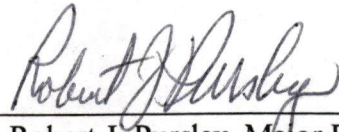


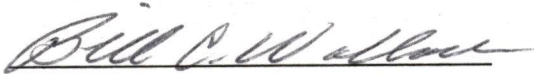
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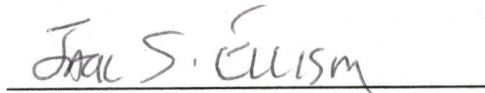
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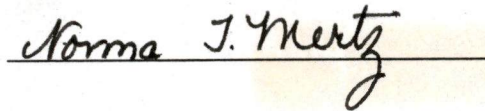


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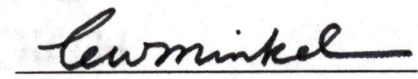
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Accepted for the Council



Associate Vice Chancellor and
Dean of the Graduate School

THE EFFECT OF A HOLISTIC WELLNESS COURSE
ON COMMUNITY COLLEGE STUDENTS' WELLNESS BEHAVIORS

A Dissertation
Presented for the
The Doctor of Education
Degree
The University of Tennessee, Knoxville

Christy T. Price
August 1998

ABSTRACT

This study took place at a small community college located in the Southeast. The purpose of the study was to determine the effect of a two-quarter-credit-hour Holistic Wellness Course on students' wellness behaviors. The Holistic Wellness Course was based on the University of Wisconsin - Stevens Point National Wellness Association's Wellness Model. The *TestWell®: Wellness Inventory - College Edition* was used as a pre-class and post-class measure of wellness behaviors. A quasi-experimental pre-test/post-test control group design was utilized. Data were collected from 123 students. Sixty-three of the subjects participated in the Holistic Wellness Course and served as the experimental group. Sixty students enrolled in an Introductory Psychology Course served as the comparison group. Total pre-test scores and all subscale pre-test scores were subtracted from their corresponding post-test scores to compute improvement scores for each subject. Descriptive statistics and t-tests were employed to compare the mean improvement scores for the experimental and comparison group. A greater level of improvement was found within the experimental group as compared to the control group. An analysis of the total improvement scores showed the comparison group improving 13.78 points and the experimental group improving 43.06 points ($p < .05$). According to the results, the holistic wellness course had a positive effect on the physical wellness, nutritional wellness, self-care and safety, environmental wellness, social awareness, emotional management, intellectual wellness, occupational wellness, and spirituality and values dimensions of the students' wellness inventories.

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CHAPTER I

INTRODUCTION

I. INTRODUCTION

At present our nation is plagued with health related problems, such as violence, substance abuse, sexually transmitted diseases and unwanted pregnancies. The costs of our health problems are devastating and immeasurable. The financial costs are considerable, but even more alarming is the lost productivity and loss of life due to our unhealthy behaviors (Lee & Estes, 1994). It has been suggested that the only way to curb these costs and improve our nation's health is to focus on holistic and preventative methods (Ardell, 1977). In 1990, the U.S. Department of Health and Human Services released the Healthy People 2000: National Health Promotion and Disease Objectives as a response to our nation's health problems. The Healthy People 2000 guidelines serve to increase the span of healthy life for Americans, reduce health disparities, and to improve access to preventative services (United States Department of Health and Human Services, 1990). Healthy People 2000 provides a framework for health educators and health education programs across the country. One way to address these goals is through preventative health education and holistic wellness courses (Greenberg, 1989).

Since the 1940's we have moved further and further from the antiquated notion of health as simply the absence of disease (Oberteuffer, 1972). As early as 1947 the World Health Organization defined health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Butler, 1994). In the 1950's

Halbert Dunn expanded on the World Health Organization's definition and coined the term "high level wellness." By the 1970's, doctors were lecturing on the subject (Travis & Ryan, 1981; Hettler, 1980; Tubesing & Tubesing, 1983). Hettler's "Wellness Model" became a basis for many health promotion and behavior change programs. The wellness concept emphasizes the inter-related importance of the body, mind, and spirit. It has been defined as a holistic lifestyle approach to personal excellence and optimal well-being (Ardell & Langdon, 1989). The National Wellness Institute has created a wellness model that emphasizes the importance of "holism." The model suggests that all health behaviors have an effect on the whole person. Each of the six main dimensions of wellness; physical, emotional, social, spiritual, intellectual and occupational are all interrelated (Hettler, 1984).

This enhanced wellness lifestyle approach is compatible with the mission statement of many community colleges. The community college typically seeks to respond to the life long needs of community residents. One of these needs is that of holistic well being (Cohen & Brawer, 1989). Introductory holistic wellness courses can serve as an effective means of meeting this need and can enhance the quality of life for students and members of the community (Burns, et al., 1993). Although there are a growing number of four-year institutions that offer wellness as a course of study, most community colleges are not offering holistic wellness courses. To date, there has been little research to assist with the development and evaluation of holistic wellness courses in general (Sivik, et al., 1992). The lack of empirical data suggests that the few community colleges that are offering holistic wellness courses have not yet begun to generate research concerning the development and usefulness of such courses. This lack of data suggests a need for research regarding holistic wellness courses at community colleges.

II. OVERVIEW

The chapter will be organized as follows:

- III. Statement of the Problem
- IV. Purpose of the Study
- V. Need for the Study
- VI. Delimitations
- VII. Limitations
- VIII. Basic Assumptions
- IX. Research Questions
- X. Definition of Terms
- XI. Data Collection
- XII. Summary

III. STATEMENT OF THE PROBLEM

To the extent that it can be determined, no empirical evidence exists indicating if a holistic wellness course has a positive effect on community college students' wellness behaviors.

IV. PURPOSE OF THE STUDY

The purpose of this study was to determine the effects of a holistic wellness course on students' wellness behaviors. A wellness behavior inventory was utilized as a pre-test/post-test measure of students' wellness behavior change. This study took place at a small two-year community college located in the Southeast. The study was designed to provide feedback for the improvement of the course. It was also hoped that the study

would serve to guide the future development of holistic wellness courses at other colleges.

V. NEED FOR THE STUDY

Years of research suggest that behavior plays a significant role in a majority of health problems in our nation (United States Department of Health and Human Services, 1996). Health educators seek to promote awareness and subsequent lifestyle changes that will enhance overall health of the individual. Despite all our efforts however, Americans still frequently engage in a variety of unhealthy behaviors (United States Department of Health and Human Services, 1997). As a sub-population, college students engage in some particularly high risk health behaviors (Fish, 1996; Comstock & Slome, 1973). In a recent study of college student health behavior, a third of the students were regular smokers, most reported excessive alcohol consumption, and most were sexually active, although few used condoms (Wiley, et al, 1996). A typical introductory college health course provides a brief overview of information concerning exercise and nutrition, personal hygiene, drug abuse, stress, sexually transmitted disease, and consumer health (Light, 1993). Although this information is valuable and may work to improve student health knowledge, research designed to test the efficacy of traditional health education courses suggests that we should not rely solely on traditional health education courses as our only vehicle for behavior change (Edwards & Dziuban, 1986). If it can be determined that an alternative or supplemental approach, such as the holistic wellness course under study, produces positive behavior change, health educators will have one more method with which to promote positive health behaviors.

VI. DELIMITATIONS

The study was delimited in the following ways:

1. The study was delimited to students who participated in a holistic wellness course at a small community college in the Southeast. during the winter and spring quarters of 1996.
2. The study was delimited to measuring one aspect of human activity - "wellness behavior."

VII. LIMITATIONS

The study was limited in the following ways:

1. There was no control over quality of wellness behaviors exhibited by students, or already exercised by students, at the time the study began.
2. The subjects who participated in the study were not confined or instructed to behave in any different way than they had prior to the beginning of the study; therefore, history, statistical regression, mortality, and maturation could not be controlled for and internal validity may be a concern.
3. The study was conducted at a small community college and used a small sample of convenience; therefore, the information gained cannot be directly generalized without adaptation to other populations and educational settings.

VIII. BASIC ASSUMPTIONS

The assumptions for this study are as follows:

1. The *TestWell®: Wellness Inventory – College Edition* can measure behavioral changes which influence positive health.
2. The *TestWell®: Wellness Inventory – College Edition* possesses content validity and reliability.
3. Students will be honest and accurate when responding to the *TestWell®: Wellness Inventory – College Edition*.

IX. RESEARCH QUESTIONS

The research questions for this study are listed as follows:

1. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory total scores as compared to their pre-test wellness inventory total scores?
2. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory physical dimension scores as compared to their pre-test wellness inventory physical dimension scores?
3. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory nutritional dimension scores as compared to their pre-test wellness inventory nutritional dimension scores?
4. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory self-care and safety dimension scores as compared to

their pre-test wellness inventory self-care and safety dimension scores?

5. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory environmental dimension scores as compared to their pre-test wellness inventory environmental dimension scores?
6. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory social awareness dimension scores as compared to their pre-test wellness inventory social awareness dimension scores?
7. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional awareness and sexuality dimension scores as compared to their pre-test wellness inventory emotional awareness and sexuality dimension scores?
8. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional management dimension scores as compared to their pre-test wellness inventory emotional management dimension scores?
9. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory intellectual dimension scores as compared to their pre-test wellness inventory intellectual dimension scores?
10. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory occupational dimension scores as compared to their pre-test wellness inventory occupational dimension scores?
11. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory spiritual dimension scores as compared to their pre-test wellness inventory spiritual dimension scores?

X. DEFINITION OF TERMS

For the purpose of this study, the following terms were defined:

Community College: A two-year institution of higher education offering a variety of programs, awarding the associate degree, occupational certificates, and a variety of other services to the community in which they are located. Students generally commute to campus and vary in age from approximately 17 to 70 (Cohen & Brawer, 1989).

Holistic Wellness Course: A holistic wellness course was the independent variable in this study. The course was an introductory college level course based on the conceptual framework of the National Wellness Institute's Wellness Model. The model contained the following six dimensions: occupational, physical, intellectual, emotional, social, and spiritual. The course was designed to create an appreciation for the wellness concept, and to promote a higher level of well-being among students. See Chapter VII for a thorough description of the course.

Students: Persons enrolled in college courses.

TestWell®: Wellness Inventory – College Edition: A wellness inventory created by the National Wellness Institute and published by Brown and Benchmark Publishers. The paper-pencil assessment has a total of 100 questions with ten questions in each of the following categories:

- ① Physical Fitness
- ② Nutrition
- ③ Self-care and Safety
- ④ Environmental Wellness
- ⑤ Social Awareness

- ⑥ Emotional Awareness and Sexuality
- ⑦ Emotional Management
- ⑧ Intellectual Wellness
- ⑨ Occupational Wellness
- ⑩ Spirituality and Values

(See Appendix A for the *TestWell®: Wellness Inventory – College Edition*.)

Wellness: A widely used term to describe a process through which the individual becomes aware of and makes choices toward a more healthy existence which leads to greater quality of life and expressed well-being. (Floerchinger & Young, 1990).

Wellness Behavior: A widely used term to describe behaviors which lead to a greater quality of life and expressed well-being (Floerchinger & Young, 1990). According to the National Wellness Institute, “Wellness is a continuous, active process—not a single goal or achievement.” The National Wellness Institute Wellness Model focuses on wellness behaviors which fall into six different dimensions: occupational, physical, emotional, intellectual, social, and spiritual (National Wellness Institute).

Wellness Model: A model created by Hettler and others at the University of Wisconsin – Stevens Point National Wellness Institute. It emphasizes the inter-related importance of body, mind, and spirit. The model consists of six dimensions that are intertwined aspects of the whole person. The six dimensions are listed as follows:

1. Physical
2. Emotional
3. Social
4. Vocational

5. Intellectual
6. Spiritual

(Hettler, 1980)

XI. DATA COLLECTION

The study took place at a small community college in the Southeast.. The purpose of the study was to determine the effect of a holistic wellness course on student wellness behaviors. A quasi-experimental pre-test/post-test control group design was used to assess the effect of the course on students' wellness behaviors. The *TestWell®: Wellness Inventory - College Edition* was the instrument used in the study to measure these changes.

XII. SUMMARY

This chapter introduced the study by providing an introduction, chapter overview, statement of the problem, purpose of the study, need for the study, delimitations, limitations, basic assumptions, research questions, definitions of terms and data collection section.

The remaining chapters of the study address the following:

CHAPTER II contains a review of the literature pertaining to health education and its more popular models for behavior change, the origins of the wellness concept, a description of the National Wellness Institute's wellness model, information related to wellness in higher education and at the community college, and a discussion of available research regarding holistic wellness courses in higher education.

CHAPTER III describes the research methods and procedures used in the study. The study sought to determine the effects of a holistic wellness course on student wellness behaviors. A quasi-experimental pre-test/post-test control group design was used to

assess the effect of the course on students' wellness behaviors. The *TestWell®: Wellness Inventory - College Edition* was the instrument used in the study to measure these changes. This study also serves to guide the future development of holistic wellness courses at other colleges.

CHAPTER IV contains an analysis and discussion of the data. A description of the sample is provided along with an analysis of pre-test scores, mean improvement scores as compared to zero, and a between group comparison of means for the improvement scores.

CHAPTER V reports the findings, conclusions and recommendations of the study. The chapter begins with a summary of the study and a discussion of the results as they relate to current theory. Non-hypothesized findings, general conclusions, and recommendations for further research are also discussed.

CHAPTER VI summarizes the study and is written in the form of a journal article to be submitted for publication.

CHAPTER VII provides information for those who wish to create a holistic wellness course. The chapter includes a background for the study, course materials, and student evaluation information.

CHAPTER II

REVIEW OF LITERATURE

I. INTRODUCTION

There is a tremendous amount of literature related to the concepts of health education and wellness. This body of information has been accumulating since ancient culture began to record information concerning health practices. Ancient Summarian and Chinese texts contain recommendations for health maintenance. Classical Greek mythology promoted the idea that wise living practices would lead to good health. The Greek goddess Hygeia promoted the preservation of good health by advocating healthy lifestyle practices. Her torch still burns today as the wellness concept is implemented in business and educational settings across the United States and abroad.

II. OVERVIEW

This review of literature will overview the following six areas as they relate to the study:

- III. Health Education and Its Popular Models for Behavior Change
- IV. Origins of Wellness
- V. The National Wellness Institute's Wellness Model
- VI. Wellness in Higher Education and at the Community College
- VII. Goals and Content of a Holistic Wellness Course
- VIII. Available Research on Holistic Wellness Courses in Higher Education
- IX. Summary

III. HEALTH EDUCATION AND ITS POPULAR MODELS

The major goal of health education is to have a favorable impact on the health of the individual (Fodor & Dalis, 1981). Health behavior research suggests that merely requiring a student to memorize health related facts does little to promote positive behavior change. The health educator's greatest challenge continues to center on prompting actual behavior change and helping individuals cross the health-action gap. This task is exacerbated by the fact that health is still a fledgling discipline with few theories and models to call its own (Glanz, et al, 1990).

OVERVIEW

The following segment of the review of literature will include a description and brief critique of the following models:

1. The Health Belief Model (HBM)
2. The Theory of Reasoned Action Model
3. The Precede-Proceed Model
4. The Wellness Model

MODELS FOR BEHAVIOR CHANGE

Since the mid-1970's health researchers have focused their attention on motivational factors as they relate to health behaviors (Dennison, 1974). Their research led to an investigation of the role that attitudes play in influencing health behavior change.

Two of the most well known attempts to explain the motivational process behind certain health behaviors were Hochbaum's Health Belief Model (Hochbaum, 1970; Hochbaum, 1958) and Fishbein's Theory of Reasoned Action Model (Fishbein & Ajzen, 1975).

THE HEALTH BELIEF MODEL

The HBM is probably the most widely referred to model within the health profession. It was created in 1958 by Hochbaum and others at the U.S. Public Health Service. Hochbaum initially wanted to know why, in the midst of a tuberculosis epidemic, people were not taking advantage of free screens? He began by focusing on those who did respond to the free screen offers and ended up with a theory that focused on the forces that drive as well as inhibit behavior. Hochbaum found that the following four factors play a role in health behaviors:

1. perceived susceptibility: an individual's perception of how at risk they might be for experiencing a certain health condition or problem.
2. perceived severity: an individual's perception of the seriousness of a certain health condition. What kind of consequences will be involved in suffering from this condition?

[Perceived susceptibility and severity are often combined to form a perceived threat.]

3. perceived benefits: an individual who experiences a certain level of perceived threat will be moved to act, but their specific course of action will depend upon their perception of how much an action will actually benefit them. They might question what, if any, action will curb the threat.

4. perceived barriers: Anything that would deter action toward a positive health behavior would be considered a barrier. The individual may engage in a nonconscious cost-benefit analysis. Positive health action is weighed against any negatively perceived costs it might require. Individuals might consider change to be unpleasant, inconvenient, time-consuming or costly. For example, an individual who desires to quit smoking may be deterred due to their fear of weight gain.

In general, susceptibility and severity combined influence change. Then perception of benefits helps the individual to choose a specific health behavior (Rosenstock, 1974). A diagram of the Health Belief Model is shown in Figure 2.1.

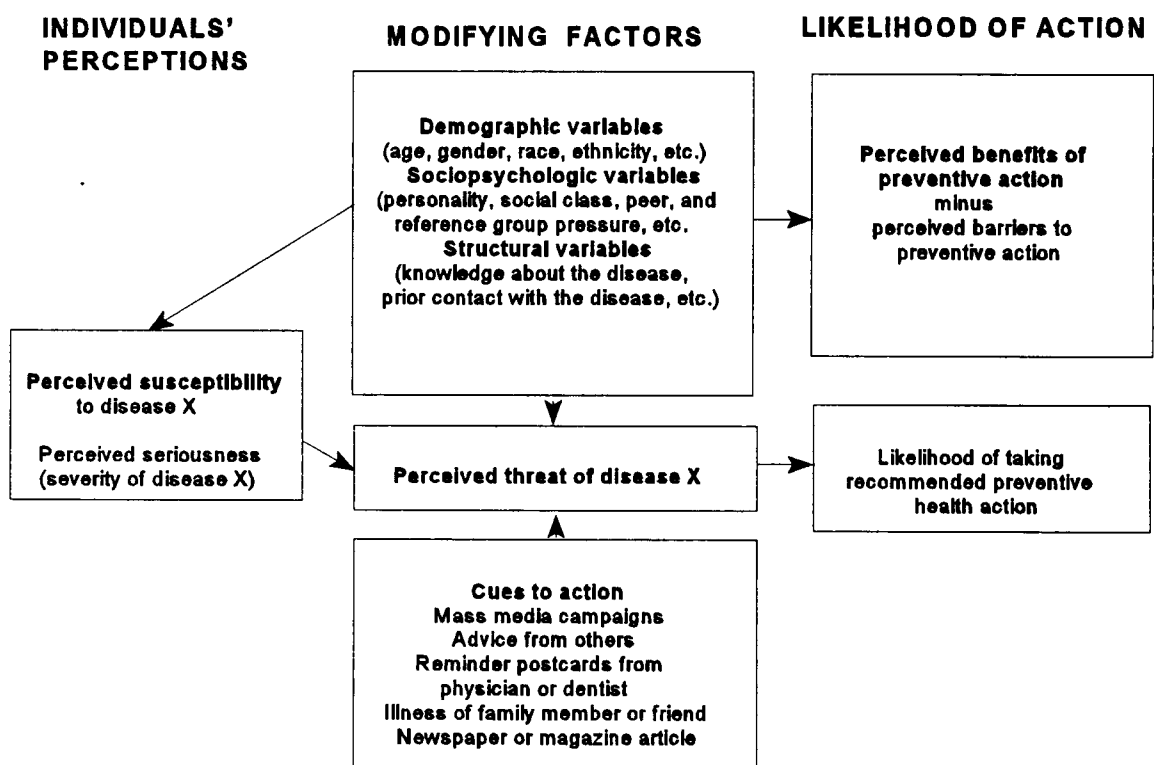


Figure 2.1 – The Health Belief Model

OTHER VARIABLES PERTAINING TO THE HEALTH BELIEF MODEL

It is important to note that other variables were later found to play a role in Hochbaum's original model. Demographic and sociopsychological variables such as an individual's level of educational attainment could affect perceptions and therefore indirectly influence health behaviors.

