

A PROGRAM EVALUATION OF AN INTEGRATIVE WELLNESS PROGRAM

by

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A Practice Inquiry Project Submitted to the Faculty of the

COLLEGE OF NURSING

In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF NURSING PRACTICE

In the Graduate College

THE UNIVERSITY OF ARIZONA

2010

THE UNIVERSITY OF ARIZONA
GRADUATE COLLEGE

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ACKNOWLEDGMENTS

I would like to express my gratitude to my practice inquiry committee: Dr. Deborah Vincent, committee chair, and Dr. Mary Koithan, and Dr. Kathleen May, committee members. Your guidance during this experience has been invaluable. Your advice and support allowed me to expand my practice focus into a previously unfamiliar domain of complementary health care and to develop the critical clinical skill of program evaluation. Thank you.

I wish to thank my employer, the U.S. Department of Veterans Affairs, for providing the financial assistance that enabled me to pursue a doctoral degree. I will be forever indebted to the administrators and staff of the Fort Knox Family Care Clinic who supported me throughout the last three years with their flexibility and willingness to care for my patients when needed to allow me to focus on my studies. My colleague, Mrs. Diana Blair, was especially helpful as my sounding board, my focus group assistant, my clinic surrogate, and my friend. Your support was instrumental in helping me cope with a full-time clinical practice and full-time graduate school.

I would also like to thank my fellow DNP students, Gladys, Cynthia, Rae, Lorri, Wendy, Pricilla, Gail, and Cathrin. Your support and encouragement kept me going. I learned a tremendous amount from each of you.

I would like to thank the staff and clients of the Intentional Wellness program. Your willingness to share your program information and actively participate in a program evaluation is greatly appreciated.

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ABSTRACT

Chronic diseases such as diabetes, cardiovascular disease, cancer, and depression exist in 45% of the U.S. population and are responsible for 70% of the deaths and 75% of the \$2 trillion in annual medical expenditures. Healthy eating, being physically active, managing stress, and avoiding tobacco have well-documented relationships to improved health and well-being, and chronic disease prevention.

Integrative healthcare, a holistic approach to care that is patient-centered, personalized, and focused on health and well-being, incorporates conventional and complementary and alternative medicine (CAM). Integrative healthcare has the potential to provide high quality care that prevents illness and promotes optimal wellness, resulting in decreased health care costs and a healthier nation. Although integrative healthcare is increasing in popularity, few integrative healthcare programs have been studied and relatively little is known about the processes, outcomes, feasibility, efficacy, effectiveness, or sustainability of these programs.

The purpose of this project was to evaluate selected organizational processes and patient outcomes of an integrative health care program. The three specific aims of the project were to analyze the program theory through the development and evaluation of the program logic model, to evaluate selected organizational processes, and to examine selected client outcomes, including satisfaction.

This inquiry used the *CDC Framework for Program Evaluation* as a guide. The study employed a descriptive design with both qualitative and quantitative methods, including key informant interviews with program staff and a client focus group. De-identified data on pre and post measurements of client Wellness Inventory scores, weight, BMI, and advanced cardiac

panels, and post program surveys obtained from the program director were analyzed using descriptive statistics and the paired t test or the Wilcoxon signed-rank test.

The evaluation of an existing integrative healthcare program provides potentially useful information to the stakeholders of the program and a valuable referral resource for other providers in the community. Dissemination of the information may also be used as a model and an inspiration for other advanced practice nurses to develop innovative practice models that support holistic, wellness-focused care.

CHAPTER ONE: OVERVIEW

A practice inquiry is a systematic investigation of health phenomena and health care interventions for the purposes of evaluation, translation of relevant, evidence-based innovations into practice, improvement of the quality of health care system, and, ultimately, improvement of the health of the population (Magyary, Whitney, & Brown, 2006). The practice inquiry described in this paper is a program evaluation investigating an integrative health promotion program. Chapter One describes the significance of lifestyle related health problems and provides an overview of health promotion trends, including the application of integrative medicine in wellness and health promotion. The importance of confirming safety and quality of health promotion practices is reviewed. The chapter concludes with the delineation of the practice inquiry purpose and aims, definitions of important terms and concepts, and the significance of the project to nursing practice.

Health Care Issue-Lifestyle Related Health Problems

Chronic diseases such as diabetes, cardiovascular disease, cancer, and depression are widespread, causing significant burden to individuals and society, and can be prevented or improved with healthy lifestyles (Franco, Steyerberg, Hu, Mackenbach, & Nusselder, 2007; Houston et al., 2009; Lloyd-Jones et al., 2009; National Institute of Diabetes and Digestive and Kidney Diseases, 2008; M. O'Donnell, 2004; Ogden, Yanovski, Carroll, & Flegal, 2007). The United States (U.S.) is ranked 37th out of 191 countries in the rates of chronic disease, fitness, percentage of obesity, and lifespan and is ranked last in comparison to 19 industrialized countries in mortality rates for chronic conditions amenable to health care (Nolte & McKee, 2008; World Health Organization, 2000). Chronic diseases exist in 45% of the population and are responsible for 70% of the deaths and 75% of the \$2 trillion in annual medical expenditures in the U.S.

(Partnership to Fight Chronic Disease, 2008; Thorpe, 2005). Kentucky, the site of the integrative health promotion program studied in this practice inquiry, ranks 41st in health indicators compared with all other states and has higher than average rates of obesity, tobacco use, cancer incidence, stroke, diseases of the heart, and end-stage renal disease (Centers for Disease Control and Prevention, 2008a; United Health Foundation, 2009). Over 69% of Kentucky adults are overweight or obese, 30% have high blood pressure, 38% have high cholesterol, and 10% have been diagnosed with diabetes (Centers for Disease Control and Prevention, 2008b). Additionally, Kentucky residents report more days of poor mental or poor physical health in the past 30 days than all but one other state (United Health Foundation, 2009).

Healthful eating, physical activity, managing stress, and avoiding tobacco have well-documented relationships to improved health and well-being, and chronic disease prevention (Daubenmier et al., 2007; DeVol & Bedroussian, 2007; McGinnis, Williams-Russo, & Knickman, 2002; Mokdad, Marks, Stroup, & Gerberding, 2005; U.S. Department of Health and Human Services, 1996; World Health Organization, 2005). This burden of chronic disease within the U.S. and the evidence linking behaviors to disease prompted the *Healthy People 2000* and *Healthy People 2010* publications by the U.S. Department of Health and Human Services (HHS) setting national health objectives focusing on prevention (United States Department of Health and Human Services, 1990, 2000). These objectives target healthy behaviors such as increasing physical activity levels, increasing consumption of fruits and vegetables, decreasing smoking, and increasing screening for breast and colon cancers.

Health Promotion/Disease Prevention Trends

In response to these initiatives and the rising cost and prevalence of chronic illness in the country, health promotion and disease prevention programs have proliferated over the past 20

years. Health promotion/disease prevention interventions can be found in schools, worksites, community settings, hospitals, and outpatient clinics. The programs vary widely with different target populations (specific diseases or symptoms, specific genders, specific age groups) different interventions (education, skills development, social support), and different goals and objectives (most commonly disease management or symptom control, early detection of disease, weight loss, or increased physical activity). The U.S. public health system, guided by the Centers for Disease Control and Prevention (CDC), leads in prevention efforts, funding prevention research, and partnering with communities, worksites and private organizations (Collins, Marks, & Koplan, 2009). The majority of the U.S. initiatives have focused on disease prevention and early detection. Improvements have been made in smoking cessation, screening for diabetes, and breast and cervical cancer screening; however, these public health initiatives are limited by poor funding with only 1% to 3% of U.S. health care expenditures directed toward prevention activities (Collins et al., 2009).

There is much controversy and doubt concerning the value of health promotion/disease prevention efforts in making real, sustainable positive behavioral changes (Goetzal, 2001, 2009; Woolf, 2009). This suspicion is compounded by the lack of strong evidence supporting the effectiveness of health promotion interventions and the fact that most of the national health goals have not been met (Watt, Verma, & Flynn, 1998; Woolf, 2008). Americans are becoming more obese, more sedentary, and less healthy despite the proliferation of health promotion programs and the CDC's efforts (Kress, Hartzell, Peterson, Williams, & Fagan, 2006; National Center for Chronic Disease Prevention & Health Promotion, 2008; National Center for Health Statistics, 2006a, 2006b, 2009; Russo, Jiang, & Barrett, 2007).

CAM and Integrative Medicine in Health Promotion

Complementary and Alternative Medicine (CAM)

The U.S. public has demonstrated a growing use of complementary and alternative medicine. In 2007 approximately 38% of adults (83 million) and nearly 12% of children (8.5 million) reported use of CAM, spending \$33.9 billion out of pocket on CAM products and services (Nahin, Barnes, Stussman, & Bloom, 2009). Wellness and health promotion are often cited as major reasons for CAM use (Astin, 1998; Astin, Pelletier, Marie, & Haskell, 2000; Eisenberg et al., 1998; Eisenberg et al., 1993; Wolsko et al., 2000). The National Center for Complementary and Alternative Medicine (NCCAM) defines CAM as “a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine” (National Center for Complementary and Alternative Medicine, 2007, p. 1). CAM is grouped into five categories: biologically based practices, energy medicine, manipulative and body-based practices, mind-body medicine, and whole systems of medicine. Biologically based practices include use of diet and nutrition, herbs, vitamins, dietary supplements, and other “natural” substances. Energy medicine is therapy that involves manipulation of human energy fields such as Reiki, therapeutic touch and bioelectromagnetic therapies such as immune system stimulation and neuroendocrine modulations. Manipulative and body-based practices are based on manipulation of the body (e.g., chiropractic manipulation, massage, reflexology, rolfing, and pilates). Mind-body medicine uses techniques that enhance the mind’s capacity to affect the body’s functioning and symptoms. Mind-body therapies include meditation, relaxation, imagery, hypnosis, yoga, prayer, and biofeedback. CAM whole medical systems are complete systems of theory and practice such as homeopathic medicine, naturopathic

medicine, and traditional Chinese medicine (Dossey & Keegan, 2009; National Center for Complementary and Alternative Medicine, 2007; Radzysinski, 2007).

Although health promotion and disease prevention are often secondary concerns within the conventional healthcare system, the growing grassroots interest in health and wellness and CAM has resulted in a market for health products and services accounting for more than \$440 billion dollars in U.S. sales in 2003 (Coleman & Ritch, 2008; Divine & Lepisto, 2005). Most of this is spent on the food, fitness, and nutritional supplement industry, but a substantial proportion is directed to the purchase of CAM products and services (Nahin et al., 2009). Wellness information is available in specialty magazines, self-help books and websites, and health and fitness television programs, and every talk show and newscast (Kickbusch & Payne, 2003). Although the wellness and CAM market is thriving, and CAM users have been found to pursue generally healthy lifestyles and have fewer risk factors for disease than individuals who do not use CAM, there is little evidence that these products and services have had a positive influence on the health of the U.S. population (Nahin et al., 2007). An integration of CAM and other wellness products into a system of care that ensures appropriate and safe use of effective health care approaches is necessary to realize the potential benefits of these popular services.

Integrative Healthcare

Integrative healthcare is a holistic approach to care that is patient-centered, personalized, and focused on health and well-being in addition to disease prevention and management (Boon, Verhoef, O'Hara, Findlay, & Majid, 2004; Deng, Weber, Sood, & Kemper, 2009; Katz & Ali, 2009; Maizes, Rakel, & Niemiec, 2009). The holistic paradigm of integrative healthcare views the person as consisting of an inseparable body, mind, and spirit that act as a dynamic interactive unit with the whole being greater than the sum of the parts. Health is a sense of well-being that is

subjective and determined by the client. Integrative healthcare uses all appropriate therapies, both evidence-based conventional and CAM, but is more than the simple addition of CAM tools to use within the context of conventional, reductionist disease focused care or to tap into the lucrative health and wellness market (Bell et al., 2002). Although integrative healthcare practices vary in design and services offered, they follow the guiding principles of considering the whole person in the context of the environment, supporting patient empowerment to facilitate the body's innate healing, working in partnership with the patient, and recognizing the primacy of wellness (Boon, Verhoef, O'Hara, Findlay, et al., 2004; Maizes et al., 2009; Weisfeld, 2009).

Integrative healthcare with its patient-centered care and emphasis on wellness and prevention has the potential to transform the U.S. "sick" care system to one that provides high quality care that prevents illness and promotes optimal wellness and healing, resulting in decreased health care costs and a healthier nation (Institute of Medicine of the National Academies, 2009; *Integrative care: A pathway to a healthier nation: Hearing before the Committee on Health, Education, Labor, and Pensions.*, 2009; Lambrew & Podesta, 2006; Obama & Biden, 2008; U.S. Department of Health and Human Services, 2009). However, that potential has not been demonstrated. Integrative programs do exist, but many have not proven to be sustainable within the current payor system for health care (Boon & Kachan, 2008; The Bravewell Collaborative, 2009). Additionally, the varying structures and services provided, the complexity of integrative healthcare, and the uncertainty of appropriate outcomes to measure to evaluate the efficacy of this type of health care have limited research in the field (Bell et al., 2002).

Safety and Quality of Health Promotion Programs

Quality outcomes must be a concern for all types of healthcare, whether allopathic, CAM, or integrative. The Institute of Medicine's landmark publication, *Crossing the Quality Chasm*, acknowledged that the current health system of the U.S. is fragmented, inefficient, expensive, and reactive resulting in a high rate of medical errors and poor quality of care (Institute of Medicine, 2001). In this report the Institute of Medicine proposed six aims for improvement of the 21st-century health care system: Health care should be safe, effective, patient-centered, timely, efficient, and equitable. Care that meets these aims provides patients with appropriate preventive, acute, and chronic services that are based on patient needs and values. Program evaluation of the increasingly complex health promotion programs are needed to demonstrate the achievement of these aims (Rossi, Lipsey, & Freeman, 2004).

Practice Inquiry Purpose

The purpose of this project is to evaluate selected organizational processes and patient outcomes of an integrative health care program. Relatively little is known about the processes, outcomes, feasibility, or sustainability of integrative health promotion programs, in particular those programs provided outside hospital or primary care settings. A program evaluation of the Intentional Wellness program examined the processes and outcomes of the program to ascertain the success of the program in accomplishing its mission. Findings from this project will contribute to practice-based knowledge related to integrative health promotion and will provide the participating organization with information and tools for learning and development, and provide credible data to support program accountability.

Practice Inquiry Aims

Specific aims of the practice inquiry are:

1. To analyze the program theory through the development and evaluation of the program logic model.
2. To evaluate selected organizational processes.
3. To examine selected client outcomes, including satisfaction.

The Intentional Wellness program (IWP) is an integrative health care program designed to empower participants to develop healthier lifestyles, improve stress management, raise energy levels, tap into the body's natural defenses, and feel increased contentment and a deeper appreciation for life (Evans, n.d.). The 10-week program provided by an advanced practice nurse, a psychiatrist, and licensed HeartMath[®] provider and Wellness Inventory coach consists of individualized nutritional plans based on the participant's APO E genotype, hands-on education about choosing and preparing healthy foods, workshops focused on humor, HeartMath[®] biofeedback techniques, customized exercise programs, and Amma therapy, a form of Asian bodywork used to free the flow of life energy (K. Evans, K. May, C. Kuhn, personal communication, 2009). This program is an exemplar of the melding of allopathic and CAM practices and philosophy. Therefore, an in-depth evaluation and description of the program as well as an evaluation of program outcomes can contribute to the knowledge and evidence base related to integrative health promotion practice while providing the stakeholders with valuable information to make programmatic decisions.

Definitions

Health

The program materials identify that positive health and wellness of the participants are the goals of the IWP. Within the holistic paradigm of the IWP providers, health is defined as a sense of well-being that requires balance and harmony of the mind, body, and spirit (Erickson, 2007). The IWP providers' concept of positive health mirrors the World Health Organization's (1948, p. 1) definition of health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". IWP's conception of health is also consistent with Seligman's (2008) description of positive health as a sense of energy, vigor, vitality and robustness, and absence of somatic symptoms, a sense of durability, hardiness and confidence about one's body, internal health related locus of control, optimism, high life satisfaction, positive emotion, and a high sense of engagement and meaning.

Wellness

Wellness integrates the physical, psychological, social, and spiritual domains of health and alludes to a transcendent state of peace with one's self and others, contentment, and overall life satisfaction (Kiefer, 2008; Zender & Olshansky, 2009). IWP providers have adopted this view of wellness as an integration of body, mind and spirit that is an ongoing process involving a personal choice to move toward optimal health (K. Evans, K. May, C. Kuhn, personal communication, 2010). The IWP utilizes the Wellness Inventory (WI), an online program that assesses and provides tools for improvement of 12 key life processes of wellness: self-responsibility and love, breathing, sensing, eating, moving, feeling, thinking, playing and working, communicating, intimacy, finding meaning and transcending (HealthWorld Online, n.d.; Travis & Ryan, 2004).

CAM

CAM encompasses a broad variety of therapies that are not currently considered to be part of conventional medicine (National Center for Complementary and Alternative Medicine, 2007). Complementary health promotion strategies used within the IWP include the APO E gene diet, humor, HeartMath[®], and Amma therapy. The APO E gene diet is a biologically based practice that applies nutrigenetic evidence concerning associations of APO E polymorphisms and responsiveness to varying percentages of dietary fat, protein, and carbohydrate to develop personalized nutritional prescriptions designed to decrease cardiovascular risk (McDonald, 2007). Humor and HeartMath[®] are forms of mind-body medicine that connect mind, body, and emotions, resulting in increased joy, reduced stress, improvement in depression and anxiety (Institute of HeartMath[®], n.d.; Kuhn, 2002; Wooten, 2009). The final CAM component of the IWP is Amma therapy, a version of bodywork that applies massage techniques along meridians and acupuncture points to restore the flow of Qi, the energy system of the body, to prevent illness and facilitate healing (Evans, n.d.; Rakel & Faass, 2006; Young, 1993).

Integrative Healthcare

Integrative healthcare is a holistic approach to care that is patient-centered, personalized, and focused on health and well-being (Boon, Verhoef, O'Hara, Findlay, et al., 2004). Integrative medicine practitioners work in partnership with the patient to empower the innate healing of the person. Evidence-based conventional medicine and CAM are incorporated into care as appropriate to meet the patient's physical, psychological, and spiritual needs. The Intentional Wellness program is a free-standing health promotion practice that uses an integrative, multidisciplinary team approach to the promotion of health and wellness for clients that receive primary care from conventional practitioners.

Health Promotion/Disease Prevention

Health promotion is the provision of services or implementation of processes that advance health beyond simply preventing or eliminating illness to building capacity that enables individuals and groups to improve their health and well-being (Hutchinson, et al., 2006; Kickbusch, 2003; Larson, 1999). Although health promotion and disease prevention are often used interchangeably, their scope, underlying motivations, and purposes are unique. Health promotion has a broad scope that encompasses the whole client, including biopsychosocial, spiritual, and cultural dimensions, and the client's environment. Health promotion assists clients to optimize health and well-being, attain balance, stability, and harmony, strengthen adaptation, and expand consciousness (M. P. O'Donnell, 1989, 2009; Smith, 1990). Health promotion activities include, but are not limited to, the prevention of disease or decreasing risk factors for disease (Pender, Murdaugh, & Parsons, 2006; Smith, 1990).

Program Evaluation

Program evaluation is the systematic inquiry of a program's activities, characteristics, and outcomes to provide information for decision-making related to the program, to improve program quality or effectiveness, to determine the value or worth of a program, or to inform future programs (Centers for Disease Control and Prevention, 1999; Greene & Walker, 2001; Whitehead, 2003).

Process Evaluation

Process evaluations assess the extent a program is implemented as originally designed, and describe program operations, how well a program performs intended functions, and a program's strengths and weakness (Dehar, Casswell, & Duignan, 1993; Hogan, n.d.; Rossi et al., 2004). Process evaluation provides insight into the questions of how and why a program

succeeds or fails to achieve objectives. The program evaluation of the IWP includes a process and outcome evaluation component. Although process evaluations may be accomplished independently, when conducted in conjunction with outcome evaluation the information enriches and clarifies the findings of the evaluation and allows for targeted quality improvement and replication by other organizations (Bierman, 2006; Stufflebeam, 2001).

Outcome Evaluation

Outcome evaluations assess the achievement of program short-term, medium or intermediate, or long-term or distal outcomes. The distance or length of time from intervention to an outcome varies based on the intervention and the anticipated outcome. Impact evaluation, a type of outcomes evaluation, assesses the overall effects of a program or intervention including intended and unintended outcomes (Trochim & Donnelly, 2008). An outcome is the state or condition that an intervention is expected to change (Rossi et al., 2004). Participant outcomes are changes that may be attributable to the health promotion program. Proximal outcomes are the direct and immediate effects of participation in a program and typically include knowledge, skills, motivation, and behavioral intentions. Intermediate outcomes in health promotion programs may include health behavior change and early physical changes such as decreased blood pressure or improved lipid levels (Pender et al., 2006). Distal outcomes are more ultimate or longer term outcomes that result from the proximal short and medium-term outcomes. Examples of distal outcomes for health promotion programs include improved quality of life, sustained weight loss, and optimal wellness.

Many factors may influence a program participant's outcomes. Although rigorous research designs limit threats to validity of evaluation findings, it is not possible to definitively attribute participant changes to a particular health program intervention. To increase the

credibility of a program, the outcome measures should be based on prior research and expected impacts as articulated in its logic model (Rossi et al., 2004; W.K. Kellogg Foundation, 2004; Yampolskaya, Nesman, Hernandez, & Koch, 2004).

Significance to Nursing Practice

Health promotion and disease prevention are essential competencies for nursing at the doctorate of nursing practice level (American Association of Colleges of Nursing, 2006). Health promotion is often cited as a distinguishing feature of nursing in comparison to the more disease-focused practice of physicians. However, shrinking appointment times, productivity emphasis, episodic problem-focused delivery systems, increased documentation requirements, lack of reimbursement for health promotion, and unrealistic patient expectations act as barriers to the implementation and success of health promotion/disease prevention interventions (Havens, Ronan, & Hannan, 1996; Yarnall, Pollak, Ostbye, Krause, & Michener, 2003). The evaluation of the Intentional Wellness program will not only provide useful information for the stakeholders of the program, but may reveal a valuable referral resource for other providers in the community. Dissemination of information about the program may also inspire other advanced practice nurses to incorporate CAM into practice and to consider using innovative practice models that support holistic, wellness-focused care outside the confines of the current medical model.

CHAPTER TWO: BACKGROUND

The Intentional Wellness Program, though distinctive in its holistic philosophy and integration of CAM, is at its core a health promotion program. In this chapter, conceptual models that serve as frameworks for health promotion programs are discussed and principles and practices relevant to the IWP are identified. Program evaluation concepts, frameworks, and methodologies are also reviewed and the program evaluation framework for this practice inquiry, the Centers for Disease Control and Prevention's *Framework for Program Evaluation in Public Health* (1999) described.

Health Promotion Theories and Models

Health promotion and risk reduction are processes that advance health beyond simply preventing or eliminating illness to building capacity that enables individuals and groups to improve their health and well-being (Hutchinson et al., 2006; Kickbusch, 2003; Larson, 1999). Determining, implementing, and evaluating strategies that positively affect health is a complex undertaking that requires knowledge of comprehensive, logical, relevant theories and models. Health promotion models and theories propose factors or constructs that explain, predict, motivate, or influence health behavior providing targets for health promotion and risk reduction activities. The following overview of health promotion models identifies many factors influencing health behavior from each model's perspective.

The Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), the Health Promotion Model (HPM), and the Transtheoretical Model (TTM) focus on individual level influences on health behavior. The HBM posits that a person is more likely to change behavior if feeling threatened, believing the action will reduce the threat at a cost that is outweighed by the benefit, feeling able to successfully perform the action, and is

exposed to action prompts (Abraham & Sheeran, 2005; Pender et al., 2006). The TRA and TPB contend that intention to engage in a behavior is the best predictor of behavior. Behavioral intention is determined by subjective norms, that is the individual's perception of social pressure to perform the target behavior, and the person's attitude about the behavior (Conner & Sparks, 2005; National Cancer Institute, 2005). In the HPM, individual characteristics and experiences, perceived benefits and barriers, perceived self-efficacy, and interpersonal and situational influences impact an individual's commitment to a plan of action and health behavior (Pender et al., 2006). The TTM emphasizes the importance of the readiness for change, hypothesizing that progress through the stages of change is influenced by the pros and cons of changing, self-efficacy, and cognitive and behavioral processes (Prochaska, Redding, & Evers, 2002).

