Your financial situation? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

How much does your illness(es) and/or its treatment interfere with:

7. Your relationship with your spouse or domestic partner? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

8. Your sex life? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

9. Your relationship and social activities with your family? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

10. Social activities with your friends, neighbors, or groups? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

11. Your religious or spiritual activities? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

12. Your involvement in community or civic activities? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

13. Your self-improvement or self-expression activities? □ Not applicable

Not very much► 1 2 3 4 5 6 7 ◄Very much

Lorig, Sobel, Ritter, Laurent, & Hobbs, 2001.

Health Distress

These questions are about how you feel and how things have been with you during the past month. For each question, please circle the one number that comes closest to the way you have been feeling.

How much time during the past month...

	None of the time	A little of the time	Some of the time	A good bit of time	Most of the time	All of the time
1. Were you discouraged by your health problems?	0	1	2	3	4	5
2. Were you fearful about your future health?	0	1	2	3	4	5
3. Was your health a worry in your life?	0	1	2	3	4	5
4. Were you frustrated by your health problems?	0	1	2	3	4	5

Lorig, Stewart, Ritter, Gonzalez, Laurent, & Lynch (1996); Stewart, Hays, & Ware, 1988.

Self-Efficacy for Managing Chronic Disease 6-Item Scale

We would like to know how confident you are in doing certain activities. For each of the following questions, please choose the number that corresponds to your confidence that you can do the tasks regularly at the present time.

1. How confident are you that you can keep the fatigue caused by your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

Items (using the same format as above):

1. How confident are you that you can keep the fatigue caused by your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

2. How confident are you that you can keep the physical discomfort or pain of your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

3. How confident are you that you can keep the emotional distress caused by your disease from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

4. How confident are you that you can keep any other symptoms or health problems you have from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

5. How confident are you that you can do the different tasks and activities needed to manage your health condition so as to reduce you need to see a doctor?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

6. How confident are you that you can do things other than just taking medication to reduce how much you illness affects your everyday life?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Totally confident

Lorig, Sobel, Ritter, Laurent, & Hobbs, 2001.

Communication with Physicians

When you visit your doctor, how often do you do the following? Please circle one number for each question.

	Never	Almost Never	Sometimes	Fairly Often	Very Often	Always
1. Prepare a list of questions for your doctor?	0	1	2	3	4	5
2. Ask questions about the things you want to know about and the things you don't understand about your treatment?	0	1	2	3	4	5
3. Discuss any personal problems that may be related to your illness.	0	1	2	3	4	5

Lorig, Stewart, Ritter, González, Laurent, & Lynch, 1996.

Exercise Behaviors

During the past week (even if it was not a typical week for you), how much total time (for the entire week) did you spend on each of the following? (Please circle one number for each question)

How much time during the past week.	None	< 30 mins/week	30-60 mins/week	1-3 hrs/week	3+ hrs/week
1. Stretching or strengthening exercises (range of motion, weights, etc.)	0	1	2	3	4
2. Walk for exercise	0	1	2	3	4
3. Swimming or aquatic exercise	0	1	2	3	4
4. Bicycling (including stationary exercise bikes)	0	1	2	3	4
5. Other aerobic exercise equipment (Stairmaster, rowing, skiing machine, etc.)	0	1	2	3	4
6. Other aerobic exercise (specify:_____)	0	1	2	3	4

Lorig, Stewart, Ritter, González, Laurent, & Lynch, 1996.

Use of Mental Stress Management/Relaxation Techniques

In the past week (even if it was NOT a typical week), how many times did you do mental stress management or relaxation techniques?

□ none _____times

Describe the mental stress management technique(s) you used:

Lorig, Stewart, Ritter, González, Laurent, & Lynch, 1996.

Appendix D

Group Rules for Group Therapy

1. Confidentiality: Group members will treat matters that occur in group with utmost confidentiality. This ensures that the group is a safe place to discuss personal issues and concerns. To this end, you are asked NOT to identify other group members or to discuss what others say about themselves to people outside the group. Limit your discussion of group to what you learned or talked about. Respect group members' right to privacy.

2. Safety and mutual respect: All group members are expected to be respectful of what others have to say, and to allow for difference of opinion and different value systems. No violence or threats of violence toward staff or other group members are permitted. It is very important that you view the group as a safe place to share your experiences and feelings without threats or fear of physical harm. Group leader and members can call "Time Out" when feelings seem to be escalating out of control. Group must stop and follow the provider's instructions during such times.