In 1977 social psychologist Albert Bandura introduced his concept of self-efficacy. He theorized that an individual must believe they are capable of the health behavior change or goals in question. For example, the smoker must believe they are capable of quitting (Bandura, 1977).

In combining The Health Belief Model and Bandura's findings it is clear that for health behavior change to occur the individual must:

1. feel threatened (perceived susceptibility and severity)
2. not experience an excess of overwhelming barriers
3. believe change will be beneficial
4. believe that change will be possible.

CRITIQUE OF THE HEALTH BELIEF MODEL

The HBM enjoys a great deal of support and seems to be an effective model for behavior change (Becker, 1974). However, it is not without its limitations. A brief list of the model's limitations and weaknesses follows:

1. When Hochbaum created his model in 1958, he was concerned with simple health behaviors like taking advantage of free screens. In the 1990's we are dealing more with long term life-style behavior changes such as eating habits and smoking cessation. His original model may not adequately address these more complex behavior problems.
2. The HBM is based on the assumption that beliefs play the major role in health behavior change. Other theorists suggest that additional individual and socioenvironmental factors should be addressed.

The model only addresses the first of five factors of an ecological perspective on health. The factors are as follows:

1. intrapersonal factors
2. interpersonal
3. institutional
4. community
5. public policy

(McLeroy , et al, 1988)

3. The HBM focuses on specific behaviors which may simply be symptoms of greater lifestyle problems and it does not provide a holistic framework for change.

THE THEORY OF REASONED ACTION MODEL

The Theory Of Reasoned Action is a value expectancy theory model. It serves to predict a person's intention to perform or not perform certain behaviors. Value expectancy theory helps to identify issues that affect individual decision making. It stems from sociopsychological theory that attempts to link attitudes, beliefs, and behaviors. The basic premise is that people choose behaviors that will provide them with the maximum amount of benefit and the minimum amount of negative consequence.

Fishbein and Ajzen (1975) created their Theory of Reasoned Action to predict behavior in well-defined settings. They view intention as the key to behavior change. Intention is comprised of two components:

- (1) attitude toward the behavior
- (2) influence of the social environment or subjective norms.

Attitudes are thought to be influenced by both an individual's belief that an outcome will occur and by that individual's evaluation of the expected outcome. For example, an individual must believe that a change in eating behavior will bring about weight loss and they must desire and value weight loss as an outcome. A diagram of the model is shown in Figure 2.2.

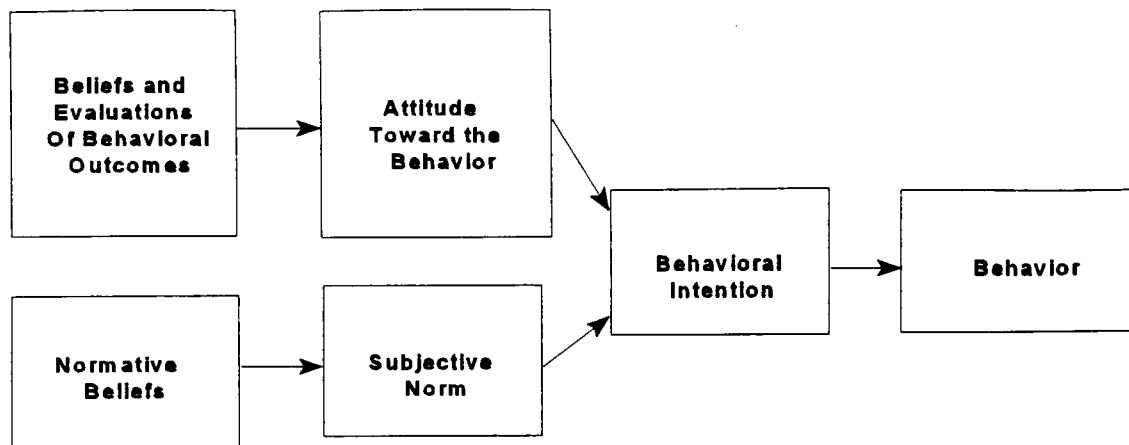


Figure 2.2 – The Theory of Reasoned Action Model

This model views behavior as the endpoint on a chain of psychological events. The individual begins by assessing the possible consequences of behaviors and is then influenced by attitude and subjective norms. Subjective norms are based on normative beliefs and attitudes. They may be based on beliefs about certain behaviors or influences from those around us. Considering these factors, behavioral intention is often assessed as either likely or unlikely. For example, in advocating condom use as a positive health behavior, the subject's attitude toward the act may play a role in their response. If they believe condom use is unacceptable then they may never intend to act. Subjective norms may also play a role, if most of the subject's peer group does not use condoms then the subject is less likely to use them. The subject will also be less likely to use condoms if they believe that the behavioral outcome will take away from the sexual pleasure they hope to experience. This example might be shown as in Figure 2.3.

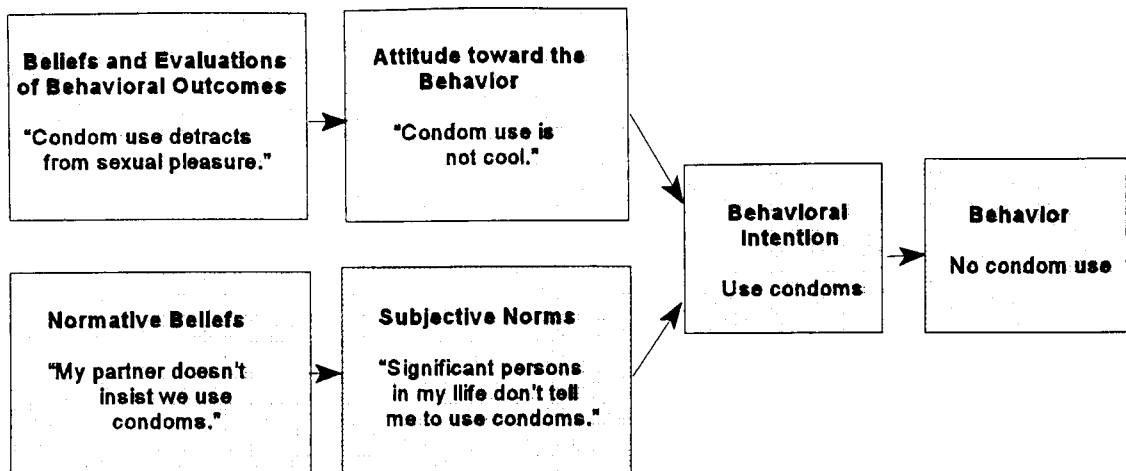


Figure 2.3 – The Theory of Reasoned Action Model Example

CRITIQUE OF THE THEORY OF REASONED ACTION MODEL

The Theory of Reasoned Action Model seems to be a good predictor of behavior. However, it is not without its limitations. Like the HBM it focuses on specific behaviors which may simply be symptoms of greater lifestyle problems and it does not provide a holistic framework for change.

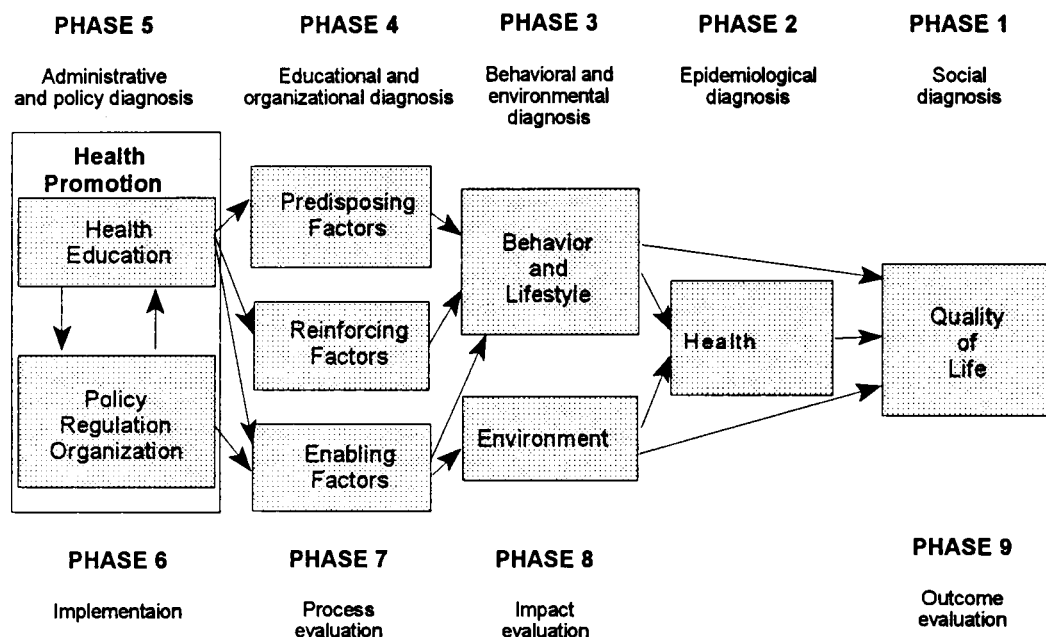
CRITIQUE OF THE HEALTH BEHAVIOR CHANGE MODELS

Both the Health Belief Model and the Theory of Reasoned Action Model would be useful for addressing behavioral change within the confines of a greater conceptual framework. However, when planning a health education intervention course we must be careful not to address behaviors individually with a piecemeal approach (Fodor and Dalis, 1981). These popular models for behavioral change address core issues in health education, but they do not provide us with a framework or philosophical foundation for change. They do not provide an adequate cornerstone for an introductory college level course dealing with wellness or health behaviors.

PRECEDE-PROCEED MODEL

The Precede-Proceed Model is a health education planning model. It focuses on intervention and evaluation of health education programs. PRECEDE is an acronym for Predisposing, Reinforcing and Enabling Causes in Educational Diagnosis and Evaluation. PROCEED is an acronym for Policy, Regulatory and Organizational Constructs in Educational and Environment Development (Green & Kreuter, 1991). The model is shown in Figure 2.4.

PRECEDE



PROCEED

Figure 2.4 – Precede-Proceed Model

The Precede–Proceed Model provides steps for planning, implementation and evaluation of health education programs. The PRECEDE and PROCEED processes work together as the framework forces the planner to begin with the end in mind. The planner must focus on the consequences of behavior and then work backward to find the original causes of behavior. The model consists of nine phases as follows:

Phase 1 – Social Diagnosis: The quality of life of the target population is assessed. General problems and concerns of the group members surface. For example, the community may have problems with social issues like crime and violence.

Phase 2 – Epidemiological Diagnosis: The planner must identify the health problems associated with the quality of life. Epidemiological data should be gathered so the community's health status can be assessed. For example, high rates of drug addiction may play a role in the community's crime problem.

Phase 3 – Behavioral and Environmental Diagnosis: This phase attempts to identify specific health-related behaviors as they are linked to overall health problems. For example, excessive alcohol use could be linked to addiction in the community.

Phase 4 – Educational and Organizational Diagnosis: In this phase the factors that affect behaviors are identified. This model focuses on the following three types of factors:

1. *Predisposing factors:* These are factors that provide motivation for behaviors. They include knowledge, beliefs, attitudes and values.

2. *Enabling factors*: These factors allow the individual to achieve their desired goals. Enabling factors center around personal skills and community resources.
3. *Reinforcing factors*: These factors provide reward and incentive for continuing positive behaviors.

Phase 5 – Administrative and Policy Diagnosis: The administrative aspect of this phase consists of the following three steps:

1. Assessment of needed resources.
2. Assessment of available resources.
3. Assessment of barriers to implementation.

Policy diagnosis includes an assessment of local policies and political forces.

Phase 6 – Implementation: This is the phase where PRECEDE and PROCEED merge and the program actually takes place.

Phase 7 – Process Evaluation: This first evaluation area focuses on the process used to plan.

Phase 8 – Impact Evaluation: This evaluation phase assesses the immediate impact the program had on participants. It often focuses on attitude and behavior change as well as knowledge gained.

Phase 9 – Outcome Evaluation: This final phase involves long-term effects of a program and it may take years to complete.

The PRECEDE-PROCEED model provides a very thorough framework for planning and evaluation of health education programs. Although it was created for health program planning in the community it could easily be adopted for intervention in educational settings. The model's only short-coming is that as a planning model it focuses mainly on process and not content. The model could be useful in creating an introductory college level course. However, the model holds no "philosophical foundation" for a course to rest upon.

A SUMMARY OF MODELS

Health education seeks to educate individuals concerning positive health practices. One of the great challenges the health educator is faced with centers around prompting health behavior change. Health educators hope that health education courses impact behavior and attitudes as well as knowledge. Although a number of studies provide empirical evidence that support the efficacy of health education courses, there is little available information that connects models or frameworks to these successful courses.

Existing health behavior change models like The Health Belief Model and The Theory of Reasoned Action Model seem to effectively predict and describe factors in behavioral change. However, they do not provide a holistic framework or philosophical foundation on which an introductory college level course can be based.

Planning models like the PRECEDE-PROCEED model provide an excellent structure for the creation, implementation, and evaluation of specific health interventions within the community setting. The steps within the model might even provide a framework for specific health interventions in educational settings. However, the model focuses mainly

on process and provides little direction in terms of content. In addition, the PRECEDE-PROCEED model provides no philosophical foundation for a college level course related to wellness or health behavior change to rest upon.

IV. ORIGINS OF WELLNESS

Halbert Dunn was the first to openly promote the concept of “wellness ideology.” He spoke not only of personal health, but of individuals maximizing their potential in all areas of their lives (Dunn, 1961). His ideas have set the foundation for other wellness enthusiasts.

One such enthusiast, Ardell (1988) has published a number of books on the subject of wellness. He views wellness as a positive lifestyle approach to health and focuses on the following five areas:

1. Fitness
2. Nutrition
3. Stress Management
4. Responsibility
5. Environmental Sensitivity

Ardell’s approach to wellness emphasizes the unique needs of individuals and he advocates creating individualized wellness plans. The significance of the connection between the body, mind, and spirit is woven throughout his writings. In addition, his approach also advocates a positive attitude toward all areas of living, including an integrated lifestyle.

Elsenrath (1989), describes wellness as, “a multidimensional process that includes components of physical health, psychological health, and social support, all of which contribute to the development and maintenance of an individual’s self responsibility for wellness, personal accountability for lifestyle, and behavior choices.” Like other wellness theorists, Elsenrath views wellness as a process in which we are continually growing and changing in all areas of our lives.

Hettler (1980), promoted wellness as a process by which the individual can become more aware of their lifestyle habits and then make choices for a healthier and more successful existence. Hettler was one of the founders of the National Wellness Institute at University of Wisconsin - Stevens Point where a comprehensive wellness model was developed. This model addresses the development of the whole person and consisted of the following six dimensions:

1. Physical
2. Emotional
3. Social
4. Spiritual
5. Intellectual
6. Occupational / Vocational

This model is described with more depth in its own section of this chapter.

Hettler and his associates at the National Wellness Institute also created The Lifestyle Assessment Questionnaire (LAQ). This assessment was originally a paper and pencil

questionnaire that assessed eleven components within the overall six wellness dimensions. The questionnaire is now available in a computer version. It encourages individuals to make positive choices for a healthier existence. The *TestWell®: Wellness Inventory – College Edition* used in this study is a derivative of the original LAQ.

Assessment of wellness behaviors has been closely tied to the original health risk appraisals created by health educators. Many theorists have neglected to note any significant distinguishing differences between health and wellness. Although many view health as a concept comprised of physical, social, psychological, emotional, and spiritual components, they see wellness as taking the process a step further. High level wellness seems to result from integration and balance of these interrelated components. Wellness creates an enthusiasm and zest for life (Greenberg, 1985). An individual must assess and become aware of their present lifestyle behaviors, and then they must make personal choices that will move them toward a more successful existence (Floerchinger & Young, 1990).

In their publication *The Wellness Workbook*, Travis and Ryan (1981) emphasize wellness as a personal state that can exist regardless of the individuals' health. They contend that the "well" person may not necessarily be young, vigorous, physically fit, or even free from illness. We can pursue wellness while being disabled, diseased, and imperfect. From their vantage point, wellness is more about self love, self responsibility, awareness, education, and growth.

The common elements of all these wellness theorists are listed as follows:

1. Wellness is a process that requires self responsibility
2. Wellness is multidimensional (ie: not only physical fitness or freedom from illness disease).
3. Optimal functioning and a more successful existence are the end results of wellness
4. Individuals need to become aware of, and make choices toward a healthier existence

V. THE NATIONAL WELLNESS INSTITUTE'S WELLNESS MODEL

One of the most commonly accepted versions of the wellness model consists of six dimensions that are intertwined aspects of the whole person (Hettler, 1984). The dimensions are listed as follows:

1. *Spiritual* dimension involves seeking meaning and purpose in human existence. It involves encouraging seeking answers to philosophical questions such as: "Why am I here?" and "What is life all about?" For some, organized religion provides these answers.
2. *Social/Environmental* dimension involves the improvement of personal skills. This includes the ability to interact with others, both family and community, in a positive manner. It encourages awareness of our community, state, nation and the planet's environmental resources.
3. *Emotional* dimension emphasizes an awareness and acceptance of one's feelings. Emotional Wellness includes the degree to which one feels positive and enthusiastic about oneself and life.

4. *Intellectual* dimension encourages each of us to actively seek out new experiences; to be creative in our thought processes and to allow our minds to be stimulated. An intellectually well person takes advantage of classroom and cultural activities, but goes beyond the classroom and experiences other human and learning resources.
5. *Physical* dimension encourages cardiovascular flexibility and strength. Knowledge about food and nutrition, however, are also just as important as exercise. Physical wellness discourages the use of alcohol, tobacco, and other drugs. It emphasizes a balance between nutrition and exercise.
6. *Vocational* dimension involves preparation for the world of work. This development may be directly related to one's values and attitudes.

(Ardell, 1988)

The Wellness Model advocates a holistic non-piecemeal approach. It focuses on empowering individuals to live up to their fullest potential in all areas of their lives. The basic underlying assumptions of the wellness concept can be summarized as follows:

1. Individuals are unique entities, who must develop a healthful lifestyle that fulfills their own personal needs and priorities.
2. The wellness concept implies a positive attitude and approach toward all areas of living.
3. Wellness advocates a coordinated, integrated and balanced lifestyle.

(Ardell & Langdon, 1989)

The Wellness Model seems to work as a foundation for health education and health promotion programs (Sivik, et al., 1992; Watts, et al., 1992; Hettler, 1980). It advocates self-responsibility and unlike other models it is preventative as opposed to reactionary.

The Wellness Model also provides a holistic understructure that will support a college level course. The model allows for a focus on individual student needs and advocates personal growth in all areas. It takes a positive approach emphasizing optimal functioning. When applied, the model often begins with individual self-assessment and goal setting. It can provide college students with lifelong tools for maintaining balance in all areas of their lives.

VI. WELLNESS IN HIGHER EDUCATION AND AT THE COMMUNITY COLLEGE

In an effort to outline strategies for improving our nations' health, the United States Department of Health and Human Services created the Healthy People 2000: National Health Promotion and Disease Objectives in 1990. This report outlined strategies for improving our nations' health by specifically working to:

1. increase the span of healthy life
2. reduce health disparities
3. increase access to health care and preventative service

(U.S. Department of Health & Human Services , 1990)

A key portion of this document focuses on the development of preventative strategies in order to raise awareness concerning health risk behaviors. Our health care focus needs to shift away from treatment to prevention. We must provide information that will enable individuals to make healthier lifestyle choices, learn skills in or to make appropriate changes, and develop health promoting institutional policies within our nation's institutions (Douglas, 1992).