In addition to intrapersonal factors, many health promotion models emphasize the effect of interpersonal and environmental factors on health behavior. Social Cognitive Theory (SCT) recognizes the reciprocal influences of environment and situations, observational learning, modeling, and reinforcement or responses to one's behavior on health behavior (Bandura, 2004; Baranowski, Perry, & Parcel, 2002; Luszczynska & Schwarzer, 2005). Bandura (2004) also describes crucial individual factors that influence behavior, including perceived self-efficacy (the personal belief in one's own capability to perform a specific action to attain a desired outcome), outcome expectancies (anticipated positive or negative consequences), and sociostructural factors (perceived facilitators or impediments within living conditions, health systems, or the environment). Similarly, expectancy value theory includes the propositions that individuals are more likely to engage in behavior expected to result in an outcome that is of personal value and are more likely to invest effort in obtaining goals that are perceived as achievable (Conner & Sparks, 2005). The Transactional Model of Stress and Coping (TMSC) brings two important

concepts to the forefront: stress and social support (Wenzel, Glanz, Lerman, Rimer, & Lewis, 2002). In this model stress is considered a transactional experience that is dependent on personal perception. Social support buffers the adverse effects of stress by promoting adaptive appraisals and effective coping mechanisms (Lazarus, 2000; Lazarus & DeLongis, 1983; Wenzel et al., 2002).

Health Promotion in Integrative Healthcare

Several key health promotion factors are common among health promotion theories and are relevant to CAM and integrative health promotion programs: barriers and benefits of health promoting behavior, relevance or value of the behavioral outcome, self-efficacy, social influences, and environment (Abraham & Sheeran, 2005; Baranowski et al., 2002; Conner & Sparks, 2005; Luszczynska & Schwarzer, 2005; Pender et al., 2006). The components of integrative healthcare programs vary and the users of the programs are diverse, but as in the IWP, they typically value holistic care and high-level wellness through the balance and harmony of the mind, body, and spirit (Institute of Medicine of the National Academies, 2005; McGrady, 2000; Schuster, Dobson, Jauregui, & Blanks, 2004). These characteristics of CAM, CAM users, and the IWP support the use of health promotion and risk reduction interventions that emphasize enabling and empowering strategies such as social support, manipulation of situational and environmental influences, modeling of new, desired behaviors and stress management techniques.

Intentional Wellness Program Health Promotion

As with many health care interventions, the IWP was not planned or implemented with an explicit theoretical or conceptual model in mind. However, the program incorporates a variety of theoretical principles including use of interpersonal influences such as the development of

social support through small group workshops and modeling of healthy lifestyles by the providers. IWP strategies, including interactive classes and skills training, target self-efficacy improvement in physical activity, diet, and stress management. The importance of attitudes and emotions as determinates of health and health related behavior along with methods to develop positive attitudes and emotions are key features taught in the IWP. Other theoretical concepts taught in the IWP include the environmental and situational influences on health and setting intentions and goals.

Although the health behavior determinates and strategies the IWP employs have sound theoretical underpinnings, this does not guarantee that the program is effective. Desired outcomes may not be achieved because of a variety of factors. The program may not have been implemented as intended, the interventions may not have been understood or accepted by the participants, the interventions may not be efficacious, or factors outside the program may influence the effectiveness of the program. The IWP purports to promote health and well-being, but its processes and outcomes have not been assessed. Program evaluation is a suitable tool for this practice inquiry's purpose of evaluating selected organizational processes and patient outcomes of the IWP.

Program Evaluation

Program evaluation is the systematic inquiry of a program's activities, characteristics, and outcomes to provide information for decision-making related to the program, to improve program quality or effectiveness, or to inform future programs (Centers for Disease Control and Prevention, 1999; Greene & Walker, 2001; Whitehead, 2003). Program evaluation is an essential element of translating, sustaining, and improving health promotion programs. Various approaches, models, and categories or types of evaluation serve as guides in conducting

evaluation projects. The selection of frameworks depends on the purpose of the evaluation, the resources available, and planned uses of the findings.

Program Evaluation Categories

Program evaluations are commonly categorized as either formative or summative evaluations. These categories of evaluation are distinguished by their roles: Formative evaluations are intended to improve the evaluated program, whereas summative evaluations are designed to render a judgment of the overall merit or worth of a program's performance (Rossi et al., 2004; Scriven, 1996). Many evaluation models, also referred to as evaluation approaches, may be used to accomplish formative or summative evaluations. The following discussion reviews leading evaluation program evaluation models.

Evaluation Theory and Models

Evaluation theory serves to guide the practice of program evaluation, aiding evaluators in choosing evaluation methods in varying circumstances, and in determining why and how evaluations should be used. Evaluation theories vary in their philosophies and assumptions regarding the roles of evaluators, the purposes of evaluations, the roles and level of involvement of stakeholders, and methodologies typically employed (Owen, 2007; Stufflebeam, 2001). Selection of one or more theories or models to guide an evaluation entails matching the purpose and goals of the evaluation, the needs of the program being evaluated, the stage of program development, the structure and size of the program, the program setting, and the nature and complexity of the intervention with an appropriate evaluation approach (Bledsoe & Graham, 2005; Owen, 2007; Rossi et al., 2004; Shadish, 1994, 1998). Objectives-oriented evaluation, outcome-based evaluation, goal-free assessment, process evaluation, logic model or theory-driven evaluation, decision-oriented evaluation, and utilization-focused evaluation represent the

broad variety of evaluation approaches (A.A. Anderson, n.d.; Donaldson, Patton, Fetterman, & Scriven, 2010; Fetterman & Wandersman, 2007; Patton, 2001; Rossi et al., 2004; Stufflebeam, 2001).

Objectives-oriented evaluation and outcome-based approaches focus on assessing the extent to which program goals or desired outcomes are achieved. These approaches are usually clear-cut, with a strong emphasis on well-defined outcomes that serve as a basis for judging the value or worth of a program or intervention and are often used in summative evaluations (Fitzpatrick, Sanders, & Worthen, 2004; Stufflebeam, 2001). Used alone, this approach may fail to provide a full assessment of the value or worth of a program or adequate information concerning the processes or components of an intervention for decision-makers to target areas of the program that need improvement. The narrow focus also limits the possibility that unanticipated outcomes or effects of an intervention will be detected. In contrast, in goals-free evaluation the evaluator deliberately avoids the focus on program goals, instead determining actual outcomes and effects and judging them against participant needs, thus decreasing bias and tunnel vision inherent in objectives-based approaches (Fitzpatrick et al., 2004; Patton, 2008).

As previously described, process evaluation approaches focus on the actual activities and experiences of program participants (Rossi et al., 2004). Logic models evaluations typically examine the plausibility of a program's process theory (Cooksy, Gill, & Kelly, 2001; Page, Parker, & Renger, 2009; W.K. Kellogg Foundation, 2004). Program theory-driven models expand the evaluation focus to include the causal theory of program activities in addition to the process theory (A.A. Anderson, n.d.; Rossi et al., 2004). Theory-driven evaluation is useful in determining if a program is theoretically sound and provides insight into why a program is or is not succeeding, providing a target for program improvement (Stufflebeam, 2001).

Stufflebeam's (2003) CIPP model is the prototype for decision-oriented evaluation. This model is a comprehensive approach that evaluates a program's content, input, process, and product (CIPP) to provide information useful for decision-making. This approach is useful for formative and summative purposes. Because of the comprehensive nature of the CIPP Model, evaluations using this framework can be resource intensive, limiting its feasibility in some circumstances. Patton's utilization-focused approach also emphasizes providing useable information to intended users, but in contrast to the CIPP structured framework, it advocates a flexible approach, using whatever design or strategy best supports the usability of the evaluation findings (Donaldson et al., 2010; Patton, 2008). This client-centered approach has been criticized for neglecting to analyze the needs and the impact of the consumers of a program (Donaldson et al., 2010).

Program Evaluation Design

Successful program evaluation planning is a collaborative and politically sensitive process. Evaluators make judgments and facilitate decisions that cannot be made without insight into the values and needs of the stakeholders (Patton, 2008; Shadish, 1994). Judgments of worth are based on the evidence obtained through measurements of performance or outcomes compared against established standards or criteria (Centers for Disease Control and Prevention, 2005; Owen, 2007). Although these standards and criteria may be gleaned from multiple sources, without the input of key stakeholders relevant standards and measures may be missed, resulting in an evaluation that has no credibility or usability. Whether evaluation questions relate to identifying needs of a target population, assistance with program design, evaluation of program performance and quality, program improvement, cost-effectiveness evaluation, or determining the sustainability of the program, the evaluator must work closely with the

stakeholder so that their needs are clear and the information and recommendations provided to the stakeholders is accurate and useful (Donaldson et al., 2010; Owen, 2007; Rossi et al., 2004).

The study design and implementation of a program evaluation must elicit the best evidence to answer the questions of the stakeholders within the constraints of the program. Randomized controlled trials (RCTs) have been described as the “gold standard” for determining the effectiveness of an intervention; however, not all programs can or should be evaluated by this method (Aro, Van den Broucke, & Raty, 2005; Jones & McQueen, 2005; Jones & Scriven, 2005; South & Tilford, 2000). The randomized design fails to represent the true world of health and health promotion in which context is essential to the outcome of an intervention and complex relationships exist between individuals and myriad determinants of health behaviors. The consensus among most evaluation experts is that evaluators must tailor the evaluation design to fit with the needs of the stakeholders, the purposes of the study, and the circumstances (Goodstadt et al., 2001; Paterson, Baarts, Launso, & Verhoef, 2009; Rootman, Goodstadt, Potvin, & Springett, 2001; Rossi et al., 2004). Principle design strategies for program evaluations include the use of flexible, broad methods that consider all domains of influence and are sensitive to contextual factors, the use of multiple sources of data, and the use of mixed methods combining qualitative, quantitative and integrated measurements (Best et al., 2003; Nutbeam, 1998).

Program Evaluation Standards

Program evaluation and research designs should both meet the standards for scientific rigor; however, program evaluation and research standards differ due to their distinctive purposes and contextual factors (Braverman & Arnold, 2008; Fitzpatrick et al., 2004). The Joint Committee on Standards for Educational Evaluation (Centers for Disease Control and

Prevention, 1999) defined standards for effective evaluation that address the utility, feasibility, propriety, and accuracy of evaluation activities. The utility category sets standards that ensure the evaluation serves the needs of the intended users and includes criteria for stakeholder identification, evaluator credibility, information scope and selection, values identification, report clarity, timeliness and dissemination, and evaluation impact. Feasibility standards ensure that evaluations are realistic, prudent, diplomatic, and frugal, keeping disruption of programs to a minimum, maintaining political viability and ensuring cost effectiveness. Propriety standards relate to the legal and ethical conduct of evaluations and include the protection of the right of human subjects, complete and fair evaluations, full disclosure of findings, and addressing conflicts of interest. Twelve accuracy standards ensure evaluations provide reliable, correct information and include accurate descriptions of the program evaluated, context analysis, purposes and procedures, use of appropriate information sources, appropriate analysis of information, justification of conclusions, and impartial reporting (Joint Committee on Standards for Educational Evaluation, 2010). These standards, though developed for educational evaluation, are relevant to program evaluation in multiple settings and have been widely accepted as standards for health program interventions (Centers for Disease Control and Prevention, 1999; Joint Committee on Standards for Educational Evaluation, 2010; Stufflebeam, 2001).

Health Promotion Program Evaluation

Evaluations of social or health programs pose many challenges and barriers. Health promotion programs are characterized by complex interventions with multiple outcomes provided in an uncontrolled environment; consequently, diligent planning, design, decision-making, and implementation processes that often increase the complexity, cost, and controversy

of an evaluation project are required (Goodstadt et al., 2001; O'Connor-Fleming, Parker, Higgins, & Gould, 2006). Despite these difficulties, program evaluation is an essential organizational practice to inform decision-making, facilitate improvement, validate effectiveness, and demonstrate accountability (Centers for Disease Control and Prevention, 1999; Rootman et al., 2001; W.K. Kellogg Foundation, 1998).

Health Promotion Program Evaluation Models

Many frameworks have been developed to guide the planning and evaluation of health programs, including the RE-AIM framework, the PRECEDE-PROCEED model, World Health Organization's health promotion framework, and the Centers for Disease Control and Prevention's *Framework for Program Evaluation in Public Health* (Centers for Disease Control and Prevention, 1999; National Cancer Institute, 2005; Rootman et al., 2001; Workgroup to Evaluate and Enhance the Reach and Dissemination of Health Promotion Interventions, n.d.). The RE-AIM framework was designed to improve the translation of research interventions into clinical practice and therefore emphasizes aspects of interventions important to external validity such as participation and adoption rates and representativeness, effectiveness, and implementation fidelity (Dzewaltowski, Glasgow, Klesges, Estabrooks, & Brock, 2004; Glasgow, 2007; Glasgow, McKay, Piette, & Reynolds, 2001). The PRECEDE-PROCEED model is a multi-level planning and evaluation model that focuses on designing health interventions that address environmental, social, and organizational factors (Green, n.d.; National Cancer Institute, 2005). The frameworks developed by the CDC and the WHO describe of a series of steps delineating the process of program evaluation, stressing stakeholder empowerment and participation. The Centers for Disease Control and Prevention's *Framework for Program Evaluation in Public Health* was chosen as the framework for this scholarly inquiry because it

integrates the key components and activities of a broad range of evaluation approaches in an organized, systematic method and allows an evaluation to be tailored in design and scope to the specific needs or agenda of program evaluator and stakeholders.

CDC Framework for Program Evaluation

The Centers for Disease Control and Prevention (CDC) *Framework for Program Evaluation in Public Health* provides guidance and structure to aid in the development of a comprehensive evaluation design that meets the evaluation standards set by the Joint Committee on Standards for Educational Evaluation and ensures the evaluation produces relevant, useful information (Centers for Disease Control and Prevention, 1999; Joint Committee on Standards for Educational Evaluation, 2010). The framework consists of six steps: (a) engaging stakeholders, (b) describing the program, (c) focusing the evaluation design, (d) gathering credible evidence, (e) justifying the conclusions, and (f) ensuring utilization and sharing lessons learned (Figure 1). These steps are essential, interdependent, and iterative, but allow the flexibility to tailor an evaluation based on the program's context and the purpose of the evaluation.

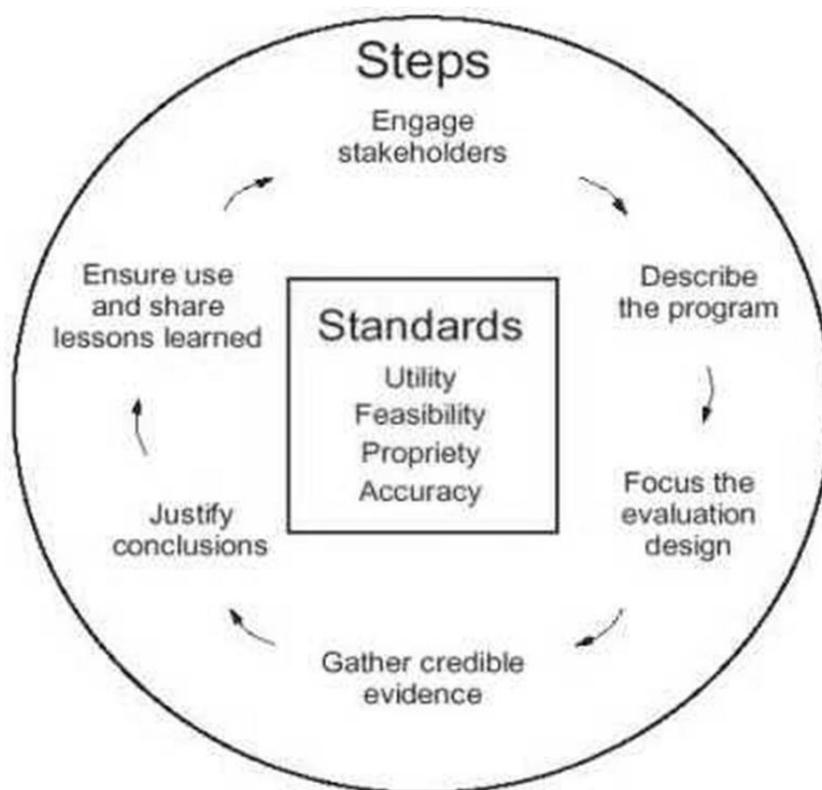


FIGURE 1. The CDC Program Evaluation Framework

The following discussion describes the CDC framework.

Step 1: Stakeholder Engagement

The first step in the CDC framework is stakeholder engagement. Stakeholders are those individuals or organizations that will use or be affected by program evaluation findings. This step draws on community-based participatory research (CBPR) philosophy and methods emphasizing empowerment of stakeholders, a focus on issues of concern to the participants in real world settings, and active participation of individuals or organizations affected by the evaluation process (Koch & Kralik, 2001; Reason, 1994). CBPR approaches have demonstrated value in developing research questions that reflect the true concerns of community members, improving cultural sensitivity and reliability and validity of measurement tools, increasing understanding of sensitive health issues, increasing trust by community members with resulting

increased recruitment and retention, increasing accuracy of research finding interpretations, and increasing the overall likelihood of success of a project (Minkler, 2005). The participation of stakeholders ensures their perspectives and values are understood, and increases buy-in to the findings and changes made as part of the process (Centers for Disease Control and Prevention, 1999; Minkler, 2005; Patton, 2008).

The evaluation process included many stakeholders of the IWP (i.e., owners, providers, staff, and clients) as active participants, with each participant providing input from their unique knowledge and experiences. Program evaluation involvement can be empowering and allow each voice to be heard; however, it required a commitment of time and effort that may have been hard for many individuals to provide, and was not feasible for some individuals within the time constraints and resources of an evaluation (Fetterman & Wandersman, 2007). Involvement of key stakeholders of the IWP, the three owners, in each step of the program evaluation was essential for the success of the program evaluation. These providers contributed their expertise concerning specific complementary therapies to ensure appropriate analysis of the program interventions. Clients who participated in the program evaluation supplied valuable insight into what is important and effective from a client perspective. The input of clients was particularly important because, as users of complementary health practices, their needs, attitudes, and goals may differ significantly from individuals who prefer a traditional biomedical approach, and their perspective may also differ from health care providers. Stakeholder involvement was maintained throughout the entire IWP evaluation process.

Step 2: Program Description

The second step of the CDC framework is an accurate, comprehensive description of the program. A comprehensive description includes the problem addressed by the program,

programs goals and expected effects, strategies or activities, and program resources. The stage of development, the organizational structure, and the context of a program are also important considerations in determining the evaluation purpose, specific questions, and methods of evaluation (Centers for Disease Control and Prevention, 1999; Rossi et al., 2004).

A logic model provides a graphic depiction of the theory of a program and is a valuable tool in describing the program conceptualization (Rossi et al., 2004; W.K. Kellogg Foundation, 2004). The basic elements of a program logic model are the inputs or resources available, activities or services of the program, and the short-term, intermediate, and long-term outcomes that result from program (W.K. Kellogg Foundation, 2004). The articulation of a logic model by program stakeholders creates a shared understanding of the priorities and activities of the program and the relationships between actions and results. The logic model provides the evaluator with a tool for locating gaps in the theory or plausibility of the program and aids in the engagement of stakeholders in the design of an evaluation (A.A. Anderson, n.d.; W.K. Kellogg Foundation, 2004).

The program theory should be analyzed to determine its soundness. Rossi (2006) described several strategies that can be used in the evaluation of program theory including assessing how it related to the need being addressed, analyzing its plausibility, determining the congruence of theory with research and practice-based evidence, or direct observation and interviews with participants to assess for discrepancies between the program theory and reality. Plausibility is a judgment call that should consider how well defined and feasible are the program goals, evidence that supports the presumed change processes, sufficiency of the program activities, and adequacy of the program resources (Rossi et al., 2004).

In this practice inquiry the evaluator articulated the IWP logic model as described by the program designers. The IWP logic model served as a basis for the analysis of the program theory and aided in the focusing of the process and outcome evaluation components of the program evaluation.

Step 3: Evaluation Design

The CDC program evaluation framework does not prescribe an evaluation design. Instead the design is to be determined by the purpose and aims of evaluation, the intended uses of the findings by the key stakeholders or decision-makers in a program, and the resources available to conduct the evaluation (Centers for Disease Control and Prevention, 1999). The evaluation design is focused by the development of specific, concrete questions that achieve the program evaluation purpose and are relevant to the stakeholders (Rossi et al., 2004; Tourmen, 2009).

The aims of the practice inquiry and the key stakeholders' desire for information that could be used to improve the program necessitated a combination of process and outcome evaluation approaches. Because the IWP was an existing program, a descriptive design using qualitative and quantitative methods was selected as the most feasible design to achieve the evaluation purpose.

Step 4: Evidence Gathering

Evidence gathering in program evaluation is analogous to data collection in research studies. The data gathered must be credible and relevant for answering the evaluation questions. Use of mixed methods of data collection with qualitative and quantitative data is recommended to increase the richness and accuracy of the data (Johnson & Onwuegbuzie, 2004; Malterud, 2001a, 2001b). Data sources are determined by the research questions and may include client

records, individual or focus group interviews of participants, staff, and key informants, program policies and procedure manuals, administrative records, and observations.

The recommended combination of qualitative and quantitative data was used in the evaluation of the IWP. The data sources included information collected as part of the routine operations of the program plus client focus groups, a client interview, and provider interviews.

Step 5: Conclusions

In the CDC program evaluation framework, conclusions are justified through synthesis of the findings obtained from data analysis interpreted within the conceptual framework and context of the program, and the values of the stakeholders (Baker, Davis, Gallerani, Sanchez, & Viadro, 2000; Centers for Disease Control and Prevention, 1999). This interpretation and judgments concerning the IWP were performed in collaboration with the key stakeholders. The data analysis results will be presented at a meeting with the stakeholders and alternative explanations for the findings and their meaning to the program will be discussed.

Step 6: Evaluation Use and Dissemination

The final step in the CDC program evaluation framework is to ensure use of the evaluation findings and lessons learned. To accomplish this step, plans should be made at the very beginning of the program evaluation process. As described above, the design must be tailored to achieve the uses intended by the primary stakeholders. Throughout the process, the evaluator should ensure the values and needs of the stakeholders are addressed and then reflected in the program evaluation report. The evaluation findings must be credible and any recommendations made must be feasible to increase the likelihood of their use. The primary users of the IWP evaluation information will be the IWP owners. As owners and service providers these individuals anticipated that the program evaluation results would reveal areas of

strength and weakness in the program and provide insight into the clients' experiences. This information will provide insight into needed refinements and methods of improving the program. The owners also planned to incorporate processes and tools learned from participating in the evaluation to design an ongoing monitoring and evaluation program. Active participation of these stakeholders in the program evaluation process increased the likelihood that they will accept and use the findings. Feedback to and from the users at each step of the evaluation process by email and periodic meetings maintained involvement and ensured the evaluation continued to be focused, relevant, and useful (Centers for Disease Control and Prevention, 2005).

The dissemination of the findings or recommendations of a program evaluation is often considered simply providing the stakeholders with a written report or presentation of the information (Centers for Disease Control and Prevention, 1999). However, dissemination that results in use of the findings requires thoughtful planning. Diffusion of innovations theory delineates a process of dissemination that begins with gaining knowledge concerning new information, developing an opinion regarding its value, choosing whether or not to use the new information, and finally incorporating the information into practice (Berwick, 2003; Oldenburg, Sallis, French, & Owen, 1999). To facilitate dissemination evaluators must provide clear, understandable findings in a format that is accessible and acceptable to stakeholders. A written report of the results of the program evaluation will be shared with the key stakeholders in addition to The University of Arizona graduate school nursing faculty. Any publications in professional journals or other dissemination of the results will require the permission of the IWP owners

This chapter reviewed health promotion models and evaluation approaches that provide a background to inform the planning and design of this health promotion program evaluation. The

application of the CDC program evaluation framework to achieve each of the practice inquiry aims is described in the following chapters.

CHAPTER THREE: PRACTICE INQUIRY METHODOLOGY

This practice inquiry used the CDC *Framework for Program Evaluation in Public Health* (1999) to guide the evaluation of the IWP. The study employed a descriptive design with both qualitative and quantitative methods to evaluate selected organizational processes and patient outcomes of the IWP. The program evaluation design elements and strategies were used to elicit and analyze the information to achieve the following practice inquiry aims:

1. To analyze the program theory through the development and evaluation of the program logic model.
2. To evaluate selected organizational processes.
3. To examine selected client outcomes, including satisfaction.

Key aspects of the program evaluation include the analysis of the program theory of the IWP through the development and evaluation of the program logic model. The development of the logic model was a prerequisite for conducting a focused, relevant program evaluation and is described in this chapter. Finally, the evaluation design for aims two and three will be presented

Stakeholder Engagement

Stakeholders are those individuals or organizations with a vested interest in the results of a program evaluation. Identifying and including stakeholders is an essential ingredient in conducting an evaluation that is appropriate and useful. Key stakeholders are those involved in program operations, those served by the program, and the intended users of the program evaluation (Centers for Disease Control and Prevention, 1999; W.K. Kellogg Foundation, 1998).

The IWP is a for-profit, Limited Liability Company (LLC) with three members. One member is the designated program director responsible for the day to day operations of the program. All three members share in the program planning, development, provision of services,

and decision-making. Currently no other staff members are employed. The owners were identified as the key stakeholders for this project. Each one has strong financial and professional interest in the success of the program, and has the authority and power to use the findings. The director acknowledged that no evaluation had been completed and there was no ongoing monitoring system or plan in place. She recognized the value of a program evaluation to gain information that could be used to improve the program and support the value of the services the program provided. In subsequent meetings, all three of the owners agreed upon the importance of a program evaluation and committed to take an active role in identifying the evaluation needs and questions, providing the data to help answer the questions, and using the findings to make changes or improvements in the program.