3. Attendance and participation: Regular and timely attendance at sessions is expected. Members agree to be present each week, to arrive on time, and remain throughout the entire meeting. If you must miss a session, please let the group leader know in advance. We expect each member to participate in accordance with his or her own comfort level, but will encourage you to challenge yourself in order to maximize the benefits of group. You will never be coerced into sharing.

4. Homework: This type of group is a structured group with exercises and homework. Like a class, it is expected that you will attempt and try to complete homework. Expectations for homework will be reasonable and not overwhelming. Please contact group leader if assistance or accommodation is needed.

*Consequences to violation of these rules are determined by the group leader and may include discontinuation of participant involvement in the group. Your continued participation in group reflects your agreement to comply with these ground rules.

Appendix E

Daily Activity

Your lifestyle can have effects on your health, mental health, relationships, and achievements. Complete the following timeline describing your activities on a typical day.

TIME	ACTIVITY (please be as detailed as possible)
7:00 am	
8:00 am	
9:00 am	
10:00 am	
11:00 am	
12:00 Noon	
1:00 pm	
2:00 pm	
3:00 pm	
4:00 pm	
5:00 pm	
6:00 pm	
7:00 pm	
8:00 pm	
9:00 pm	
10:00 pm	
11:00 pm	
12:00 Midnight	
1:00 am	
2:00 am	
3:00 am	
4:00 am	
5:00 am	
6:00 am	

1. What do you like about your lifestyle?

2. How does your lifestyle affect your health, relationship, and achievements?

Appendix F

Class 2: Stages of Change

Objectives:

1. To explain the concept of change occurring as a process, rather than a single event.
2. To explore and discuss changes group members have made, and how they occurred.
3. To introduce the idea that changes can be made using specific strategies that are useful at the different stages.

Materials/Supplies Needed:

1. Stages of Change handout (see Appendix G).

Content:

1. Explanation of the Stages of Change: Distribute the Stages of Change handout. Tell the group that you are going to discuss how change typically occurs. Stop and ask questions after each stage to make it more interactive.
2. Description of each stage below as presented to the group:

   People who make change seem to pass through stages as they work on these changes, even if they are unaware of the different stages. These stages apply for many kinds of changes such as losing weight, eating more fruits and vegetables, to reducing alcohol consumption.

   The first stage of change is called the Pre-contemplation Stage. During this stage people are not thinking about making a change. This may be because they have never thought much about their situation or they have already thought things through and decided not to change their behavior. Sometimes people may want to change, but do not feel confident in their ability to succeed at making the change. People in this stage might find it useful to get more information about their situation.

   The second stage is called the Contemplation Stage. This is when people begin to give thought to their situation. During this stage, people are unsure about what to do. There are both pros and cons about their present situation. During this stage people often both want change and yet want to stay the same at the same time. This can be a bit confusing for people as they feel torn between these options.

   At some point, when people have been thinking through whether or not to change, they may come to feel that the advantages for change outweigh the disadvantages not to change. As this weight increases on the side of change, the person becomes more determined to do something. This is the beginning of the next stage, called the Preparation Stage. During this stage, people begin thinking about how they can go about making the change they desire, making plans, and then taking some

action toward stopping old behaviors and/or starting new, more productive behaviors. People often become more and more ready and committed to making changes.

During the next stage of change, called the Action Stage, people begin to implement their change plans and trying out new ways of being. Often, during this stage people let others know what's happening and look for support from them in making these changes.

Once people have succeeded in making and keeping some changes over a period of time they enter the Maintenance Stage. During this stage, people try to sustain the changes they have made and to prevent returning to their old ways. Many times the person is able to keep up the changes made and then makes a permanent exit from the wheel of change. During this stage it is also common for people to have some slips or relapses where old habits return for a short time.

Sometimes people also have relapses, which may last a longer period of time. When a person has a relapse, he or she typically returns to the precontemplation or contemplation stages. The person's task is to start around the wheel of change again rather than getting stuck. Keep in mind that relapses, slips, and lapses are normal as a person tries to change any long-standing habit. Often people go through the stages of change several times before permanent change takes hold (Prochaska & DiClemente, 1982).