In recent years, corporations in the United States have been devoting an increasing amount of their resources toward employee health promotion programs. They have found wellness to be a cost effective investment as healthy workers seem to be a more productive force. Yet parallel programs in higher education lag behind (Douglas, 1992). Universities and colleges are only now beginning to learn this fact from the experience of business and industry.

Development of wellness programs and courses in higher education can play an integral part in our nation's achievement of the Healthy People 2000 objectives. Higher education is a major socialization force in our culture and the academic mission of higher education provides a way to reach thousands of people (Edginton, et al, 1994). Typically part of the institution's mission focuses on creating and promoting a healthy environment for faculty, staff, and students. Many institutions of higher learning directly address issues of wellness in their statement of purpose. They seek to "educate the whole person" and to "improve the quality of life" among students. The creation of holistic wellness courses in higher education can play an important part in the delivery system necessary to achieve our nation's health goals.

THE COMMUNITY COLLEGE

The community college plays a unique role in our higher education system. Even in the early 1930's when the two year community college was referred to as the "junior college," these institutions were expected to meet the overall needs of the individuals within the community they served. This provision of services was especially important in rural areas where the community college might be the only source for meeting educational, vocational, cultural, and recreational needs (Cohen & Brawer, 1989). Even in suburban

and urban environments the community college may serve as a common link among community members and organizations.

Cohen and Brawer (1989) titled the second chapter of their famous book, The American Community College, "Students: Diverse Backgrounds, Purposes, and Outcomes." Most agree that the greatest challenge of the community college is in meeting the needs of its extremely diverse and ever changing population. Students not only vary in age, but they arrive on the community college campus with varying levels of preparedness and they seek to achieve a variety of outcomes (Tinto, 1975).

To complicate matters there has been a continuing boom in community college attendance. The community college attempts to provide something for everyone and their growth may be attributed to: participation of older "non-traditional" age students, proximity and accessibility, part-time attendance, high attendance by low-ability students, women, and minorities and more readily available financial aid. This diversity and growth has made the community college mission quite complex. Traditionally, the community college served to prepare individuals for vocational-technical careers and academic transfer, but now the community college has generally expanded its mission and services to meet community needs. Many two-year colleges serve as cultural and educational centers, especially in rural settings (Cohen & Brawer, 1989).

In 1991, the State University of New York at Albany and the New York State Education Department created a document titled, "Recommendations and Strategies for Addressing Comprehensive Health Issues on Two-Year College Campus" (Winter, et al., 1991). Thirty-seven professionals from 25 two-year colleges discussed health issues specific to the community college. The document they created looks to the community college to

play a vital role in the provision of information and the health education process within communities. The consortium hoped to increase preventative measures and increase awareness regarding high risk health behaviors. They believed the community college should, "empower students to educate themselves and, therefore, to create their own health destiny" (Winter, et al, 1991, 2). The first step in their plan required two-year colleges to educate the community about wellness behavior through formal classes and informal activities. As most community college professionals know, it is critical that institution goals are achieved within the classroom. Many students work full time and have families, they commute to school from varying distances and spend little to no time on campus outside of class.

The community college student is typically a commuter who is less likely to benefit from on campus seminars and educational programs which generally take place in the residence halls of four-year colleges (Boyer, 1987). Since the community college offers opportunities for life-long learning the student populations differs from that of the average four-year college or university student. For this reason it is imperative that community college professionals create classes that address and promote wellness oriented lifestyle habits and positive health behaviors (Youngblood, 1996).

VII. GOALS AND CONTENT OF A HOLISTIC WELLNESS COURSE

Lifestyle seems to be the key determinant in predicting longevity and well-being (Leafgren, 1986). Yet, we continue to live dangerously in our culture. We eat poorly, neglect regular exercise, experience extreme stress, and rely heavily on the use of alcohol and other drugs. Fifteen years ago the United States Public Health Service reported that at least 53% of deaths in the United States were linked to self-destructive and negligent

behaviors. Since then the percentage has steadily risen (United States Public Health Service, 1979). Our society has unsuccessfully attempted to "react" to these problems. The wellness concept offers a proactive approach with a focus on prevention (Hettler, 1984).

All too often traditional health promotion and education efforts have focused heavily on physical fitness alone (Chandler, Holden, & Kolander, 1992; Witmer & Sweeney, 1992). Wellness offers a holistic approach (Hettler, 1984). Wellness involves becoming aware of what it means to live a healthy lifestyle and maximize effectiveness physically, emotionally, socially, intellectually, spiritually, and vocationally (Leafgren, 1986; Patton, 1986).

According to the available literature, wellness programs and courses should be constructed with the following goals in mind:

1. The course should take a comprehensive approach (Chandler, 1992; Hettler, 1980).
2. The course should be established on a solid philosophical foundation (DeStefano & Harger, 1990).
3. Wellness concepts and their link to well-being should be conveyed (Robins, et al, 1992; Sarvela, et al, 1990).
4. Each individual's current state of wellness should be initially assessed and progress should be measured throughout (Breslow, et al., 1990; Leafgren, 1986).

5. An emphasis on developing responsibility for one's own wellness should be stressed (Ardell, 1977; Elsenrath, 1984; Travis, 1991).
6. Individuals should be educated as to what actions can be taken to improve their levels of well-being (Leafgren, 1986; Sarvela et al., 1990).
7. The course should serve to motivate individuals to make positive lifestyle changes (Youngblood, 1996; Gardner, 1993; Fodor & Dalis, 1981).
8. Social support and an environment that advocates wellness should be created (O'Donnell, 1989; Leafgren, 1986; Sarvela et al., 1990).

Attainment of the aforementioned goals depends heavily on course content and instruction. Since an effective wellness course should begin with assessment, content may be chosen based on student need and interest. An individualized goal setting approach could be taken, and ideally time would be allotted for addressing each dimension of the wellness model (Watts, et al, 1992). After assessment and goal setting has occurred, students must identify the negative consequences of their self-defeating behaviors. A greater awareness of behavioral consequences, and how they are being reinforced is essential in altering behavior (Correa, 1996).

Self-defeating and unhealthy behavior patters may be rooted in issues of self-worth (Branden, 1994). Efforts should be made to enhance self-esteem and locus of control so students feel capable of behavior change (Myers, 1996). Behavior patterns may also be rooted within the value system of each student. Values undergird many of the judgements and decisions we make (Kohlberg & Selman, 1972). Therefore, individual belief systems and their impact on behavior should be addressed. As students plan their individual

wellness strategies the process of change should be discussed with them. Social support for change should be created and maintained by use of group work or a buddy system. Wellness courses should always close with reflection, evaluation, and a retrospective look at the change process (Burns, et al, 1993).

VIII. AVAILABLE RESEARCH ON HOLISTIC WELLNESS COURSES IN HIGHER EDUCATION

In his book Health Behavior, Hochbaum (1970) addresses the well known "Health-Action Gap," and asserts that health knowledge does not necessarily constitute health behavior change. We may simply chose to reject health information or decide that we are immune to the consequences of negative health behaviors. Hochbaum also contends that:

"Much of the knowledge that we acquire is merely stored, so to speak, in our brain—it does not influence our decision and actions to any substantial extent, although we may demonstrate this knowledge in our conversations or in classroom examination questions." (p. 38)

Hochbaum continues with a discussion of "selective perception" and the idea that we will only attend to information that we find personally meaningful. Some traditional approaches to health education have focused mainly on providing information, yet we know information alone is often an ineffective means for promoting behavior change (Greenberg, 1989).

The wellness concept is a preventative approach that attempts to engage the individual and make health concepts personally meaningful by advocating self-assessment and self-awareness (Travis & Ryan, 1981). This holistic wellness model provides a framework that may be used to enhance existing health education efforts.

Since the 1980's wellness has become an increasingly popular area of study (Douglas, 1992). Holistic wellness courses have been created at a number of colleges and universities (National Wellness Information Resource Center, 1995). A few studies have focused on the effectiveness of these courses.

One such study done by Robins, et al. (1992) focused on the wellness knowledge and physical fitness of students who had taken a 16-week fitness/wellness course. The results of the study, which included 144 undergraduate students, indicated that the course improved students knowledge and levels of physical fitness.

A second study done by McClanahan (1990) focused on instructional strategies comparing an activity-based wellness course and a cognitive-based course. Both courses indicated improvement in wellness behaviors, but the activity-based course was found to be superior by improving post-test scores.

A third and most recent study was conducted by Murray (1996) at Middle Tennessee State University. Although Murray's design seemed flawed in that his experimental group was more than ten times the size of his control group, he found that an introductory health/wellness course was effective in changing health/wellness behaviors. The studies conducted by Robins (1992), McClanahan (1990), and Murray (1996) were similar to the present study in that they all utilized the same quasi-experimental pre-test / post-test design.

A fourth study conducted at Incarnate Word College in San Antonio, Texas, provides the only available qualitative study focusing on the implementation and evaluation of a holistic wellness course. Through use of interview, observation, and record review, Light (1995) describes course design and purpose, implementation, and development.

As well as can be determined there does not seem to be any available data concerning wellness courses at community colleges.

IX. SUMMARY

This literature review describes four popular models within health education. The Health Belief Model, The Theory of Reasoned Action Model, The Precede-Proceed Model and The Wellness Model are discussed. The origins of the wellness concept are described and a description of The National Wellness Institute's Wellness Model is provided. A section of this Review of Literature is devoted to describing the role of wellness in higher education and at the community college. Goals and content of a Holistic Wellness Course are discussed and the Review of Literature closes with a section describing available research on wellness courses in higher education.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

The purpose of this chapter is to describe the research methods and the instrument used to collect the data for this study. The process of data collection and analysis will also be discussed.

II. OVERVIEW

The purpose of this study was to determine the effect of a holistic wellness course on students' wellness behaviors. A wellness behavior inventory was utilized as a pre-test/post-test measure of students' wellness behavior change. This study took place at a small two-year community college located in the Southeast. The methodology used in the study is discussed in this chapter in the following sections:

- III. Description of the Course and Selection of the Sample
- IV. Instrumentation, Data Collection and Analysis
- V. Summary.

III. DESCRIPTION OF THE COURSE AND SELECTION OF THE SAMPLE

The study focused on a holistic wellness course at a small community college in the Southeast. The course under study was offered to students winter and spring quarters of 1996 as an elective for two hours of institutional credit. The purpose of the course was to introduce The National Wellness Institute's Wellness Model. The course also served

to expose students to a more holistic experiential view of well-being were they could apply wellness concepts to their own lives (see Chapter VII for a thorough description of the course). All students in the course chose the course as an elective and therefore the sample data were derived from a self-selected experimental group. A total of 63 students participated in the initial sections of the course. In order to assess changes in wellness behaviors a quasi-experimental pre-test/post-test control group design was utilized. The comparison group for the study consisted of 60 students who were enrolled in an introductory psychology course. All subjects had a choice to participate or decline involvement in the study. Verbal consent was obtained. The subjects were informed that their participation in the study would remain confidential and would in no way affect their grades for their respective courses.

Profile of the Population:

The college is an open admission institution, populated by a majority of first generation college students. The population is fairly rural, and more than 70% of the student population receives some form of financial aid. Approximately 45% of the students who entered in the fall of 1996 began by taking developmental course work in either math, reading, or English (Dalton College Office of Admissions and Records, 1997). The college is also a commuter campus with only 46% of the student population taking classes full-time. Students span a wide-range of ages with the average age at approximately 25 years old. Many students work full-time (49% of student population – 1995) and part-time (33% of the student population - 1995), and the college has always maintained a large night class program (30% of 1995 student enrollment was at night) (Dalton College Office of Admissions and Records, 1997).

IV. INSTRUMENTATION, DATA COLLECTION, AND ANALYSIS

Approval for the use of human subjects at the community college where the study took place was granted by the college's Dean of Academic Affairs. The study was certified as exempt from review by the Full Committee for Research Involving Human Subjects at The University of Tennessee-Knoxville (Form A). The *TestWell®: Wellness Inventory – College Edition* was used as a pre-class and post-class measure of wellness behaviors. The inventory was administered on the first and last day of class in both the experimental and control groups. A quasi-experimental pre-test/post-test control group design was used for this study.

TESTWELL®: WELLNESS INVENTORY – COLLEGE EDITION

The *TestWell®: Wellness Inventory – College Edition* was created by the National Wellness Institute in order to measure individuals' level of wellness. The present version used in the study was published in 1993 by Brown and Benchmark.

The inventory consists of 100 items that elicit information regarding individual wellness. The *TestWell®: Wellness Inventory – College Edition* contained the following ten subsections:

1. physical fitness
2. nutrition
3. self-care and safety
4. environmental wellness
5. social awareness
6. emotional awareness and sexuality

7. emotional management
8. intellectual wellness
9. occupational wellness
10. spirituality and values.

(A copy of the *TestWell®: Wellness Inventory – College Edition* may be found in Appendix A.)

Each subsection of the *TestWell®: Wellness Inventory – College Edition* contains ten items. Participants were asked to respond to the items and were given the following list of instructions:

Please write the number that identifies your response in the box to the left of each question.

Please respond to the statements using the following responses:

- 5....Almost always (90% or most of the time)
- 4....Very Often (approximately 75% of the time)
- 3....Often (approximately 50% of the time)
- 2....Occasionally (approximately 25% of the time)
- 1....Almost never (less than 10% of the time)

At the end of each section, add your response numbers and place the sum in the appropriate Section Total Box.

To calculate your *TestWell®: Wellness Inventory – College Edition* score, follow the instructions at the end of the questionnaire.

This instrument was chosen for the purpose of assessing wellness behaviors as defined by the National Wellness Institute's Wellness Model. The *TestWell®: Wellness Inventory – College Edition* was created by the professionals at the National Wellness Institute (University of Wisconsin-Stevens Point). The inventory and the holistic wellness course are based upon the same National Wellness Institute Wellness Model. Because the

TestWell®: Wellness Inventory – College Edition questions are directly linked to the framework, goals and content of the course it possesses inherent face validity and is a well-suited instrument for this study.

Researchers have used the *TestWell®: Wellness Inventory – College Edition* for similar studies and it has been found to be a reliable instrument for measuring wellness behaviors as defined by the National Wellness Institute. In a study conducted at Middle Tennessee State University the *TestWell®: Wellness Inventory – College Edition* was utilized in a pre-test/post-test design. The researcher computed Cronbach's coefficient alpha for both the pre-test and post-test. Coefficient alphas of 0.94 and 0.96 were obtained which indicate that the instrument is reliable (Murray, 1996).

In a second study conducted at Memphis State University, McClanahan used the *TestWell®: Wellness Inventory – College Edition* in a pre-test/post-test design which compared an activity-based wellness course with a cognitive-based wellness course. As part of the study McClanahan evaluated the content validity and reliability of the *TestWell®: Wellness Inventory – College Edition*. Factor analysis of the *TestWell®: Wellness Inventory – College Edition* was conducted and the instrument was found to be internally consistent with a test/retest correlation coefficient of .96 (McClanahan, 1990).

ADMINISTRATION OF THE *TESTWELL®: WELLNESS INVENTORY – COLLEGE EDITION*

Students participating in the holistic wellness course were asked to participate in the study. The *TestWell®: Wellness Inventory – College Edition* was initially administered on the first day of class and then was administered in the same class ten weeks later on the last day of class. The *TestWell®: Wellness Inventory – College Edition* was also administered to the comparison group of introductory psychology students on the first and

last day of class. The inventory is a self-scored instrument. Students were asked to use calculators to add their ten subscales scores in order compute a total score. The scores were then checked for accuracy.

ANALYSIS OF THE *TestWell®: Wellness Inventory – College Edition* DATA

After the *TestWell®: Wellness Inventory – College Edition* inventories were administered a second time at the end of the course. Individual student pre-test and post-test score differences were tabulated. The overall mean difference or improvement in pre-test vs. post-test scores was calculated for both the experimental and control groups. The mean difference or improvement in pre-test vs. post-test scores for each of the ten subscale scores was also calculated. A t-test for two independent samples was run on the improvement scores to see if there were differences between the mean scores of the students who participated in the holistic wellness course and those who did not. All statistical tests were performed using $\alpha=.05$ level of significance.

V. SUMMARY

This study focused on a holistic wellness course at a small community college in the Southeast. All students in the course chose the course as an elective and therefore the sample data was derived from a self-selected experimental group. A total of 63 students participated in the initial sections of the course. In order to assess changes in wellness behaviors a quasi-experimental pre-test/post-test control group design was utilized. The comparison group for the study consisted of 60 students who were enrolled in an introductory psychology course. The *TestWell®: Wellness Inventory – College Edition* was used as a pre-class and post-class measure of wellness behaviors. The overall mean difference or improvement in pre-test vs. post-test scores was calculated for both the

experimental and control groups. The mean difference or improvement in pre- vs. post-test scores for each of the ten subscale scores was also calculated. Independent sample t-tests were run on the improvement scores.

CHAPTER IV

ANALYSIS OF THE DATA

I. INTRODUCTION

The purpose of this chapter is to present and analyze the data in relation to the following research questions:

1. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory total scores as compared to their pre-test wellness inventory total scores?
2. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory physical dimension scores as compared to their pre-test wellness inventory physical dimension scores?
3. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory nutritional dimension scores as compared to their pre-test wellness inventory nutritional dimension scores?
4. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory self-care and safety dimension scores as compared to their pre-test wellness inventory self-care and safety dimension scores?

5. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory environmental dimension scores as compared to their pre-test wellness inventory environmental dimension scores?
6. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory social awareness dimension scores as compared to their pre-test wellness inventory social awareness dimension scores?
7. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional awareness and sexuality dimension scores as compared to their pre-test wellness inventory emotional awareness and sexuality dimension scores?
8. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional management dimension scores as compared to their pre-test wellness inventory emotional management dimension scores?
9. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory intellectual dimension scores as compared to their pre-test wellness inventory intellectual dimension scores?
10. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory occupational dimension scores as compared to their pre-test wellness inventory occupational dimension scores?

11. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory spiritual dimension scores as compared to their pre-test wellness inventory spiritual dimension scores?

II. OVERVIEW

The chapter is organized as follows:

III. Description of the Sample

IV. Data Analysis

1. Pre-test Scores
2. Mean Improvement Scores as Compared to Zero
3. Between Group Comparison of Means for the Improvement Scores
4. Gender Differences
5. Additional Analysis of Post-test Scores for Physical Fitness and Emotional Management.
6. Possibility for Error

V. Summary

III. DESCRIPTION OF THE SAMPLE

Data for this study were collected using the *TestWell®: Wellness Inventory – College Edition*. The *TestWell® Wellness Inventory – College Edition* served as a pre-test and post-test instrument and was given to 125 students at a community college in the Southeast. Of the 125 students one was removed from the study because the subject's scores indicated that he or she had not correctly filled out the response sections of the

instrument. Another student was found to be a member of both the experimental and the control group and was removed from the study for this reason. Consequently, data collected from 123 students were analyzed. Sixty-three of the subjects participated in the holistic wellness course and served as the experimental group. The 60 students who did not take the course served as the comparison group.

Table 4.1 shows that the sample consisted of 83 females and 40 males. Although, 67.5% of the sample was female, this percentage is not all that different from the population of the college where 62% of the students are females. Table 4.1 also shows that of the 123 subjects, 117 were white, 3 were black, 2 were Asian, and 1 subject was from the middle east. Sixty-five percent of the population consisted of white females. White males made up the second largest group with 30% of the total population. Therefore the sample population was 95% white. The racial make up of the sample population is generally consistent with the population of the college as a whole.