Other stakeholders of the program are the participants, the fitness center that has a partnership relationship with the IWP to provide temporary memberships to the participants and a meeting room for the class meetings, and a personal fitness trainer who is contracted to design customized fitness programs for the participants. The program participants and the fitness trainer were given the opportunity to contribute to the evaluation process by participating in focus groups, individual interviews, or completion of questionnaires concerning the program.

Description of Program

A comprehensive program description provides the basis for the program evaluation and includes the health problem addressed by the program, the target population, the desired outcomes, and the activities or products of the program (Centers for Disease Control and Prevention, 1999). The Intentional Wellness Program was developed to address the owners' perceived need for a program that integrated conventional and complementary approaches to promoting health and wellness. The population targeted for the intervention was adults who

reside in Louisville, Kentucky. Although this area has a high concentration of physicians and tertiary level medical treatment facilities, few health promotion programs and even fewer integrative healthcare programs are available to the population. As previously discussed, this population has a high incidence of cardiovascular disease, obesity, diabetes, and mental health disease, and fails to meet *Healthy People 2010* recommended health behavior goals for nutrition and physical activity (Casey, 2006; Haile & Wood, 2006; United Health Foundation, 2009). The program's mission is to empower participants to develop healthier lifestyles, improve stress management, raise energy levels, tap into the body's natural defenses, and to feel increased contentment and a deeper appreciation for life (Evans, n.d.).

At the time of the program evaluation, the IWP had been in operation for two and one-half years with sessions offered quarterly. The program is delivered through ten weekly two-hour group workshops, an individual evaluation and counseling appointment, one Amma therapy session, two individual HeartMath[®] sessions, and three individual appointments for fitness program design. The program consists of individualized nutritional plans based on the participant's APO E genotype, hands-on education on choosing and preparing healthy foods, workshops focused on using humor to bring joy into life, HeartMath[®] biofeedback techniques, customized exercise programs, and Amma therapy, a form of Asian bodywork used to free the flow of life energy (K. Evans, K. May, C. Kuhn, personal communications, 2009). The program also addresses identifying and overcoming barriers to healthy behavior, behavior change strategies, and motivation. Table 1 lists the workshop topics and activities.

TABLE 1. *Intentional Wellness Program Workshop Topics and Activities*

Week 1	Introduction to the key program components – pillars of wellness, APO E diet, the HA-HA-HA prescription, Wellness Inventory, HeartMath [®] biofeedback, fitness evaluation and orientation to fitness facility.
Week 2	HA-HA-HA prescription – re-frame negative thinking into positive thoughts to increase happiness. Nutrition – the basics of healthy nutrition and the APO E gene diet.
Week 3	HA-HA-HA prescription – use humor strategies to bring joy into your life Clean Out Your Kitchen – how to restock with healthy, great tasting alternatives.
Week 4	HA-HA-HA prescription – apply improvisational skills to lighten up and laugh more. Putting it all Together – create healthy meals with the APO E gene diet.
Week 5	Overcoming Barriers to Healthy Nutrition – identify and utilize your strengths to help overcome common obstacles. Strategies for Enhancing Your Personal Wellness Plan
Week 6	Developing Your Intuition – learn to enhance your heart/brain connection.
Week 7	Humor Mediation – enhance your humor skills.
Week 8	Stages of Change – see where you are, where you want to go, and how to get there. Staying Motivated – learn how your words create your world.
Week 9	Principles of Total Fitness – learn how frequency, intensity, time and type create your fit formula.
Week 10	Divine synchronicities and the creation of Intentional Wellness
Week 11	Step Into Your Power presentation. Program evaluation. Graduation ceremony.

The sessions are highly interactive and include participant activities that increase skills, model healthy behaviors, and build peer support and accountability. Food and activity logs are reviewed and discussed each week.

Approximately 60 clients have attended the program since its inception in January 2008, with groups ranging in size from 4 to 15 clients each quarter. Each participant is asked to sign a form that indicates a commitment to attend each session, practice HeartMath[®] daily, follow the APO E diet, keep a daily log and bring it to the weekly group classes, exercise 5-6 days a week, and laugh daily. The participants are also asked to provide written statements of personal goals

and desired outcomes from participation in the program and expected benefits from reaching the goals. Additional goals and action plans are developed based on the results of the Wellness Inventory, fitness evaluation, and the cardiovascular risk markers (body composition and results of laboratory tests). The goals and action plans are reviewed by the program providers and suggestions offered to help participants develop realistic, attainable goals and feasible plans.

Aim 1: Development and Evaluation of IWP Logic Model

Logic Model Purpose

A logic model for the IWP was developed to clarify and summarize the relationship of the program activities to the desired outcomes. Logic models describe in a graphic format how the program is intended to work. Creating a logic model helps build consensus among stakeholders and elucidates the essential elements of a program. In a program evaluation the logic model may serve dual purposes; a) to articulate the program theory in a clear, concise manner to facilitate analysis, and b) to provide a basis for identification of evaluation questions and concerns (Centers for Disease Control and Prevention, 1999; Rossi et al., 2004; W.K. Kellogg Foundation, 2004).

Logic Model Development

The content for the IWP logic model was collected from program brochures, the program website, and a sample IWP participant notebook with educational materials. Additional inputs and resources, activities, and desired outcomes were obtained from discussions with the key stakeholders of the program. Key stakeholder assumptions and beliefs underlying the program design were also ascertained during these discussions. The IWP program logic inputs, activities, outputs, and short, medium and long-term outcomes that were expected to result from the program activities were verified during a meeting with the key stakeholders. Tools used by the

providers to measure program outcomes were also identified during this staff meeting. Figure 2 depicts the IWP logic model inferred from the available information.

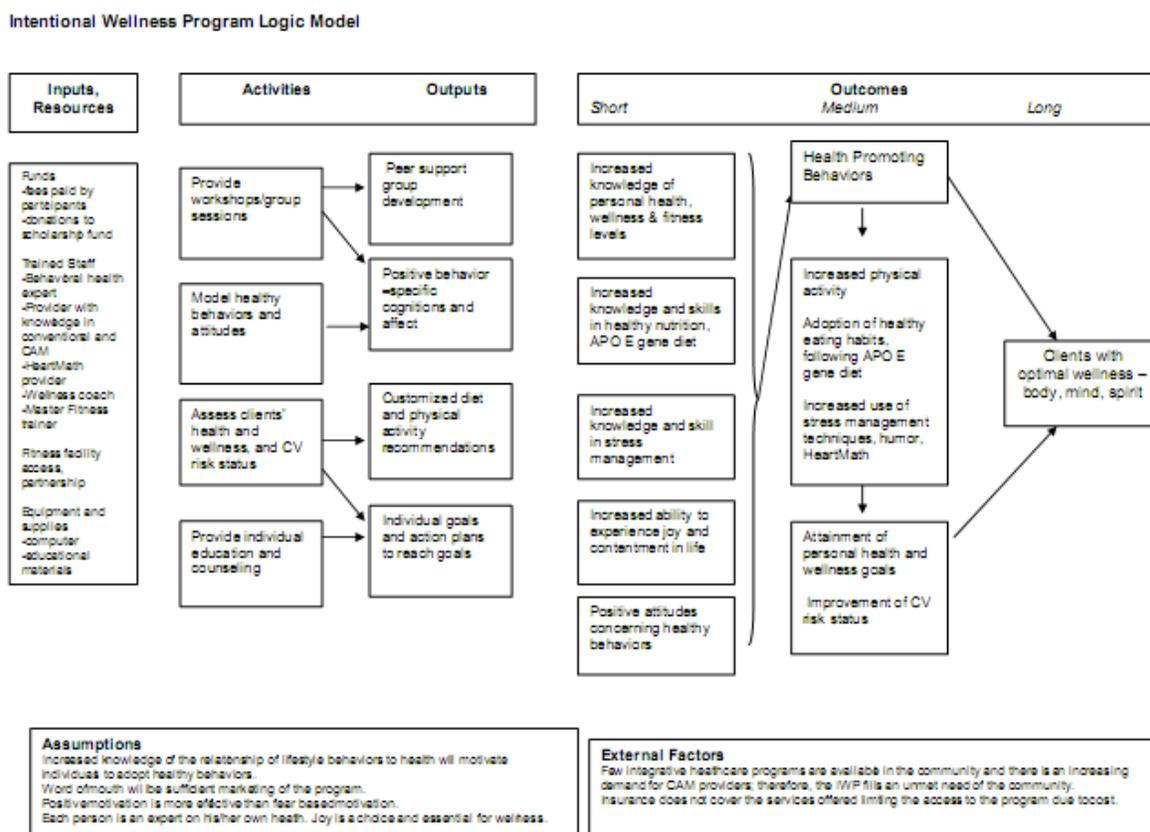


FIGURE 2. Intentional Wellness Program Logic Model.

Logic Model Evaluation

Logic models are useful blueprints depicting the intended activities of a program and the outcomes expected from those activities. They also provide a visual representation of the program theory or conceptualization. The IWP logic model assessment addresses the following questions: Does the logic model accurately depict the intended program design? Is the program theory represented in the IWP logic model plausible?

Does the logic model accurately depict the intended program design?

The IWP logic model was developed with input from the key stakeholders who designed the program. After meeting with the stakeholders and receiving verification of the components of the logic model, the model was designed and a copy sent by email to each of the stakeholders with a request for comments on its accuracy. No feedback was received so the question was incorporated into the key informant interview questions. During the interviews, the key stakeholders agreed that the key elements of the program were captured by the logic model and that it accurately represented the inputs, activities, outputs, and outcomes of the program. Changes recommended included emphasizing “increased ability to experience joy and contentment” by moving this to the top of the model because this outcome was thought to be the key to sustaining a healthy lifestyle. One individual identified that one of the outcomes of the program “increased confidence in my own wisdom” was missing. Clarification of the role of Amma therapy was also advised by the program director. The logic model with the revisions based on key stakeholder feedback does provide an accurate summary of how the IWP was designed. The revised logic model is provided in Appendix A.

Is the program theory logical and plausible?

A logic model graphically represents the design of a program and should also portray the underlying theory of the program answering how and why a program is expected to cause the desired outcomes (W.K. Kellogg Foundation, 2004). Rossi et al. (2004) advise that the plausibility of a program theory should include an assessment of the feasibility of the program goals and objectives and the plausibility that the program will result in the desired outcomes. The IWP does not have well-documented or articulated program goals or objectives; however, the program leaders concur with the desired outcomes identified on the logic model. These outcomes

are considered the goals of the program. The short-term and medium-term goals include changes in knowledge and attitudes related to healthy lifestyle behaviors, improvements in health behaviors, and improvement in cardiovascular risk status. These goals are all feasible results of a health promotion program. The long-term or ultimate goal of the program is optimal wellness of body, mind, and spirit. This goal is not well defined within the program. Though the program providers expect improvement in wellness to be demonstrated by changes in the Wellness Inventory scores, optimal wellness may not be a feasible or measurable outcome of the program.

Logic model analysis utilizes expert judgment and existing scientific knowledge to make a reasoned judgment of the validity or plausibility of the program theory (Brousselle & Champagne, 2011; Rossi et al., 2004). A review of the literature to examine the evidence-base supporting the effectiveness of the IWP program was conducted. As recommended by Brousselle and Champagne (2011), rather than conducting an exhaustive review of the literature of the program interventions, foundational and recent evidence such as systematic synthesis or practice guidelines were reviewed to balance the time and resource constraints of a program evaluation with the information needed to assess the IWP logic model. The health promotion interventions used in the IWP include the APO E gene diet, the HA HA HA prescription, HeartMath[®], and Amma therapy. Database searches in Medline, PubMed, and CINAHL were conducted using the terms “apolipoprotein E” or “APO E” and “diet,” “HA HA HA prescription” or “humor” and “stress,” “HeartMath[®]” or “heart rate variability” and “stress”, and “Amma.”

No published research or program evaluation that investigated the effectiveness of a program that included the APO E gene diet, the HA HA HA prescription, HeartMath[®], and Amma therapy was found. Literature searches also failed to produce any research studies that specifically addressed the APO E gene diet, the HA HA HA prescription, or Amma therapy.

Only one article was found that described Amma therapy for the treatment of fibromyalgia; however, this article was not a research article (Young, 1993). Several articles reported on the effectiveness of humor and HeartMath[®].

The APO E gene diet is described in *The APO E Gene Diet* by McDonald (2007). The author supports the effectiveness of the diet with several anecdotal reports of patients who have lost weight and decreased cardiovascular risk with the use of the APO E gene diet. McDonald contends that by following a diet designed for a person's APO E genotype will create a gene-supportive environment, increasing health and preventing chronic disease. There is well documented evidence that the APO E gene polymorphisms are associated with variations in lipid profiles and cardiovascular disease risk (Lahoz et al., 2001; Minihane, Jofre-Monseny, Olano-Martin, & Rimbach, 2007; Song, Stampfer, & Liu, 2004). The evidence related to the response to various levels of dietary fat, carbohydrates, and cholesterol by APO E genotype is mixed. Masson, McNeill, and Avenell (2003) conducted a systematic review examining the changes in cholesterol, LDL, HDL, very low density lipoproteins (VLDL) and triglycerides from dietary interventions in the various APO E genotypes. Four of the 13 studies that manipulated dietary cholesterol had significant variations in APO E genotype responses with subjects with the E4 allele having greater responses in total cholesterol, LDL or HDL and subjects with the E2 allele having the least response. Forty-six of the interventions in the systematic review evaluated the effects of altering dietary fat consumption. Eight of the dietary fat intervention studies reported significant differences in total cholesterol levels between the various APO E genotypes and 11 of the studies reported significant differences in LDL levels by genotype with subjects with an E4 allele showing the largest responses (Masson et al., 2003). Several limitations could have contributed to the conflicting results including the small sample sizes of the studies with limited

representation of the rarer alleles and the use of different dietary protocols (Masson et al., 2003; Minihane et al., 2007).

Although the research on the APO E genotype mediated response to various diets is inconsistent, the APO E gene diet is high in whole foods including organic fruits and vegetables, whole grain, monounsaturated fats, and discourages soda, processed foods, and trans fat (McDonald, 2007). These recommendations are consistent with the cardioprotective diets recommended by the American Heart Association (AHA) and the National Cholesterol Education Program (NCEP) guidelines, the Dietary Approaches to Stop Hypertension (DASH) eating plan, and the Mediterranean diet (American Heart Association, 2010; Englert, Diehl, Greenlaw, Willich, & Aldana, 2007; Lairon, 2007; National Cholesterol Education Program (NCEP) Adult Treatment Panel III, 2002; Sacks et al., 2001). The APO E gene diet could reasonably be expected to improve IWP clients' lipid profiles and potentially decrease cardiovascular risk status because of its similarity to these known cardioprotective diets.

The IWP includes three workshops that instruct the clients on the HA HA HA prescription. HA HA HA is an acronym for humor attitude, humor aptitude, and humor action. The class on humor attitude is focused on how change negative thinking into positive thinking and recognizing the humor in everyday life. In the humor aptitude session clients are taught strategies such as smiling to bring joy into life. During the humor action workshop clients learn humor skills such as improvisational strategies (C. Kuhn, personal communication, 2009).

Humor has multiple definitions. Humor is a complex, cognitive, emotional and physiological phenomenon emerging from a person's capacity to perceive, appreciate, or express what is funny, amusing, incongruous, or ludicrous (Sultanoff, 2002, 2005). Humor is also considered the stimulus that elicits a happy emotional state or the physical response of laughter

and sense of humor is a personality trait that allows a person to respond to the stimuli (Bennett & Lengacher, 2006a). In a four part series Bennett and Lengacher (2006a, 2006b, 2008, 2009) reported the results of a systematic review of humor and laughter focusing on health related outcomes. The authors reviewed 55 relevant articles with publication dates ranging from 1932 to 2004. Findings included the correlation of sense of humor with increased self-esteem, decreased depression, and self-reported physical health (Bennett & Lengacher, 2006b). The review confirmed positive physiological effects of laughter: During vigorous laughter heart rate, respiratory rate and oxygen consumption increased and following laughter there is a period of muscle relaxation, decreased heart and respiratory rates, and decreased blood pressure (Bennett & Lengacher, 2008). Research studies evaluating laughter's effect on epinephrine, norepinephrine, and cortisol had conflicting results (Bennett & Lengacher, 2008). A small number of studies demonstrated increased natural killer cells in response to humorous stimuli and laughter (Bennett & Lengacher, 2009; Berk, Felten, Tan, Bittman, & Westengard, 2001). A systematic review of humor literature focusing on nursing and health care performed by McCreddie and Wiggins (2008) found no definitive research supporting link between humor and pain, cardiovascular effects or immunity. Limited evidence supported an indirect humor-health link with humor possibly affecting perceptions of health and coping ability (McCreddie & Wiggins, 2008). Both of the reviews on humor were limited by the small number of research articles found, small sample sizes of the studies, heterogeneous outcome measures, and methodological issues of many of the studies. Although further research is needed on humor, the limited evidence suggests a potential effect on self-esteem, depression, health perceptions, and coping ability lending plausibility to the IWP plan to use humor to improve health, ability to experience joy and manage stress.

HeartMath[®] is a biofeedback technique using positive thoughts and emotions to manipulate heart rate variability. Heart rate variability (HRV) is a measure of the variation in the beat to beat interval (Malik, 1998). HRV has a significant genetic component; however, it is influenced by many factors including the autonomic nervous system, baroreflex, thermoregulation, hormones, sleep-wake cycle, meals, physical activity and stress and can be manipulated with diet, exercise, biofeedback, and stress reduction (Cohen & Taylor, 2002; Gang & Malik, 2003; Thayer, Hansen, Saus-Rose, & Johnsen, 2009). HeartMath[®] is taught in the IWP as a stress management tool. Theoretically, using HeartMath[®] HRV biofeedback while focusing on the heart and intentionally generating a positive emotional state facilitates a shift into a coherent state (Childre, Martin, & Beech, 1999; Childre & Rozman, 2006; McCraty, Barrios-Choplin, Rozman, Atkinson, & Watkins, 1998; McCraty & Childre, 2010). Coherence in this context refers to the physiological coherence, a state in which there is synchronization and resonance of the heart, brain, and autonomic nervous system, and psychological coherence, a state of emotional and perceptual stability, and alignment of physical, cognitive, and emotional systems (McCraty & Childre, 2010).

Research has demonstrated positive effects of HRV biofeedback training on resilience and stress, posttraumatic stress disorder (PTSD), depression, and anxiety. Bedell and Kaszkin-Bettag (2010) reported improved well-being, stress management, resilience, and emotional vitality in a clergy who implemented HeartMath[®] techniques ($n = 149$) compared with a comparison group who participated in a lifestyle management program ($n = 164$). Similarly a pilot study on the effects of HeartMath[®] on stress in a hospital leadership team demonstrated improvement in fatigue, anxiety, depression, anger management, resentment, and stress symptoms as measured by the Personal and Organizational Quality Assessment (Linden,

Jackson, Rutledge, Nath, & Lof, 2010). HeartMath[®] worksite interventions have also shown significant improvement in multiple stress related measures including positive outlook, psychological distress, and productivity (McCraty, Atkinson, Lipsenthal, & Arguelles, 2009; McCraty, Atkinson, & Tomasino, 2003). In a study on the effects of HRV biofeedback on depression improvement in symptoms of depression in patients with major depressive disorder was noted (Karavidas et al., 2007). A small pilot study assessing the effects of HRV biofeedback on coherence and information processing in combat veterans with ($n = 5$) and without PTSD ($n = 5$) reported achievement of coherence in all participants and improvements in information processing (Ginsberg, Berry, & Powell, 2010). HRV biofeedback studies are limited by the small sample sizes, plus there is a potential for bias since many of the studies were conducted or sponsored by the HeartMath[®], LLC, or its parent company. The strong theoretical basis for the use of HRV biofeedback coupled with the successful outcomes of multiple small research projects and pilot studies support the plausibility of using HeartMath[®] in the IWP as a stress management tool.

Amma is a form of massage that focuses on the balance and movement of energy within the body to prevent illness and facilitate healing (Evans, n.d.; Rakel & Faass, 2006). Only one article was found related to the use of Amma therapy. The author described the effectiveness of Amma therapy in the treatment of fibromyalgia; however, this article was not a research article (Young, 1993). Because of the lack of published information on the effectiveness of Amma therapy, the only evidence available to make a judgment concerning the plausibility of this modality was the opinion of the IWP program director who is an Amma therapist. Based on her training and experience, the program director feels the one Amma treatment provided during the

IWP supplements the effects of the program by cleansing toxins, opening energy channels, and decreasing stress (K. Evans, personal communication, 2010).

The evidence-base related to the IWP program components is not strong, however the program promotes healthy nutrition, physical activity, and stress management. These three key determinates of health are appropriate targets for health promotion programs (Daubenmier et al., 2007; National Center for Health Statistics, 2006b; M. O'Donnell, 2004; United States Department of Health and Human Services, 2000). The IWP uses group workshops, health coaching, education, positive motivation, individual goal setting, and a holistic approach, integrating body, mind, and spirit. Each of these techniques has theoretical and empirical support as effective behavior change strategies (Allen, Carlson, & Ham, 2007; E.S. Anderson, Wojcik, Winett, & Williams, 2006; Becker, Stuifbergen, Taxis, Beal, & Pierini, 2009; Boonyasopun, Aree, & Avant, 2008; Merrill & Aldana, 2008; Olsen & Nesbitt, 2010; Ross et al., 2009; Seligman, Steen, Park, & Peterson, 2005; Smeeding & Osguthorpe, 2005; White, Drechsel, & Johnson, 2006). The combination of nutritional counseling, stress reduction interventions, mind-body training, physical activity, and social support in integrative lifestyle change programs such as the Multicenter Lifestyle Demonstration Project and the Coronary Health Improvement Project demonstrated sustainable health behavior changes (Aldana et al., 2004; Daubenmier et al., 2007; Koertge et al., 2003; Merrill & Aldana, 2009). Despite the lack of strong evidence supporting the effectiveness of the specific IWP components, using the activities designated in the IWP logic model could result the desired program outcomes; therefore, the IWP design is a plausible plan.

Aim 2: Evaluation of Selected Organizational Processes

Process Evaluation Focus

The IWP logic model depicts the idealized IWP. An evaluation of the IWP organizational processes identified how well the intended functions are actually carried out. The process evaluation was focused on answering specific evaluation questions. Criteria for acceptable questions were that their answers were relevant to the program decision-makers and that the questions could be answered considering feasibility constraints (Rossi et al., 2004; Tourmen, 2009). The intended use of the process evaluation by the owners of the IWP was to identify strengths and areas to target improvement efforts. Process evaluation questions were developed with the active participation of the IWP stakeholders through meetings and email discussions. The following study questions were the focus of the IWP program process evaluation:

1. How do clients learn about the IWP?
2. Is the program implemented as planned?
3. What are the factors that motivate clients to enroll in the program?
4. What were the strengths or most helpful aspects of the program?
5. What features of the IWP were the weakest or least helpful?
6. What are your recommendations for change or improvement?

Aim 3: Examination of Selected Patient Outcomes

Outcome Evaluation Focus

The effectiveness of a program is supported by the achievement of expected outcomes (Rossi et al., 2004). Although with a descriptive program evaluation design the changes in outcome levels cannot be confidently attributed to program participation, an outcome evaluation of the IWP provided useful information to help gauge the success of the program. The following

questions were developed in collaboration with the program stakeholders to evaluate selected IWP patient outcomes:

1. Are participants satisfied with the IWP?
2. What changes in client behaviors, knowledge, or attitudes have occurred?
3. What changes in client cardiovascular risk factors have occurred?
4. What unintended or unexpected participant outcomes have occurred?

Data Collection

The data for the evaluation of the IWP included both qualitative and quantitative measures. This mixed methods of data collection is recommended in program evaluation to increase the accuracy of the findings and provide a more in-depth, complete reflection of the program processes and outcomes (Johnson & Onwuegbuzie, 2004; Malterud, 2001a, 2001b). In this study, data were collected through IWP Participant Surveys, Wellness Inventory reports, de-identified client data sheets, client focus groups, client interviews, and key informant interviews. The sources of data for each evaluation question are listed in Table 2.

Protection of Human Subjects

Prior to beginning data collection, the author submitted the practice inquiry plan to The University of Arizona institutional review board and received the determination of “Not Human Subjects Research” (Appendix B). Although participants in the program evaluation were not subjects in a research study, to ensure they understood the program evaluation process, any potential risks or benefits, the right to refuse participation, and the protection of each participant’s confidentiality, informed consent was obtained from each person that participated in a focus group or an individual interview (see Appendix C for informed consent forms). The IWP program director also gave permission to conduct the IWP program evaluation (Appendix D).