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix G

Stages of Change

Precontemplation	The costs of the problem behavior (such as drug use) are not yet recognized. The individual is in denial and is not seriously considering changing their behavior. They may have made previous attempts to change, but have since given up.
Contemplation	During contemplation there is ambivalence about change. The individual recognizes reasons to change their behavior, but still has hesitations. The problem behavior continues.
Preparation	The individual has decided to make a change and begins to consider how to do so. Minor adjustments in behavior may be made during this stage.
Action	Action is taken to end the previous problem behavior. The individual may be avoiding previous triggers, reaching out for help, or taking other steps to avoid temptation.
Maintenance	The changes made during the action stage are maintained. The individual may continue to face challenges maintaining the change.
Relapse	After making changes, many individuals will eventually return to their previous problem behaviors. It can take several passes through the stages to permanently end a behavior.

Appendix H

Class 3: Benefits and Costs of Lifestyle Habits

Objectives:
1. To explore group members' awareness of the benefits (i.e., advantages) and costs (i.e., disadvantages) about current lifestyle habits (i.e., smoking, high alcohol consumption, poor diet/nutrition, physical inactivity, etc.).
2. To begin to explore group members' ambivalence about these lifestyle habits.

Materials/Supplies Needed:
1. Decisional Balance handout (see Appendix I).

Content:
1. Today's Content: Awareness of the Benefits and Costs. Distribute copies of the Decisional Balance handout. Begin by summarizing some of the cardiovascular risk factors discussed in the first class such as physical inactivity, poor diet, smoking, and high alcohol consumption and write these risk factors on the whiteboard. Then tell members that you will be discussing the benefits and costs of engaging in these habits.

2. Discuss the benefits. Ask members to talk about the good things about these habits and explain how habits develop through positive reinforcement. For example, begin with smoking cigarettes Point out that despite a warning from the Surgeon General stating that smoking can be harmful to your health, the CDC reported that each day, nearly 1,000 persons younger than the age of 18 become new daily cigarette smokers. While the addictive nature of nicotine makes it harder to quit, the reasons for smoking are mostly psychological. Some of the psychological reasons for why people start smoking include wanting to fit in with the crowd, appearing sophisticated and cool, asserting your independence, as a sign of protest or rebellion, or to defy authority. Some reasons as to why new smokers continue smoking throughout their lifetime include to reduce anxiety, feel calmer, satisfy an urge, appetite suppressant, socialization with other smokers, when feeling restless, to celebrate something, and to think about a difficult problem.

3. Discuss the costs. Ask members to talk about some of the costs or disadvantages of lifestyle habits such as smoking, drinking excessively, eating fatty foods, and physical inactivity. Encourage group discussion and list appropriate response on the whiteboard.

4. After members have a better awareness of the benefits and costs of lifestyle habits they may be engaging in, introduce the weekly exercise by explaining that the handout is divided into two columns – the left side is for continuing the behavior and the right side is for stopping the habit. These columns are then divided into the benefits and costs. Pass out writing instruments and have the group members take a few minutes to write down at least one good thing under the benefits heading in the left column (continuing behavior) and one good thing under the benefits heading in the right column (stopping behavior). Once they are done, ask for volunteers to share their responses and list them on the

whiteboard if appropriate. Encourage the group to share experiences with each other; the point here is to develop an understanding of the positive reasons for habits and lifestyle choices considered risk factors. Now ask the group to do the same thing under the costs heading in the left column (continuing behavior) and right column (stopping behavior).

Appendix I

Decisional Balance

Sometimes when we consider making changes, we don't look at all sides. Instead, we often do what we think we should do, avoid doing things we don't feel like doing, or just feel confused or overwhelmed and give up thinking about it at all. Thinking through the pros and cons of both changing and not making a change is one way to help us make sure we have fully considered a possible change. Below, write in the reasons that you can think of in each of the boxes.

Name: _____ Date: _____

DECISIONAL BALANCE			
TARGET BEHAVIOR:			
Continuing Behavior		Stopping Behavior	
BENEFITS	COSTS	BENEFITS	COSTS
TARGET BEHAVIOR:			
TARGET BEHAVIOR:			

Appendix J

Class 4: Looking Ahead to the Future

Objectives:
1. To assist members to look forward and think about their possible futures.
2. To help group members develop a sense of hope for the future and develop discrepancy with current choices.

Materials/Supplies Needed:
1. Looking Ahead to the Future handout (see Appendix K).