TABLE 4.1 NUMBER AND PERCENT OF SAMPLE BY RACE AND GENDER

RACE	GROUP	FEMALES		MALES		TOTAL	
		NUMBER	PERCENT OF TOTAL POPULATION	NUMBER	PERCENT OF TOTAL POPULATION	NUMBER	PERCENT
White	EXPERIMENTAL	47	65%	12	30%	117	95%
	COMPARISON	33		25			
Black	EXPERIMENTAL	3	2.4%	0	0	3	2.4%
	COMPARISON	0		0			
Hispanic	EXPERIMENTAL	0	0	0	0	0	0
	COMPARISON	0		0			
Asian	EXPERIMENTAL	0	0	0	1.6%	2	1.6%
	COMPARISON	0		2			
Middle Eastern	EXPERIMENTAL	0	0	1	.8%	1	.8%
	COMPARISON	0		0			
TOTAL		83	67.5%	40	32.5%	123	100%

IV. DATA ANALYSIS

All subjects completed the *TestWell®: Wellness Inventory – College Edition* twice. Once as a pre-test on the first day of class and then again as a post-test ten weeks later on the last day of class. Total pre-test scores and all subscale pre-test scores were subtracted from their corresponding post-test scores to compute improvement scores for each subject. The experimental group was comprised of students who participated in the holistic wellness course. The comparison group was comprised of students who did not participate in the holistic wellness course. All subscales and the total pre-test and post-test scores for both groups were found to be normally distributed.

Pre-test Scores:

Because the experimental group was a self-selected population of students who chose to sign up for the Holistic Wellness Course, t-tests were employed to compare the pre-test scores within the experimental and comparison groups. These data were analyzed to make sure that the pre-test scores of the two groups were not significantly different. If all of the scores were significantly higher among the experimental group this group might be viewed as having an unfair advantage. However, only the pre-test scores for two of the subscales, physical fitness and emotional management, were found to be significantly different ($p < .05$). In both cases the comparison group had the significantly higher pre-test scores. All other subscales and the total scores were not found to be statistically different. Table 4.2 reports an analysis of the pre-test scores which includes the mean, standard deviation, and an independent sample t-test which compares the means of the experimental and comparison group pre-test scores.

Table 4.2 Pre-test Descriptive Statistics & Independent Sample t-test for Equality of Means

TESTWELL® SUBSCALE	GROUP	MEAN	SD	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Physical Fitness	experimental	23.95	9.70	2.43	.017	4.048
	comparison	28.00	8.80			
Nutrition	experimental	29.08	7.90	1.12	.266	1.70
	comparison	30.78	8.96			
Self-Care & Safety	experimental	35.24	7.14	-.31	.761	-.39
	comparison	34.85	6.95			
Environmental Wellness	experimental	27.68	7.73	-.77	.445	-1.15
	comparison	26.53	8.83			
Social Awareness	experimental	34.60	6.03	1.07	.286	1.31
	comparison	35.92	7.52			
Emotional Awareness & Sexuality	experimental	44.78	3.77	.03	.977	2.22
	comparison	44.80	4.79			
Emotional Management	experimental	39.59	6.46	2.10	.038	2.33
	comparison	41.92	5.83			
Intellectual Wellness	experimental	34.70	7.70	.01	.991	1.83
	comparison	34.72	9.17			
Occupational Wellness	experimental	41.92	6.87	1.22	.226	1.61
	comparison	43.53	7.76			
Spirituality & Values	experimental	38.27	6.83	.69	.495	.91
	comparison	39.18	7.88			
Total Score	experimental	349.78	47.70	1.01	.317	9.21
	comparison	358.98	53.51			

NOTE: Experimental Group - n = 63

Comparison Group - n = 60

Maximum score on each subscale = 50 Maximum total score = 500

Gray text boxes – Indicate that a statistically significant difference was found between the experimental and comparison group on these two subscales.

Mean Improvement Scores Compared to Zero:

Subjects pre-test and post-test scores can range from 0-50 on each of the ten subscales and from 0-500 on their total score.

t-tests were conducted to see if the total improvement scores and subscale improvement scores for both the experimental and comparison groups differed significantly from zero.

Experimental Group:

The experimental group improved significantly on the total improvement score and all ten subscale improvement scores ($p < .05$). Table 4.3 reports descriptive statistics and a one-sample t-test for the improvement scores of the experimental group as compared to zero. The experimental group's total mean improvement score was 43.06 ($p < .000$) This significant improvement among the subjects in the holistic wellness course was supported by significant improvement on all of the ten subscales.

The mean experimental group improvement scores for the subscales are listed below in descending order.

<u>Subscale</u>	<u>Mean Improvement Score</u>
Physical Fitness	7.17
Nutrition	6.94
Environmental Wellness	3.53
Intellectual Wellness	5.70
Spitituality and Values	4.21
Social Awareness	3.83
Self-Care and Safety	3.78
Emotional Management	3.03
Occupational Wellness	2.97
Emotional Awareness and Sexuality	1.30
($p < .005$)	

Table 4.3 Descriptive Statistics and One-sample t-test for the Improvement Score of the Experimental Group Compared to Zero

TESTWELL® SUBSCALE	PRE-TEST MEAN	POST-TEST MEAN	MEAN IMPROVEMENT SCORES	STANDARD DEVIATION	t	p<
Physical Fitness	23.95	31.12	7.17	7.83	7.27	.000
Nutrition	29.08	36.02	6.94	7.24	7.61	.000
Self-Care & Safety	35.24	39.02	3.78	5.01	5.99	.000
Environmental Wellness	27.68	31.21	3.53	7.39	6.22	.000
Social Awareness	34.60	38.43	3.83	6.05	5.02	.000
Emotional Awareness & Sexuality	44.78	46.08	1.30	3.59	2.88	.005
Emotional Management	39.59	42.62	3.03	5.59	4.30	.000
Intellectual Wellness	34.70	40.40	5.70	6.25	7.24	.000
Occupational Wellness	41.92	44.89	2.97	6.40	3.68	.000
Spirituality & Values	38.27	42.48	4.21	5.43	6.15	.000
Total Score	349.78	392.84	43.06	37.86	9.03	.000

NOTE: Experimental Group - n = 63

Gray text boxes – Indicate that a statistically significant difference was found between the experimental group as compared to zero on all ten subscales and the total score.

Comparison Group:

The total improvement score of the comparison group improved significantly from zero, and seven of the ten subscales also improved. The control group did not improve significantly from zero on the subscales of emotional management, intellectual wellness, and occupational wellness. Table 4.4 reports descriptive statistics and a one sample t-test for the comparison group as compared to zero.

Between Group Comparison of Means for the Improvement Scores:

Descriptive statistics for both the experimental (students who participated in the holistic wellness course) and comparison group (students who did not participate in the holistic wellness course) were calculated. Table 4.5 reports an analysis of the improvement scores which includes the mean, standard deviation, and t-test results. The table shows a greater level of improvement within the experimental group vs. the comparison group on all subscales in addition to the total improvement score. An analysis of the total improvement score shows the comparison group improving 13.78 points and the experimental group improving 43.06 points. This mean improvement score difference was further supported by conducting independent sample t-tests on all the subscale improvement scores in addition to the total improvement scores ($p < .05$).

The independent sample t-test comparing the between group mean improvement scores showed that the total improvement scores and nine of the ten subscale improvement scores between the experimental and comparison groups differed significantly. In analyzing the experimental vs. the comparison group, the only subscale improvement scores that were not found to be significantly different were the emotional awareness and sexuality subscale scores.

Table 4.4 Descriptive Statistics and One-sample t-test for the Improvement Score of the Comparison Group Compared to Zero

<i>TESTWELL®</i> SUBSCALE	PRE- TEST MEAN	POST- TEST MEAN	MEAN IMPROVEMENT SCORES	STANDARD DEVIATION	t	p<
Physical Fitness	28.00	29.58	1.58	4.37	2.81	.007
Nutrition	30.78	32.17	1.38	4.47	2.40	.020
Self-Care & Safety	34.85	36.07	1.17	3.52	2.57	.013
Environmental Wellness	26.53	28.83	2.30	4.06	4.39	.000
Social Awareness	35.92	37.68	1.77	4.84	2.83	.006
Emotional Awareness & Sexuality	44.80	45.71	.92	3.03	2.35	.022
Emotional Management	41.92	42.28	.37	3.39	.84	.405
Intellectual Wellness	34.72	35.72	1.00	4.58	1.69	.096
Occupational Wellness	43.53	43.78	.25	3.93	.493	.624
Spirituality & Values	39.18	40.48	1.30	4.25	2.37	.021
Total Score	358.98	372.77	13.78	18.94	5.64	.000

NOTE: Comparison Group - n = 60

Gray text boxes – Indicate that a statistically significant difference was found between the comparison group as compared to zero on seven of the ten subscales and the total score.

Table 4.5 Descriptive Statistics and One-sample t-test for the Improvement Score Between Groups

TESTWELL® SUBSCALE	GROUP	MEAN	SD	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Physical Fitness	experimental	7.17	7.83	-4.9	.000	-5.59
	comparison	1.58	4.37			
Nutrition	experimental	6.94	7.24	-5.15	.000	-5.55
	comparison	1.38	4.47			
Self-Care & Safety	experimental	3.78	5.01	-3.36	.001	-2.61
	comparison	1.17	3.52			
Environmental Wellness	experimental	3.53	7.39	-3.27	.001	-3.49
	comparison	2.30	4.06			
Social Awareness	experimental	3.83	6.05	-2.09	.039	-2.06
	comparison	1.77	4.84			
Emotional Awareness & Sexuality	experimental	1.30	3.59	-.64	.521	-.38
	comparison	.92	3.03			
Emotional Management	experimental	3.03	5.59	-3.21	.002	-2.67
	comparison	.37	3.39			
Intellectual Wellness	experimental	5.70	6.25	-4.77	.000	-4.70
	comparison	1.00	4.58			
Occupational Wellness	experimental	2.97	6.40	-2.86	.005	-2.72
	comparison	.25	3.93			
Spirituality & Values	experimental	4.21	5.43	-3.31	.001	-2.91
	comparison	1.30	4.25			
Total Score	experimental	43.06	37.86	-5.46	.000	-29.28
	comparison	13.78	18.94			

NOTE: Experimental Group - n = 63

Comparison Group - n = 60

Maximum score on each subscale = 50 Maximum total score = 500

Gray text boxes – Indicate that a statistically significant difference was found between the improvement scores of the experimental and comparison group on nine of the ten subscales and on the total score.

Gender Differences:

Descriptive statistics in regard to gender, including mean and standard deviation, are provided in Table 4.6 and Table 4.7. After analyzing these data, it seemed clear that gender did not play a significant role in the difference or improvement scores. There did not appear to be a need to investigate the role of gender any further.

Additional Analysis of Post-test Scores for Physical Fitness & Emotional Management.

As mentioned previously, the pre-test scores of two subscales had differed significantly. Further analysis of the two subscales for physical fitness and emotional management revealed that the corresponding post-test scores were not significantly different and the improvement scores for the comparison group on these two subscales were not significantly higher than those of the experimental group. Therefore, it appears that the comparison group started out with a higher mean score for both the physical fitness and emotional awareness and sexuality subscales. Both the experimental and comparison groups improvement scores showed significant improvement on the physical fitness scale with the comparison group improving approximately 1.58 points and the experimental group improving approximately 7.17 points. This larger improvement or improvement score of the experimental group brought their post-test mean up to the same level as the comparison group. For the emotional management subscale the comparison group did not significantly improve, but the experimental group did improve enough to bring their post-test mean up to the same level as the comparison group. Tables 4.8 and 4.9 report the descriptive statistics and independent sample t-tests which compare the means of the experimental and comparison group post-test and improvement scores on the physical fitness and emotional management subscales.

**Table 4.6 Descriptive Statistics and One-sample t-test for Gender Differences
-Experimental Group**

TESTWELL® SUBSCALE	GENDER	MEAN	STANDARD DEVIATION	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Physical Fitness	male	6.85	5.32	.17	.867	.41
	female	7.26	8.41			
Nutrition	male	4.54	6.15	1.35	.182	3.02
	female	7.56	7.43			
Self-Care & Safety	male	4.54	6.36	-.61	.543	-.96
	female	3.58	4.65			
Environmental Wellness	male	7.54	7.16	-.95	.344	-2.20
	female	5.34	7.46			
Social Awareness	male	3.08	6.65	.50	.621	.94
	female	4.02	5.94			
Emotional Awareness & Sexuality	male	1.69	4.84	-.35	.733	-.49
	female	1.20	3.25			
Emotional Management	male	2.46	4.39	.41	.683	.72
	female	3.18	5.90			
Intellectual Wellness	male	6.38	6.93	-.44	.661	-.86
	female	5.52	6.13			
Occupational Wellness	male	2.85	5.67	.08	.939	.15
	female	3.00	6.62			
Spirituality & Values	male	4.38	5.14	-.13	.896	-.22
	female	4.16	5.56			
Total Score	male	44.31	40.93	-.13	.895	-1.57
	female	42.74	37.46			

NOTE: males - n = 13 females - n = 50

**Table 4.7 Descriptive Statistics and One-sample t-test for Gender Differences
-Comparison Group**

<i>TESTWELL®</i> SUBSCALE	GENDER	MEAN	STANDARD DEVIATION	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Physical Fitness	male	2.00	4.28	-.68	.501	-.76
	female	1.24	4.48			
Nutrition	male	1.00	3.58	.91	.368	1.09
	female	1.70	5.11			
Self-Care & Safety	male	2.52	3.64	-1.53	.131	-1.69
	female	.061	3.04			
Environmental Wellness	male	3.33	4.44	-1.64	.106	-1.69
	female	1.45	3.57			
Social Awareness	male	.93	3.33	.49	.627	.70
	female	2.45	5.76			
Emotional Awareness & Sexuality	male	1.70	3.81	-1.13	.265	-1.01
	female	.27	2.04			
Emotional Management	male	.07	3.38	.40	.688	.36
	female	.61	3.43			
Intellectual Wellness	male	1.52	4.15	-.63	.532	-.75
	female	.58	4.94			
Occupational Wellness	male	.30	3.56	-.18	.859	-.18
	female	.21	4.26			
Spirituality & Values	male	.44	2.55	1.17	.246	1.25
	female	2.00	5.19			
Total Score	male	14.85	17.05	-.29	.773	-1.41
	female	12.91	20.57			

NOTE: males - n = 27 females - n = 33

Table 4.8 Post-Test and Improvement Score Descriptive Statistics & Independent-samples t-tests for Physical Fitness Subscale

TESTWELL® PHYSICAL FITNESS SUBSCALE	GROUP	MEAN	STANDARD DEVIATION	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Post-test Score	experimental	31.13	9.45	-.89	.373	-1.54
	comparison	29.58	9.71			
Improvement Score	experimental	7.17	7.83	-4.92	.000	-5.59
	comparison	1.58	1.37			

NOTE: Experimental Group - n = 63

Comparison Group - n = 60

Table 4.9 Post-Test and Improvement Score Descriptive Statistics & Independent-samples t-tests for Emotional Management Subscale

TESTWELL® EMOTIONAL MANAGEMENT SUBSCALE	GROUP	MEAN	STANDARD DEVIATION	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Post-test Score	experimental	42.62	5.29	-.33	.742	-.34
	comparison	42.28	5.98			
Improvement Score	experimental	3.03	5.59	-3.21	.002	-2.67
	comparison	.37	3.39			

NOTE: Experimental Group - n = 63

Comparison Group - n = 60

Possibility for Error:

The collected data demonstrates that the null hypothesis (A holistic wellness course will not have an effect on wellness behaviors) can be rejected. In order to avoid a type I error and reject a null hypothesis that is in fact true, Bonferroni's Adjustment, which involves dividing the number of t-tests run by the significance level of .05, was applied. Although multiple t-tests were conducted, Bonferroni's Adjustment assures that the data were still found to be statistically significant.

V. SUMMARY

An analysis of the sample data was presented in this chapter. The data were generated by administering the *TestWell® Wellness Inventory – College Edition* to 123 students at a community college in the Southeast. The *TestWell® Wellness Inventory – College Edition* consists of ten subscales and a total score. It was used as a pre-test/post-test, and the subjects' pre-test scores were subtracted from their corresponding post-test scores to compute improvement scores for each subject.

The data indicates that the experimental group exhibited a greater level of improvement than the comparison group on the total score and all ten subscales. An analysis of the total improvement score shows the comparison group improving at an average of 13.78 points while the experimental group improved at an average of 43.06 points. This relationship was statistically significant beyond the .0001 level.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

I. INTRODUCTION

The purpose of this chapter is to provide an overview of the significant findings of the study, discuss the implication of those findings as they relate to current theory, and to make recommendations for further research.

II. OVERVIEW

The chapter will be organized as follows:

- III. Summary
- IV. Findings
- V. Discussion of the Results
- VI. Non-hypothesized Findings
- VII. General Conclusions Drawn from the Findings
- VIII. Recommendations for Further Research

III. SUMMARY

The research questions for the study were:

1. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory total scores as compared to their pre-test wellness inventory total scores?
2. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory physical dimension scores as compared to their pre-test wellness inventory physical dimension scores?
3. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory nutritional dimension scores as compared to their pre-test wellness inventory nutritional dimension scores?
4. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory self-care and safety dimension scores as compared to their pre-test wellness inventory self-care and safety dimension scores?
5. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory environmental dimension scores as compared to their pre-test wellness inventory environmental dimension scores?
6. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory social awareness dimension scores as compared to their pre-test wellness inventory social awareness dimension scores?.

7. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional awareness and sexuality dimension scores as compared to their pre-test wellness inventory emotional awareness and sexuality dimension scores?
8. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory emotional management dimension scores as compared to their pre-test wellness inventory emotional management dimension scores?
9. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory intellectual dimension scores as compared to their pre-test wellness inventory intellectual dimension scores?
10. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory occupational dimension scores as compared to their pre-test wellness inventory occupational dimension scores?
11. Will a holistic wellness course bring about a positive change in students' post-test wellness inventory spiritual dimension scores as compared to their pre-test wellness inventory spiritual dimension scores?

The following null hypotheses were tested:

1. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory total scores as compared to their pre-test wellness inventory total scores.

2. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory physical dimension scores as compared to their pre-test wellness inventory physical dimension scores.
3. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory nutritional dimension scores as compared to their pre-test wellness inventory nutritional dimension scores.
4. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory self-care and safety dimension scores as compared to their pre-test wellness inventory self-care and safety dimension scores.
5. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory environmental dimension scores as compared to their pre-test wellness inventory environmental dimension scores.
6. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory social awareness dimension scores as compared to their pre-test wellness inventory social awareness dimension scores.
7. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory emotional awareness and sexuality dimension scores as compared to their pre-test wellness inventory emotional awareness and sexuality dimension scores.

8. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory emotional management dimension scores as compared to their pre-test wellness inventory emotional management dimension scores.
9. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory intellectual dimension scores as compared to their pre-test wellness inventory intellectual dimension scores.
10. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory occupational dimension scores as compared to their pre-test wellness inventory occupational dimension scores.
11. A holistic wellness course will not bring about a positive change in students' post-test wellness inventory spiritual dimension scores as compared to their pre-test wellness inventory spiritual dimension scores.

Subjects:

Data was collected from 123 community college students at a small community college in the Southeast. Sixty-three of the subjects participated in the holistic wellness course and served as the experimental group. Sixty students enrolled in an Introductory Psychology course served as the comparison group.