TABLE 2. *Evaluation Questions and Data Sources*

Process Evaluation	
<u>Questions</u>	<u>Data Source</u>
1. How do clients learn about the IWP?	IWP participant surveys, Client focus groups, Client interviews
2. Is the program implemented as planned?	Client focus groups, Client interviews, Key informant interviews
3. What are the factors that motivate clients to enroll in the program?	IWP participant surveys
4. What were the strengths or most helpful aspects of the program?	IWP participant surveys, Client focus groups, Client interviews, Key informant interviews
5. What features of the IWP were the weakest or least helpful?	IWP participant surveys, Client focus groups, Client interviews, Key informant interviews
6. What are your recommendations for change or improvement?	IWP participant surveys, Client focus groups, Client interviews, Key informant interviews
Outcome Evaluation	
1. Are participants satisfied with the IWP?	IWP participant surveys, Client focus groups, Client interviews
2. What changes in client behaviors, knowledge, or attitudes have occurred?	IWP participant surveys, Client focus groups, Client interviews, Wellness Inventory reports
3. What changes in client cardiovascular risk factors have occurred?	De-identified patient data sheets
4. What unintended or unexpected participant outcomes have occurred?	IWP participant surveys, Client focus groups, Client interviews, Key informant interviews

Data Sources

Intentional Wellness Participant Surveys

The IWP providers developed the Intentional Wellness Participant Survey during the development of the IWP. The survey is administered to the IWP clients at the completion of each quarterly session. The survey is anonymous and was designed to assess client satisfaction and to

identify the perceptions of the clients concerning the impact of the program. The questionnaires contain a combination of structured and unstructured questions concerning the IWP. A blank questionnaire is provided in Appendix E. The completed surveys were shared with the evaluator for secondary data analysis. The surveys were analyzed using descriptive statistics and content analysis of the comments and open-ended questions.

Wellness Inventory

The Wellness Inventory (WI) is an online questionnaire that assesses 12 dimensions of wellness: self-responsibility and love, breathing, sensing, eating, moving, feeling, thinking, playing and working, communicating, intimacy, finding meaning and transcending (HealthWorld Online, n.d.; Travis & Ryan, 2004). Each dimension is considered a key life process that is measured by responses to ten wellness statements. The statements describe a wellness action, skill, belief, or awareness and participants are instructed to select “How True?” is the statement by selecting from the choices – “no/never/hardly ever,” “occasionally,” “sometimes, maybe, often,” or “yes/always/usually.” The WI also measures the satisfaction with the score of each question. The satisfaction response categories are “satisfied with my score,” “moderately desire higher score,” “strongly desire higher score,” “don’t understand/no opinion,” or “disagree with statement.” Sample statements from the questionnaire include “I recognize that responsibility for my health lies within me, rather than with an outside authority” and “I use deep, rhythmic breathing as a means of helping my body heal itself of physical, as well as mental and emotional, pain.” (HealthWorld Online, n.d.)

The responses are scored electronically but the method of scoring was not delineated. Each component is scored and a summative total wellness score and total satisfaction score is calculated. Online results are provided to the client at the completion of the test and a copy is

sent to the IWP health coach. Scores are provided as percentages ranging from 0 to 100% with higher scores indicating higher levels of wellness and satisfaction with wellness scores. These scores were manually recorded on the de-identified client data sheets by the program director and provided to the evaluator for secondary analysis.

The IWP uses the WI tool for multiple purposes. The tool is intended to provide IWP clients with insight into the multiple components of wellness and increase personal awareness of the level of wellness. The satisfaction scores help identify those areas that the participant is motivated to change and is used by the IWP health coach to help plan the person's individualized health plan. The providers also use this tool to document improvement in wellness and satisfaction with wellness level. No documentation was found on the reliability or validity of this online instrument.

De-identified Client Data Sheets

De-identified data on each participant were provided to the evaluator by the program director. Each client data sheet contained data biometric data and Wellness Inventory scores obtained pre and post IWP participation. These data included APO E genotype, pre and post values for blood pressure, weight, body mass index (BMI), body fat percentage, total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglycerides, LDL subclasses III a + b and IVb, HDL subclass 2b, apolipoprotein B (APO B), lipoprotein(a) (Lp(a)), homocysteine, lipoprotein-associated phospholipase A2 (Lp-PLA₂), C-Reactive Protein (CRP), fibrinogen and insulin levels. The contents of the de-identified client data sheets are listed in Appendix F. This information was collected on the clients as part of the routine assessments to determine the individual risk of cardiovascular disease and as a basis for the diet and exercise recommendations. The data were compiled by the program director and a staff member from the

client records. The blood pressures and body composition measures were performed by the program director who is an advanced practice nurse. The weight, BMI, and body fat percentage measurements were obtained using the clinic scale, a TBF – 300A Body Composition Analyzer. Fasting venous blood samples were also drawn at the clinic and shipped to Berkeley HeartLab, Inc. for analysis. The data sheets had no identifying information; therefore individual consent from the IWP clients was not required.

Focus Groups

Focus groups are a valuable method of gathering information concerning participants' attitudes and perceptions (Greenwood & Parsons, 2000; Happell, 2007). Focus groups can provide clarity on how individuals have experienced a program or intervention and generate ideas and solutions for program improvement (Krueger & Casey, 2009; McLafferty, 2004). The purpose of each IWP client focus group was to gain insight into the experience of participants of the IWP, including perceived effects of participation in the IWP program, strengths and weaknesses of the program, and client satisfaction. As recommended by Côté-Arsenault and Morrison-Beedy (2005) and Krueger and Casey (2009) a moderator's guide was developed to focus the group discussion and ensure key topics were addressed (Appendix G)

The focus group sample consisted of individuals who had completed the IWP. These program participants were all adults, 18 years of age or older and included men and women. There was no special effort to recruit specific gender or racial or ethnic minority groups. Recruitment of focus group participants was accomplished with the assistance of the program director. An invitation to participate in a focus group session was sent out to the IWP alumni by the program director by email with a follow-up phone call to clients the director thought might not have received the email message. A letter from the evaluator inviting the clients to participate

in a focus group was attached to the director's email (Appendix H). No email receipt confirmations were requested so the actual number of the 60 IWP alumni who were contacted cannot be determined. Clients were given the evaluator's contact information and were encouraged to email or call if interested in participating in a focus group. The evaluator received six emails from the IWP clients expressing interest in participating in the practice inquiry, but only four people committed to attending a focus group session. The two focus group sessions were scheduled on consecutive evenings, after hours at the program director's clinic in Louisville, Kentucky. Although the evaluator obtained a firm commitment to attend a focus group from only four individuals, the IWP program director was confident that more alumni would participate, so each session was held as scheduled. A total of 10 individuals, four men and six women, participated in the focus groups. Five people were in each session.

Although the sessions were held at the program director's clinic for the convenience of the focus group members, to protect the confidentiality of the focus group participants' arrangements had been made to ensure that the program director and clinic staff were not present. However, all of the focus group members had contacted the program director to let her know they were attending and many came early so that they could visit with her prior to the focus group. Informed consent was obtained from all the participants prior to each focus group session. Focus group participants were advised of the voluntary nature of their participation. The evaluator reiterated that all answers, transcripts and notes would be confidential and that findings would be aggregated for reporting purposes. The group members were asked to honor the privacy of the other focus group members and not discuss what was said by any individual to anyone outside the focus group.

The practice inquiry evaluator was the moderator of the focus group discussion. Each session lasted approximately 60 minutes. The sessions were audio-taped using two digital recorders. Field notes were also taken by a focus group assistant and notes were taken on a flip chart during the sessions. The recordings were downloaded to the evaluator's personal computer to a password protected file and will be deleted at the completion of the practice inquiry. The recordings were transcribed for data analysis. Transcript files will also be maintained in password protected files with all hard copies kept under lock and key in the evaluator's office. Participants were not identified on recordings or transcripts and all information gathered is kept confidential. Nonelectric forms of the data are maintained in a secure, locked file cabinet. Records will be kept and destroyed after five years.

Client Interviews

Client interviews were added to the original program evaluation plan at the request of the IWP program director. Four clients contacted the director asking to participate in the program evaluation after the invitation to take part in a focus group was received. These clients were not able to come to a focus group but were eager to contribute to the evaluation. The client interviews were planned to provide information on program strengths, weaknesses, and recommendations. Unfortunately, due to the time limitations of the evaluator, only one of the four individuals who expressed interest was able to be interviewed. This interview was conducted by phone. Verbal consent was obtained and a written consent form was also emailed to the client (Appendix C). The focus group moderator's guide questions were used with the client interview. Contents of the interview were recorded and transcribed with the safeguards for securing the data and protecting confidentiality as described above taken. The data obtained from this interview were combined with the focus group data for analysis.

Key Informant Interviews

The three owners/providers of the program and the personal fitness trainer were recruited for key informant interviews using a purposive sampling technique. They were selected because of their intimate knowledge of the program operations. Each of the providers was contacted individually by phone or email, using contact information available on the IWP website and brochures and was asked to participate in the project (see Appendix H for copy of recruitment letter). All four of the providers agreed to be interviewed as part of the program evaluation.

Due to the small number of providers and their close working relationships, maintaining anonymity of their responses could not be guaranteed. Prior to each interview the consent form was reviewed and informed consent obtained. Each of these key informants was apprised that responses would be aggregated, they are not required to answer any question, and participation was voluntary. Each key informant was individually interviewed by the evaluator at a time and place chosen by the informant. Each interview lasted 40 to 60 minutes and was recorded for later transcription and analysis. The intent of the key informant interviews was to obtain data for the analysis of the program logic model and the organizational processes. The providers' perspectives on the organizational processes related to program activities and services, outcome and effectiveness measurement, strengths and weakness of the program were explored. Their recommendations for changes or improvements to the program were also elicited. An interview guide was used to ensure that each interview addressed the program evaluation questions (Appendix I).

Data Analysis

Descriptive statistics of the data included frequencies, means, and summary statistics. To identify any significant changes in wellness scores and client cardiovascular disease risk factors

pre and post program measures were analyzed with the paired *t* test or the Wilcoxon signed-rank test for those variables that did not meet the assumptions for the *t* tests. The level of significance for each analysis was designated as less than 0.05 (two-tailed). Data were analyzed using the Statistical Package for Social Sciences (SPSS) Graduate Pack 15.0, student version. A biostatistician from the University of Louisville, School of Public Health and Information Sciences Statistical Consulting Center was consulted to verify the appropriateness of the statistical tests selected for data analysis. A large amount of missing data was found for Wellness Inventory and biometric measures. Although clients completed the IWP, some did not have all of the planned pre-tests done and many participants did not complete the post program blood testing or Wellness Inventory questionnaire. Statistical analysis was completed by exclusion of cases using an analysis by analysis procedure in which each test used all cases that had valid data for the tested variable, resulting in sample sizes that varied from test to test.

Content analysis was used to analyze the qualitative data obtained from interviews, focus groups, and comments written on participant surveys. The content analysis was driven by the specific questions of the program evaluation, using a simple, systematic, verifiable process described by Krueger and Casey (2009). Each interview, focus group discussion, and participant survey comment was transcribed and each line numbered. The transcripts were printed on different colors of paper for easy identification of the data source. Each transcript was read multiple times and then each quote was categorized, clipped, and taped to a flipchart sheet labeled with program evaluation topics corresponding to the interview question addressed (e.g., strengths, weaknesses, recommendations). The statements were then further grouped by common themes or topics, summarized, and recorded in a table (see Appendix J: Key Informant Interview Content Analysis Summary, Focus Group Content Analysis Summary, and Participant Survey

Comments Content Analysis Summary). The content analysis method employed followed the tenets of qualitative description design described by Sandelowski (2000) by attempting to use the language of the participants with minimal interpretation so that the participants experiences and ideas were accurately described.

CHAPTER FOUR: RESULTS

The Intentional Wellness Program was assessed using quantitative and qualitative and methods. Quantitative data consisted of de-identified data sheets provided by the IWP, containing client lab tests, body measurements, and Wellness Inventory scores obtained by the program staff before and after the classes. In addition to frequency and summary statistics on variables, the repeated measures, the Wellness Inventory scores and biometric measurements were analyzed with the paired *t*-test or Wilcoxon Signed Ranks test to identify any significant changes from the initial to post program measurement. Results with $p < 0.05$ (two-tailed) were considered significant. Qualitative data were obtained from IWP participant surveys that had been completed after each course, two program alumni focus groups, one client interview, and four key informant interviews of program staff. Content analysis was used to analyze these data. This chapter reports the findings from analysis of data from each of these sources in relation to the practice inquiry Aim 2: to evaluate selected organizational processes, and Aim 3: to examine selected client outcomes.

Aim 2: Evaluation of Organizational Processes

Process evaluations investigate the quality and quantity of the services provided. For this practice inquiry the process component concentrated on client and staff perceptions of program services, specifically what were the program strengths and weaknesses, the most and least helpful aspects of the program, and what worked well or needed improvement. Consistent with the CDC program evaluation framework, the process component was designed with input from the key stakeholders to ensure their questions were addressed and the information obtained would provide valuable feedback. The process evaluation focused on the following questions:

1. How do clients learn about the IWP?
2. Is the program implemented as planned?
3. What are the factors that motivate clients to enroll in the program?
4. What were the strengths or most helpful aspects of the program?
5. What features of the IWP were the weakest or least helpful?
6. What are your recommendations for change or improvement?

Intentional Wellness Participant Surveys

Sixty people have completed the IWP since its inception in January 2008. At the end of each quarterly class, all participants were given the opportunity to complete an anonymous participant survey. The questionnaires contain a combination of structured and unstructured questions concerning the IWP (Appendix E). Twenty-five (42%) of the clients completed the post program surveys. The program director provided the completed surveys to the program evaluator for inclusion in the program analysis. The surveys were analyzed using descriptive statistics and content analysis of the comments and open-ended questions.

The majority of the respondents learned about the IWP from program staff ($n=13$, 52%). Other sources were a friend ($n=5$, 20%), co-worker ($n=3$, 12%), and other ($n=4$, 16%). Although the participant survey questions for personal and program-related motivating factors instructed the respondents to choose one primary factor for participating in the program, most of the participants selected multiple factors in each question, indicating multiple motivators. The most frequently chosen reasons for participating were “to get healthier” and “comprehensiveness, all aspects offered in one program” (Table 3).

TABLE 3. *Primary Motivating Factors for Participation in IWP*

Personal Motivating Factors	Number	Percent
Get healthier	13	52
Lose weight	5	20
Be happier	4	16
Health problem	7	28
More energy	3	12
Other	5	20
<i>Program Motivating Elements</i>	Number	Percent
Comprehensiveness	14	58.3
Nutritional Information	9	37.5
Reputation of Key Staff	2	8.3
Fitness Program	1	4.2
Wellness Inventory	3	12.5
HeartMath®	2	8.3
Laugh Doctor	2	8.3
Prepared Meals*	0	0.0
Grab & Go Groceries*	0	0.0
Other	3	12.5

*Selection not on nine (9) questionnaires

Participants chose multiple factors

Number completing survey = 25

The strengths of the program are those parts of the program that worked well or were helpful. The weaknesses of the program are components that did not work well or were least helpful. The nutritional handouts, daily food diary, HeartMath® materials, *APO E Gene Diet* book, and the *It All Starts with a Smile* book were all favorably ranked (Table 4). Aspects of the workshop meetings, including length and location of the meetings, comfort of the seating, and length of the break were also ranked at the highest rating by over 50% of the respondents (Table 4).

TABLE 4. *Frequency Distribution of Ratings of Aspects of Program*

On a scale of 1-5, with 1 the least helpful and 5 the most helpful, rate the program components

	1	2	3	4	5
Nutritional Handouts	0	0	2	6	17
Daily Diary	1	1	7	4	11
HeartMath® Materials	0	2	2	2	19
APO E Diet book	0	0	0	3	21
It All Starts with a Smile book*	0	0	0	3	7

On a scale of 1-5, with 1 lowest and 5 highest, rate the following aspects of the workshop meetings

	1	2	3	4	5
Length of Meeting	0	0	5	7	13
Location of Meeting	0	4	1	7	13
Comfort of Seating	0	0	4	6	15
Length of Break	0	0	2	4	16

Total Surveys completed, n = 25

*Not included on initial surveys, present on 10 surveys

Survey respondents' comments indicated four major program strengths: 1) the three primary program providers, 2) the program was comprehensive and holistic, 3) the program was educational, provided information and tools, and 4) the program was fun, enjoyable. The positive influence of the primary providers was repeatedly emphasized, "Team of professionals are excellent," "Their esprit de corps is contagious," "You gave us the tools to change, the love and support to apply/use those tools, and your own enthusiasm and dedication." No major weaknesses or complaints about the program were expressed in the surveys.

Few recommendations for change or improvement were provided on the survey. Suggestions included adding more meal plans for home use, evaluating hormone levels, simplifying HeartMath booklet, and developing a syllabus with brief overview of each session to give at orientation. A summary of the IWP participant survey comments is in Appendix J.

Focus Groups and Client Interview

The focus group and client interviews were organized by the topics of strengths and weaknesses of the program, and recommendations for program changes. The strengths of the program or those components and processes that worked well echoed and expanded the findings of the IWP participant surveys. Strengths identified were 1) the three primary program providers, 2) the ongoing involvement with the program and connection with the providers, 3) the comprehensive, diverse, holistic nature of the program, 4) the information and tools provided from specific components (i.e., stress management from HeartMath[®], healthy diet principles, cooking skills, recipes, meal plans, and shopping tips from the nutrition component, life balance through the humor workshops), 5) lab tests, 6) program length, and 7) program materials.

The three primary providers of the program were described as “the biggest draw to this program.” The personal care and attention of each of the providers was a key to the success of the program – “He doesn’t forget to make contact...” The providers “pull you in all the time.” As one focus group member explained “From the very beginning, I felt really strongly that they were invested in my success which made me be more invested in my success.”

The ongoing involvement with the program and providers was also cited as a strength of the program – “I also liked the fact that when it’s over, it’s not over. Just because we finished the twelve weeks doesn’t mean it’s over.” The alumni get-togethers provide reinforcement and “a sense of a journey as a group of saying we’re all sharing this going together and we’re each helping each other really.”

The clients also felt that the holistic, comprehensive design of the program worked very well – “...the diversity of the different components of it provided something for everyone...” “it was not just the nutrition. It was the humor; it was the energy, the whole thing. I thought it was

the right combination.” The services of the program identified above as strengths of the program not only provided helpful information, but provided inspiration, practical skill development, and a different perspective on health. A client discussed the nutrition classes and snacks provided by staff, “And we would munch on them at break time and some of them were very simple things. It sort of inspired you to say, oh, I could do that or I could make that. I thought it was very, very helpful.” In response to the needs of one client a cooking session was conducted “Because I said ‘I’ve never cooked beans before, I’ve never cut open an avocado,’ ...those were new to me and I’m afraid to try it. So we actually got in the kitchen.” “We all cooked together, it was really fun.”

The APO E gene testing and advanced lipid profiles were also considered extremely helpful services of the program. Knowing one’s risk for cardiovascular disease provided motivation for lifestyle change. Clients felt that the results were tangible, verifiable evidence of the credibility of the program that could be shared with their primary care providers, used to show progress, and to hold them accountable.

The primary weaknesses of the IWP were related to how certain services were organized. “...we had to go to so many different places.” Sessions were held at three to four different places – workshops, HeartMath® sessions, Amma therapy, fitness component were all provided at different facilities. The Wellness Inventory (WI) and the exercise component were not well integrated into the program. The majority of the focus group participants did not know what the Wellness Inventory was when the topic was brought up, responding “Is that the one we did on line?,” “...I don’t remember much. It wasn’t memorable.” The participants agreed with one participant’s comments – “Maybe if there was more time spent on it in a class... I got an email saying here do this wellness inventory. And I think it was mentioned once again in class...”

Though a couple of the focus group participants thought the WI was helpful, most of the others did not find it useful and did not complete the questionnaire. Difficulties with the WI included that it was “subjective and hard for me to answer those kinds of questions” and “cumbersome... too much stuff.”

The exercise component of the program was hampered by the design of the program. As with the WI, the fitness component was viewed as separate from the program - “The fact that it was also extra to the program. There was never a time we met with the athletic coach. So if you didn’t go and make an appointment to go to the gym and see him, it just never happened.” Many of the clients thought the fitness component was tied to one facility and did not use the service because of having other gym memberships or not liking gyms. “I think the first thing they should determine is whether you’re gonna join a gym or not. And I’m not a gym joiner and neither is M. And he did tell the guy that he wasn’t going to join a gym. So, if we could have like a... You know, if you say up front, I’m not a person who joins gyms because when I do join, I never go. So, what kind of program could you design for me that I could do at home with free weights or whatever it might be?” Other barriers to full use of the exercise component included the location of the fitness facility (a long distance from some clients, and the traffic near the fitness facility was “like a gridlock”), scheduling appointments with the personal trainer was difficult, and the workout plan – “It was too much. What it did is it just wore me out so that I was just... And I thought, you know, I don’t think my body can take this. I don’t think I was meant to.”

Although the nutrition component overall was considered one of the strongest and most helpful services of the program, some aspects were difficult for the clients to fully implement. Strict adherence to the APO E gene diet was time-consuming and required planning, preparation and cooking. Also, the recommended six meals a day were hard to fit into busy schedules. It was

difficult determining if actual diet contained the correct combination of fat, protein, and carbohydrates. “I found it hard to do on a consistent basis like that because I do a lot of stir-fry stuff and I’ll have eight or ten ingredients in something. And it was really driving me nuts trying to figure out... So I just adopted trying to go with a half a bowl ...” The food diary was appreciated for the reminders and references it contained, but it was not consistently used for documenting food intake. “And the other issue is if you followed all the rules and you ate all these things correctly, then it was easy to do the food log. On the other hand, if you were running late and you hadn’t eaten in four to five hours, and you had a meeting to go to, and there’s a McDonald’s ahead, you pull into the drive-thru and eat in the car before you get there. I found myself, just by the pressure of work and schedule and stuff, eating fast food and doing things then saying oh no, I don’t want to put that down in my food log.” Other focus group participants reported that the food logs were not consistently reviewed or checked by the providers. “Sometimes I would have mine and they’d never ask for it.” “They never asked me for mine. I never talked to anybody about my diet.”

Other issues voiced by the focus group participants included the scheduling of the grocery store tour during busy shopping times, the setting of the workshops (was not private, people would walk through area during the classes), and classes running overtime. The organization of the program materials could be improved so that references could be more easily found and in the case of the HeartMath[®] handout, made more clear and understandable. The cost of the program was also identified as prohibitive for individuals that would most benefit from the program. Several of the focus group participants also expressed concern about the negative attitude some primary care providers had about the program. As one participant illustrated, “My doctor was real negative...very negative. In fact, when I told her that I had done the program, I

was so upset over her reaction. She... It was like they took good money from you for no reason. I didn't think I'd ever go back again when I left that day because I knew that that isn't how the program was.”

The focus group participants made recommendations for additional content and components, organizational changes, marketing, and increasing client self-responsibility and accountability. One participant also emphasized the importance of continuing the practice of ensuring confidentiality of the APO E genotype test, stressing that the ability to obtain health insurance may be affected by the information related to the APO E genotype and associated risks. Content on emotional eating and the addition of hypnotherapy and a nutritionist were suggested. Several focus group participants advocated offering formal packages of services for continued work in various areas (e.g., nutrition, exercise, HeartMath[®], and Amma therapy). To decrease the distractions and keep from interfering with grocery store customers, focus group participants recommended changing the tour to hours when store is closed or less crowded. Recommended changes in program material include revision of the HeartMath[®] handout to make it clearer and easier to read, add a recommended list of readings, and add the new food form specific to APO E genotype.

Several suggestions were proposed to increase the credibility of the program, improve the attitude of primary care providers, and develop a referral base to reach those individuals who would most likely benefit from the program. These measures include building a mechanism into the program to obtain feedback from the IWP client's primary care provider and becoming a nonprofit organization. To market the program, focus group participants recommended targeting CAM and conventional providers by using informational dinners, providing information letters to primary care providers of clients in the program, and running ads on public radio.

One suggestion to address the issue of cost of program was to offer discounts for two or more people. The focus group participants advised that more structure and higher expectations be placed on the participants, for example giving to-do lists and assignments that are more detailed and directive, and reviewing the assignments weekly to “kind of get an indicator that folks are on target doing what they’re supposed to be doing.”

Key Informant Interviews

The four key informants uniformly described the services provided by the IWP. These services include customized plans with diet and exercise recommendations based client’s APO E genotype, Wellness Inventory results, cardiovascular risk assessment, and fitness level. Group workshops are given on nutrition, the HA HA HA prescription, and HeartMath[®]. Individual sessions were provided for HeartMath[®], wellness coaching, and initial fitness program training. The providers’ description of the program activities and services is consistent with the program plan.

Reported measurement tools used in the IWP are the Wellness Inventory, end of program Participant Surveys, advanced lipid profiles, body mass index, body fat measurements, blood pressures, and food logs. Informal, undocumented evaluation of the outcomes include direct questioning of clients for subjective improvement, such as asking, “Do you like yourself more than when you started? Do you love yourself unconditionally?” Coherency and heart rate variability changes were also identified as important outcomes, but this information is not routinely collected or part of the original planned outcome measurements.