Content:
1. Write the words *Looking Ahead* on the whiteboard. Tell group members that last week we discussed the benefits and costs of certain lifestyle habits such as smoking, excessive drinking, poor nutrition, etc. Explain that today's class will focus on looking ahead to the future. Begin by asking the group to think about their childhood hopes and dreams. Pose questions such as *What did you want to do when you grew up? What were your dreams about the future? Who was your hero and why?* You can begin the discussion by sharing your own responses and then ask for a volunteer to begin sharing their responses. Try to gather the following information from each member: imagined occupation, imagined lifestyle, most important value in the imagined life.

2. Pass out the Exercise: Looking Ahead to the Future. Tell the group that now that childhood dreams have been discussed, you will be asking them to consider their dreams and hopes for the future. Explain that it is still possible for them to achieve some of the dreams they just talked about. Ask the group to fill in the worksheet.

Ask the members to share their responses to the questions on the handout. Help facilitate the emotional impact of their dreams. Allow the sharing to continue as long as members seem interested in their dreams for the future.

3. Ask if any group members feel prepared to try one small change from their responses to the third question. If so, ask the member what small change he or she will try to make and encourage them to elicit suggestions on how to proceed, from the group. If there are no volunteers, simply comment on the exciting dreams each has shared, and how wonderful it will be for the members to begin working on achieving some of them. Keep in mind that this is not the time to pressure for change. Rather, allow the weight of the exercise to settle on group members without rushing to solve problems.

Appendix K

Looking Ahead to the Future

Sometimes it is helpful to take time to look ahead in our lives. Having a picture of how we would like things to be can help us deal with the stress of everyday living, help us hang on in times of stress or temptation, and help us structure our free time so that we move closer to our hopes and wishes.

1. What are some of your hopes for the future?

2. What are you doing now that's helping you to make these things come true?

3. What other things could you do (or do more of) to help your hopes come true?

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix L

Class 5: Exploring Values

Objectives:
1. To review group members' decisional balance status.
2. To explore members' goals and values.
3. To compare decisional balance status with central values.

Materials/Supplies Needed:
1. Handouts of members' completed Decisional Balance Worksheets from Class 3 (see Appendix I).
2. Exploring Values handout (see Appendix M).

Content:
1. Write the term Values on the whiteboard. Ask for definitions and list appropriate responses. Explain to the group that sometimes, exploring our values can help us to shift the balance so that we are no longer ambivalent about a choice we need to make.

Pass out the Exploring Values handout and then have each member complete the form. Once they are done, ask the members to share their most important value. Then explain that everyone has values but sometimes our behaviors and actions do not reflect those values. This happens because we forget about our values, we get tired, or we become distracted by other things. Then ask the group to share responses to the second question, asking, how are their actions inconsistent with their most important value and some ways in which they might live closer to their values.

2. If they have already completed the Decisional Balance worksheet in the past, ask the group members how this worksheet relates to the Decisional Balance worksheet. If there are no appropriate answers, make the following points:

- Not living up to our most important value might be a cost of certain lifestyle habits, and might add another reason to make a change.
- Living up to our most important value might be a benefit of change, again weighing in on the side of change.
- Members may want to think about how they are living in line with their own values, and revise their Decisional Balance Worksheet if necessary.

Ask the members to take both handouts home and think further about today's discussion. If they haven't already completed the Decisional Balance worksheet, encourage them to take this handout home and think about today's discussion.

Appendix M

Exploring Values

Everyone has values they believe in. However, sometimes we act in ways that do not match our values which can occur when we simply forget about them, we get tired, or we are distracted by other things. This exercise is intended to help us remember our values and share them with others.

1. What are some of your personal values? For example, some people value honesty above all else, or dedicating their talents and energy to benefit others. Others see being a good friend or parent as an important value. List some values that are meaningful for you, and then circle the two that are most important to you at this time.

2. What gets in the way of living by your values? What would it take for you to live in a way that is closer to your most important values?

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix N

Class 6: Supporting Self-Efficacy: Change Success Stories

Objectives:
1. To enhance self-efficacy by reminding members of past successes.
2. To encourage members to be hopeful about the possibility of change.

Materials/Supplies Needed:
1. Remembering My Successes handout (see Appendix O).