Instrumentation and Data Collection:

Data for the study were collected using the *TestWell®: Wellness Inventory – College Edition*. The *TestWell®: Wellness Inventory – College Edition* served as a pre and post test instrument. All subjects completed the *TestWell®: Wellness Inventory – College Edition* twice, once as a pre-test on the first day of class and then again as a post-test ten weeks later on the last day of class. Total pre-test scores and all subscale pre-test scores were subtracted from their corresponding post-test scores to compute improvement scores for each subject. All subscales and the total pre-test and post-test scores for both groups were found to be normally distributed. After improvement scores were calculated, t-tests were conducted to see if the total improvement scores and subscale improvement scores for both the experimental and comparison groups differed significantly from zero.

IV. FINDINGS

Experimental Group:

The experimental group improved significantly on the total improvement score and all ten subscale improvement scores ($p < .05$). The experimental group's total mean improvement score was 43.06 ($p < .000$). This significant improvement among the subjects in the holistic wellness course was supported by significant improvement on all of the ten subscales.

Comparison Group:

The total improvement score of the comparison group improved significantly from zero, and seven of the ten subscales also improved, but the changes were less dramatic than those of the experimental group. The control group did not improve significantly from

zero on the subscales of emotional management, intellectual wellness, and occupational wellness.

Between Group Comparison of Means for the Improvement Scores:

Descriptive statistics and t-tests were employed to compare the mean improvement scores for the experimental (students who participated in the holistic wellness course) and comparison group (students who did not participate in the holistic wellness course). The descriptive statistics showed a greater level of improvement within the experimental group vs. the comparison group on all subscales in addition to the total improvement score. An analysis of the total improvement score showed the comparison group improving 13.78 points and the experimental group improving 43.06 points. Independent sample t-tests comparing the mean improvement scores showed that the total improvement scores and nine of the ten subscale improvement scores between the experimental and comparison groups differed significantly. In analyzing the experimental vs. the comparison group, the only subscale improvement scores that were not found to be significantly different were the emotional awareness and sexuality subscale scores.

V. DISCUSSION OF THE RESULTS

The research questions posed focused on whether a holistic wellness course would have a significant effect upon each of the ten subscales and the total scores of the *TestWell® Wellness Inventory – College Edition*. Descriptive statistics and t-tests were conducted to compare the mean improvement scores for the experimental (students who participated in the holistic wellness course) and comparison group (students who did not participate in the holistic wellness course). The descriptive statistics showed a greater level of

improvement within the experimental group vs. the comparison group on all subscales in addition to the total improvement score. Independent sample t-tests comparing the mean improvement scores showed that the total improvement scores and nine of the ten subscale improvement scores between the experimental and comparison groups differed significantly. In analyzing the experimental vs. the comparison group, the only subscale improvement scores that were not found to be significantly different were the emotional awareness and sexuality subscale scores. According to the results, the holistic wellness course did have an effect on the physical wellness, nutritional wellness, self-care and safety, environmental wellness, social awareness, emotional management, intellectual wellness, occupational wellness, and spirituality and values dimensions of the students' wellness inventories.

Findings of the present study seem to support previous work done by Murray (1996) at Middle Tennessee State University. Using the *TestWell® Wellness Inventory – College Edition* as his instrument, Murray found that an introductory health/wellness course was effective in changing health/wellness behaviors. Although Murray's study seems to be the only study with a distinctly similar purpose to the present study, other studies conducted by McClanahan (1990), Robins, et al (1992) and Light (1995) share related findings.

McClanahan (1990) focused on instructional strategies, comparing an activity-based wellness course and a cognitive-based course. Both courses were found to improve wellness, but the activity-based course was found to be superior in improving post-test scores. Although instructional strategies were not the focal point of the present study,

McClanahan's findings may suggest a need for future studies which compare the efficacy of specific instructional strategies.

The study conducted by Robins and others (1992) focused on wellness knowledge and physical fitness levels of students who had taken a 16-week fitness/wellness course. Robins' study indicated that the course improved student knowledge and levels of physical fitness. Although the present study focuses on a holistic wellness course, students scores on the fitness subscale did improve.

Light's (1995) study was conducted at Incarnate Word College in San Antonio, Texas, and focused on the implementation and evaluation of a holistic wellness course. Although her study was entirely qualitative and descriptive in nature, Light did conclude that the Incarnate Word wellness course seemed to help students learn about themselves. Although the present study did not attempt to determine if students' self-awareness was improved as a result of the holistic wellness course, students' written responses on the course evaluation instrument indicated that the course helped them to learn about themselves (see Chapter VII - Student Evaluation Information).

VI. NON-HYPOTHESIZED FINDINGS

Ethnicity:

The ethnic background of the participants was initially analyzed for any potential influence on the results of the study. Although 95% of the sample population was comprised of white students, this percentage was in keeping with the campus population

in general and there were too few non-white students within the sample to draw any adequate conclusions about ethnicity.

Gender:

Since 67.5 % of the sample population was comprised of females, the scores of males and females were compared and statistically analyzed. A statistically significant difference between the scores of males and females was not found on the total score or on any of the subscales.

VII. GENERAL CONCLUSIONS DRAWN FROM THE FINDINGS

The general conclusion of the study was that a holistic wellness course did have an effect on students' wellness behaviors. Based on the findings of this study the following specific conclusions were drawn as they directly relate to the research questions:

1. A holistic wellness course did bring about a positive change in students' post-test wellness inventory total scores as compared to their pre-test wellness inventory total scores.
2. A holistic wellness course did bring about a positive change in students' post-test wellness inventory physical dimension scores as compared to their pre-test wellness inventory physical dimension scores.

3. A holistic wellness course did bring about a positive change in students' post-test wellness inventory nutritional dimension scores as compared to their pre-test wellness inventory nutritional dimension scores.
4. A holistic wellness course did bring about a positive change in students' post-test wellness inventory self-care and safety dimension scores as compared to their pre-test wellness inventory self-care and safety dimension scores.
5. A holistic wellness course did bring about a positive change in students' post-test wellness inventory environmental dimension scores as compared to their pre-test wellness inventory environmental dimension scores.
6. A holistic wellness course did bring about a positive change in students' post-test wellness inventory social awareness dimension scores as compared to their pre-test wellness inventory social awareness dimension scores.
7. A holistic wellness course did not bring about a positive change in students' post-test wellness inventory emotional awareness and sexuality dimension scores as compared to their pre-test wellness inventory emotional awareness and sexuality dimension scores.
8. A holistic wellness course did bring about a positive change in students' post-test wellness inventory emotional management dimension scores as compared to their pre-test wellness inventory emotional management dimension scores.

9. A holistic wellness course did bring about a positive change in students' post-test wellness inventory intellectual dimension scores as compared to their pre-test wellness inventory intellectual dimension scores.
10. A holistic wellness course did bring about a positive change in students' post-test wellness inventory occupational dimension scores as compared to their pre-test wellness inventory occupational dimension scores.
11. A holistic wellness course did bring about a positive change in students' post-test wellness inventory spiritual dimension scores as compared to their pre-test wellness inventory spiritual dimension scores. wellness inventories.

VIII. RECOMMENDATIONS FOR FUTURE RESEARCH

This section will address the following critical areas for future research:

1. The small number of studies available
2. The lack of research at the community college
3. Problems concerning study design
4. Sampling concerns
5. Concerns regarding course effectiveness and measuring wellness behavior change
6. Differences in instructional strategies

1. The small number of studies available:

Since there are only four published studies which focus on the efficacy of holistic wellness courses, it would seem that more research which focuses on the efficacy of holistic wellness courses in general is necessary.

2. The lack of research at the community college:

This is the first study of its kind to take place on a community college campus. The community college student is typically a commuter, who is often not the traditional college age. These students are more likely to work full-time and attend school part-time. These issues were not directly addressed by this study or any of the others that preceded it.

3. Problems concerning study design:

This study and the studies done by McClanahan (1990), Robins et al. (1992), and Murray (1996), were all conducted by using quasi-experimental pre-test/post-test control group design. Some researchers may question the internal validity of this design since there is little way of knowing how much taking the pre-test had an influence on post-test scores. In future studies, a more sophisticated design such as The Solomon Four Group Design might be used. This design combines the pre-test/post-test design with a post-test only design. It is almost as if two studies are being conducted at once, and therefore provides built in replication. Unlike the pre-test/post-test design alone, The Solomon-Four Group Design determines the effect that the pre-test might have on post-test scores (Rubinson & Neutens, 1987).

In addition to the direct design chosen for the study, other changes might improve the validity of these studies which focus on the efficacy of holistic wellness courses. A more sophisticated statistical analysis could be conducted if sample sizes were larger and more information was gathered from subjects. In this study, gender and ethnic origin were not found to have any significant impact on student scores. However, if additional information regarding age, income, SAT scores, motivation level or locus of control, health practices of the family of origin, etc. was available a more advanced technique like multiple regression could be used to analyze the influence of these other factors on wellness behavior change.

4. Sampling concerns:

In this study, and the studies conducted by McClanahan (1990) and Robins, et al. (1992), the sample sizes were relatively small as they focused on a particular course during a given semester or year. Murray's (1996) study seemed flawed in terms of sampling as his experimental group was ten times the size of his control group. In all of these studies the students in the experimental group are a self-selected population. Since these students choose to take the holistic wellness course, they might be more willing to make wellness behavior changes as compared to the control group students.

5. Concerns regarding course effectiveness and measuring wellness behavior change:

Light (1995) clearly addressed the fact that the qualitative and descriptive study conducted at Incarnate Word College serves only to describe the implementation and evaluation of their wellness course. The researchers make no attempt to measure specific wellness behavior changes. This study and those conducted by McClanahan (1990), Robins, et al.

(1992), and Murray (1996) do seek to assess course effectiveness by attempting to measure wellness behavior change. However, each of these studies measures wellness behavior change based on self-report utilizing a paper/pencil instrument. Although "actual behavior change" may not be a practical dependent variable to measure, self-report may not be as accurate. The other issue that is not addressed in any study to date, is the issue of "sustained behavior change" over time. Future studies may want to conduct follow up surveys a year after students have taken a holistic wellness course to see if the course had a long term effect.

6. Differences in instructional strategies:

The study conducted by McClanahan (1990) focused on instructional strategies comparing an activity based wellness course and a cognitive-based course. Although both courses seemed to improve wellness behaviors, the activity-based course was found to be superior in improving post-test scores. McClanahan's (1990) study raises the question of whether instructional strategy is a more significant determinant in effecting students' wellness behaviors than the content of a holistic wellness course. Further study would be required to identify the impact of teaching style and instructional strategy on student wellness behavior change.

CHAPTER VI

EPILOGUE

I. INTRODUCTION

This chapter is written in the form of a journal article to be submitted for publication. The purpose of the epilogue is to describe the wellness course and to summarize the findings of the study so that health educators may learn from and replicate it.

A HOLISTIC WELLNESS COURSE AT A COMMUNITY COLLEGE:

ITS EFFECT ON STUDENTS' WELLNESS BEHAVIORS

Abstract

During the winter and spring quarters of 1996, Dalton College implemented a two-quarter-credit-hour holistic wellness course, based on the University of Wisconsin - Stevens Point National Wellness Association's Wellness Model. This article serves to briefly describe the course and its effect on students' wellness behaviors. The TestWell®: Wellness Inventory – College Edition was used as a pre-class and post-class measure of wellness behaviors. A quasi-experimental pre-test/post-test control group design was used for this study.

II. COURSE DESCRIPTION

The University of Stevens Point National Wellness Institute Wellness Model

One of the most commonly accepted versions of the wellness model consists of six dimensions that are intertwined aspects of the whole person (Hettler, 1984). The model's dimensions are listed as follows:

1. *Spiritual*
2. *Social/Environmental*
3. *Emotional*
4. *Intellectual*
5. *Physical*
6. *Vocational.*

(Ardell, 1988)

The Wellness Model advocates a holistic non-piecemeal approach. It focuses on empowering individuals to live up to their fullest potential in all areas of their lives. The basic underlying assumptions of the wellness concept can be summarized as follows:

1. Individuals are unique and they must develop a healthful lifestyle that fulfills their own personal needs and priorities.
2. The wellness concept implies a positive attitude and approach toward all areas of living.
3. Wellness advocates a coordinated, integrated and balanced lifestyle.

(Ardell & Langdon, 1989)

Course Goals

Using the University of Wisconsin - Stevens Point National Wellness Institute Wellness Model as a theoretical framework and foundation, the main goals for the Dalton College Holistic Wellness Course are listed as follows:

Upon completion of the course students will be able to:

1. Apply the different dimensions of wellness to their own lives.
2. Identify and apply strategies for personal success such as motivation, goal setting, communication skills, values clarification, time and stress management.
3. Develop a sense of self-responsibility.
4. Develop a sense of community responsibility.

Text

Because the course goals were not cognitive or information based, a traditional text did not seem appropriate. The course instructor wished to find information directly related to all six areas of the wellness model, which students could apply in their daily lives. Greg Anderson's book *The 22 Non-negotiable Laws of Wellness* (Anderson, 1995) was chosen as a text to promote discussion and life application.

Course Structure

This two-credit-hour course met only twenty times over a ten week quarter. Approximately two and a half hours were devoted to each area of wellness. The course was reflective and discussion based, as students were required to fill out worksheets each week applying the dimensions of wellness to their daily lives.

Assignments

Along with the wellness life application worksheets, students were required to meet weekly with a class partner to discuss their progress toward their wellness behavior change goals. In addition, students were required to complete a one hour cultural immersion exercise and a three hour community service project.

III. EFFECT ON STUDENTS' WELLNESS BEHAVIORS

TESTWELL®: WELLNESS INVENTORY

The *TestWell®: Wellness Inventory* was created by the National Wellness Institute in order to measure individuals' levels of wellness. The present version used in the study was published in 1993 by Brown and Benchmark. The assessment consists of 100 items that illicit information regarding individual wellness. The inventory contained ten questions within each of the following ten subscales:

1. physical fitness
2. nutrition
3. self-care and safety
4. environmental wellness
5. social awareness
6. emotional awareness and sexuality
7. emotional management
8. intellectual wellness
9. occupational wellness
10. spirituality and values.

(National Wellness Institute, 1993)

Instrumentation and Data Collection:

A quasiexperimental pre-test/post-test control group design was used for the study. Data collected from 123 Dalton College students was analyzed. Sixty-three of the subjects participated in the Holistic Wellness Course and served as the experimental group. Sixty students who were enrolled in an Introductory Psychology course served as the comparison group. All subjects completed the *TestWell®: Wellness Inventory – College Edition* twice as a measure of wellness behavior. Once as a pre-test on the first day of class and then again as a post-test ten weeks later on the last day of class. Total pre-test scores and all subscale pre-test scores were subtracted from their corresponding post-test scores to compute improvement scores for each subject. All subscales and the total pre-test and post-test scores for both groups were found to be normally distributed.

Mean Improvement Scores Compared to Zero:

Subjects pre-test and post-test scores can range from 0-50 on each of the ten subscales and from 0-500 on their total score. t-tests were conducted to see if the total improvement scores and subscale improvement scores for both the experimental and comparison groups differed significantly from zero.

Experimental Group:

The experimental group improved significantly on the total improvement score and all ten subscale improvement scores ($p < .05$). Table 6.1 reports descriptive statistics and a one-sample t-test for the improvement scores of the experimental group as compared to zero. The experimental group's total mean improvement score was 43.06 ($p < .000$). This significant improvement among the subjects in the holistic wellness course was supported by significant improvement on all of the ten subscales.

Table 6.1 Descriptive Statistics and One-sample t-test for the Improvement Score of the Experimental Group Compared to Zero

TESTWELL SUBSCALE	MEAN IMPROVEMENT SCORES	STANDARD DEVIATION	t	p<
Physical Fitness	7.17	7.83	7.27	.000
Nutrition	6.94	7.24	7.61	.000
Self-Care & Safety	3.78	5.01	5.99	.000
Environmental Wellness	3.53	7.39	6.22	.000
Social Awareness	3.83	6.05	5.02	.000
Emotional Awareness & Sexuality	1.30	3.59	2.88	.005
Emotional Management	3.03	5.59	4.30	.000
Intellectual Wellness	5.70	6.25	7.24	.000
Occupational Wellness	2.97	6.40	3.68	.000
Spirituality & Values	4.21	5.43	6.15	.000
Total Score	43.06	37.86	9.03	.000

NOTE: Experimental Group - n = 63

Gray text boxes – Indicate that a statistically significant difference was found between the experimental group as compared to zero on all ten subscales and the total score.

Comparison Group:

The total improvement score of the comparison group improved significantly from zero, and seven of the ten subscales also improved, but the changes were less dramatic than those of the experimental group. The control group did not improve significantly from zero on the subscales of emotional management, intellectual wellness, and occupational wellness. Table 6.2 reports descriptive statistics and a one sample t-test for the comparison group as compared to zero.

Between Group Comparison of Means for the Improvement Scores:

Descriptive statistics for both the experimental (students who participated in the holistic wellness course) and comparison group (students who did not participate in the holistic wellness course) were calculated. Table 6.3 reports an analysis of the improvement scores which includes the mean, standard deviation, and t-test results. The table shows a greater level of improvement within the experimental group vs. the comparison group on all subscales in addition to the total improvement score. An analysis of the total improvement score shows the comparison group improving 13.78 points and the experimental group improving 43.06 points. This mean improvement score difference was further supported by conducting independent sample t-tests (variances were not assumed) on all the subscale improvement scores in addition to the total improvement scores ($p < .05$). The independent sample t-test comparing the between group mean improvement scores showed that the total improvement scores and nine of the ten subscale improvement scores between the experimental and comparison groups differed significantly. In analyzing the experimental vs. the comparison group, the only subscale

Table 6.2 Descriptive Statistics and One-sample t-test for the Improvement Score of the Comparison Group Compared to Zero

<i>TESTWELL</i> SUBSCALE	MEAN IMPROVEMENT SCORES	STANDARD DEVIATION	t	p<
Physical Fitness	1.58	4.37	2.81	.007
Nutrition	1.38	4.47	2.40	.020
Self-Care & Safety	1.17	3.52	2.57	.013
Environmental Wellness	2.30	4.06	4.39	.000
Social Awareness	1.77	4.84	2.83	.006
Emotional Awareness & Sexuality	.92	3.03	2.35	.022
Emotional Management	.37	3.39	.84	.405
Intellectual Wellness	1.00	4.58	1.69	.096
Occupational Wellness	.25	3.93	.493	.624
Spirituality & Values	1.30	4.25	2.37	.021
Total Score	13.78	18.94	5.64	.000

NOTE: Comparison Group - n = 60

Gray text boxes – Indicate that a statistically significant difference was found between the comparison group as compared to zero on seven of the ten subscales and the total score.

Table 6.3 Descriptive Statistics and One-sample t-test for the Improvement Score Between Groups

TESTWELL SUBSCALE	GROUP	MEAN	SD	t-test FOR EQUALITY OF MEANS		
				t	p<	MEAN DIFFERENCE
Physical Fitness	experimental	7.17	7.83	-4.9	.000	-5.59
	comparison	1.58	4.37			
Nutrition	experimental	6.94	7.24	-5.15	.000	-5.55
	comparison	1.38	4.47			
Self-Care & Safety	experimental	3.78	5.01	-3.36	.001	-2.61
	comparison	1.17	3.52			
Environmental Wellness	experimental	3.53	7.39	-3.27	.001	-3.49
	comparison	2.30	4.06			
Social Awareness	experimental	3.83	6.05	-2.09	.039	-2.06
	comparison	1.77	4.84			
Emotional Awareness & Sexuality	experimental	1.30	3.59	-.64	.521	-.38
	comparison	.92	3.03			
Emotional Management	experimental	3.03	5.59	-3.21	.002	-2.67
	comparison	.37	3.39			
Intellectual Wellness	experimental	5.70	6.25	-4.77	.000	-4.70
	comparison	1.00	4.58			
Occupational Wellness	experimental	2.97	6.40	-2.86	.005	-2.72
	comparison	.25	3.93			
Spirituality & Values	experimental	4.21	5.43	-3.31	.001	-2.91
	comparison	1.30	4.25			
Total Score	experimental	43.06	37.86	-5.46	.000	-29.28
	comparison	13.78	18.94			

NOTE: Experimental Group - n = 63 Comparison Group - n = 60

Maximum score on each subscale = 50 Maximum total score = 500

Gray text boxes – Indicate that a statistically significant difference was found between the improvement scores of the experimental and comparison group on 9 of the ten subscales and on the total score.

improvement scores that were not found to be significantly different were the emotional awareness and sexuality subscale scores.