The strengths and weaknesses of the program were examined to provide insight into what processes were working well and those that did not work as well. The key informants identified four primary areas of strength in the program: a) the comprehensiveness and the components that

are included in the program, b) the social network development from the program, c) the leadership team, and d) the unique philosophical approach. The components are comprehensive, addressing body, mind, and spirit and targeting key determinates of health – nutrition, physical activity, and stress management. The interactive group workshop sessions work well in developing peer support as noted by one provider, “The one thing that we hoped, and the one thing that’s been even stronger than we imagined, has been the peer support group. Because obviously, the same people meet every week for ten weeks, and the interesting thing to observe is that each group takes on its own personality collectively, which has been quite interesting. The people within each group have been very supportive of each other. Most of them have set up an email tree so they can communicate with each other even beyond the meeting nights. That’s been exciting to watch. There’s certainly value in the group support.”

The “synergy and consistency” of the three key leaders was identified as a major strength of the program. “We each have our individual gifts and talents, and they magnify each other.” “Because we all three, we work so well together and love working with each other, and respect each other immensely.”

The IWP providers consider the following foundational beliefs to be the major strength of the IWP: a) “It’s more effective to motivate with joy than fear”; b) “The person is the expert in their care”; and c) “If you can’t have fun, why do the program?” As explained by one of the providers “...we’re trying to really transform their thinking to one of if you can’t feel good about it, choose something else. Choose something you can feel good about. You don’t have to force anything on yourself. Your wisdom is enough, and you know how to sequence it if you want to really have wellness that sustains itself, you must learn to love yourself unconditionally and trust yourself.”

The areas of concern pinpointed by the providers were the Wellness Inventory, the exercise component, some resource materials, and the profitability of the program. One provider expressed concern that participants did not complete the Wellness Inventory prior to starting the program, thereby interfering with the process of wellness planning and coaching. Another provider questioned the usefulness and appropriateness of the Wellness Inventory, “It may be that the wellness inventory is a distraction. We’re not ready to know that, but maybe.” “I think the wellness inventory has a place, but it’s almost too soon to introduce something that says here’s the numbers that you should feel good about. I think people need to forget about numbers.” Problems with the exercise component were also recognized, including difficulty scheduling the fitness evaluation and training, and getting the clients to participate and stick with the fitness plan. Though acknowledging that tailoring the exercise prescription to the APO E genotype “makes sense,” one provider was uncertain if exercise based on the APO E genotype made a big difference in obtaining fitness.

Resource materials were generally considered helpful. Two references were cited as being less helpful. The APO E gene book was described as “a little bit intimidating to most of the people,” and the HeartMath[®] workbook may not be helpful.

An additional concern that was expressed about the program was related to the profitability and program costs. “So, it’s a fine balance between making it affordable and yet not dishonoring ourselves and the value of the program.” “Our main objective was to get the information out there. At the same time, we do have to make a living. So, that’s one thing that’s going to have to be addressed.”

The providers made recommendations for additional components or classes, marketing strategies, program growth goals, genetic counseling, and increasing client accountability.

Several recommendations addressed the concerns with the fitness component of the program. Suggestions included moving the exercise overview to an earlier time in the program, having the fitness aspect be integrated into the group sessions so that separate appointments for clients are not required, schedule group fitness classes, schedule the group exercises classes before or after group workshop sessions, and start an informal exercise club similar to a cycling club. Participation in the exercise component may also be achieved by increasing client accountability and ownership -“If we could kind of structure that into the program... if we could kind of get some of the participants to kind of take the reins on that. I think anytime we can put more ownership of the program in the hands of the participants, that’s gonna make more of a lasting... They’re gonna carry it through and follow through with it long-term.”

Other ideas included adding a cooking class: “I think the more we can show them and have them experience it, the more likely they are... “Oh I can cook.” Also incorporating use of a computer program to input the food diary is being considered “so then we could see exactly what percentage of fats, carbohydrates, and proteins.”

Another suggestion was to start the course with a whole day retreat. During the day long retreat “...you just wear people down, and by virtue of just bludgeoning them, in a sense, intellectually, break down their intellectualizations, and their fear-based structure, and just promise that by the end of today, you’re going to be in new territory. And then we’re going to follow up with eleven weeks or ten weeks that will help you sustain yourself in that territory and actually become more comfortable in that territory.”

Growth in the number of clients participating in the IWP, expanding to whole families, 100 clients in each session, and expanding the model to centers throughout the United States were all identified as long-term goals. Several marketing strategies were identified to stimulate

program growth, including inviting local CEOs to participate in the program and offering certain components of the program separately. One recommendation was “to get over our fear of being perceived as unqualified, uncredentialed people making outrageous claims that should be ignored because it’s a medicine show, it’s hucksterism” and make an audacious claim – “...do you want to live the happiest part of your life for the rest of your life starting today? Then you must get to an Intentional Wellness class.”

Aim 3: Examination of Patient Outcomes

The outcome evaluation component of this practice inquiry examined client satisfaction with the program and client changes associated with participation in the program. Specific questions of the outcome evaluation include the following:

1. Are participants satisfied with the IWP?
2. What changes in client behaviors, knowledge, or attitudes have occurred?
3. What changes in client cardiovascular risk factors have occurred?
4. What unintended or unexpected participant outcomes have occurred?

Intentional Wellness Participant Surveys

Twenty-five of the 60 IWP clients completed the post program Intentional Wellness Participant Survey. The survey respondents were highly satisfied with the IWP. Eighty-eight percent of the survey respondents ($n = 22$) gave the program an overall rating of excellent with the remaining 12% rating the program as good. The survey respondents ($n=25$) reported that they would recommend the program to a friend or relative, and answered yes to the question “Knowing what you know about the program, if you had it to do over would you sign up again?”

Two survey questions attempted to ascertain the component of the program that had the greatest positive impact on life and the component with the least impact on life. Fitness,

nutrition, HeartMath[®], HA HA HA prescription, and Wellness Inventory were listed on all the surveys. The Advanced Lipid Profile, APO E genotype testing, and Amma therapy were added to the questions on later surveys. Table 5 lists results of the surveys. The nutrition component was chosen by most survey respondents as having the greatest positive impact ($n=17$, 68%); however, each component was selected by multiple respondents, and respondents wrote in comments indicating difficulty pinpointing one component such as “How do you choose! They are intertwined,” “I can’t imagine not having all of the components though!” Similarly, though the Wellness Inventory was selected most often as the component with the lowest impact on life ($n=8$, 50%), many did not answer this question or protested “I hate to check any because all of these elements have impacted my life.” Many qualified their answers “Not that these were not beneficial – I already knew much of this...” “only because I didn’t utilize my options,” “only b/c I’ve not had time to use it.”

TABLE 5. *Program Elements Impacts*

Element with Greatest Positive Impact on Life	Frequency	Percent
Fitness	2	8.0
Nutrition	17	68.0
HeartMath [®]	9	36.0
HA HA HA Prescription	8	32.0
Wellness Inventory	2	8.0
Advanced Lipid & APO E Genotype testing*	6	66.7
Amma Therapy*	2	22.2
Element with Lowest Impact on Life**	Frequency	Percent
Fitness	4	25.0
Nutrition	0	0
HeartMath [®]	1	6.25
HA HA HA Prescription	2	12.5
Wellness Inventory	8	50.0

Total Surveys $n = 25$

*Selection not on 16 questionnaires, percentage based on the nine (9) elements listed.

**No answer on one of the surveys for Lowest Impact, Lowest Impact question not on nine (9) surveys. Percentages of Lowest Impact selections based on 16 surveys that included the question.

The survey respondents identified numerous changes associated with participation in the IWP. The outcomes reported in survey respondents' comments and answers to open-ended questions include a new outlook, attitude, and perceptions related to health ($n=6$), more motivation to practice a healthy lifestyle ($n=2$), increased awareness of power to live positively, realization that "it is all up to me" ($n=2$), peace, joy, balance, positive attitude, hope, awareness of spiritual side ($n=6$), and general improvement in well-being, feeling better ($n=5$). Changes in knowledge occurred in nutrition and awareness of genotype ($n=4$). Behavioral changes included healthier eating ($n=4$), increased exercise ($n=3$), use of humor or HeartMath[®] to manage stress ($n=6$). Unanticipated outcomes reported include involving family in diet, exercise ($n=2$), being "hotter in bed" ($n=1$), and decreased body aches ($n=1$). No adverse outcomes were reported.

Focus Groups and Client Interview

The level of satisfaction with the IWP was not directly assessed with the focus groups or the client interview; however, the focus group members and the individual client interviewed expressed high levels of satisfaction with the IWP and were hesitant about saying anything that might be construed as negative about the program. This was consistent with the IWP participant comments and exemplified by one respondent: "... I don't have anything negative to say. It was just a great experience for me."

Although focus groups are not considered an appropriate venue to identify personal outcomes of an intervention, these focus group participants were very enthusiastic in sharing what they had learned, what changes they had made as a result of being in the IWP, and the impact that the program had on their lives. Clients learned about nutrition and developed skills in the use of meditation, HeartMath[®], and humor for stress management and blood pressure control. Behavioral changes included weight loss, changes in diet, regular exercise, and changes in

attitudes about health behaviors. As one client described the development of a regular exercise regimen “I got into a regular ritual,” and another expressed amazement that she now enjoyed exercise “I mean, I’m actually anxious, and I wish we could have another session a week. You know, I’m anxious to go and do it.” The supportive community that developed through the involvement in the program was an unexpected outcome for the participants as stated by one client, “I think one of the byproducts is that we formed a pretty strong support community. And we’re meeting on a semi-regular basis...., I think the power of groups is just incredible.” Focus group members indicated overwhelming agreement with one participant’s observation that “We don’t have to go to the doctor and let him... We take responsibility for things. And we can change things. It’s an empowerment.”

Wellness Inventory

The Wellness Inventory (WI) assesses 12 dimensions of wellness: self-responsibility and love, breathing, sensing, eating, moving, feeling, thinking, playing and working, communicating, intimacy, finding meaning and transcending (HealthWorld Online, n.d.; Travis & Ryan, 2004). Each dimension reflects a wellness action, skill, belief, or awareness, and changes between the pre and post program scores are thought by the IWP providers to represent changes in client health related behaviors, knowledge, or attitudes.

Forty-eight (80%) of the IWP participants completed the initial WI questionnaire; however, only 10 (17%) completed the WI questionnaire at the end of the program. Wilcoxon Signed Ranks tests were performed to determine if the changes from pre to post testing were significant. Of those that completed the pre and post WI, there was significant improvement in all wellness components except for sensing, finding meaning, and intimacy. The satisfaction with wellness scores improved in all areas except finding meaning and intimacy (Table 6).

TABLE 6. *Wellness Inventory Scores*

Wellness Inventory Subscales	Initial Median	Post Median	Wilcoxon Signed-Ranks Test (T)/Z	Sig (2-tailed)
Moving	36.25	67.50	1.00/-2.55	.01*
Sensing	71.25	92.50	6.50/-1.90	.06
Play/Work	56.25	86.25	1.50/-2.49	.01*
Breathing	52.50	90.00	2.00/-2.62	.01*
Finding meaning	70.00	86.25	11.00/-1.68	.09
Transcending	68.75	97.50	11.00/-1.68	.09
Self-Responsibility/Love	75.00	90.00	7.00/-2.10	.04*
Thinking	75.00	90.00	7.00/-2.10	.04*
Feeling	70.00	91.25	6.00/-2.19	.03*
Communicating	90.00	93.75	1.00/-2.44	.02*
Intimacy	80.00	96.25	8.00/-1.99	.05*
Eating	57.50	92.50	4.00/-2.40	.02*
Total WI Score	67.50	88.65	5.00/-2.29	.02*

Satisfaction with Wellness Scores	Initial Median	Post Median	Wilcoxon Signed-Ranks Test (T)/Z	Sig (2-tailed)
Moving	20.00	82.50	.00/-2.67	.01*
Sensing	68.75	97.50	7.00/-2.09	.04*
Play/Work	42.50	67.50	4.00/-2.40	.02*
Breathing	37.50	90.00	3.00/-2.50	.01*
Finding meaning	52.50	77.50	12.00/-1.58	.11
Transcending	60.00	82.50	7.00/-2.09	.04*
Self-Responsibility/Love	67.50	92.50	1.00/-2.71	.01*
Thinking	63.75	95.00	8.00/-1.99	.05*
Feeling	45.00	90.00	5.00/-2.96	.02*
Communicating	72.50	97.50	2.00/-2.61	.01*
Intimacy	72.50	92.50	7.00/-1.84	.07*
Eating	27.50	92.50	1.00/-2.71	.01*
Total WI Satisfaction Score	55.00	73.80	4.00/-2.40	.02*

*significant at $p \leq .05$

Biometric Tests

Biometric data included APO E genotype, pre and post values for blood pressure, weight, body mass index (BMI), body fat percentage, total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL), triglycerides, LDL subclasses III a + b and IVb, HDL subclass 2b, apolipoprotein B (APO B), lipoprotein(a) (Lp(a)), homocysteine, lipoprotein-associated

phospholipase A2 (Lp-PLA₂), C-Reactive Protein (CRP), fibrinogen and insulin levels. APO E genotyping was performed on 58 of the participants. Two participants declined the test. The majority of the clients had the APO E 3/3 genotype (n=34, 58.6%). This type is considered the normal genotype, occurring in 62% of the population, and is associated with the lowest cardiovascular disease risk (Lahoz et al., 2001). Twelve of the participants had the APO E 4/3 genotype (20.7%), and one person had the APO E 4/4 genotype. The APO E 4/4 and 4/3 genotypes have the highest risk for cardiovascular disease (Song et al., 2004). The APO E 2/3 genotype was present in nine of the participants (15.5%) and APO E 2/4 in 2 clients (3.4%). No consistent associations between coronary heart disease and the APO E 2 allele have been reported (Song et al., 2004).

Nine of the 19 biometric measurements had normal distributions on pre and post tests based on Kolmogorov-Smirnov analysis (systolic and diastolic blood pressures, body fat percentage, body fat mass, total cholesterol, LDL, HDL, APO B, and fibrinogen). These nine were analyzed with *t*-tests (Table 7) and the remainders of the measurements were evaluated with the Wilcoxon Signed Ranks test (Table 8).

TABLE 7. *Clinical Measures (January 2008 – April 2010)*

	Initial Mean	Post Mean	Mean Difference (SE)	95% CI		<i>t</i>	df	Sig (2-tailed)
				Lower	Upper			
Systolic BP (n=6)	128.8	129.5	-.83(4.74)	-13.01	11.34	0.17	5	.86
Diastolic BP (n=6)	77.8	77.4	1.17(5.71)	-13.52	15.85	0.20	5	.84
Body Fat % (n=16)	36.8	34.7	.90(.52)	-0.20	2.00	1.74	15	.10
Fat Mass (n=13)	72.9	57.6	4.01(2.42)	-1.28	9.29	1.65	12	.12
Total Cholesterol (n=35)	187.3	176.1	10.69(4.97)	0.58	20.79	2.14	34	.04*
LDL-C (n=35)	110.9	101.2	9.66(3.74)	2.05	17.26	2.58	34	.01*
HDL-C (n=35)	54.5	53.6	.68(1.16)	-1.67	3.04	0.59	34	.55
APO B (n=33)	84.5	78.3	6.15(2.85)	0.35	11.95	2.16	32	.03*
Fibrinogen (n=31)	442.6	417.8	22.30(12.79)	-3.83	48.41	1.74	30	.09

TABLE 8. *Clinical Measures with nonnormal distribution (January 2008 – April 2010)*

	Initial Median	Post Median	Wilcoxon Signed-Ranks Test	Sig (2-tailed)
			<i>T/Z</i>	
Weight (n=24)	184.5	177.8	5.00/-4.14	<.05*
BMI (n=24)	28.8	27.4	17.50/-3.80	<.05*
Triglycerides (n=35)	101.0	87.0	233.00/-1.10	.27
Lp(a) (n=33)	14.0	12.0	179.00/-1.84	.40
CRP (n=33)	2.9	1.7	153.00/-2.08	.04*
Lp-PLA2 (n=33)	125.0	128.0	184.50/-1.11	.91
Homocysteine (n=33)	10.7	10.9	139.50/-2.52	.01*
LDL III a+b (n=33)	12.1	15.5	272.50/-1.14	.89
LDL IVb (n=33)	.7	.7	242.00/-1.41	.68
HDL2b (n=33)	19.0	18.0	239.50/-1.17	.87
Insulin (n=33)	7.0	7.0	241.50/-1.13	.90

Blood pressures were obtained on 29 patients prior to beginning the program. The mean blood pressure (BP) of all participants prior to the starting the IWP was 128 mmHg for the systolic BP and 78 mmHg for the diastolic BP. Six participants had both pre and post BPs measured. There was no significant difference between the pre and post systolic or diastolic BPs ($t(5) = -.176, p = .867$; $t(5) = .204, p = .846$).

Twenty-four of the participants completed pre weight ($Mdn = 184.5$ pounds), BMI ($Mdn = 28.8$) and post weight ($Mdn = 177.8$ pounds), BMI ($Mdn = 27.4$). Analysis demonstrated significant changes in weight and BMI (Weight $T = 5.00, z = -4.14, p < .05$; BMI $T = 17.50, z = -3.80, p < .05$).

Over 90% of the participants completed the initial diagnostic laboratory testing; however, only 33 (55%) completed the post program follow-up diagnostic testing. The only significant changes in the cardiovascular risk markers occurred in the total cholesterol ($t(34) = 2.148, p = .039$), LDL ($t(34) = 2.58, p = .014$), APO B ($t(32) = 2.16, p = .038$), CRP ($T = 153, z = -2.08, p = .04$) and homocysteine ($T = 139.5, z = -2.52, p = .01$) values.

CHAPTER FIVE: CONCLUSIONS, LESSONS LEARNED

The purpose of this practice inquiry was to evaluate selected organizational processes and client outcomes of IWP. The investigation was designed to answer specific questions related to process and outcomes. The following discussion addresses each question of the evaluation. Limitations of the practice inquiry and IWP program recommendations based on the analysis are delineated. Also lessons learned, implications of the practice inquiry for nursing practice, and recommendations for future research are presented.

Process Evaluation

How do clients learn about IWP?

The majority (52%) of the post program survey respondents learned about the program from the clinic providers. Approximately one third of the survey respondents learned about the program from a friend or co-worker. This has implications for future growth and marketing of the program. The assumption of the program owners was that word of mouth from satisfied clients would be sufficient marketing for the program. Although the number of participants did approach the program goal of doubling in number, increasing from 20 the first year to 35 clients the second year, the total number of participants in each class is low, ranging from four to 15 individuals per session. The present marketing strategy may not be adequate for reaching larger numbers of people or targeting individuals that could most benefit from the program.

Is the program implemented as planned?

Successful implementation of a program includes maintaining the fidelity of the interventions and ensuring the planned dose is delivered and received (Rohrbach, Grana, Sussman, & Valente, 2006; Saunders, Evans, & Joshi, 2005). The providers of the program were also the program designers; therefore, the fidelity of the program implementation was based on

the providers' perception of how well the program logic model reflected the intended and actual program implementation. The providers agreed that the program was implemented as described in the logic model. No formal mechanism was available to obtain data on fidelity of the implementation or dose delivered because there were no documented protocols or curriculum standards for the program. Quantitative evidence of the implementation dose was not available because class attendance or participation in the various components of the program was not documented; however, the program director reported that participation rates were high in each aspect of the program. The focus group participants discussed the same components identified in the logic model, indicating that overall the activities were implemented as planned.

Although the overall program was implemented as intended, analysis of client comments and findings from the de-identified data revealed aspects of the program that were not implemented as expected. The Wellness Inventory and the fitness aspect of the program were not consistently utilized by the participants. Also, monitoring and follow-up were inconsistently performed. Few blood pressures assessments were completed, food logs and follow-up on adherence to dietary guidelines was inconsistent, post program Wellness Inventory questionnaires were completed by less than 17% of the participants, and follow-up blood tests were only accomplished on approximately half of the participants.

A possible cause of these lapses may be the lack of defined protocols that provide guidance and reminders. Also, as indicated by focus group members, the Wellness Inventory and the fitness components were not well integrated into the program. This may also be applicable to the blood pressure checks and follow up testing. Incorporating these activities into the main workshops and placing greater emphasis on them may be indicated to improve their implementation.

What are the factors that motivate clients to enroll in program?

The program participants identified multiple motivating factors for participating in the program. Reasons clients came to the program were to “get healthier” (52%), “because of a health problem” (28%), to “lose weight” (20%), “be happier” (16%), and “have more energy” (12%). The program elements that motivated clients to enroll in the IWP were the comprehensiveness of the program (58.3) and the nutritional information offered (37.5%). Knowledge of the reasons that clients seek care and awareness of the program elements that attract participants are useful in program planning and marketing. The reasons clients enroll in the program also suggests the population being reached. A more detailed description of the clients’ personal goals and expectations for the program prior to participation and how well the goals and expectations were met may better inform program improvement and marketing strategies.

Adherence to the APO E gene was described as a difficult aspect of the program. The APO E gene diet prescription includes specific percentages of fats, protein, and carbohydrates depending on the individual’s APO E genotype. The fats should be monounsaturated or polyunsaturated fats, plant based proteins are preferred over animal proteins, and low glycemic load carbohydrates are recommended (McDonald, 2007). Although example menus are provided, many of the foods are not familiar to participants and not readily available from restaurants requiring increased time for preparing meals. Determining the proportion of fats, proteins, and carbohydrates in meals and completing the food log is especially difficult and requires knowing and measuring each ingredient in each food. Participants were not always able to monitor or adhere to the diet due to busy schedules. This difficulty with dietary adherence and the barriers that contribute to the failure to maintain a healthy diet are common findings (Ma, Olendzki,

Pagoto, Merriam, & Ockene, 2010). Identifying and addressing the barriers to healthy lifestyle changes should be a key component of any health promotion intervention (Gatewood et al., 2008; Pender et al., 2006; Walker, Pullen, Hertzog, Boeckner, & Hageman, 2006).

What are the strengths or most helpful aspects of the program?

Four features of the IWP were consistently identified as the strengths of the program: 1) the three key leaders, 2) the supportive social network, 3) the comprehensive, holistic design of the program, and 4) the APO E genetic testing and advanced lipid profile testing. The client-provider interpersonal relationship is postulated to have a key role in therapeutic outcomes and patient empowerment (Bann, Sirois, & Walsh, 2010; Luff & Thomas, 2000). The leaders of the IWP provide caring, client-centered support based on foundational beliefs in positive motivation, the inherent wisdom of the individual, and the primacy of joy in life. The strength of the leadership team may stem from the passionate belief in what they are teaching, their charismatic personalities, or their client-centered approach to care. Thompson and Weiss (2006) identified several potential active ingredients in homeopathy: patients' open attitude to the mind-body connection, provider empathy, patient disclosure, in-depth listening and exploration of patient symptoms, and provision of individualized remedies. As in homeopathy, the active ingredient in the IWP may be the therapeutic consultation process that takes place between providers and clients. Although personality and passion may be impossible to replicate, client-centered care and a consultative process that includes empathy, listening, exploring symptomatology, and providing individualized care are achievable goals that may be adopted by other providers. Client-centered care is associated with increased satisfaction, improved quality of care, and improved health care outcomes (Institute of Medicine, 2001; Maizes et al., 2009).

The social support network that grew from the group sessions and continues in the regular alumni meetings was recognized as a powerful tool in developing and sustaining positive attitudes and health practices. The importance of social support is discussed in more detail later in this chapter.

The third aspect of the program identified as primary motivation for participating in the program was its comprehensive, holistic design. This finding is consistent with CAM and integrative healthcare literature describing the appeal and effectiveness of healthcare focusing on wellness and the whole person, body, mind and spirit (Boon, Verhoef, O'Hara, & Findlay, 2004). The components of the program, nutrition, physical activity, and stress management, are key determinants of health. Programs that address all of these components have been successful in decreasing cardiovascular risk of participants (Daubenmier et al., 2007; Englert et al., 2007; Maizes et al., 2009; Merrill & Aldana, 2009).

The APO E gene and advanced lipid profile tests were also considered very helpful aspects of the IWP. The test results provided motivation for healthy behaviors and feedback for clients and their primary care providers on the effects of the behavior changes. The value and emphasis placed on cardiovascular risk factors in this program is somewhat surprising. Although an awareness of risk or threat of disease has been proposed as a precursor to behavioral change in several health promotion models such as the health belief model and the transtheoretical model of change, this fear-based approach to motivating health promotion behavior has been rejected by others, including Pender in her health promotion model, and has not been found to consistently motivate behavior change (Abraham & Sheeran, 2005; Pender et al., 2006; Prochaska et al., 2002; Wong, Garcia, Barr, Glazier, & Abramson, 2008). This fear-based motivation is inconsistent with the philosophy of the IWP; however, the perception of control

over the risk factors imparted by the IWP has effectively allowed participants to productively use the individual risk knowledge.

What features of the IWP were the weakest or least helpful?