Content:
1. Start the topic by telling the members that today's topic is Successful Changes. Ask members what that means to them and record responses on the whiteboard. Distribute the handout, and tell the group that each of us has experienced success, but sometimes it is hard to remember this, especially when we're feeling down or frustrated about where we're at in life. For example, members in the group may have experienced some of the following successful changes:

Attending the motivational groups
Completing school
Developing a trade or skill
Becoming a better friend

2. Tell the members that these changes represent a period in which they moved through the stages of change from not even completing change, to considering it with mixed feelings, to taking action, to maintaining the new habit or behavior. Ask the members to take a few minutes to complete the handout.

3. Ask the group members to share one story of success each and ask them how it feels to remember these stories now – encourage any self-motivational statements.

4. Using the stories the members just shared, select one to be used for a group exercise. Ask the group to discuss the Stages of Change the person cycled through. Ask the members what they think helped and/or him/her to change. Make the discussion as concrete and simple as necessary to help members understand the abstract concepts. Summarize by pointing out that each of the members have the skills they need to make changes and the proof come from previous successful changes. If there are areas in their lives that they would like to change now, they probably have the power to start.

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix O

Remembering My Successes

It is easy to become discouraged when we forget the times when we were successful at making some change in our lives, or at achieving something we wanted to achieve. Everyone has made a successful change at some time in his or her life. Let's remember your successes.

1. List some positive changes you have made in your life.

2. Pick one of the changes above, perhaps the one that was hardest to achieve, and list the following:

When did you first start thinking about making a change? What was going on in your life at the time?

Did you achieve the change all at once, or take small steps?

What were some of the steps?

How do you feel about the change today?

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix P

Class 7: Planning for Change

Objectives:
1. To review group members' progress through the stages of change during the group experience.
2. To develop a concrete plan to change one thing in the member's life.

Materials/Supplies Needed:

1. Planning for Change handout (see Appendix Q).

Content:
1. Tell the group members that some of them may now be ready to consider implementing an action plan. Examples would include:

- A smoker who decides to try the nicotine patch to stop smoking.
- A drinker who decides that he/she will cut back to drinking only two beers per night on the weekends.
- An overweight person who decides that he/she will begin to substitute junk food for more fruits and vegetables.

2. Distribute the Planning for Change handout. Allocate time for completion, and then ask group members to share their plans. Be sure to reinforce at least one positive aspect of each person's plan, even if they have selected a smaller problem that could easily be handled. Remind members that this exercise can be done whenever they need to develop a plan to make a change, no matter how big or small. This exercise is a life skill that can be applied outside the group experience.

Appendix Q

Planning for Change

The changes I want to make are: *Examples: List specific areas or ways in which you want to change.* *Include positive goals (beginning, increasing, improving behavior)*
The most important reasons why I want to make these changes are: *Examples: What are some likely consequences of action and inaction?* *Which motivations for change seem most important to you?*
The steps I plan to take in changing are: *Examples: How do you plan to achieve the goals?* *Within the general plan, what are some specific first steps you might take?* *When, where and how will these steps be taken?*
The ways other people can help me are: *Examples: List specific ways that others can help support you in your change attempt.* *How will you go about eliciting others' support?*
I will know that my plan is working if: *Examples: What do you hope will happen as a result of the change?* *What benefits can you expect from the change?*
Some things that could interfere with my plan are: *Examples: Anticipate situations or changes that could undermine the plan.* *What could go wrong?* *How might you stick with the plan despite the changes or setbacks*?

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix R

Class 8/9: Importance, Readiness, Confidence, and Desire for Change

Objectives:

1. To review group members' progress through the stages of change during the group experience.
2. To explore the members' feelings about the importance of making changes, their confidence that they can succeed, and their desire or excitement about making changes.

Materials/Supplies Needed:

1. Measuring Readiness, Importance, Confidence, & Commitment handout (see Appendix S).
2. Importance, Confidence and Desire to Change handout (see Appendix T).

Content:

1. Ask members to silently think about the main problem that brought them in to the group. Ask them to think about the categories of change: Precontemplation, Contemplation, Preparation, Action, Maintenance, and Relapse. Have them (silently) identify what stage they were in on the first day of group. How does that compare to now? Have they moved along the Stages of Change or stayed in the same category? Ask if anyone is willing to share their comparison. After group members have shared their progress (or lack thereof), ask members how they are feeling in general after this group. Are they a little more motivated? Process answers for a few minutes.

2. Ask for any comments or updates from last week's change planning session. Who has done some of the steps that they planned? Who has thought about another change they might like to attempt or filled out a change planning form on another behavior?