IV. SUMMARY

The data indicates that the experimental group exhibited a greater level of improvement than the comparison group on the total score and all ten subscales. An analysis of the total improvement score shows the comparison group improving at an average of 13.78 points while the experimental group improved at an average of 43.06 points. This relationship was statistically significant beyond the .0001 level. According to the results, the holistic wellness course did have an effect on the total score and on the following subscales of the *TestWell®: Wellness Inventory – College Edition*:

1. physical wellness
2. nutritional wellness
3. self-care and safety
4. environmental wellness
5. social awareness
6. emotional management
7. intellectual wellness
8. occupational wellness
9. spirituality and values

Although this was an attempt to measure the effectiveness of a pilot course after a brief ten week period, additional research which assesses sustained lifestyle changes over a longer time period is needed.

CHAPTER VII

BACKGROUND FOR THE STUDY, COURSE MATERIALS, AND STUDENT EVALUATION RESPONSES

I. INTRODUCTION

The purpose of this chapter is to provide information to those who wish to create a holistic wellness course.

II. OVERVIEW

The chapter will be organized as follows:

- III. Background for the study
- IV. Course Materials
- V. Student Evaluation Information

III. BACKGROUND FOR THE STUDY

This study took place during a two year period at Dalton College, a small community college in northwest Georgia.

The background portion of this chapter will address:

- 1. Dalton College History, Mission, and Purpose
- 2. Student Population and Community
- 3. Need for a Holistic Wellness Course
- 4. The Conception of the Course

1. Dalton College History, Mission, and Purpose

A two-year unit of the University System of Georgia, Dalton Junior College opened its doors in September of 1967. An open access institution, Dalton College began with 524 students and has since grown with fall enrollment for 1996 reaching approximately 3,000. The college offers both transfer and technical degrees and is considered to have a highly qualified faculty, with nearly two-thirds of the faculty holding terminal degrees.

The college serves the northwest Georgia area offering public service, continuing education, and certificate programs as well as associate degrees. The Dalton College Catalog (1995-1997) lists nine distinct purpose statements for the college. Four of those purpose statements relate directly to this study and support the creation of a holistic wellness course. They are listed as follows:

- a commitment to public service, continuing education, technical assistance, and economic development activities that address the needs, improve the quality of life, and raise the economic level within the college's scope of influence;
- a commitment to scholarship and creative work to enhance instructional effectiveness and meet local needs.
- a supportive campus climate necessary services, and leadership and development opportunities, all to educate the whole person and meet the needs of students, faculty, and staff.

- cultural, ethnic, racial, and gender diversity in the faculty, staff, and student body, supported by practices and programs that embody the ideals of an open democratic, and global society.

2. Student Population and Community

The college generally serves residents from the City of Dalton and the surrounding northwest Georgia area. The population is fairly rural, and more than 70% of the student population receives some form of financial aid. Dalton College is an open admission institution, populated by a majority of first generation college students. Approximately 45% of the students who entered in the fall of 1996 began by taking developmental coursework in either math, reading, or English (Dalton College Office of Admissions and Records, 1997).

The college is a commuter campus with 46% of the student population taking classes full-time. Students span a wide-range of ages with the average age at approximately 25 years old. Many students work full-time (49% of student population – 1995) and part-time (33% of the student population - 1995), and the college has always maintained a large night class program (30% of 1995 student enrollment was at night). Forty-one percent of the 1996 student population live in the Dalton/Whitfield County area, the remaining 59% reside in the surrounding rural counties of northwest Georgia (Dalton College Office of Admissions and Records, 1997).

The community's main industry is carpet production, and this seems to be the cause of a great deal of the financial disparity that exists between the upper class carpet mill executives and the carpet mill workers who often live below the poverty level.

Dalton, "The Carpet Capital," has also seen a recent influx of Hispanic workers and their families with some local elementary schools reporting a population of more than 70% Hispanic students. With few Spanish speaking teachers, the public school systems have been poorly prepared for accommodating Spanish speaking students, and they are just now beginning to adapt to this new ethnic diversity (McGee, 1997). While the public schools are becoming more diverse, the student population at Dalton College does not reflect the changing community. Only 1% of the students at Dalton College are Hispanic and just 2% of the student population is African-American. Many residents from the surrounding five county area may not actually be served by the college as approximately 40% of the adults from the area never receive a high school diploma (Dalton College Office of Admissions and Records, 1997).

3. Need for a Holistic Wellness Course

The Dalton College statement of purpose emphasizes educating, "the whole person" and the college faculty members seek to, "Improve the quality of life" among students (Dalton College Catalog, 1996, 13). Many students enter Dalton College without ever experiencing a comprehensive health course. As an elective choice, the College offers one, lecture based, two-quarter-credit-hour health course. This course is taught by the Physical Education faculty and focuses mainly on fitness and the physical aspect of health. Faculty members from the psychology and student success departments believed that students might benefit from a more holistic wellness course in addition to the traditional health/fitness course. The new course would serve to introduce the National Wellness Institute's Wellness Model and to involve students in a more holistic experiential view of well-being.

4. The Conception of the Course

During the summer of 1995, the principal investigator attended the National Wellness Conference at the University of Wisconsin – Stevens Point to gather information regarding the creation of holistic wellness courses based on the University of Wisconsin – Stevens Point National Wellness Institute holistic model. After this information gathering, a course proposal was created and accepted by the Dalton College Academic Council. The course was accepted within the Dalton College Studies Division as DCS 110: A Guide to Personal Development and Wellness. The main purpose of the course was to introduce the students to the wellness model and have them begin to appreciate and apply wellness concepts to their own lives.

IV. COURSE MATERIALS

The course materials portion of this chapter will provide:

1. Course Syllabus
2. Wellness Life Application Worksheets
3. Mid-Term Exam
4. Final Exam

1. Course Syllabus

**DCS 110:
A GUIDE TO PERSONAL DEVELOPMENT AND WELLNESS**

Instructor: Christy Price
Office: Memorial Hall 221
Office Hours: M,W,F – 9:30-10:30 AM
 M,T,H – 12:30-3:30 PM
 or by appointment
Phone: 272-4546
e-mail address: CPrice@carpet.dalton.peachnet.edu

COURSE DESCRIPTION: (As written in the 1995-96 catalog)

An introduction to personal development. Assessment of life management skills as they relate to student success. Provides an overview of the six dimensions of Wellness. Additional emphasis on critical thinking, goal setting, motivation, personal values, communication skills, and stress management.

COURSE OBJECTIVES: Upon completion of the course students will:

1. Apply the different dimensions of Wellness to his/her own lives.
2. Identify and apply strategies for personal success such as motivation, goal setting, communication skills, values clarification, time and stress management.
3. Develop a sense of self-responsibility.
4. Develop a sense of community responsibility.

REQUIRED TEXT: *Anderson, Greg (1995). *The 22 Laws of Wellness*

*3-ring binder for organizing handouts

CLASS FORMAT: Discussion, exercises, lecture, and visual aids.

COURSE REQUIREMENTS and GRADING:

1. **Grading:** Grades will be based on attendance, class participation, assignments, and two exams (a mid-term and a final).

2. **Attendance:** Because of the experiential nature of this course, excessive absences will result in failure.

Withdrawal from the course: Students wishing to withdraw from the course may do so without penalty until the mid-point of the quarter, and a grade of W will be assigned. After that point, withdrawal without penalty is permitted only in cases of extreme hardship as determined by the Academic Dean. Students who disappear, completing neither the official withdrawal procedures nor the course work, will receive the grade of F.

3. **Written Exercises:** Written exercises will be assigned. Most are short exercises designed to aid self-study and spur in-class discussion. Any assignment turned in one or two class periods beyond its due date will be worth only 50% of its original value.

DCS 110 GRADING BREAKDOWN

	<u>Poss. pts.</u>	<u>Pts. Earned</u>
22 Laws (5 pts. each)	110	_____
Pre/Post Assessment	20	_____
Wellness Goals	30	_____
Mid-term Conference (exam)	50	_____
Cultural Experience	30	_____
Community Service	50	_____
Participation & in-class exercises	50	_____
Attendance (5 pts. per day)	100	_____
Final	60	_____
TOTAL	500	_____

Grading Scale

450 - 500 = A
400 - 449 = B
350 - 399 = C
300 - 349 = D
Below 299 = F

2. Wellness Life Application Worksheets

Worksheets to accompany
The 22 Non-Negotiable Laws of Wellness
by Greg Anderson
Harper Collins Publishers, San Francisco

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NOTE: Worksheets are condensed to conserve paper but the content was preserved.

22 LAWS OF WELLNESS

INTRODUCTION

1. How does the author define Wellness?

Wellness is:

- 1.

- 2.

- 3.

2. What are the six major life area that Wellness encompasses?

- 1.

- 2.

- 3.

- 4.

- 5.

- 6.

3. What happened to the author in 1984?

PART I—THE UNIVERSAL LAWS

I. THE LAW OF ESPRIT

1. Many people think the basic issues in wellness are:
 - a.
 - b.
2. What does the author feel the single overriding objective in wellness is?
3. What is the Law of Esprit?
4. People who consider how to improve their physical, mental and spiritual well-being every day begin to see what three values emerge.
 - a.
 - b.
 - c.
6. What does the author say about loss and tears?
Does Esprit mean we are always happy and never sad?
7. Where does Esprit belong? Where is it found?
8. Apply The Law of Esprit to your own life?

II. THE LAW OF PERSONAL ACCOUNTABILITY

1. Who is responsible for your Wellness?
2. Summarize "Ted's Story." What should he do?
3. Can you relate to Ted's story in anyway? Do you need to change your work, school, stress, eating, exercise, sleep habits? What should you do?
4. What are two Wellness conclusions we know to be true?
 - a.
 - b.
5. What did the author do after having one of his cancerous lungs removed?
6. After a recurrence of cancer was found what did the author do?
7. The Law of Personal Accountability contends that we have the ability to develop an awareness of our own behavior and responses, physically, emotionally and spiritually. How might you need to change in these areas?

III. THE LAW OF UNITY

1. The Law of Unity contends that there is constant interaction between:
 - a.
 - b.
 - c.
2. What happened to the author's daughter? How did the author's wife respond? How does the author use this as an analogy for the Law of Unity?
3. Apply the Law of Unity to your own life. Do you have the "balance" that the author speaks of on page 29? What will you need to do to obtain or maintain this balance?

PART II – THE PHYSICAL LAWS

I. THE LAW OF PHYSICAL ACTIVITY

1. This chapter begins with a list of excuses. Have you ever used these excuses or others? Which ones?
2. The author lists 13 benefits of regular physical activity. Are there 3 or 4 of these that are particularly motivating to you?
3. Can the benefits of activity be accumulated and stored? What does this mean?
4. How often does the author suggest we exercise? For ~ how much time?
5. What happened to the author's expensive fitness equipment?
6. What kind of activity does the author recommend? How intense and extreme should it be?
7. Apply the Law of Physical Activity to your own life? What is your present activity level? How might you need to change? Create a plan of action.

II. THE LAW OF NUTRITIONAL FRUGALITY

1. What did Luigi Conaro vow to do? What was the cornerstone of his success?
2. What are the two predictable objections to the word “diet”?
 - a.
 - b.
3. The author urges us to, “Listen carefully: our past behavior does not
4. What is the core message of the Law of Nutritional Frugality?
5. The author suggest that, “the biggest change needs to be in our:
6. The author lists 11 eat-smart guidelines. Which of these do you regularly comply with?

Which of the guidelines would you like to work on?

7. Assess your eating patterns (What and when do you eat?). Do you basically eat to energize your body? Do you eat when you are not hungry? Is your eating at all linked to your emotions? Create a plan for changing or maintaining your eating patterns.

III. THE LAW OF MINIMAL MEDICAL INVASIVENESS

1. What is the basis of the Law of Minimal Medical Invasiveness?
2. Who is the most important person on your wellness team?
3. The author contends that the best way to improve our health is to
4. What does the author mean by, “when you’re a hammer the whole world looks like a nail?”
5. Apply the Law of Minimal Medial Invasiveness to your own life?

PART III — THE EMOTIONAL LAWS

VII. THE LAW OF STRESS-HARDINESS

1. What is the relationship between stress and immune system functioning?
2. Holistic health suggests that the majority of physical illnesses stem from an overload of _____, _____, and _____ dis-ease.
3. Does the author believe we can avoid stress?
4. List some of the typical:

Physical signs of stress:
Behavioral signs of stress:
Emotional signs of stress:
5. Have you experienced any of these signs from question #4? If so which ones?

Can you identify the causes of your high stress level?
6. The book states that, "While we can't control all the circumstances in life, we can effectively control:
7. The Law of Stress-Hardiness requires us to change two fundamental perceptions:
 - a.
 - b.
8. Increasing personal power and decreasing problem power will result in:
9. Do you have a stress hardy stance toward life? What do you need to do to become more stress-hardy? Do you need to change your lifestyle? your responses? etc.

VIII. THE LAW OF EMOTIONAL CHOICE

1. The Law of Emotional Choice directs us to _____
but also to refuse _____
2. The concept of total wellness recognizes that our every _____

3. Summarize Jane's story and its significance:
4. The author suggests that different behavior, leads to different thoughts, which lead to different results. Please share a real life example of this.
5. Apply the Law of Emotional Choice to your own life. Do you take responsibility for your moods and responses?

X. THE LAW OF DEVELOPMENTAL MOTIVATION

- 1. Describe Deficiency Motivation.**

2. Have you ever thought, “As soon as I _____ then I will be happy”?

Make a short list of your, "If only I _____ thens."

i.e.: As soon as I finish school then I will be happy.

As soon as I lose ten pounds then I will be happy.

- ### 3. Summarize the Law of Developmental Motivation:

4. What are the three key elements that must come together for the practice of total wellness:

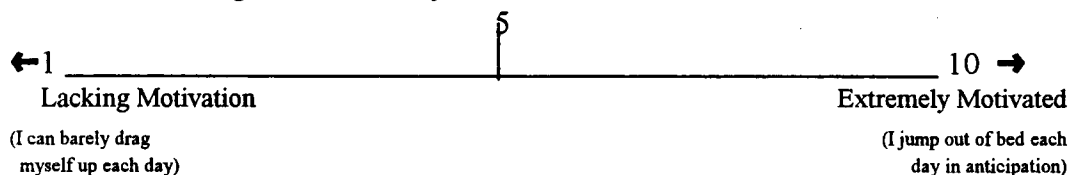
a.

b.

C.

5. Which type of motivation drives your life – deficiency or developmental?

6. Use the following scale to rank you level of motivation.



Considering your ranking how might you apply the law of developmental motivation to your life? Are you fulfilled? Does your life seem to have purpose? If not what steps might you take to increase your level of motivation?

PART IV – THE SOCIAL LAWS

X. THE LAW OF HUMAN DIGNITY

1. What is the Law of Human Dignity all about?
2. One of the greatest stumbling blocks in achieving the Law of Human Dignity centers around putting people in "little boxes". What does the author mean by this?
3. What are some typical "*boxes*"?
5. Please list some of the "*boxes*" or labels that you may have judged other with in the past.
6. Describe a situation when you were judged by others. How did being put in a "*box*" feel?
7. The author concludes this sections stating, "In short, _____

XI. THE LAW OF WIN/WIN

1. What is the *Golden Rule*?
2. List the four paradigms of social interaction. Provide a "real life" example of each paradigm.
3. For some "WIN/LOSE" might sound attractive. It means "I" get "MY WAY". However, there are a number of drawbacks to this paradigm. Describe these drawbacks.
4. In order for WIN/WIN to work, it must be founded on _____
In a word, we are looking for _____.
5. There are no _____ on the path of total wellness. Like it or not, personal and social satisfaction comes only after the work of _____.
6. The relationships we have with the world are largely determined by _____

Therefore, the only way we'll change our relationships is to change _____.
7. What is the problem with saying "YOU MAKE ME MAD"?
8. The Law of WIN/WIN hinges on this process.
First _____, then be _____
_____, and strive for _____
_____.

XII. THE LAW OF PRESENT – MOMENT LIVING

1. How does the author describe his daughter and her use of time?
2. He and his wife have encouraged their daughter to tap her potential not in the _____, not in the _____, but in the _____.
3. Share a time when you were stifled by “past” thinking.
4. Share a time when you were stifled by “future” thinking. What are some of the “what if” statements you’ve made?
5. What is the essence of the Law of Present–Moment Living?
6. Apply the law of Present–Moment Living to your own life. Do you consistently practice living in the here and now?

PART V – THE INTELLECTUAL LAWS

XIII. THE LAW OF MINDFULNESS

1. Describe Florence's situation and behavior.
2. What does the author feel is an excellent definition for suffering?
3. What sometimes happens when the author tries to listen to music?
4. Mindfulness means _____
This does not mean _____
But it means that _____
5. The Law of Mindfulness reminds us to focus on _____
not the _____. Joy is found not in _____
but in _____.
6. The Law of Mindfulness asks us to:
7. Ultimately, we want the mind to become _____
rather than our _____.
8. How are you doing with the law of Mindfulness in your daily life? (Please explain and give examples.)

XIV. THE LAW OF CREATIVITY

1. Everything is created _____ — first
_____ then _____.
2. Explain Robert Schuller's concept of "possibility thinking."
3. Describe Wilbert's Experience.
4. What is the nasty ten-letter word? _____
5. Apply the Law of Creativity to your life.

XV. THE LAW OF LIFETIME GROWTH

1. What percent of what we now call "*old age*" is not related to biology, but instead related to attitude and expectations?
2. Everyone — young, old, rich, poor, healthy, diseased — absolutely everyone has the capacity to _____
3. What was the author's upbringing like?
4. The Law of Lifetime Growth is inextricably intertwined with the idea of _____
5. Lifetime growth is much more than a _____
Its boundaries spread far beyond _____
Lifetime growth is the cornerstone of _____
of _____ of _____
6. This chapter offers seven (7) lessons. Please list them.

PART VI— THE VOCATIONAL LAWS

XVI. THE LAW OF LIFE MISSION

1. The author begins with a quote from Pierrand Poulet: “He dies every day who lives a lingering life.”

Explain the meaning of this quote in your own words.

2. The Law of Life Mission holds,
“ _____.”
3. One of the signs we’re living life “on purpose” is that our labors are of such absorbing interest that _____.
4. Many people believe that adversity, even life threatening illness, has a message in it — call to get their life back “ _____.”
_____.
5. How is a mission different from a goal?
6. The author refers to Steven Covey’s book The Seven Habit of Highly Effective People. He encourages us to write a personal mission statement. Write your personal mission statement below (include your “character traits, what you want to do, and what your center is).

7. Mission is not about _____;
it is about _____.

XVII. THE LAW OF PURPOSE THROUGH SERVICE

1. The chapter begins with what quote from Albert Einstein?
2. Mission comes alive only _____
3. The author feels success in life is measured by _____
Not by _____

XVIII. THE LAW OF STEWARDSHIP

1. What is the Chinese proverb the chapter begins with?
2. The quest for personal wellness is an illusion without _____

3. How does the author view "ownership"?
4. The Law of Stewardship asks for personal change and demands two things (p. 184). What are these two demands?

A.