The Wellness Inventory and the fitness component were identified as the weakest or least helpful aspects of the IWP. The Wellness Inventory was designed to help the clients gain insight into their level of wellness and provide tools to improve their health and well-being. Although one of the providers expressed reservations about the validity and usefulness of the WI, others viewed it as a valuable holistic health promotion intervention and a useful measurement of the change in wellness associated with IWP participation. Clients' opinions and actions strongly contradicted the providers' beliefs about the WI. Half of the clients ranked the WI as the least useful component of the program. This opinion was supported by the focus group members. Though the WI scores and satisfaction with wellness scores did show significant improvement in most of the 12 components and the total scores, only 10 of the 60 (17%) completed the post program WI questionnaire. Clearly, as discussed previously, the WI is not achieving its intended purposes. The perceptions that the tool is cumbersome and contains too much information may contribute to clients' failure to use the tool. The WI is an online tool that was supposed to be completed outside of the normal structure of the program. Focus group participants felt the WI was not emphasized during the group or individual sessions. This lack of integration into the program may also be a factor in the poor utilization of the WI as an educational tool and low completion rate of the post program follow-up WI questionnaire.

Several issues surfaced with the exercise component of the program. While there was universal agreement of providers, the client interviewed, and the focus group participants that fitness was an important component of the program, providers and participants reported concerns

or areas needing improvement related to the fitness component. Participant survey respondents indicated that the fitness component was the least helpful program component. Providers and clients identified problems with client participation and scheduling of the fitness sessions. As with the Wellness Inventory, the fitness component was conducted separately from the main group sessions and not considered an integrated element of the program. Clients were required to set up separate, individual appointments at a separate facility for the fitness assessment and personal training plan. The fact that the fitness component was conducted at a traditional fitness facility was a hindrance to full participation. Although the personal fitness trainer would work with the clients to set up a plan that could be performed outside of the fitness facility, not all clients were aware of this. One focus group participant reported that the workout as designed by the personal trainer was too difficult. This may have been an isolated occurrence; however, this experience underscores the need to ensure fitness plans are individualized and monitored to ensure their safety, effectiveness, and acceptability to the clients.

What are your recommendations for change or improvements?

IWP clients and providers suggested similar recommendations for program changes. Their main recommendations can be categorized as; a) additional components or program content, b) changes related to the organization of components and resource materials, and c) marketing and growth recommendations. Recommended additions to the program include content on emotional eating and the permanent inclusion of cooking classes, the addition of a nutritionist, a hypnotherapy provider, and various body work providers. Though emphasizing the importance of continuing the IWP as a comprehensive program, focus group members desired the opportunity to continue separate components offered as packages of services such as a nutrition package, an Amma therapy package, or a fitness package.

Changes in the organization of the components and materials were suggested to increase the coordination and integration of program components. Recommendations included more emphasis and in class follow-up on food logs and Wellness Inventory use, separating the fitness component from the fitness facility or making sure participants are aware that fitness plans do not require the use of a gym, and centralizing as many of the activities to one location as much as possible and ensuring the location is dedicated to the IWP during the group sessions to minimize distractions. Focus group participants also suggested developing a syllabus for the course and organizing the resource material so that they can be easily found.

The focus group participants, the client interviewed, and providers offered many recommendations for marketing and growth; however, there were some interesting differences in the strategies and targets offered. The focus group participants recommended strategies such as informational dinners, letters and presentations targeted at primary care providers, internists, public health clinics, and CAM providers. The participants stressed increasing the credibility of the program and improving the attitudes of conventional providers to develop a strong referral base and reach individuals that could most benefit from the program. In contrast, the providers' marketing ideas targeted chief executive officers (CEOs) of local businesses and individuals. Provider strategies reflected the belief that the experience of the program by CEOs and prior participants would be a sufficient selling point.

Outcome Evaluation

Are participants satisfied with the IWP?

Satisfaction with the IWP was very high. One hundred percent of the 25 IWP participants who returned post program participant surveys indicated satisfaction, rating the program as excellent (88%) or good (12%). All of the post program survey respondents ($n=25$) would

recommend the program. Satisfaction with the nutrition, HeartMath[®], and humor components were implied in the survey respondents' selection of these components as having the most positive impact. The high degree of satisfaction was also reflected in the focus group discussions of the client's "likes" and "program strengths." The focus group members expressed overwhelmingly positive opinions about the primary providers, the nutrition, HeartMath[®], and humor components of the program and its comprehensive, holistic design. This high level of satisfaction is consistent with other integrative healthcare program evaluation findings (Chung, Chung, Kwok, & Wong, 2008; Myklebust, Pradhan, & Gorenflo, 2008).

Factors that may contribute to the satisfaction with the program include the close, caring relationships between the providers and the clients, the peer support networks that developed through use of group sessions, the interactive nature of the weekly workshops, and the holistic, client-centered design of the program (*Integrative care: A pathway to a healthier nation: Hearing before the Committee on Health, Education, Labor, and Pensions.*, 2009; Jaber, Braksmajer, & Trilling, 2006; Luff & Thomas, 2000; Maizes et al., 2009; Myklebust et al., 2008). The relationship of satisfaction with the program to improved health and wellness, decreased cardiovascular risk factors, weight loss or achieving personal health goals is unknown because there were insufficient data from this program evaluation to demonstrate these outcomes.

What changes in client behavior, knowledge, or attitudes have occurred?

The expected IWP short-term outcomes included increased knowledge related to personal health and wellness levels, healthy nutrition and the APO E diet, and stress management with increased ability to experience joy and contentment and the development of positive attitudes concerning health. The short-term outcomes are expected to result in behavioral changes such as

increased physical activity and adoption of healthy eating habits and the APO E diet, increased use of stress management techniques including humor and HeartMath®. The short and medium-term outcomes were expected to be evident by the end of the 10-week IWP.

Analysis of focus group discussions, the client interview, IWP participant surveys, and staff interviews revealed perceptions of increased knowledge and skills in health promoting nutrition, physical activity, and stress management, with varying degrees of health behavior change. Positive attitudes and increased peace, joy, balance, hope and spiritual awareness were also reported. The post program Wellness Inventory results, though limited by the small number of respondents, did support the increased wellness behaviors and attitudes.

The methodology used in the IWP to determine changes in health related knowledge, behaviors, and attitudes was not ideal. Although these data sources provided support for the effectiveness of IWP in reaching the short and medium term goals of the program, the clients involved in the focus groups or interviews may not represent all of the participants in the program. For future monitoring and evaluation consideration should be given to use of additional methods to quantify these changes.

What changes in client cardiovascular risk factors have occurred?

The IWP plan includes an extensive cardiovascular risk factor assessment pre and post program. This evaluation includes APO E genotype, blood pressure, weight, body mass index, body fat, advanced lipid panel that includes total cholesterol, LDL, HDL, triglycerides, Lp(a), APO B, and LDL and HDL subclasses, inflammatory markers, and insulin. There was a small but significant improvement in weight and BMI of the participants (weight $T = 5.00$, $z = -4.14$, $p < .05$; BMI $T = 17.50$, $z = -3.80$, $p < .05$). The median weight decreased from 184.5 pounds to 177.8 pounds with a change in the median BMI from 28.8 kg/m² to 27.4 kg/m². The weight loss

is encouraging if the loss can be sustained, but it did not reach the 7 to 10 % weight loss recommended to decrease the risk of diabetes (Diabetes Prevention Research Group, 1999; Rubin et al., 2002).

Significant changes in the cardiovascular risk markers occurred in the total cholesterol ($t(34) = 2.148, p = .039$), LDL ($t(34) = 2.58, p = .014$), APO B ($t(32) = 2.16, p = .038$), CRP ($T = 153, z = -2.08, p = .04$) and homocysteine ($T = 139.5, z = -2.52, p = .01$). The clinical significance of these changes is not clear. Despite a decrease in the mean cholesterol from 187.3 mg/dl to 176.1 mg/dl, there was no change in the risk level, with both levels remaining at the ATP III goal for cholesterol (Grundy et al., 2004). Though the mean LDL decreased from 110.9 mg/dl ($SD 36.8$) to 101.2 mg/dl ($SD 28.9$), the cardiovascular risk remained at an intermediate level (Cannon et al., 2004; Grundy et al., 2004; Stone, Bilek, & Rosenbaum, 2005). Although some researchers suggest that any lowering of the LDL decreases the risk of cardiovascular disease, these changes did not change the clients' mean ATP III risk category (Clearfield et al., 2005; Grundy et al., 2004; Leiter, 2006; Stone et al., 2005). The APO B mean decreased from 84.5 mg/dl to 78.3 mg/dl, also an improvement, but the decrease was not sufficient to lower the cardiovascular risk from intermediate risk to the desired level of less than 60 mg/dl (Sniderman, Bergeron, & Frohlich, 2001). Similarly, the changes in CRP and homocysteine levels may not be clinically significant. Pre and post homocysteine levels were within the normal homocysteine range of 5 and 15 $\mu\text{mol/L}$ and CRP values remained in the average range of 1-3 mg/L (Morrow, 2009; Rosenson & Kang, 2010).

These changes cannot be confidently attributed to participation in the IWP. Approximately half to the participants were not evaluated after the completion of the program and other confounding factors such as use of cholesterol lowering medications were not known.

Improvement in the collection of pre and post cardiovascular risk markers and documentation of concurrent treatment with lipid lower medications are needed to determine effectiveness of the IWP in lowering CV risk markers.

What unintended or unexpected participant outcomes have occurred?

No adverse outcomes were reported by IWP providers or clients. Several unanticipated positive outcomes were identified. The development of social support through group development was designed to occur; however, the power of the social network that formed and the continuation of this community after the 10-week program was welcome surprise to program providers and participants. The frequency of the meetings, the duration of the program, the interactions and sharing that were built into the program plan are all factors that may have contributed to the development of this social network. The addition of the alumni meetings helps to sustain the relationships developed during the program. Family involvement in healthy lifestyle changes occurred as IWP participants gained enthusiasm and self-confidence. Individual changes that may be attributed to improvements in general well-being such as being “hotter in bed” and experiencing decreased body aches were also reported.

The importance of a supportive social network has been postulated in numerous health promotion theories and has demonstrated efficacy (Christakis, 2004; Gellert, Aubert, & Mikami, 2010; Heaney & Israel, 2002). (Englert et al., 2007). Many health promotion interventions tap into existing social networks to garner the support for healthy lifestyle change, but the development of supportive social networks through group interventions has not consistently resulted in the desired support system (E.S. Anderson et al., 2006; Blom et al., 2009; Costanzo & Walker, 2008; Koch & Kralik, 2001). The success of the IWP in this process compels further exploration and description to determine if the process can be replicated.

Limitations of Practice Inquiry

This practice inquiry has several limitations. The sampling method for the focus group recruitment was not optimal and allowed the potential for systematic bias to occur. The actual number of IWP alumni who received an invitation to participate in a focus group is not known. The individuals who participated in the focus groups may not have been representative of all the clients in the program. All the participants in the focus group and client interviews had close personal relationships with at least one provider in the program. This could have introduced bias into the responses. The clients who participated in the focus groups and completed the participant surveys reported positive experiences. There is a possibility that the clients who did not have positive experiences did not volunteer to participate in a focus group or complete the participant surveys, thereby introducing further bias into the findings.

The data collection tools were also a limitation of the project. The IWP participant surveys and the Wellness Inventory were tools in use by the program prior to the program evaluation. Several versions of the surveys had been used and the wording of some of the questions diminished their usefulness. The Wellness Inventory was a proprietary online tool with no available data on its reliability or validity as a wellness measurement. The interview questions and the moderator guide were not pilot-tested or evaluated for reliability or validity. Krueger and Casey (2009) recommended evaluating focus group questions after each session to ensure the question is eliciting the information needed and continually refining questions for later groups. The scheduling of the two focus groups on consecutive evenings prevented the use of this technique which could have enhanced the usefulness of the data collected from the groups.

Because the evaluator did not have access to the clients' records and used preexisting data sources, the accuracy of the data could not be verified. The lack of post program

measurements of the Wellness Inventory and the biometric data limited the outcome evaluation. Although the providers reported that the participants completed the programs, many failed to complete the post testing. The Wellness Inventory was completed by 17% of the participants and clinical measure completion ranged from 8% for blood pressure checks to 68% for the lipid panels. The low number of post program measurement lessened the ability to determine if any changes in clients' cardiovascular risk conditions were associated with IWP attendance. The timing of outcome measurements in relationship to program participation was also a limitation. Biometric outcomes, including improved cardiovascular risk status and weight loss, were classified as intermediate or medium-term outcomes and were measured at the completion of the program. This program design may not have allowed sufficient time for biometric changes to have occurred.

Several other features of the program and the evaluation design were also limitations to the study: a) the program employs multiple health promotion interventions; b) the program had been in existence for approximately two years; and c) the evaluation design did not include any comparison group and was not able to control or account for possible confounding factors. All of these realities prohibit drawing any conclusions about cause and effect relationships between the program and the outcome measurements.

The final limitation is due to the restrictions imposed by conducting the program evaluation as a DNP practice inquiry project. To ensure a high quality, credible program evaluation a multidisciplinary team that includes content experts, evaluation experts, and key stakeholders is recommended (Centers for Disease Control and Prevention, 1999). As a DNP student the involvement of such a team was not possible.

Program Recommendations

The following recommendations were made based on the analysis of the Intentional Wellness Program:

1. Develop a short, concise mission statement that captures the essence of what the IWP will achieve and how you will achieve it. Each provider interviewed had a slightly different description of the IWP mission. A clear mission statement guides the activities and decisions of everyone involved in the program and helps ensure that all personnel provide services that support the mission.
2. Establish clearly defined program goals and measurable outcome statements. Goals and objectives should be consistent with the mission and related to program actions and what those actions are meant to accomplish. Program goals that are clearly documented provide a basis for monitoring and evaluation and a standard for judging the success or need for improvement of a program.
3. Provide full disclosure to clients of the level of evidence for each component of the program. IWP pamphlets emphasize that the program is evidence-based, but not all components have a strong evidence-base. The APO E Gene diet has anecdotal case studies demonstrating improvement in cardiovascular risk factors; however, there is no published research on the efficacy of the diet in decreasing cardiovascular disease or Alzheimer's disease.
4. Develop a written policy for genetic testing that ensures the confidentiality of test results. Although the Genetic Information Nondiscrimination Act of 2008 (GINA) prohibits discrimination in health coverage and employment based on genetic information, it does not apply to life insurance, disability insurance, or long-term care insurance. GINA also

does not apply to employers with less than 15 employees. The act also does not prohibit insurers from using genetic test results to determine health insurance rates (Department of Health and Human Services, 2009).

5. Reevaluate the use of the Wellness Inventory (WI). Currently no proof of the WI's validity or reliability in measuring wellness is available; however, several studies of the tool are ongoing (Firth & Smith, 2010). The WI is not appreciated or utilized by most clients and client feedback indicates several barriers to its full use. Incorporating content on the WI or using the WI dimensions as a framework for the group sessions could provide the emphasis and education needed for clients to benefit from the WI.
6. Establish strategy for consistently obtaining post program measurements. Possible strategies include scheduling an initial group orientation that includes time for drawing labs, checking blood pressures, recording medications and medical histories, and completing the WI. A similar group session could be scheduled for the post program measurements.
7. Implement an ongoing evaluation component to the program. Include a client database that documents program participation (e.g., attendance, completion of food logs) and outcomes (e.g., achievement of personal goals, pre and post laboratory test results, pre and post body measurements, changes in dietary and exercise habits, wellness perceptions). Redefine and clarify the medium-term and long-term outcomes. This clarification should include exactly how cardiovascular risk status is determined and measured and when the post program measurement should be performed. Obtaining the lipid panel immediately post program may be too early to detect a change. The distal outcome of optimal wellness is not currently being measured. This outcome should be

reevaluated and if kept as the ultimate goal of the program, it should be clearly defined in measurable terms.

8. Implement an ongoing quality improvement program based on the findings of ongoing program monitoring and evaluation and review of professional literature to identify research support on the comparative effectiveness of possible interventions for program components.
9. Develop a system for communication with client's primary care providers that includes notification of IWP treatments, plan of care, test results and client outcomes, and mechanisms for feedback from providers. This is a professional courtesy expected by primary care providers from any specialist or consultant caring for a client and would improve client safety, continuity of care, and garner increased credibility and professional respect for the program.
10. Centralize activities, holding workshops, individual wellness counseling and HeartMath[®] sessions, therapeutic body work, and fitness appointments at the same location. The new clinic building will solve many of these logistics problems. Providing most of the services at the new building will be convenient for the clients and convey a much more organized, integrated structure.
11. Continue refinement of post program Intentional Wellness Participant Survey to ensure useful information is obtained. Consider obtaining information regarding personal goals coming into the program and attainment of those goals. Other questions specifically addressing health behaviors, knowledge, and attitude changes attributed to participation in the program could also be included.

12. Reevaluate and revise the fitness component implementation. Consider scheduling the fitness presentation early in the program and incorporating fitness training into the group workshop session. Tap into the powerful peer group dynamics that have been developed to increase physical activity participation and accountability.
13. Clearly identify a target population and develop a marketing plan aimed at reaching that population (i.e., if target audience are adults with chronic illnesses that are not responding to conventional therapy, then marketing to local internist may be effective in reaching that group).
14. Consider incorporating consistent monitoring and feedback on food diaries, exercise frequency, and assignments. Although the IWP emphasizes self-responsibility and positive motivation, this does not contradict the use of monitoring and feedback, or having expectations for clients. Instead participants in focus groups and interviews welcomed more feedback and reminders concerning these activities.
15. Revise the HeartMath[®] reference material to ensure that it can be clearly understood by the IWP clients.

Lessons Learned

Many lessons were learned through the process of conducting this program evaluation. One lesson learned was the importance of involving the stakeholders of the program being evaluated. Due to the evaluator's time limitations and restricted access to client files, this project could not have been completed without the full cooperation of the program providers. Engaging the stakeholders and addressing the questions they believed to be important resulted in their willingness to participate in multiple ways including volunteering for key informant interviews, compiling data, and assisting with the recruitment process.

Another lesson learned was the need for a thorough evaluability assessment (EA). EAs are similar to this project's logic model development and analysis, but in addition to articulating the program theory with a logic model, EAs determine if program goals and objectives are clear and plausible and if relevant performance data can be obtained (Rossi et al., 2004; Thurston, Graham, & Hatfield, 2003). The data required for an adequate outcome evaluation were missing in this program. An EA would have identified this problem prompting a redesign of the outcome evaluation and program changes to ensure that appropriate data would be collected and monitored.

Issues associated with healthcare products or services that are patent protected surfaced during this practice inquiry. The APO E gene diet, HeartMath[®] tools, and the Wellness Inventory used in IWP are all proprietary, patented healthcare innovations. The protections granted with patents allow inventors to control their intellectual property and benefit financially from the use of the invention. Although these rights are helpful for inventors, these protections are controversial when applied to healthcare innovation (Kesselheim & Mello, 2006; Packer, 1999). Potential consequences of patented healthcare innovations include increased healthcare costs, restricted access to patented products and services, and requirements for licensing agreements. The scientific evidence from which the patented innovations are derived may be shrouded in secrecy, and similar to drug studies, clinical studies may be sponsored or conducted by the patent holder, increasing the potential for biased results. It was beyond the scope of this project to evaluate the implications of the use of patented interventions in the IWP; however, it is possible that the difficulty in obtaining research evaluating the APO E diet and the Wellness Inventory may have been related to the fact that they are proprietary services.

Implications for Nursing Practice

The IWP example offers many lessons for nurses. The program is an exemplar for following your passion and taking control of your own practice. Although health promotion and disease prevention are fundamental activities of advanced practice nursing, most nurses work in an environment with many barriers to the implementation of health promotion/disease prevention interventions. Entrepreneurial ventures such as the IWP allow independent advanced practice nurses to implement novel health promotion interventions for improved care without the constraints of a 15 minute appointment.

Many challenges and issues are inherent in implementing an innovation health promotion practice. Advanced practice nurses (APN) must evaluate the research on a new intervention or practice model and decide if there is adequate credible evidence to support the safety and efficacy of the intervention, and the feasibility of translating the innovation into practice. Integrative health care and many health promotion interventions have a sound theoretical basis, but have limited evidence of efficacy or effectiveness in the real practice environment. Leaders in innovate practice must weigh the benefits and risks of premature adoption. Additionally, many healthcare products and processes are patent protected so APNs must be aware of any legal restrictions or licensing requirements, and must consider any ethical issues that could be involved with use of these products.

Independent practice offers the freedom to practice nursing in a truly holistic, integrative manner with minimal structure and restrictions. Nurses must practice within the scope of practice defined by state nursing practice; however, outside organization accreditation or regulation typically is not required. Despite this freedom, APNs need to maintain professional accountability and credibility with clients, providers, and payers. Thorough documentation and

ongoing program monitoring and evaluation demonstrating the quality and effectiveness of the program will accomplish those requirements.

Recommendations for Future Research

This practice inquiry suggests that integrative healthcare as provided by the IWP is an exciting, innovative practice model that has the potential to improve the satisfaction of clients and provide client-centered care. However, further research is needed to develop a strong evidence base for the effectiveness of integrative healthcare models in health promotion and disease prevention. Research is needed to clarify outcomes that should be measured to assess the effectiveness of integrative practice.

The value of a healthy diet, exercise, stress management, and weight control is well-established, but the translation of those health behaviors into practice is still woefully lacking and requires ongoing clinical study. Simple dietary instructions that ease adherence while ensuring a healthy diet is a particularly important requirement in clinical practice. Questions also need to be answered about the role and development of client groups and the provider-client relationship, the effectiveness and practice of positive psychology, therapeutic body work such as Amma therapy, and the effectiveness of the APO E gene based diet and exercise prescriptions.

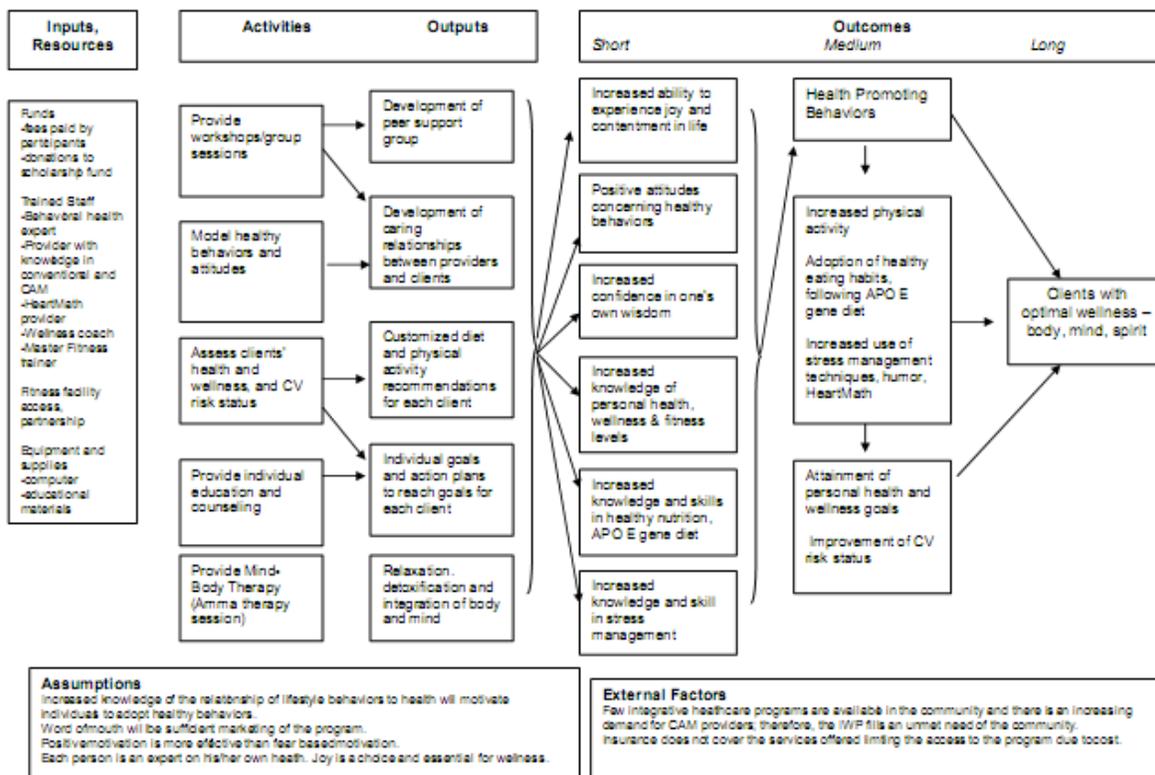
The concept of wellness requires further elucidation to strengthen its usefulness in health coaching. Valid and reliable tools are needed to measure the complex, amorphous construct of wellness of the body, mind and spirit. Development of a qualitative measure that could be used to assess individuals' levels of wellness and to structure interventions as recommended by Roscoe (2009) would be particularly useful for practitioners.

Conclusions

This practice inquiry evaluated the organizational processes and client outcomes of a community-based integrative health promotion/disease prevention program. High levels of satisfaction with the program were reported by clients. Improvement in health-related knowledge, attitudes, and behaviors, and perceptions of increased wellness and decreased cardiovascular risk were also described. However, inconsistent and incomplete program monitoring and follow-up assessments made it impossible to judge the effectiveness of the program in promoting healthy lifestyles and decreasing the risk of chronic disease. The program evaluation allowed identification of strengths and weaknesses in the current program processes. Recommendations for program improvement were developed to address the weaknesses and establish an ongoing monitoring and evaluation component that will document the outcome and effectiveness of the program.