3. Distribute the Importance worksheet and review the instructions. After members have completed the sheet, ask them to pick one change they identified, and review their responses with them. For each dimension (importance, readiness, confidence, desire), ask members, *What makes your response a X, and not a 0?* This elicits a self-motivational statement that can be reflected or summarized. Then ask, *What might make you mark two higher on the scale?* So if the person has rated their importance 6, ask, *What might make you mark 8?* This sensitizes you and the clients to events or concerns that can increase the members' motivation to make a change. For confidence, also ask, *How can the group, your family or friends, help you increase your confidence (or desire) for making this change?* Suggest to the group that keeping these factors in mind while they implement their change plans can help to prevent setbacks.

4. Remind the group that making lasting changes often takes time and involves some setbacks (distinguish lapse vs. relapse). Ask the group members to state what steps they

will take should they experience a setback (e.g., contact group leader or primary care physician, discuss and seek support from family and/or close friends).

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix S

Measuring Readiness, Importance, Confidence, & Commitment

Readiness Ruler

Not Ready to Change	Unsure	Ready to Change	Trying to Change
1 2 3 4 5 6 7 8 9 10			

Importance Ruler

Least			Most
1 2 3 4 5 6 7 8 9 10			

Confidence Ruler

Least			Most
1 2 3 4 5 6 7 8 9 10			

Commitment Ruler

Least			Most
1 2 3 4 5 6 7 8 9 10			

Appendix T

Importance, Confidence and Desire to Change

Most people are in this group because they are thinking about making a change, or because other people think they should make a change. If you are focusing on any type of health behavior change, please write in what change, if any, you are considering in your life.

Change: _____

On the following 1 - 10 scale, please rate the importance to you of making a change in your life (or continuing to make a change that you've already begun). Please circle the number that most closely matches the <u>importance of this change to you</u>:

Not at all important	1	2	3	4	5	6	7	8	9	10	Most important thing in life

Sometimes, even when goals or plans are important to us, we are still not sure if we can successfully achieve them. Please rate your confidence that you can successfully make (or maintain) the change you desire:

Not at all confident	1	2	3	4	5	6	7	8	9	10	Completely confident

Sometimes, even though we know a change is important and we are confident we can make it, we really aren't looking forward to making the change. Please circle the number that most closely matches how much you want to make this change:

Dread making change	1	2	3	4	5	6	7	8	9	10	Excited about making change

Think of some change you would like to make or have already begun making. Then think about their importance to your life. Some changes may be very important to your life, others may not be important at all to you. Decide how confident you are in your ability to succeed in making these changes. Even when goals or plans are important to us, we are still uncertain whether we can successfully achieve them or not. Finally, think about your feelings about changing - sometimes, even though we know a change is important and we are confident we can make it, we really aren't looking forward to making the change. Below, enter some changes you are planning to make or to continue making in your life, and rate the importance of each change to you, your confidence that you can successfully make (or maintain) each change, and your feelings about making each change.

Change Plan	Importance	Confidence	Desire
1.	0 1 2 3 4 5 6 7 8 9 10 0 = Not at all important 10 = Extremely important	0 1 2 3 4 5 6 7 8 9 10 0 = No confidence 10 = Completely confident	0 1 2 3 4 5 6 7 8 9 10 0 = Dread making change 10 = Excited about change
2.	0 1 2 3 4 5 6 7 8 9 10 0 = Not at all important 10 = Extremely important	0 1 2 3 4 5 6 7 8 9 10 0 = No confidence 10 = Completely confident	0 1 2 3 4 5 6 7 8 9 10 0 = Dread making change 10 = Excited about change
3.	0 1 2 3 4 5 6 7 8 9 10 0 = Not at all important 10 = Extremely important	0 1 2 3 4 5 6 7 8 9 10 0 = No confidence 10 = Completely confident	0 1 2 3 4 5 6 7 8 9 10 0 = Dread making change 10 = Excited about change

Adapted from Ingersoll, Wagner, & Gharib, 2002.

Appendix U

Class 10: Relaxation Techniques

Objectives:
1. To facilitate members' awareness of the importance of stress management on health.
2. To teach the two relaxation techniques.
3. To administer Post-Intervention Outcome Measures data.