B.
5. We are here to leave things _____

PART VII – THE SPIRITUAL LAWS

XVIX. THE LAW OF FORGIVENESS

1. Life can be lived most abundantly as an adventure in _____.
2. The author contends that “nothing clutters a life, or the life of a nation, more than the 3 R’s.” What are these 3 R’s?
 - a. R _____
 - b. R _____
 - c. R _____

These three emotional responses to life are based in:

- a. A _____
 - b. G _____
 - c. H _____
3. They block our potential and drain our life of any chance for _____ and _____.
 4. What is the death of wellness?
 5. Summarize what happened with Marilyn and her Mother (pp. 193-204).

Marilyn decided that she “needed to practice _____, to work on _____ and get off her fixation with _____.

XX. THE LAW OF GRATITUDE

1. What, according to the author, is "the absolute worst habit"?
2. Every time you have a negative thought, counter it with _____ (p. 212).

*Complete "I am Grateful for" exercise on page 211.

XXI. THE LAW OF PERSONAL PEACE

1. What quote from the Dali Lama does the author begin with?
2. Summarize the conversation the author has with four friends on his back deck (p. 217 & 218).
3. What is personal peace? (p. 218)
4. The authors mother was a world-champion _____ (p. 219). How did she behave?
5. What are some of your "What ifs"? (p. 219)
6. What are some of your "if onlys"? (p. 219)
7. What is the relationship between personal peace and energy? (p. 222)

3. Wellness Course Mid-Term Exam

DCS 110 – MID-QUARTER TAKE HOME EXAM

For full credit (50 points) please respond with clarity and depth on a separate sheet.

1. What is WELLNESS? In your own words describe its purpose and goals.
2. Why would a WELLNESS course include cultural experience and community service assignments? Describe the plans you have for completing these assignments.
3. List the six dimensions of wellness. For each dimension rate yourself on a scale from 1 to 10 (1 = huge room for improvement in this area of my life and 10 = very little room for improvement). Describe your goals in each area and your progress toward them thus far.
4. Review your Laws of Wellness book and worksheets. Examine the 12 laws we have covered thus far. Choose Three Laws that have been particularly helpful, valuable, or meaningful to you personally. Describe how you have become more aware of the importance of these laws and how you have already, or plan to, incorporate them into your daily life.

4. Wellness Course Final Exam

DCS 110 – TAKE HOME FINAL EXAM

For full credit (60 points) please respond with clarity and depth on a separate sheet.

1. Review your Laws of Wellness book and worksheets. Examine laws 13 – 22. **Choose Two laws** that have been particularly helpful, valuable, or meaningful to you personally. Describe how you have become more aware of them in your daily life.
2. Take one last look at the goals you set in this class. Restate your **three objectives** and summarize your progress toward them.
3. Write an essay (approximately one page — you can attach an extra sheet of paper if needed) addressing the following points:
 1. State your reasons for taking DCS 110 (be honest). Do you feel as though your objectives were met? Why or why not?
 2. What specifically have you learned? Have you applied any of the course content to your life? Have you grown/changed as a result of this course? In what ways?

V. STUDENT EVALUATION INFORMATION

This portion of the chapter will be presented in the following three parts:

1. Assessment of Student Perceptions of the Course

Table 7.1 reports the assessment of students' perceptions of the course

2. Written responses to the Assessment of Student Perceptions of the Course

(The Assessment of Student Perceptions instrument is provided in appendix B)

3. Summary of Student Perceptions

2. Written Responses to Assessment of Student Perceptions of the Course

In addition to objective items on the evaluation, students were given an opportunity to provide responses to four open-ended questions. For the purpose of this study, the principle investigator analyzed responses from the three questions that pertained to students' opinions of and experiences in the course. (The fourth question pertained to teacher performance.)

Question #1: What other topics should be included in this course? What personal, social or academic concerns have you confronted during the quarter that were not adequately addressed in the course content?

After coding and tallying each response, the most common themes that emerged from the data were:

- a. Topics were sufficient: There were 24 responses that explicitly indicated that the topics addressed in the course were appropriate and sufficient. The

TABLE 7.1 ASSESSMENT OF STUDENT PERCEPTIONS OF THE HOLISTIC WELLNESS COURSE – WINTER AND SPRING QUARTERS, 1996

Question	Student Responses (n=60)									
	A		B		C		D		E	
	#	%	#	%	#	%	#	%	#	%
1. Is this your first quarter of college?	Yes		No							
	4	7	56	93						
2. How many 5-hour courses are you taking?	1		2		3		4			
	11	19	43	74	3	5	1	2		
3. Are you taking any Developmental Study courses?	Yes		No							
	12	20	48	80						
4. What degree are you seeking?	AS or AA		AAS		Certificate					
	42	71	9	15	7	12				
5. How old are you?	17-21		22-25		26-29		30+			
	38	63	4	7	7	12	11	18		
6. Gender?	Male		Female							
	19	31	41	68						
Course Content Rating	Very Beneficial		Somewhat Beneficial		Slightly Beneficial		Not at all Beneficial		%Absent	
	#	%	#	%	#	%	#	%	#	%
7. Introduction to Wellness	42	70	15	25	3	5	0	0	0	0
8. Wellness Goal Setting	29	48	30	50	1	2	0	0	0	0
9. Wellness Choices Video	19	32	19	32	16	27	3	5	3	5
10. Motivation Video	23	39	18	31	12	20	2	3	4	7
11. Vitality/Esprit Worksheet	27	45	26	43	7	12	0	0	0	0
12. Motivation Worksheet	31	51	25	42	4	7	0	0	0	0
13. Healthy Eating Behavior	35	58	21	35	3	5	1	2	0	0

Question	Student Responses (n=60)									
	A		B		C		D		E	
	#	%	#	%	#	%	#	%	#	%
14. Time Management	30	50	26	43	2	3	1	2	1	2
15. Stress Management	38	63	18	30	4	7	0	0	0	0
16. Self-Esteem	22	37	13	21	1	2	0	0	24	40
17. Communication Skills	32	53	23	38	5	8	0	0	0	0
18. Healthy Relationships	32	53	27	45	1	2	0	0	0	0
19. Diversity	23	38	27	45	7	12	1	2	2	3
20. Career Center Trip	22	36	23	38	10	17	3	5	2	3
21. Spiritual Laws Group Discussion	29	48	22	36	6	10	2	3	1	2
Course Content & Assignment Rating	Very Beneficial		Somewhat Beneficial		Slightly Beneficial		Not at all Beneficial		Absent	
	#	%	#	%	#	%	#	%	#	%
22. Universal Laws Worksheet	29	48	20	33	9	15	1	2	1	2
23. Physical Laws Worksheet	40	67	16	27	4	7	0	0	0	0
24. Emotional Laws Worksheet	39	65	17	28	4	7	0	0	0	0
25. Social Laws Worksheet	36	60	17	28	7	12	0	0	0	0
26. Intellectual Laws Worksheet	18	30	14	23	6	10	0	0	22	36
27. Vocational Laws Worksheet	27	45	25	42	7	12	0	0	0	0
28. Spiritual Laws Worksheet	31	51	18	30	8	13	2	3	1	2
29. Pre/Post Wellness Assessment	26	43	20	33	11	18	0	0	3	5
30. Wellness Goals	33	55	24	40	3	5	0	0	0	0
31. Mid-Term	26	43	25	42	9	15	0	0	0	0
32. Cultural Experience	33	55	17	29	7	12	1	2	1	2
33. Community Service	32	54	18	31	6	10	1	2	2	3

Question	Student Responses (n=60)									
	A		B		C		D		E	
	#	%	#	%	#	%	#	%	#	%
Instructor, Text and Course Rating	Strongly Agree		Somewhat Agree		Somewhat Disagree		Strongly Disagree			
34. The instructor helped students feel free to participate in class.	57	95	3	5	0	0	0	0		
35. The instructor stimulated creative thinking.	54	90	6	10	0	0	0	0		
36. The instructor was fair and showed no partiality in dealing with students.	55	91	4	7	1	2	0	0		
37. The instructor was open to questions and comments	56	93	4	7	0	0	0	0		
38. The instructor's general manner contributed to effective teaching.	56	93	4	7	0	0	0	0		
39. If I needed assistance with any course-related problems, my DCS instructor would be helpful.	54	91	5	9	0	0	0	0		
40. The text book was an effective part of the course.	49	81	9	15	2	3	0	0		
41. The supplementary handouts were effective parts of the course	41	68	16	27	3	5	0	0		
42. The goals of the course were made clear to me.	54	90	6	10	0	0	0	0		
43. The course met my expectations.	47	78	12	20	1	2	0	0		
44. The course has been beneficial to me.	45	75	14	23	1	2	0	0		
45. I would recommend this course to others.	49	82	10	16	1	2	0	0		

most common response was “none,” with several responses mentioning “everything was covered.”

More on Relationships: While there was not any overwhelming theme, four responses suggested including “more on relationships.”

More on Stress Management: Two responses specifically requested “more on stress management.”

More on Physical Fitness: Two responses mentioned “more on physical fitness.”

- b. While there were other miscellaneous suggestions about the course content, no other recurring themes emerged from the data.

Question #2: Picture yourself being approached by another student asking how worthwhile this class is. How would you respond?

- a. Take the course: While the question did not ask the student to indicate whether he/she would tell another student to take the course, over 25 responses explicitly made reference to telling other students to take the course. Specific responses were “take the course,” “take the class,” “everyone needs to take the class.”

Worthwhile / Beneficial / Generally Helpful: Eighteen responses indicated that the course was “worthwhile,” “beneficial,” and “generally helpful.”

Great / Good / Liked / Enjoyed: Fourteen responses included words such as “great,” “good,” “I really liked,” and “enjoyed it.”

Self-understanding: Although the question did not prompt students to respond to the course’s impact on their self-understanding, thirteen responses indicated that the course promoted learning about self.

Fun / Cool: Five students described the class as “fun” or “cool.”

Depends / Okay: Five student responses implied that the course would be worthwhile depending upon an individual’s needs.

Focus / Goals: Three students commented that they wished the class would have been “more in-depth” or “focused” on a few specific goals.

Not great: Three students described their experience as “not great,” or “not helpful,” but they did not elaborate on why they felt this way.

Question #3: Additional comments or suggestions

- a. After analyzing these responses, other than compliments toward the teacher, no specific themes were apparent.

Summary of Student Perceptions of the Course

After analyzing both the multiple-choice and written responses to the assessment of student perceptions of the course the following issues were apparent.

1. The course content that students identified as the most beneficial was the "Introduction to Wellness". Most of the students had never been introduced to the wellness model prior to this class. Seventy percent of the students described these class periods as "very beneficial" and another twenty-five percent described them as "somewhat beneficial."
2. The class period that students identified as the second most beneficial was a discussion on "Healthy Eating Behavior." Fifty-eight percent of the students described this class period as "very beneficial" and another thirty-five percent described it as "somewhat beneficial."
3. The students also found the class periods on "Stress Management" and "Healthy Relationships" to be beneficial. Sixty-three percent of the class described the "Stress Management" segment as "very beneficial" and another thirty percent described it as "somewhat beneficial." Fifty-three percent of the students described the "Healthy Relationships" segment as "very beneficial" and another forty-five percent described it as "somewhat beneficial." There were also four students who requested more coverage of "Stress Management" in the written response section to the class assessment, and two students who requested more time spent on "Healthy Relationships."
4. The "Physical Laws Worksheet" was identified as the most beneficial assignment, with sixty-seven percent of the students describing it as "very beneficial" and another twenty-seven percent describing it as "somewhat beneficial."

5. It is interesting to note that more than fifty percent of the students described each of the three major assignments as beneficial. Ninety-five percent of the class described the "Wellness Goals Exercise" as either "very beneficial" or "somewhat beneficial." Eighty-five percent of the students described the "Community Service Project" as either "very beneficial" or "somewhat beneficial." Eighty-four percent of the students described the "Cultural Immersion Experience" as either "very beneficial" or "somewhat beneficial."
6. Of the sixty students who responded to the class assessment, all but one student "Agreed Somewhat" or "Agreed Strongly" that the course was beneficial to them and that they would recommend the course to others.
7. The student also seemed to find the textbook chosen for the course (*Greg Anderson's The Twenty-Two Non-Negotiable Laws of Wellness, Harper Collins*) helpful. Ninety-Six percent of the students either "somewhat agreed" or "strongly agreed" that the book was an effective part of the course.
8. The class period which was found to be least beneficial involved watching a "Wellness Choices" video. Twenty-seven percent of the students found the video to be on "slightly beneficial" and another five percent of the students described the video as "not at all beneficial."
9. The class period described as the next to least beneficial involved watching a "motivation video." Twenty percent of the students found the video to be on

“slightly beneficial” and another three percent of the students described the video as “not at all beneficial.”

10. It is important to note that forty percent of the students reported that they were absent during the class period for self-esteem and thirty-six percent reported that they were absent on the day the intellectual laws were discussed. The poor attendance on these days was caused by an ice storm during the winter quarter of 1996.

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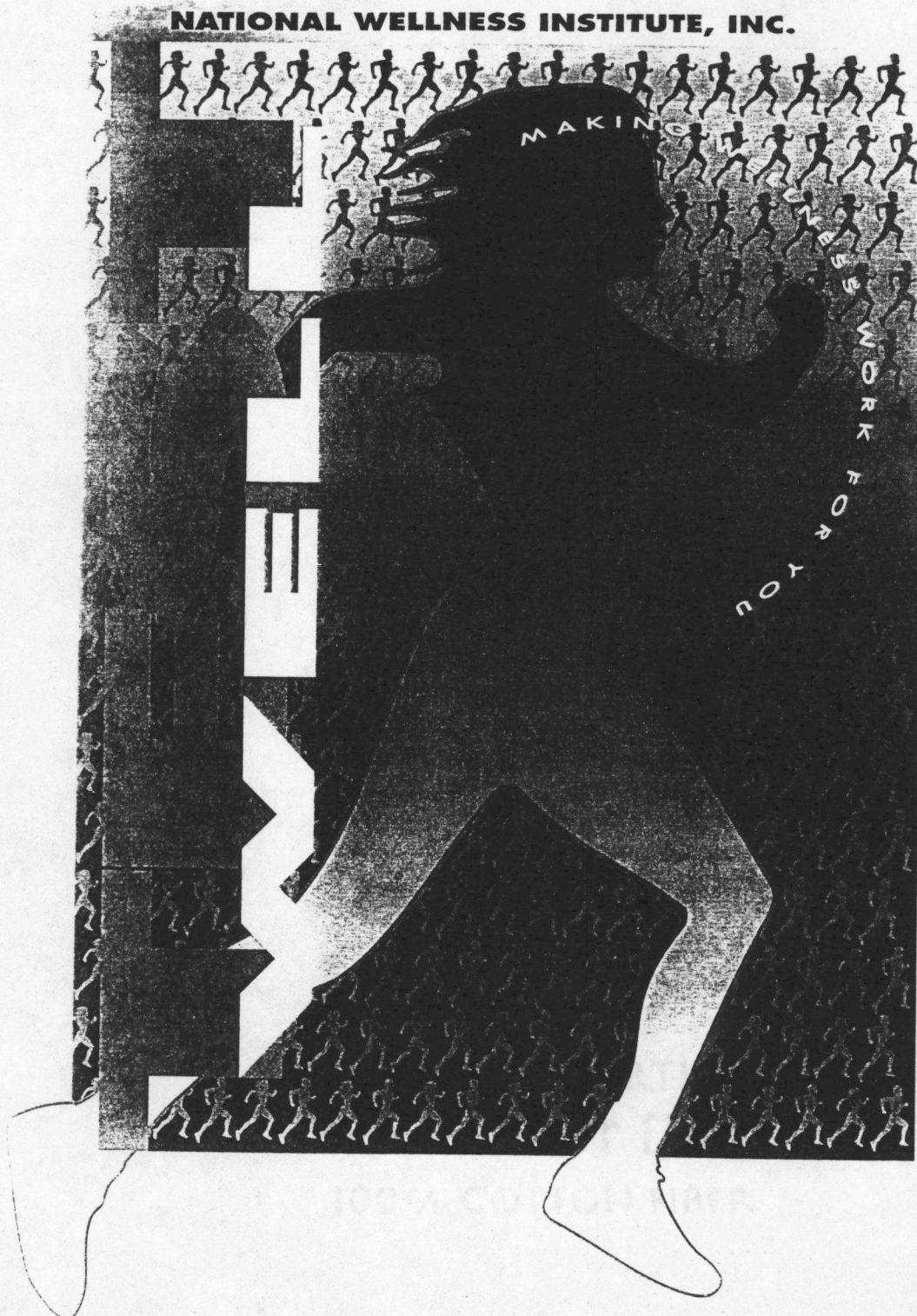
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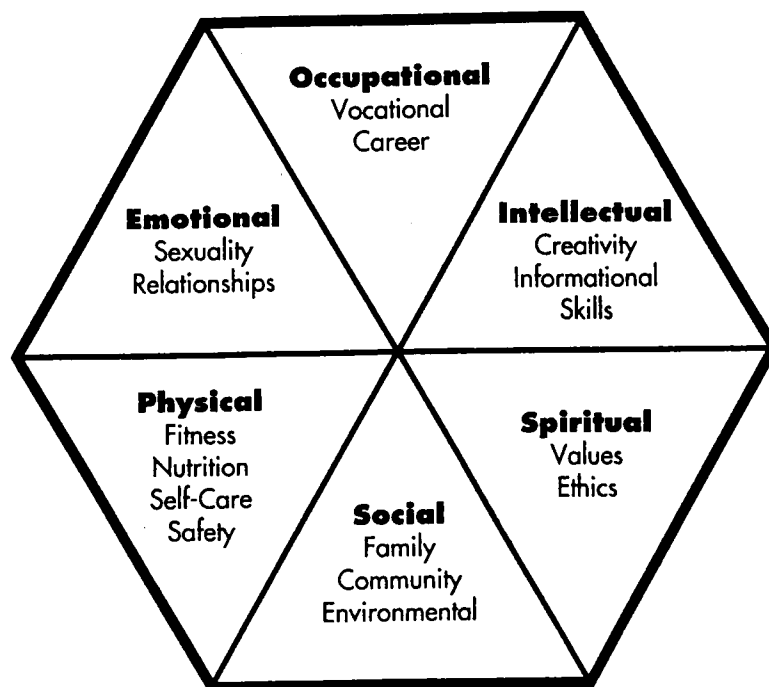
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APPENDICES

APPENDIX A



THE SIX DIMENSIONS OF WELLNESS*



Wellness is a continuous, active process—not a single goal or achievement. It is a process of becoming aware of the different areas in your life, identifying the areas that need improvement, and then making choices that will help you attain a higher level of health and well-being.

This six-dimensional model emphasizes the importance of creating a balance in the many different areas which make up your life. Each of these affects every other and determines your overall wellness status.

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WHAT IS TESTWELL™?

TestWell™ is a self-scoring wellness assessment based on the six dimensions of wellness. It provides you with information about wellness and helps you to identify your current success in achieving a high level of well-being. By completing TestWell you will become more aware of possible ways to improve your wellness lifestyle.

Instructions:

Please write the number that identifies your response in the box to the left of each question.

Please respond to the statements using the following responses:

- 5... Almost always (90% or most of the time)
- 4... Very often (approximately 75% of the time)
- 3... Often (approximately 50% of the time)
- 2... Occasionally (approximately 25% of the time)
- 1... Almost never (less than 10% of the time)

At the end of each section, add your response numbers and place the sum in the appropriate Section Total box.

To calculate your TestWell™ score follow the instructions at the end of the questionnaire.