APPENDIX A: REVISED IWP LOGIC MODEL

Intentional Wellness Program Logic Model



APPENDIX B: INSTITUTIONAL REVIEW BOARD DETERMINATION



Human Subjects
Protection Program

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Tucson, AZ 85724-5137
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HSPP Correspondence Form

Date: 07/30/10

Investigator: Linda Handley, DNP Student

Department: Nurs

Advisor: Deborah Vincent, PhD

Project No./Title: 10-0557 A Program Evaluation of an Integrative Wellness Program

Current Period of Approval: NA

IRB Committee Information	
Administrative Action FWA Number: FWA00004218	Administrative Review – New Study
Documents Reviewed/Concur only	Appr. Approved Not Appr. Approved Not Reviewed
Project Review Form (received 07/22/10)	Rev
Determination	
Not Human Subjects Research	
Additional Determination(s)	

- **Not Research as defined by 45 CFR 46.102(d):** As presented, the activities described above do not meet the definition of research as cited in the regulations issued by the U.S. Department of Health and Human Services which state that "research means a systematic investigation, including research development, testing and evaluation, designed to contribute to generalizable knowledge."

Thomas K. Park

07/30/10

Thomas K. Park, PhD
Co-Chair IRB2 Committee
UA Institutional Review Board

Date

TKP:mm

Cc: Departmental/College Review Committee

Reminder: Continuing Review materials should be submitted 30-45 days prior to the expiration date to obtain project re-approval

- Projects may be concluded or withdrawn at any time using the forms available at www.irb.arizona.edu.
- No changes to a project may be made prior to IRB approval except modifications appear on immediate hazard to subjects.
- Original signed consent forms must be stored in the designated departmental location determined by the Department Head.

Arizona's First University – Since 1885



Form version 06/22/09

APPENDIX C: INFORMED CONSENT FORMS

KEY INFORMANT INTERVIEW CONSENT FORM

Project Title: A Program Evaluation of an Integrative Wellness Program

Introduction

You are being invited to participate in a research study being conducted by Linda Hundley for completion of a practice inquiry under the supervision of Dr. Deborah Vincent in the College of Nursing at the University of Arizona.

Please read this form so that you know about this research study. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to sign this consent form. A copy of the signed consent form will be given to you.

What is the purpose of this research study?

The purpose of this study is to evaluate the overall effectiveness of the Intentional Wellness Program and find out how well the program works, the effect on clients, and client satisfaction with the program.

Why are you being asked to participate?

You are being asked to be in this study because you have provided health and wellness services in the Intentional Wellness Program.

How many people will be asked to participate in this study?

Four people who have provided services in the Intentional Wellness Program will be invited to participate in the study.

What will happen during this study?

Once you have agreed to participate in the study, you will sign this informed consent form. The primary investigator (PI) will arrange a meeting at your convenience and location of choice for completion of a short interview. One day prior to the meeting you will be reminded by telephone. The interview will be held in a private location to assure confidentiality and audio taped for later transcription. Your name will appear on the consent, and then a code name will be assigned for tapes and transcription. During the interview you will be asked questions about your opinions about the Intentional Wellness Program services and suggestions you have for changing or improving the program.

How long will I be in this study?

The interview will take approximately 60 minutes.

Are there any risks to me?

You may feel that some questions are stressful or upsetting. You do not have to answer anything you do not want to. You may stop participating or leave the meeting at any time. There is a minimal risk of a breach of confidentiality due to the small number of health care providers in the Intentional Wellness Program.

Are there any benefits to me?

You will not receive any direct benefit from being in this study. What the researchers find out from this study may be used to improve the Intentional Wellness Program.

Will there be any costs to me?

Aside from your time, there are no costs for taking part in the study.

Will I be paid to participate in the study?

You will not be paid for being in this study.

Will video or audio recordings be made of me during the study?

An audio recording will be made of the interview to make certain all of the discussion is recorded accurately only if you give your permission to do so. Initial your decision below.

_____ I give my permission for audio recordings to be made of me during my participation in this research study.

_____ I do not give my permission for audio recordings to be made of me during my participation in this research study.

Will the information that is obtained from me be kept confidential?

The only persons who will know that you participated in this study will be the research team members. Representatives of The University of Arizona Human Subjects Protection Program may access study records to make sure the study is being run correctly and that information is collected properly.

All study materials will be kept confidential. Information that may identify any one individual will be blended to create a composite for confidentiality as findings for this study are reported. You will not be identified in any reports or publications resulting from the study. Information about you will be stored in locked file cabinet in the Principal Investigator's personal office; computer files will be protected with a password. This consent form will be filed in an official area in the Office of Nursing Research at the University of Arizona.

The Intentional Wellness Program leadership team may also see information from the interview. However, any information that is shared with them will be coded with a number so that they cannot tell who you are. If there are any reports about this study, your name will not be in them.

What if I am harmed by the study procedures?

This study involves minimal risk to you or your health. In the unlikely event of research related illness or injury, consult your regular health care provider.

May I change my mind about participating?

Your participation in this study is voluntary. You may decide to not begin or to stop the study at any time. If you choose not to be in this study or to stop being part of the study there will be no effect on you or your position or relationship with the Intentional Wellness Program.

Whom can I contact for additional information?

You can call the Principal Investigator to tell her about a concern or complaint about this research study. The Principal Investigator, Linda Hundley, DNP candidate can be reached at (520) 266-0647. You may also contact the Principal Investigator's advisor, Deborah Vincent, PhD, at (520) 266-9969.

For questions about your rights as a research subject; or if you have questions, complaints, or concerns about the research and cannot reach the Principal Investigator or want to talk to someone other than the Investigator, you may contact the University of Arizona Human Subjects Protection Program office: Toll-free phone number: 1-866-278-1455; Website (this can be anonymous: <http://orcr.vpr.arizona.edu/irb/contact>).

Statement of Consent

By signing this form, I affirm that I have read the information contained in the form, that the study has been explained to me, that my questions have been answered, and that I agree to be in this study. I am not giving up any legal rights by signing this form. A copy of this entire, signed consent form will be given to me.

Subject's Signature

Date

INVESTIGATOR'S AFFIDAVIT:

I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation. Any questions raised have been answered to the participant's satisfaction.

Signature of Investigator

Date

FOCUS GROUP CONSENT FORM

Project Title: A Program Evaluation of an Integrative Wellness Program

Introduction

You are being invited to participate in a focus group as part of a program evaluation being conducted by Linda Hundley for completion of a practice inquiry under the supervision of Dr. Deborah Vincent in the College of Nursing at the University of Arizona.

Please read this form so that you know about this study. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to sign this consent form. A copy of the signed consent form will be given to you.

What is the purpose of this research study?

The purpose of this study is to evaluate the overall effectiveness of the Intentional Wellness Program and find out how well the program works, the effect on clients, and client satisfaction with the program.

Why are you being asked to participate?

You are being asked to be in this study because you have completed the Intentional Wellness Program.

How many people will be asked to participate in this study?

Up to 12 people who have completed the Intentional Wellness Program will be enrolled in the focus group interview.

What will happen during this study?

Once you have agreed to participate in the study, you will sign this informed consent form. You will participate in one focus group session. During the focus group session you will be asked to discuss questions related to your experience with the Intentional Wellness Program. Your name will appear on the consent and a code name will be assigned for tapes and transcriptions.

How long will I be in this study?

The focus group interview will take up to 90 minutes.

Are there any risks to me?

You may feel that some questions or the ensuing discussion is stressful or upsetting. You do not have to answer anything you do not want to. You may stop participating or leave the meeting at

any time. There is a minimal risk that other Intentional Wellness clients or staff may learn of your involvement in this study. This risk will be minimized by asking all members of the focus group to maintain the confidentiality of the focus group participants and holding the session after normal clinic hours.

Are there any benefits to me?

You will not receive any direct benefit from being in this study. What the investigators find out from this study may be used to improve the Intentional Wellness Program.

Will there be any costs to me?

Aside from your time, there are no costs for taking part in the study.

Will I be paid to participate in the study?

You will not be paid for being in this study.

Will video or audio recordings be made of me during the study?

Yes, an audio recording will be made of the focus group discussion to make certain all of the discussion is recorded accurately. A code name will be assigned for tapes and transcriptions. If you do not give permission for the audio recording to be obtained, you cannot participate in this study.

Will the information that is obtained from me be kept confidential?

The only persons who will know that you participated in this study will be the research team members: Linda Hundley, Principal Investigator and focus group moderator, a focus group assistant, research personnel, and other focus group participants. Representatives of The University of Arizona Human Subjects Protection Program may access study records to make sure the study is being run correctly and that information is collected properly.

All study materials will be kept confidential. Information that may identify any one individual, group, or situation will be blended to create a composite for confidentiality as findings for this study are reported. You will not be identified in any reports or publications resulting from the study. Information about you will be stored in locked file cabinet in the Principal Investigator's personal office; computer files will be protected with a password. This consent form will be filed in an official area in the Office of Nursing Research at the University of Arizona.

The staff of the Intentional Wellness Program may also see information from the focus group session. However, any information that is shared with them will be coded with a number so that they cannot tell who you are. If there are any reports about this study, your name will not be in them.

What if I am harmed by the study procedures?

This study involves minimal risk to you or your health. In the unlikely event of research related illness or injury, consult your regular health care provider.

May I change my mind about participating?

Your participation in this study is voluntary. You may decide to not begin or to stop the study at any time. If you choose not to be in this study or to stop being part of the study there will be no effect on you or your health care.

Whom can I contact for additional information?

You can call the Principal Investigator to tell her about a concern or complaint about this research study. The Principal Investigator, Linda Hundley, DNP candidate can be called at (520) 266-0647. You may also contact the Principal Investigator's advisor, Deborah Vincent, PhD, at (520) 266-9969.

For questions about your rights as a research study participant; or if you have questions, complaints, or concerns about the evaluation and cannot reach the Principal Investigator or want to talk to someone other than the Investigator, you may call the University of Arizona Human Subjects Protection Program office.

- Toll-free phone number: 1-866-278-1455
- Website (this can be anonymous: <http://orcr.vpr.arizona.edu/irb/contact>)

Statement of Consent

By signing this form, I affirm that I have read the information contained in the form, that the study has been explained to me, that my questions have been answered, and that I agree to be in this study. I am not giving up any legal rights by signing this form. A copy of this entire, signed consent form will be given to me.

Subject's Signature

Date

INVESTIGATOR'S AFFIDAVIT:

I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation. Any questions raised have been answered to the participant's satisfaction.

Signature of Investigator

Date

CLIENT INTERVIEW CONSENT FORM

Project Title: A Program Evaluation of an Integrative Wellness Program

Introduction

You are being invited to participate in a research study being conducted by Linda Hundley for completion of a practice inquiry under the supervision of Dr. Deborah Vincent in the College of Nursing at the University of Arizona.

Please read this form so that you know about this study. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to sign this consent form. A copy of the signed consent form will be given to you.

What is the purpose of this research study?

The purpose of this study is to evaluate the overall effectiveness of the Intentional Wellness Program and find out how well the program works, the effect on clients, and client satisfaction with the program.

Why are you being asked to participate?

You are being asked to be in this study because you have completed the Intentional Wellness Program.

How many people will be asked to participate in this study?

Up to 14 people who have completed the Intentional Wellness Program will be invited to participate in the study.

What will happen during this study?

Once you have agreed to participate in the study, you will be interviewed by the primary investigator by phone or in person. During the interview you will be asked to discuss questions related to your experience with the Intentional Wellness Program. Your name will appear on the consent and a code name will be assigned for tapes and transcriptions.

How long will I be in this study?

The interview will take up to 60 minutes.

Are there any risks to me?

You may feel that some questions or the ensuing discussion is stressful or upsetting. You do not have to answer anything you do not want to. You may stop participating at any time. There is a

minimal risk that other Intentional Wellness clients or staff may learn of your involvement in this study.

Are there any benefits to me?

You will not receive any direct benefit from being in this study. What the investigators find out from this study may be used to improve the Intentional Wellness Program.

Will there be any costs to me?

Aside from your time, there are no costs for taking part in the study.

Will I be paid to participate in the study?

You will not be paid for being in this study.

Will video or audio recordings be made of me during the study?

Yes, an audio recording may be made of the interview to make certain all of the discussion is recorded accurately. A code name will be assigned for tapes and transcriptions.

Will the information that is obtained from me be kept confidential?

The only persons who will know that you participated in this study will be the research team members: Linda Hundley, Principal Investigator, and research personnel. Representatives of The University of Arizona Human Subjects Protection Program may access study records to make sure the study is being run correctly and that information is collected properly.

All study materials will be kept confidential. Information that may identify any one individual, group, or situation will be blended to create a composite for confidentiality as findings for this study are reported. You will not be identified in any reports or publications resulting from the study. Information about you will be stored in locked file cabinet in the Principal Investigator's personal office; computer files will be protected with a password. This consent form will be filed in an official area in the Office of Nursing Research at the University of Arizona.

The staff of the Intentional Wellness Program may also see information from the focus group session. However, any information that is shared with them will be coded with a number so that they cannot tell who you are. If there are any reports about this study, your name will not be in them.

What if I am harmed by the study procedures?

This study involves minimal risk to you or your health. In the unlikely event of research related illness or injury, consult your regular health care provider.

May I change my mind about participating?

Your participation in this study is voluntary. You may decide to not begin or to stop the study at any time. If you choose not to be in this study or to stop being part of the study there will be no effect on you or your health care.

Whom can I contact for additional information?

You can call the Principal Investigator to tell her about a concern or complaint about this research study. The Principal Investigator, Linda Hundley, DNP candidate can be called at (520) 266-0647. You may also contact the Principal Investigator's advisor, Deborah Vincent, PhD, at (520) 266-9969.

For questions about your rights as a research study participant; or if you have questions, complaints, or concerns about the evaluation and cannot reach the Principal Investigator or want to talk to someone other than the Investigator, you may call the University of Arizona Human Subjects Protection Program office.

- Toll-free phone number: 1-866-278-1455
- Website (this can be anonymous: <http://orcr.vpr.arizona.edu/irb/contact>)

Statement of Consent

By signing this form, I affirm that I have read the information contained in the form, that the study has been explained to me, that my questions have been answered, and that I agree to be in this study. I am not giving up any legal rights by signing this form. A copy of this entire, signed consent form will be given to me.

Subject's Signature

Date

INVESTIGATOR'S AFFIDAVIT:

I have carefully explained to the subject the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation. Any questions raised have been answered to the participant's satisfaction.

Signature of Investigator

Date

APPENDIX D: SITE AUTHORIZATION LETTER



June 17, 2010

Memorandum for Institutional Review Board
University of Arizona
Tucson, AZ 85721

Subject: Permission for Linda Hundley to conduct program evaluation

I am the Program Director of the Intentional Wellness Program, an integrative healthy lifestyle program based on science which includes personalized nutritional and fitness programs and stress management techniques. This program has been in operation since January, 2008; however, a comprehensive program evaluation has not been completed. Linda Hundley, a Doctorate of Nursing Practice (DNP) student at the University of Arizona has requested to complete a program evaluation of the Intentional Wellness program as her DNP practice inquiry.

I have reviewed Ms. Hundley's proposed practice inquiry plan entitled: "A Program Evaluation of an Integrative Wellness Program." She has my permission to conduct the proposed program evaluation of the Intentional Wellness Program. She may interview and conduct focus groups with program clients and staff who agree to be interviewed, and may also observe any portion of the program delivery. Ms. Hundley will be provided with de-identified client information such as post program satisfaction surveys, biometric data including weight, body mass index, age, gender, and Wellness Inventory scores for analysis. Ms. Hundley will not have access to any personal or identifying information at any time.

The program evaluation results will be used by the Intentional Wellness Program for planning and improvement. Program evaluation results may be published in professional venues provided confidentiality of the agency, clients and staff is maintained.

We are grateful for Ms. Hundley's interest in conducting a program evaluation for Intentional Wellness and know that this will advance the science of nursing as well as potentially identify areas for improvement for the program. We look forward to working with Ms. Hundley. Any questions may be addressed to me by email at KEvans26@bellsouth.net or by phone at 502-797-1904.

Sincerely,


Kim Evans ARNP CNS-BC AHN-BC CNAT

500 Baxter Avenue - Louisville, KY - P: 502.797.1904 - F: 502.244.2968
www.intentionalwellness.org - administration@intwellness.org

APPENDIX E: INTENTIONAL WELLNESS PARTICIPANT SURVEY



Intentional Wellness
Discover the Power Within

Intentional Wellness Participant Survey
1st Quarter 2010

Thank you for sharing your thoughts with us today. Your comments help us to continually improve and expand the program. We have enjoyed having you in our program and wish you continued great health and a joy filled life.

1. How did you first learn about this program? (check one)

- Friend
- Relative
- Co-worker
- Kim Evans, Kimberly May, Dr. Clifford Kuhn
- Other _____
Please describe

2. What was the primary motivating factor in your decision to participate in the program? (check one)

- Get healthier
- Lose weight
- Be happier
- Diagnosed health problem
- More energy
- Other _____
Please describe

3. What element(s) motivated you to register for this particular program?

- Comprehensiveness, all aspects offered in one program
- Nutritional information
- Reputation of key professionals
- Customized fitness program
- Wellness Inventory
- HeartMath® Biofeedback
- Ha Ha Ha Prescription
- Other _____

Please describe

4. Rate your overall impression of the Intentional Wellness program. (check one)

- Excellent
- Good
- Average
- Fair
- Poor

Why?

5. Would you recommend this program to a friend or relative? (check one)

- Yes
- No

6. If you were describing this program to someone what would you say?

7. Knowing what you now know about the program if you had it to do over would you sign up again? (check one)

- Yes
- No

8. Which element(s) had the greatest positive impact in your life?

- Fitness
- Nutrition
- Heart Math
- Ha Ha Ha Prescription
- Wellness Inventory
- Advanced Lipid Profile and APO E Genotype Testing
- Amma Therapy

Why?

9. Please rate the following materials on a scale of 1-5 with 5 being the most helpful and 1 being the least. (circle one for each)

	least				most helpful
Nutritional Handouts	1	2	3	4	5
Daily Diary	1	2	3	4	5
HeartMath® Materials	1	2	3	4	5
APOE Diet Book	1	2	3	4	5
It All Starts with a Smile Book	1	2	3	4	5

10. What, if any, additional materials might have improved your experience? (please describe)

11. Thinking about the workshop meetings please rate the following on a scale of 1-5 with 5 being the highest and 1 being the lowest. (circle one for each)

	Lowest			Highest	
Length of meeting	1	2	3	4	5
Location of meeting	1	2	3	4	5
Comfort of seating	1	2	3	4	5
Length of break	1	2	3	4	5

12. Please describe how this program has affected your life.

Anything else you would like to add.

APPENDIX F: DE-IDENTIFIED DATA GUIDE

De-identified Data Guide

The following client data will be supplied by the Intentional Wellness program director from existing data collected routinely as part of the diagnostic and treatment services provided by the program. No Personal Identifying Information such as name, date of birth, social security number, phone number, or address will be included in the data provided.

Demographic Data

- Age

- Gender

Body Composition Data Pre and Post Program

- Weight

- Body Mass Index

- Body Fat Percentage

Advanced Lipid Panel Pre and Post Program

- Total Cholesterol

- LDL-C

- HDL-C

- Triglycerides

- LDL IIIa+b

- LDL IVb

- HDL2b

- Apo B

- Lp(a)

- Homocysteine

- Lp-PLA2

- CRP

- Fibrinogen

- Insulin

Wellness Inventory Scores and Wellness Inventory Satisfaction Scores Pre and Post Program

- Self-Responsibility and Love

- Breathing

- Sensing

- Eating

- Moving

- Feeling

- Thinking

- Playing and Working

- Communicating

- Intimacy

- Finding Meaning

- Transcending

- Total Score

APPENDIX G: FOCUS GROUP MODERATOR GUIDE

**Moderator's Guide for Client Focus Group
Intentional Wellness Program Evaluation**

AGENDA

Time	Topic	Method and Content
10 minutes	Arrival and mingling of participants	<p>Each person will fill out a nametag with first name.</p> <p>The note taker will draw a picture of the seating arrangement and list the participants by number. While taking field notes, the note taker can then use numbers as shorthand for the participants' locations.</p>
	Food	<p>Provided by the primary investigator to facilitate rapport building among participants and primary investigator who will be the focus group moderator.</p>
5 min	Introductions	<ul style="list-style-type: none"> ➤ People will be seated. ➤ Research team introductions: Moderator will introduce self and assistant/note-taker. ➤ Purpose: You are all here today because you have completed the IWP and have agreed to participate in this group discussion to share your experiences, opinions, and ideas to help the research team evaluate the program. We want to know how the program helped you improve your health and wellness, and how to improve the services provided. ➤ Ground Rules: There is no right or wrong answers. Feel free to share your opinions even if they are different from others in the group. This is a discussion, so in addition to answering the questions, you may follow up on something that someone else has said. If you don't want to discuss any questions, you can just sit silently. Also, you may leave the group at any time if you decide you do not wish to participate. Please place cell phones or pagers on silence mode and if you need to answer step outside to do so. To protect confidentiality, we ask that you do not discuss what others have said in this meeting with anyone outside this group. ➤ Recording: To be sure we don't miss any of your comments, the discussion will be audio-recorded. Later, the audio-recorded discussions will be typed for the research team to analyze. No names will be included in any reports and the comments are confidential.

5 min	Agenda Overview	<p>Let me give you an overview of what's going to happen today.</p> <ul style="list-style-type: none"> ➤ I will introduce topics that we will cover today. I will be asking about benefits and strengths of the IWP, aspects that were not helpful, what might make it better for you and specific challenges related to the program. ➤ The goal is not to rush through the topics, but to spend as much time as we need to get an idea of your experiences and opinions about these topics. ➤ We will stop after about 90 minutes.
5 min	Opening	Participant introductions: Let's begin by finding out a little about each of you. Tell us your first name and your favorite way to relax.
20 min	Likes or strengths of the IWP	<p>Key Question 1: What did you like about the IWP? Moderator will list responses on a flip chart.</p> <p>Probes:</p> <ul style="list-style-type: none"> ➤ What did you like about the Wellness Inventory? ➤ What did you like about the HeartMath® sessions? ➤ What did you like about the APO E gene diet and nutrition classes? ➤ What did you like about the fitness/exercise component? ➤ What did you like about the HA, HA, HA sessions?
20 min	Dislikes or weaknesses of the IWP	<p>Key Question 2: What did you not like or find difficult about the IWP? Moderator will list responses on a flip chart.</p> <p>Probes:</p> <ul style="list-style-type: none"> ➤ What did you dislike about the Wellness Inventory? ➤ What did you dislike about the HeartMath® sessions? ➤ What did you dislike about the APO E gene diet and nutrition classes? ➤ What did you dislike about the fitness/exercise component? ➤ What did you dislike about the HA, HA, HA sessions?

20 min	Recommendations for improvement	<p>Key Question 3: What do you think would make the IWP better?</p> <p>Moderator will list responses on a flip chart.</p> <p>Probes:</p> <ul style="list-style-type: none"> ➤ What do you think should be included in the program? ➤ What do you think should be omit from the program? ➤ What about the meeting times? ➤ What about the program locations? ➤ What about the length of the program? ➤ What about the cost or payment plan for the program?
5 min	Wrap-up	<p>Moderator will go over each key question and summarize what has been said and ask if anything has been missed or if there are additional comments or questions. Participants will be thanked for their time and the meeting adjourned.</p>

APPENDIX H: RECRUITMENT LETTERS

KEY INFORMANT RECRUITMENT LETTER

Dear (name of staff)

As you are aware from the recent presentation at your staff meeting, I am a Doctorate of Nursing Practice candidate at the University of Arizona, College of Nursing. As part of my degree requirement, I am conducting a program evaluation of the Intentional Wellness Program. The purpose of this study is to evaluate the overall effectiveness of Intentional Wellness Program and find out how well the program works, the effect on clients, and client satisfaction with the program.

You are invited to take part in this study. As a provider in the Intentional Wellness Program your knowledge and insight into the program will provide important information and insight for the program evaluation. Participation is voluntary. If you are willing to participate in this study please respond to this email or reach me by phone at 520-266-0647 or 502-624-0778. Your response will be held confidential. If you agree to participate in the study, I will arrange a meeting at your convenience and location of your choice to discuss and obtain informed consent for this study. The study will involve an interview that will take approximately 60 minutes of your time. I appreciate your time and attention to my request.

Sincerely,

Linda Hundley
DNP candidate

FOCUS GROUP RECRUITMENT LETTER

Dear Intentional Wellness Program Alumni,

I invite you to be part of a focus group to discuss the Intentional Wellness Program. I am Linda Hundley, a Doctorate of Nursing Practice student at the University of Arizona, College of Nursing, and I am conducting a program evaluation of the Intentional Wellness Program as part of my school requirements.

The purpose of the program evaluation is to find out how well the program works, what effects it has on those who attend the program, and how satisfied participants are with the program. Because you have firsthand knowledge of the program that may be used to understand and improve the program, I request that you participate in one focus group session.