Materials/Supplies Needed:
1. Breathing for Relaxation handout (see Appendix V).
2. Relaxing with Muscle Tension handout (see Appendix W).
3. Post-Intervention Outcome Measures Packet (see Appendix C).

Content:
1. Write the term Stress on the whiteboard. Ask members what stress is and in what ways it can impact health; list appropriate responses. Explain to the group the difference between the short-term and the long-term activation of the stress-response system (fight or flight). Highlight that in the latter, the subsequent overexposure to cortisol and other stress hormones can disrupt the bodily processes and puts you at a greater risk for numerous health problems, including: anxiety, depression, digestive problems, heart disease, sleep problems, weight gain, and memory and concentration problems.

2. Now ask the group what they do to manage and cope with stressors; list appropriate responses.

3. Introduce and demonstrate both relaxation techniques in-session. Allocate about five minutes to each exercise and spend some time eliciting reactions after each exercise.

Encourage the members to take both relaxation handouts home and try to practice them throughout the week.

Devote a few minutes to summarize your perceptions of the group, and reflect on positive aspects of the group that you have noticed (e.g., openness about vulnerable issues, determination of members to succeed, quality of participation, etc.). Ensure that the group ends on a positive note.

Explain that in order to help you determine whether there was any change since they began the course, they are being asked to complete the post-intervention outcome measures packet, just as they did at the beginning of the course.

Appendix V

Breathing for Relaxation

When we are anxious, tense, stressed, we often begin breathing rapidly and slowly, just into the upper lung area. This alone can make us anxious. So, many times, when we are anxious we create more and more anxiety with our breathing.

We have a choice about how we breathe. If we pay no attention, we will always breathe. But if we choose, we can deliberate alter our breathing. We can create relaxation.

To breathe for relaxation, try sitting up straight or lying down. Place one or both hands on your belly. Then breathe into your belly so that you feel your hands move up as your breathe in and your hands go down as you breathe out.

Take a breath or two feeling your hands on your belly moving up when you breathe in, and your hands on your belly going down when you breathe out. Now you are ready to count in one of two ways:

Choice one: Breathe in for 4 counts and out for 4 counts. (Or in for 3 and out for 3 or in for 5 and out for 5) The idea is to having breathing in last the same amount of time as breathing out. Close your mouth when you breathe in and purse your lips as if you are going to whistle and blow air out through your lips as you breathe out.

Choice two: Breathe in for 4 counts, pause for just a second, and then breathe out for 8 counts (or in for 3 and out for 6, or in for 5 and out for 10). The idea is to breathe out for twice as long as you breathe in. Keep your mouth closed at all times.

Most people try both ways and then use the way they like best. You can use whichever way you want to any time you want to feel more relaxed.

Adapted from Jacobson, E. (1974) Progressive Relaxation (3rd ed) University of Chicago Press.

Appendix W

Relaxing with Muscle Tension and Relaxation

One way of learning to relax is to tense your muscles to experience how that feels and then relax your muscles to see the difference. This process has been called progressive muscle relaxation. Find a comfortable place to lie down, turn off distractions like the TV or telephone and then follow the instructions, repeating each suggestion twice.

Clench your right fist….now relax
Clench your left fist….now relax
Tighten your right bicep….now relax
Tighten your left bicep….now relax
Now tighten both biceps and both fists….and relax
Reach with the right arm….now relax
Reach with the left arm….now relax
Then reach with both arms….and relax
Wrinkle the forehead….then relax
Squint your eyes….and relax
Purse your lips…..then relax
Clench your jaw……and relax
Press your tongue against the roof of your mouth…..and relax
Press the back of your head back into the bed….then relax
Bring your right shoulder to your earlobe….then relax
Bring your left shoulder to your earlobe…..and relax
Bring both shoulders to your earlobes….now relax
Hold your breath for 10 counts…and let go
Tense your abdominal muscles…and relax
Press your right leg into the mattress….then relax
Press your left leg into the mattress….and relax
Now press both legs into the mattress….and relax
Point the right toes and stretch….then relax
Point the left toes and stretch…and relax
Now point both toes and stretch….then relax
Flex the right foot…..and relax
Flex the left foot…..then relax
Now flex both feet…..relax
Tense the right leg….and relax
Tense the left leg….and relax
Now tense both legs….then relax
Now tense the entire body and hold your breath…..then relax
Now breathe deeply and comfortably until you want to get up and move around.

Jacobson, E. (1974).