The focus group sessions will last approximately 90 minutes beginning at 6:30 PM on the 17th and 18th of August 2010. The sessions will be held at the Institute for Integrative Medicine, 540 Baxter Avenue, Louisville, Kentucky. These focus groups will be informal discussions of your experiences and recommendations related to the Intentional Wellness Program. Snacks will be provided.

Your participation is voluntary. The group discussion will be confidential. The information from the group discussions will be shared with the Intentional Wellness Program staff and the University of Arizona, but the names of the participants will not be shared.

Please contact me at lhundley@nursing.arizona.edu or by phone at 520-266-0647 or 502-624-0778 if you are interested in attending one of the focus group sessions. I look forward to meeting with you and appreciate your time and support.

Sincerely,

Linda L. Hundley, ARNP, DNPc, FNP-BC

APPENDIX I: KEY INFORMANT INTERVIEW GUIDE

KEY INFORMANT INTERVIEW GUIDE

1. How long have you been involved in the Intentional Wellness Program?
2. What is your perception of the overall purpose or mission of the Intentional Wellness Program? What is the program trying to accomplish, the goals?
3. What do you see as the primary activities or services that the program provides?
4. What do you see as the expected or desired outcomes of the program?
5. Looking at the logic model – Describe how well you think this represents the program as it was intended to be.
6. Looking at the logic model – What changes would you recommend so that it would accurately reflect the actual program? Probes: Client assessments, individual goal setting, individual action plans, individual education, and counseling/coaching, customized diet.
7. How do you determine if the outcomes are being achieved? Outcome measurement
Specific 1. Increased knowledge. 2. Positive attitudes. 3. Behavior changes – diet, physical activity, HeartMath[®], etc. 4. Individual patient goals achieved. 5. Improvement in CV risk status.
8. What would mean success of the program to you?
9. How would you define program success? If you were selling this service to a business, what outcomes, results of the program would you tell them about?
10. Tell me about what you do to determine the effectiveness of the program?
11. How do you determine if what you are doing is causing the effect/outcome? What you're seeing is the result of your intervention.
12. What do you like or think works well in the program?
13. What aspects of the program do you not like or think should be improved?
14. What efforts are being made to facilitate/promote that? If you could change anything about the program what would it be?
15. Describe you dream or ideal Intentional Wellness Program design?
16. What other comments or recommendations do you have concerning the Intentional Wellness Program?

APPENDIX J: CONTENT ANALYSIS SUMMARY TABLES

KEY INFORMANT INTERVIEWS CONTENT ANALYSIS SUMMARY

Practice Inquiry Purpose:

To evaluate selected organizational processes and patient outcomes of an integrative health care program (the IWP).

Aims:

1. To describe and analyze the program theory through the development and evaluation of the program logic model.
2. To evaluate selected organizational processes.
3. To examine selected patient outcomes, including satisfaction

The Key Informant interviews are intended to contribute to aims 1 and 2 by providing the provider perspective of the program theory/logic model (how the program is supposed to work and the accuracy of the logic model) and of selected organizational processes.

Summary of Key Informant Interview

Topic	Key Informant Answers
Program mission, overall purpose	<p>K1-To provide tools, teach clients to be happier, healthier, increase energy, have more joy and appreciation (lines 21-26), create more balance and vitality(line 170)</p> <p>K2-Decreasing risk factors for chronic illnesses (line 226-227)</p> <p>To educate and empower people so they get information and know that they hold the key to their health in their own hands and know that they can prevent chronic illness through diet and exercise (lines12-15, 226-228)</p> <p>K3-Healthy lifestyle program (line 13)</p> <p>K3-“To get them to take these principles they’ve learned from the classes and from the program in general and to carry them out into their normal lives” (lines 222-224)</p> <p>K4-“To give people the tools and confidence to make choices that help them enjoy their life more completely” (lines 14-14)</p>
Program activities or services	<p>Components</p> <p>K1-Nutrition(APO E diet), exercise plan (based on APO E genotype), HA, HA, HA prescription, HeartMath® sessions, therapeutic body session (Amma therapy), gym membership, fitness trainer, initial testing advanced lipid profile, body composition, APO E gene test, Wellness Inventory assessment pre and post program.</p> <p>K1-Customized wellness plan based on Wellness Inventory assessment</p> <p>K1-Coaching around personalized wellness action plan.</p>

	<p>Coaching activities – customized wellness plan with small, doable steps, email reminders , sessions following up to see how person is doing on planned changes, helping person identify motivators, emphasis on positive encouragement (lines 140-142, 163-168).</p> <p>K2-Comprehensive program addressing body, mind, and spirit K2-Comprehensive initial assessment , 3 individual sessions with fitness trainer, individual sessions for HeartMath[®], individual sessions with APN to review labs at beginning and end of program</p> <ol style="list-style-type: none"> 1. Identify CV risk factors <ol style="list-style-type: none"> a. Advanced lipid profile testing b. Body composition measurement c. APO E genotype testing 2. Give them diet specific to APO E genotype and optimal caloric intake 3. Give participant exercise plan based on APO E genotype 4. HeartMath[®] biofeedback, spiritual connection 5. HA, HA, HA prescription 6. Wellness inventory to give appreciation of where they're starting in overall wellness evaluation 7. Fitness trainer 8. Amma therapy session to move energy through body and help with detox <p>Alumni group meetings every 4-6 weeks to keep people engaged</p> <p>K3-Educating (best lifestyle food wise and exercise wise) (line 19) K3-Body composition testing, measurements, strength and flexibility testing (lines 56-57)- tests used varies (61-67) K3-Designing fitness plan based on APO E genotype, blend of optimal and practical, includes strength and cardiovascular (timed sprints) K3-Four sessions – initial assessment, strength training session, cardiovascular training session, final reevaluation meeting at end of program – one to one sessions, 30-45 min</p> <p>K4-Components:</p> <ol style="list-style-type: none"> a. Nutrition information/choices (what's in marketplace, how to use based on APO E genotype b. Stress management (HeartMath[®] techniques of heart coherence) c. Physical exercise (tailored fitness program, Fitness center membership)
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	<p>d. HA, HA, HA prescription (teach how to tap into your sense of humor to get positive energy even in the worst situations lines 28-31)</p> <p>K4-Distract participants from obsession of counting numbers as a measure of success</p> <p>K4-Approach – start by feeling good about yourself, to love yourself unconditionally, trust yourself. Avoid fear as primary motivation- it is not sustainable. (lines 49-105)</p> <p>K4-Trying to teach people a b</p>
Expected or desired outcomes	<p>K1-Clients learn to lighten up (line 34), learn to put the body in a balanced state and learn to listen to their intuition (line 35), do five hours of exercise a week (line 311).</p> <p>K1-Clients come into program with own goals, at end “happier and more in the moment, and having more joy”, “feel good” so want to take care of body, start to make different choices to keep healthy (lines 50-51).</p> <p>K1-The goal is really to help them get things more in the healthy range (58-59).</p> <p>K1-Goal to increase number of participants</p> <p>K1-Heart rate variability – goal is decreasing heart rate (line 109), increasing coherency (235-236)</p> <p>K2-Decreased CV risk factors (line 69)</p> <p>K2-Double the size of the program each year, saturate the Louisville area and then take to other communities (lines 97-101)</p> <p>K3-...just to get people moving. (line 299), ...get them to develop a habit (line 304), to get them to just start doing it (line 306)</p> <p>K3-Work up to 3 sets of everything for strength (line 51)</p> <p>K4-Short term outcome- “for people to learn to trust their own wisdom in making choices regarding taking care of themselves and achieving more joy in their body and in their mind, even in self-confidence” (lines 45-47)</p> <p>K4-Long term – participants “use the tools we’ve taught them to become happier with themselves and with their life” (lines 47-48)</p>
How outcomes measured	<p>K1-Wellness Inventory</p> <p>K1-Feedback surveys</p> <p>K1-Heart rate, heart rate variability, coherency</p> <p>K2-Advanced lipid profile</p> <p>K2-Body composition</p> <p>K2-Fitness trainer biometric assessment pre and post (line 186-187)</p> <p>K2-Wellness Inventory pre-post</p>

	<p>K2-Food log</p> <p>K3-End of program body measurements</p> <p>K4-No way can science measure. K4-Subjectively, ask a person “do you like yourself more than when you started? Do you love yourself unconditionally?” (Lines 168-169) “ Are you enjoying your life more than you were six months ago” (lines 169-170) K4-“Not everything that counts can be counted” – quote by Albert Einstein K4-“Wellness has no scientific measure. It is totally subjective” “there must be a way of trusting this subjective report of honest human beings.” (lines 359- 360)</p>
<p>Indicators of success, effectiveness</p>	<p>K1-Increase in Wellness Inventory scores K1-Blood tests – improvement in advanced lipid profile K1-Continue to come back and stay with the program K1-Results of surveys</p> <p>K2-“when people get it” – know that they are in control, have a choice in preventing chronic illness (line 228)</p> <p>K3-Same as outcomes</p> <p>K4-Participants have increased love for themselves, increased confidence in their own wisdom. Currently, this information not written down, but are asked. 50% say yes, other half are still frustrated, angry at themselves – cannot be considered well (lines 201-207). Would be satisfied if one out of ten participants said yes. (lines 235-238) “One person becoming more healthy is enough” (line 250)</p>
<p>Strengths of Program (Helpful aspects, things most liked, what worked well)</p>	<p>Different for every person, 85% of the people say it’s nutrition and HeartMath® (k 1)</p> <ol style="list-style-type: none"> 1. Peer support within the groups 2. Long term outcome that was unexpected – participants become models of healthy lifestyle (k2 lines 154-156) 3. Once patients go through the program, they become like a family (k2 lines 171-174) 4. Group sessions (line 282) 5. Synergy and consistency that the 3 key leaders bring to the program (k2 283-291) 6. Three pillars that are the basis for the program <ol style="list-style-type: none"> a. It’s more effective to motivate with joy than fear

	<ul style="list-style-type: none"> b. The person is the expert in their care c. If you can't have fun, why do the program (k2 lines 293-305) 7. APO E is cutting edge information that's going to revolutionize chronic illness(lines 305-306) 8. Scholarship fund is available to help cover the costs of the program for those who can't afford it (k2 line 330) 9. Educational aspects of the program (k3) 10. Promoting a healthy outlook on life (k3 line 335) 11. Presentations on nutrition (k4 line 257) 12. It All Starts with a Smile book (k4 line 262) 13. Laugh Doctor classroom sessions (k4 line 269-272) 14. Individual fitness session effective (k4 lines 272-273) 15. HeartMath® sessions (k4 line 273)
<p>Weakness of Program (Least helpful aspects, processes that did not work well)</p>	<p>Not answered directly Participants don't always finish the wellness inventory before starting (k 1) Would like to see people show up for all classes, do the reading and assignments, follow the course as laid out(<i>not sure how big a problem this is, if it would be considered a weakness</i>)(ki 1)</p> <p>Cost of program will have to go up for the program to be profitable (k 2 lines 316-323)</p> <ul style="list-style-type: none"> 1. Don't know if there is a big difference (in obtaining fitness) when program tailored to APO E genotype, but it makes sense. (k3 lines 164-166) 2. Difficult to schedule clients and to get them to participate in the fitness aspect (k3 lines 239-240) 3. Part of problem is getting people to stick with it (k3 line176) <ul style="list-style-type: none"> 1. Unsure if the APO E gene book works that well – little bit intimidating to most of the people (k4 lines 257-258) 2. HeartMath® workbook (k4 274-275)

	<p>3. Wellness Inventory – helps some people, may be a distraction, may not truly measure wellness (k4)</p> <p>“too soon to introduce something that says, here’s the numbers that you should feel good about. ...people need to forget about numbers. ...forget about their physical parameters right now” (k4 lines 290-293)</p>
Recommendations/comments	<ol style="list-style-type: none"> 1. Add cooking class (k 1) 2. Meet with fitness trainer, showing exercises in class so separate appointments do not have to be scheduled (k 1 lines 383-386) 3. Have more participants, whole families in classes (k 1) 4. To market program invite the top five CEOs or directors of local businesses to participate in the program. (k2 lines 117-119) 5. Include a computer program to input food log that calculates percentages of fats, carbohydrates, and proteins (k2 lines 220-221) 6. Wrestling with the idea of pulling out certain components and offering separately (k2 lines 332-336) 7. Ideal – everyone knows the APO E (k2) 8. 100 people in Intentional Wellness Program session (k2), 9. Centers all over the U.S. following the model, run by nurses (k2 lines 363-366) 10. Obtain a grant for the program (k2 line 381) 11. Constantly reevaluate the effectiveness of the counseling before the genetic test (k2 408-419) 12. Have people partner up with someone for exercise, an accountability partner (k3 lines 207 – 209) 13. Group fitness class (k3 lines 211-212) 14. Schedule exercise presentation to one of the first (k3 line 241-242) 15. Being more involved in the program, meeting with program director regularly has been helpful in improving this aspect of program (k3 lines 346-349) 16. Fitness class either before or after the actual classroom aspect (k3) 17. Form type of exercise club – like a cycling club for program participants that meets informally (k3 lines 362-364) 18. Put more ownership of the program in the hands of the

	<p>participants (k3 lines 365-367)</p> <p>19. Start the course with a whole day retreat- break down intellectualizations and fear-based structure, make aware that you're in over your head and that over the next ten weeks "we'll help you remember how to swim" (k4 lines 321-331)</p> <p>20. "But, I think to sell this, we have to get over our fear of being perceived as unqualified, uncredentialed people making outrageous claims that should be ignored because it's a medicine show, it's hucksterism"(k4 lines 401-403)</p> <p>21. Audacious claim – "...do you want to live the happiest part of your life for the rest of your life starting today? Then you must get to an Intentional Wellness class." (k4 line 404-405)</p>
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FOCUS GROUP CONTENT ANALYSIS SUMMARY

Practice Inquiry Purpose:

To evaluate selected organizational processes and patient outcomes of an integrative health care program (the IWP).

Aims:

1. To analyze the program theory through the development and evaluation of the program logic model.
2. To evaluate selected organizational processes.
3. To examine selected client outcomes, including satisfaction

The focus groups are intended to contribute to aims 2 and 3 by providing the client perspective of selected organizational processes and providing information related to satisfaction with the program.

Focus Group Content Analysis:

Category	Focus Group Answers
Strengths of Program	<ol style="list-style-type: none"> 1. Program staff (the 3 primary program providers) are the greatest strengths of the program – they are invested in the clients’ success and remain connected. Their personalities, personal care pull clients in, motivate them to become invested in their own success. (fg 1 lines 6-7, 9-10, 113-115, 625, 680-682) (ci lines 82-84) 2. Ongoing involvement with the program and connection with providers through quarterly get-togethers, ability to continue with component of program is helpful. (fg 1 lines 117-118, 121, 123-14, 621, 628-629)(fg 2 lines 30, 32, 519, 521, 523)(ci lines 74-77) 3. Program components are diverse and holistic, integrating wellness areas, meeting needs of different individuals. (fg 1 lines 14-18, 36-40) (fg2 lines 12,13,111) 4. Specific components of the program identified as especially useful were <ol style="list-style-type: none"> a. HeartMath® – adopted by several of the group for personal stress management and for use in their jobs. (fg 1 lines 42-44, 67-68, 80-85, 95-100) (fg 2 lines

	<p>23-24, 41-43) (ci)</p> <p>b. Amma therapy – unanimous positive feedback about the usefulness and continued use of Amma therapy. (fg 1 lines 593, 597,599, 605, 615, 617) (fg 2 lines 494, 496)</p> <p>c. Nutritional component – information on healthy diet was beneficial and trying out foods each week, actual cooking sessions, recipes, meal plans, and grocery shopping list were especially helpful in improving dietary habits, (fg 1 lines 51-54, 58-65, 497, 517-581)(fg 2 line 425, 267-270) (ci) Grocery store tour enlightening (ci lines 110-112)</p> <p>d. Humor – combined with other parts of the program provided a good balance, helped participants to feel part of the group. (fg 1 lines 103, 111, 573-580), (fg 2 lines 22-23, 52-54) (ci)</p> <p>e. Exercise component – mixed opinions, most agreed that exercise is an essential component of a healthy lifestyle, but had to work outside of the program structure to get program that fit (fg 1 lines 135-139) (fg 2 lines 142-145, 175-180, 150-152)</p> <p>5. Lab tests – Advanced cardiovascular risk panel and APO E genotype are valuable parts of the program. Knowing risk level provides motivation for lifestyle change, peace of mind, and verified results that can be shared with PCM, shows progress, holds you accountable (fg 1 lines 196-206, 211-212, 214-218, 230-237) (fg 2 lines 113-121, 126-127, 128-129)</p> <p>6. Materials marvelous (fg 2 lines 112, 113)</p> <p>Food Journal –not used as food journal, but good reminder for HeartMath® (fg 2 lines 36-39) Food logs helpful (ci line 109)</p>
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Weakness of Program	<ol style="list-style-type: none"> 1. Too many places to go – different components of the class were conducted in different locations, this was confusing and inconvenient (fg1lines 378-382, 718) 2. Wellness Inventory – least helpful, most did not even know what it was and did not complete post-test or use tool, questions hard to answer, too cumbersome, data overload, not built into program. (lines fg1 165, 167, 172, 321-322, 324-326, 330-331, 333, 335-337, 356-358) (fg 2 lines 202, 207, 209-210, 214-220, 225-227) (ci line 27, 99) 3. Exercise component – problem with this being tied to certain fitness facility, some had memberships at other facilities, the location of the gym was hard to reach due to traffic, the distance to the facility was a barrier. Other barriers to full use of this component included personal injuries, physical limitations, and competing demands, scheduling, workout was too difficult. Exercise component was external to the program (fg 1 lines 130-134, 147-150, 152-156, 158-160) (fg 2 lines 149-150, 156-157, 159-163, 174-180, 238-240, 244-245)(ci) 4. APO E diet difficult to adhere to – strict adherence requires time-consuming planning, preparation/cooking. The recommended 6 meals a day is hard to fit into busy schedules, and it is difficult to find restaurants/fast foods that have foods that are healthy or fit into the diet. It can be confusing categorizing foods that contain combinations of fat, protein, and carbohydrates. (fg lines 289, 439, 444, 447, 470-471, 473, 475-476, 478, 523-537, 541-544) (fg 2 lines 90-93, 95-97, 104-105, 287-288) 5. Food logs – good tool, difficult to complete, but not used consistently or as recommended in the program. The log was not regularly reviewed or discussed with the participants during the program. (fg 1 lines 450, 452, 454, 456, 458-461, 463-466) (fg 2 lines 56, 59) 6. Shopping/grocery store tour – uncomfortable because of the group being in the way of the store customers. Some did not participate in this due to the distance to the store. (fg 1 lines 388-390, 404) 7. HeartMath® handout murky (fg 2 lines 604-608) 8. Cost of program prohibitive for some (fg 2 lines 460, 528-535, 537-539, 541, 543-545)
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	<ol style="list-style-type: none"> 9. Class location distracting (fg 2 lines 305, 319, 327) 10. Classes running overtime stressful (fg 2 lines 292-294, 298, 300-301) 11. Negative attitude from some PCMs about program (fg 2 lines 604-604) 12. Lot of work to attend sessions with later groups (fg 2 lines 507-510) 13. Not fully integrated (fg 2 lines 417-419) 14. Materials could be better organized (fg 2 lines 351-359, 361-367).
Outcomes (expected and unexpected)	<ol style="list-style-type: none"> 1. Empowerment, self-responsibility for health, and power to change are outcomes of the program. (fg 1 lines 755-757, 759, 757) 2. Learned about food, best diet (ci line 10) 3. Gained awareness of genetic propensity, cv risk (fg 2 lines 21) (ci lines 5-6) 4. Learned not to take things to seriously (line ci 11) 5. Learned meditation – control of BP (ci line 12) 6. Development of strong support community, alumni group (ci lines 74-77) 7. Exercise became a ritual, an experience that is enjoyed (fg 2 lines 142, 170-172) 8. Change in diet (fg 2 line 19) (ci) 9. Feel good (fg 2 lines 12-20) 10. Pay attention now (fg 2 lines 6-8) (? Mindfulness) 11. Use of HeartMath® (fg 2 lines 23-24, 42-43, 48) 12. Use of humor (fg 2 lines 52-54) 13. Weight loss (ci)
Recommendations/comments	<ol style="list-style-type: none"> 1. Ensure confidentiality of APO E genotype – ability to obtain health insurance may be affected by information related to genotype and associated risks. (lines 241-244, 246-248, 284-285) 2. Shopping/grocery store tour – change time to after hours when store either closed or not crowded. (lines 388-390,

	<p>404)</p> <ol style="list-style-type: none"> 3. Add content on emotional eating. (lines 406-409, 428-430) 4. Add hypnotherapy – as a tool to help control emotional eating. (line 428) 5. Make HeartMath® handout clearer (fg 2 lines 347, 344, 336) 6. Exercise component revision – ensure that design fits person (fg 2 lines 159-164) 7. Consider building in a mechanism into program for feedback from client’s PCM. (fg 2 lines 132-137) 8. Become a nonprofit organization to increase ability to receive grants, increase credibility with clients/PCMs (fg 2 lines 618-624) 9. Increase referral base, reach those people that most need services by marketing to CAM providers, providing informational dinners to internists, providing information letters to PCMs of clients in the program, running ads on public radio (fg 2 lines 552-553, 555, 556, 558-560, 561-567, 588-594, 596-602) (ci lines 225-231) 10. Program materials – add a recommended list of readings (line 393-394), add new food form specific to APO E genotype (fg 2 274-280) 11. Add Nutritionist to program for follow-up (fg 2 line 428) 12. Offer formal packages of services for continued work in the various areas (nutrition, exercise, HeartMath®, Amma therapy) (fg 2 lines 425-433, 435, 437, 440, 446-447, 449-500) 13. Discounts for 2 or more people (fg 2 lines 530-532) 14. More structure – more direction or coaching e.g., to-do lists, weekly assignments more detailed, directed (ci line 158-159) 15. Review that weekly to see if folks on target, doing what they’re supposed to be doing (ci lines 166-167) 16. Higher levels of expectations for participants (ci lines 180-183, 208-211)
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PARTICIPANT SURVEY COMMENTS CONTENT ANALYSIS SUMMARY

Practice Inquiry Purpose:

To evaluate selected organizational processes and patient outcomes of an integrative health care program (the IWP).

Aims:

1. To analyze the program theory through the development and evaluation of the program logic model.
2. To evaluate selected organizational processes.
3. To examine selected client outcomes, including satisfaction

The participant survey findings contribute to aims 2 and 3 by providing the client perspective of selected organizational processes and providing information related to perceived outcomes and satisfaction with the program.

Participant Survey Comments Content Analysis Summary

Category	Participant Comments
Strengths of Program (Most helpful, aspects that work well)	<ol style="list-style-type: none"> 1. Program staff (the 3 primary program providers) (10 comments) e.g., “Team of professionals are excellent” “...were inspiring. Their esprit de corps is contagious.” “You gave us the tools to change, the love and support to apply/use those tools, and your own enthusiasm and dedication.” “real, caring, friends for life”, “expertise of each professional ... plus genuine love and caring from all 3.” “enthusiasm and passion”, “care and conviction” 2. Program comprehensive and holistic (19 comments) 3. Educational, providing information, tools (12 comments) 4. Program was fun, enjoyable (2 comments)
Weakness of Program	<p>Membership or trainers at other fitness facilities limited use of IWP fitness component (2 comments)</p> <p>HeartMath[®] booklet difficult (1 comment)</p> <p>Saturday meeting time (1 comment)</p>
Outcomes	<ol style="list-style-type: none"> 1. New outlook, attitude, perceptions r/t health, tools to help self be healthy, take charge of own health (S1, S4, S7, S13, S15, S26)

	<ol style="list-style-type: none"> 2. More motivation to practice healthy lifestyle (S9, S23) 3. Increased awareness of power to live positively, it is all up to me (S5, S25) – 4. Peace, joy, balance, positive attitude, hope, awareness of spiritual side (S2, S10, S12, S16, S21, S25) 5. Feel better, feel good, general improvement in well-being (S8, S12, S17, S21, S24) 6. Learned about food/nutrition, APO E, best diet (S5, S6, S11, S19) 7. Changed diet, healthier eating (S2, S6, S7, S22) 8. Increased exercise, use new forms (S2, S7, S8) 9. Manage stress better with increased use of humor, learned not to take things too seriously, use of HeartMath[®] (S5, S7, S8, S12, S14, S20) 10. Involving family in diet, exercise (S8, S14) 11. “hotter in bed” (S2) 12. Decreased body aches (S22)
Recommendations/comments	<p>Uniqueness of program – provider expertise in components (HeartMath[®]/wellness, advanced lipid profile/APO E, Laugh program), staff personally share of themselves (S23)</p> <p>Marketing</p> <ol style="list-style-type: none"> 1. Flyers/posters at Whole Foods; Rainbow Blossum 2. Give information to the Public Health Department 3. Give interview at public radio station (S25) <p>Add more meal plans for home use (S1) Evaluating hormone levels (S2) Simplifying HeartMath[®] booklet (S26) Develop a syllabus with brief overview of each session to give at orientation. (S25)</p>

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