PHYSICAL FITNESS

- | | |
|--|---|
| <p>☐ 1. I exercise aerobically (continuous, vigorous, sweat-producing exercise for 20-30 minutes) at least three times per week.</p> <p>☐ 2. Stretching is a routine part of my exercise program.</p> <p>☐ 3. I walk or cycle as a means of transportation whenever possible.</p> <p>☐ 4. I include weight training in my exercise program at least 2 times per week.</p> <p>☐ 5. If I am not in shape, I avoid sporadic (once per week or less) strenuous exercise. (If you are in shape, answer "5".)</p> | <p>☐ 6. I engage in an adequate amount of physical activity to keep my resting heart rate at 60 beats per minute or less.</p> <p>☐ 7. My friends and family support my efforts to exercise regularly.</p> <p>☐ 8. I know my exercise target heart rate and exercise within my target zone.</p> <p>☐ 9. An integral part of my leisure time includes physical activity instead of TV viewing.</p> <p>☐ 10. I maintain my body fat percentage in the acceptable range for my gender. (If you do not know your body fat percentage answer "1".)</p> |
|--|---|

Section Total (add responses of 1-10)

Please respond to the statements using the following responses:

- 5....Almost always (90% or most of the time)
 4....Very often (approximately 75% of the time)
 3....Often (approximately 50% of the time)
 2....Occasionally (approximately 25% of the time)
 1....Almost never (less than 10% of the time)



NUTRITION

- | | |
|---|---|
| <p>☐ 11. I eat a variety of wholesome, minimally processed foods (fruits, vegetables, whole grains and whole grain products, low fat dairy and low fat/high protein foods).</p> <p>☐ 12. I drink at least eight 8-ounce glasses of water every day.</p> <p>☐ 13. I consume all of my calories before 8:00 p.m.</p> <p>☐ 14. I include cruciferous vegetables (cabbage, broccoli, cauliflower, Brussels sprouts) in my daily diet.</p> <p>☐ 15. I limit my salt intake by not salting my food at the table.</p> | <p>☐ 16. I avoid eating foods that are high in fat (fatty cuts of meat, whole milk dairy products, fried foods, hot dogs, processed foods, rich desserts, and creamy sauces).</p> <p>☐ 17. I eat at fast food restaurants once per week or less.</p> <p>☐ 18. I include whole grain breads and/or cereals in my diet every day.</p> <p>☐ 19. I maintain the recommended weight for my height and gender.</p> <p>☐ 20. I eat at least five servings (one serving equals 1/2 cup) of fruits and/or vegetables every day.</p> |
|---|---|

☐ **Section Total** (add responses of 11-20)



SELF-CARE AND SAFETY

- | | |
|---|---|
| <p>☐ 21. I choose not to use tobacco products.</p> <p>☐ 22. I examine my breasts or testes on a monthly basis.</p> <p>☐ 23. I floss my teeth every day.</p> <p>☐ 24. I get 6-8 hours of sleep every day.</p> <p>☐ 25. I wear my seat belt and/or shoulder harness while traveling.</p> <p>☐ 26. I do not ride with vehicle operators who are under the influence of alcohol or other drugs.</p> | <p>☐ 27. When I travel on a motorcycle, bicycle, or all-terrain vehicle, I wear a helmet.</p> <p>☐ 28. I take action to protect my skin from damage caused by overexposure to the sun, tanning booths, or sun lamps.</p> <p>☐ 29. I choose to enjoy myself without the use of alcohol or drugs.</p> <p>☐ 30. I maintain my blood cholesterol level within the range recommended by my doctor. (If you have never had your cholesterol checked, answer "1".)</p> |
|---|---|

☐ **Section Total** (add responses of 21-30)



ENVIRONMENTAL WELLNESS

- | | |
|---|---|
| <p>☐ 31. To conserve energy I turn off lights and electrical appliances (such as stereos, televisions, or curling irons) when I am not using them.</p> <p>☐ 32. I carpool or take as many riders as I safely can when I am driving a car.</p> <p>☐ 33. In order to protect fish and wildlife I cut or tear plastic six-pack rings before throwing them away.</p> <p>☐ 34. I do not purchase food packaged in styrofoam.</p> <p>☐ 35. When I go shopping I take my own reusable bag to carry my purchases rather than accept plastic or paper bags.</p> | <p>☐ 36. I do not let the water faucet run while I am brushing my teeth, shaving, or washing my car.</p> <p>☐ 37. I regularly recycle my paper, plastic, glass, and aluminum.</p> <p>☐ 38. I am involved in learning more about how I can protect the environment.</p> <p>☐ 39. I encourage others to support efforts to protect the environment.</p> <p>☐ 40. I purchase products made with recycled materials whenever possible.</p> |
|---|---|

☐ **Section Total** (add responses of 31-40)

Please respond to the statements using the following responses:

- 5.... **Almost always** (90% or most of the time)
 4.... **Very often** (approximately 75% of the time)
 3.... **Often** (approximately 50% of the time)
 2.... **Occasionally** (approximately 25% of the time)
 1.... **Almost never** (less than 10% of the time)



SOCIAL AWARENESS

- | | |
|--|--|
| ☐ 41. My behavior reflects fairness and open-mindedness. | ☐ 46. I participate in local or national politics. |
| ☐ 42. I contribute to the feeling of acceptance with my family, friends, and coworkers. | ☐ 47. I help others in need. |
| ☐ 43. I resolve conflict in a positive and respectful manner. | ☐ 48. When I notice a safety hazard I take action to correct the situation. |
| ☐ 44. I do not operate vehicles while I am under the influence of alcohol or other drugs. | ☐ 49. I initiate discussions with individuals who are from a different cultural or ethnic background from me. |
| ☐ 45. I keep up to date with world news. | ☐ 50. I participate in university/community events. |
| | ☐ Section Total (add responses of 41-50) |



EMOTIONAL AWARENESS AND SEXUALITY

- | | |
|---|---|
| ☐ 51. I am able to develop close, intimate, personal relationships. | ☐ 57. I understand how sexually transmitted diseases, including AIDS, are spread. |
| ☐ 52. I respect the value of a long-term monogamous relationship. | ☐ 58. If I engage in sexual intercourse I use reliable, proven methods to prevent unwanted pregnancy. (If you do not engage in sexual intercourse answer "5".) |
| ☐ 53. I have positive relationships with men in my life. | ☐ 59. I respect the rights of others who have different sexual orientations. |
| ☐ 54. I have positive relationships with women in my life. | ☐ 60. If I engage in sexual behavior I use condoms to minimize the risk of spreading or contracting sexually transmitted diseases. |
| ☐ 55. I have satisfying relationships with other people that are not sexual in nature. | ☐ Section Total (add responses of 51-60) |
| ☐ 56. I respect other people's decisions to engage or not engage in sexual behavior. | |



EMOTIONAL MANAGEMENT

- | | |
|---|--|
| ☐ 61. I express my feelings of anger in ways that are not hurtful to others. | ☐ 66. When I make mistakes, I learn from them. |
| ☐ 62. I can say "no" without feeling guilty. | ☐ 67. I set realistic objectives for myself. |
| ☐ 63. I can accept the things about myself that I cannot change. | ☐ 68. I can relax my body and mind without the use of drugs or alcohol. |
| ☐ 64. I keep things in perspective. | ☐ 69. I accept responsibility for my actions. |
| ☐ 65. I include relaxation time as part of my daily routine. | ☐ 70. I accept the responsibility for creating my own feelings. |
| | ☐ Section Total (add responses of 61-70) |

Please respond to the statements using the following responses:

5. Almost always (90% or most of the time)
 4. Very often (approximately 75% of the time)
 3. Often (approximately 50% of the time)
 2. Occasionally (approximately 25% of the time)
 1. Almost never (less than 10% of the time)



INTELLECTUAL WELLNESS

- | | |
|---|---|
| ☐ 71. I stay informed about social and political issues. | ☐ 76. I watch educational programs on television or listen to educational programs on the radio. |
| ☐ 72. I strive to learn about scientific discoveries. | ☐ 77. I actively pursue learning about topics that interest me. |
| ☐ 73. I make an effort to maintain and improve my writing and verbal skills. | ☐ 78. I read about different topics from a variety of newspapers, magazines, or books. |
| ☐ 74. I seek opportunities to learn new things. | ☐ 79. I gather information from several sources before making important decisions. |
| ☐ 75. I participate in activities such as visiting museums, exhibits, and zoos, or attending plays and concerts at least three times a year. | ☐ 80. I am interested in understanding the views of others. |

☐ **Section Total** (add responses of 71-80)



OCCUPATIONAL WELLNESS

- | | |
|--|---|
| ☐ 81. Enjoyment is a consideration I use when making occupational choices. | ☐ 86. I strive to attain a good work ethic. |
| ☐ 82. I take advantage of opportunities to learn skills that will enhance my future employment possibilities. | ☐ 87. I am satisfied with my ability to make my own choice of occupation. |
| ☐ 83. I am knowledgeable about the skills necessary for the occupations in which I am interested. | ☐ 88. I actively pursue information about different occupations that may be of interest to me. |
| ☐ 84. I am aware of the time commitment necessary to pursue the occupations of my choice. | ☐ 89. I am aware of occupational choices that I am well suited for. |
| ☐ 85. I am aware of how plans for my personal life may affect future occupational choices. | ☐ 90. I am aware of my own strengths and skills. |

☐ **Section Total** (add responses of 81-90)



SPIRITUALITY AND VALUES

- | | |
|--|---|
| ☐ 91. I am satisfied with my spiritual life. | ☐ 96. My values guide my daily life. |
| ☐ 92. I spend a portion of every day in prayer, meditation, and/or personal reflection. | ☐ 97. My leisure time activities are consistent with my values. |
| ☐ 93. I feel a sense of connectedness with other human beings. | ☐ 98. I respect the rights of others to choose different values and beliefs. |
| ☐ 94. I am mainly guided by my "inner self" rather than the expectations of others. | ☐ 99. I am able to discuss my own death with family and friends. |
| ☐ 95. I am concerned about humanitarian issues. | ☐ 100. I feel that my life has a positive purpose. |

☐ **Section Total** (add responses of 91-100)

INTERPRETING YOUR TESTWELL™ TOTAL SCORE

TestWell™ Scoring Worksheet

Transfer each Section Total from the questionnaire to the Scoring Worksheet below.
Add all of the Section Totals to obtain your TestWell Total Score.

Section Totals	
Physical Fitness	
Nutrition	
Self Care and Safety	
Environmental Wellness	
Social Awareness	
Emotional Awareness and Sexuality	
Emotional Management	
Intellectual Wellness	
Occupational Wellness	
Spirituality and Values	
TestWell™ Total Score	

Total of all 10 Section Totals

If your:

**TESTWELL™
TOTAL
SCORE** or **SECTION
TOTAL
SCORE**

430-500	43-50	You appear to have reached a high level of wellness. Be proud of the positive aspects of your lifestyle habits. Strive to maintain and improve your current healthy lifestyle behaviors.
350-429	35-42	You have many positive aspects in your overall lifestyle. Maintain the positive aspects of your lifestyle while striving to enhance those areas that need improvement.
349 and below	34 and below	The lifestyle choices you are making today may be adversely impacting your current health status and future quality of life. It would be to your advantage and to those who love you to improve your level of wellness. Perhaps you should begin with your weakest area and set a realistic goal for improvement. Good luck in reaching a healthier tomorrow.

Making Wellness Work For You:

As you begin the process of "Making Wellness Work For You":

- Use your section totals to help identify the areas that need improvement.
- Choose a behavior that needs improvement AND one you are sure you can change.
- Have fun with the process.

TEST

Making Wellness Work For You

C O L L E G E V E R S I O N

Would you like to know how to improve your level of wellness?

The plan outlined on the following pages will guide and assist you in improving your level of well-being, which will potentially reduce your risk of premature death from lifestyle-related diseases.



INTRODUCTION

There are several basic stages involved in the process of changing personal behavior. These include:

1. defining possible behaviors for modification,
2. appraising personal behavior patterns,
3. setting clear goals, both short term and long term,
4. deliberating about your readiness to commit to change in each area with particular emphasis on whether you feel that you can do what is necessary to change each behavior,
5. developing strategies for changing target behavior,
6. selecting a choice and adhering to it even when there is some negative or unpleasant consequence,
7. developing a social support and reward system, and
8. monitoring and periodically evaluating whether the choice you make is resulting in desired outcomes.



STEP 1 *Select A Behavior To Change.*

Before you reactively select your worst habit for the behavior change process, please consider your perception of your ability to accomplish the desired behavior change. You, like other people, may behave in ways that you know are not good for you. You may believe that behaving in a certain way (eating better, stopping smoking) will improve your health. Even knowing this you may not initiate this new behavior if you believe you are not capable of performing the behavior effectively. Therefore, your beliefs about personal capability (self-efficacy) affect your actual behavior more than your knowledge of what is healthy.

Self-efficacy is the belief that you are capable of performing a behavior. The more positive your perceptions of self-efficacy, the more likely you are to exert the effort needed to overcome obstacles and to persist in your efforts to maintain the desired healthier behavior. Since personal success is by far the most powerful source of information concerning personal capability, it is critical to begin the behavior

change process by selecting a behavior that you can change. Making your own decision of what behavior you will target to change will provide you with a higher level of commitment. You are more likely to succeed if the behavior change is one of your choice rather than one that has been chosen for you.

Think carefully about your target behavior choice. Again, it is usually best to begin by selecting an area in which you can achieve success. It should also be a behavior that YOU desire to change. If needed, refer to your TestWell assessment for suggestions.

Identify a target behavior that you want to change: _____

Example: *I want to have more time to relax and enjoy life.*

As you gain experience and success with the behavior change process (increase self-efficacy) you will be in a better position to successfully change more complex behaviors.



STEP 2 Monitor The Behavior You Would Like To Change.

Self-monitoring, or monitoring one's own behavior, is important at this point because it allows you to become aware of the frequency, intensity, and duration of problem behavior and the factors (i.e., situations, time of day, emotions, people, events) which trigger the behavior. By maintaining a record of personal behavior patterns, you can increase self-awareness to a degree that not only motivates you to persist in the behavior change process, but also assists you in developing strategies for change. This process can also aid in the identification of realistic short term goals that can systematically assist in achieving the desired behavior change.

Examples: *I overextend my expectations for what I think I can accomplish in one day.*

I choose to put other tasks before my own enjoyment or relaxation.

My friends are accustomed to the pattern of time that I usually spend with them.

Behavior Monitor

Target Behavior: _____

	Behavior Description What I did & with whom	Where	How Often or How Much	When	Date
Day 1	I started day with good intention. Got sidetracked, worked until 11:00 p.m. to get done with what I needed to	at school	Spent 4 hours on another issue	Got sidetracked when I called Sue.	11/8
Day 2					
Day 3					
Day 4					
Day 5					
Day 6					
Day 7					



STEP 3 Identify Your Goals.

Clearly setting goals has been found to increase success in behavior change. Realistic and achievable goals are the foundation for a successful healthy behavior change. Both long term and short term goals should be established. A long term goal identifies the desired overall behavior change, whereas short term goals allow the task to be broken into smaller units that seem easier to achieve. Little by little, as short term goals are accomplished, the long term goal is achieved.

You may initially need to set goals for a day, or a week, so that you are more aware of the progress you are making. Remember that accomplishing a series of short term goals will ultimately result in accomplishing your long term goal(s). This series of short term goal attainment allows you to enhance your perceptions of personal capabilities (self-efficacy) thereby encouraging you to master more difficult levels of change. The process of documenting the small successes involved in achieving short term goals will also increase the probability of establishing a successful long term behavior.

Long term goal: Identify the overall target for behavior change.

Example: I will manage my time to allow one hour per day for enjoyment.

Identify your long term goal: _____

Short term goals: Identify short term goals that will create a step-by-step plan to achieve your goal.

Examples: Every day this week I will make my time for enjoyment a priority.

Every day this week I will create a "to do" list.

Every day this week I will arrange my "to do" list by priority.

Every day this week I will estimate the time needed to complete each task.

Every day this week I will make a "do-able" list for the day.

Identify your short term goals:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



STEP 4 Take The Target Behavior Test.

As you begin contemplating the behavior change process, it is important to consider your readiness to initiate change. It has been suggested (PRECEDE and Health Belief Models) that there are a number of factors which may affect your success. These include predisposing factors such as your personality characteristics, locus of control, knowledge, self-efficacy, self-esteem, perceptions of benefits versus barriers to change, health beliefs, attitudes, and competing values. These factors, in combination with enabling factors such as the presence or absence of needed skills, and the availability/accessibility of needed resources, can dramatically affect your ability to initiate and maintain the new behavior you have identified. In addition to these, reinforcing factors such as the knowledge, beliefs, attitudes, and support levels of family, friends/peers, partners, and employers contribute to this process of readiness. Because these factors can influence your success, it is important to assess them along with personal behavior.

The Target Behavior Test provides an assessment of personal readiness. As you process the questions, focus on two ideas: (1) am I ready to change, and (2) if not, what can I do to motivate myself or to become better prepared to change my behavior? It is difficult to accomplish a successful behavior change if you are not ready to commit to a change. If you don't feel ready or capable of changing your target behavior, perhaps you should identify some other behavior which you feel you can change successfully.

Target Behavior Test

- | | | |
|--|------------------------------|-----------------------------|
| 1. Changing this behavior is important to me. | ☐ Yes | ☐ No |
| 2. I have a positive attitude about my ability to successfully change this behavior. | ☐ Yes | ☐ No |
| 3. I am likely to be healthier or live in a healthier environment if I change this behavior. | ☐ Yes | ☐ No |
| 4. If necessary, I am able and willing to spend the money necessary to help change this behavior. | ☐ Yes | ☐ No |
| 5. I am willing to devote the time necessary to change this behavior. | ☐ Yes | ☐ No |
| 6. I have chosen a target that I will be able to measure or count. | ☐ Yes | ☐ No |
| 7. I have selected an achievable goal. (e.g., "I will lose one pound per week by increasing my level of exercise" is probably a realistic goal. "I will lose twenty pounds this month" is probably an unrealistic goal and may be unsafe.) | ☐ Yes | ☐ No |
| 8. I can identify others who will provide support for my behavior change. | ☐ Yes | ☐ No |

If you answered "no" to any of the questions in the preceding Target Behavior Test, it is important that you either consider choosing another behavior which appeals to you or set a more achievable goal that allows you to answer "yes" to all questions in the Target Behavior Test.



STEP 5 Identify Strategies For Accomplishing Your Goals.

Identifying strategies is a three-part process.

First, list ideas for possible strategies to achieve your goal. As you contemplate how you can most successfully change your behavior, it may be helpful to utilize your self-monitoring skills in a different way. Think of other behaviors that you have changed successfully. Think about what you did that helped you be successful. Did you need help? If so, what kind? Can you see a parallel between the behavior that you want to change now and other behaviors that you have successfully changed? If so, use what you learned in the past to help you now. Also, identify other people or role models who have changed the same behavior and ask how they did it.

Examples of strategies:

I will schedule fun things so they become part of my daily routine.

I will make a "to do" list.

I will remain focused on my lists and tasks at hand.

I will quit my job.

I will consult my advisor on how to better balance school, work, and leisure.

List your possible strategies for achieving your goals.

1. _____
2. _____
3. _____
4. _____

Next, consider the obstacles that might keep you from reaching your goal. Through the Health Belief Model it has been demonstrated that a prerequisite for successful behavior change is that the benefits outweigh the obstacles. Too significant or difficult to manage barriers may outweigh the benefits and make a successful behavior change very difficult.

Examples of obstacles:

Unexpected things may happen that will interfere with my scheduled fun time.

Some things on my "to do" list may take longer than expected.

I may be overwhelmed during final exams.

Financially, I need to work and collect a paycheck.

List possible obstacles to achieving your goals.

1. _____
2. _____
3. _____
4. _____

The process of identifying obstacles acknowledges your ability to know yourself and anticipate the personal circumstances you are likely to encounter. The identification of solutions to obstacles before they arise will also reduce the likelihood of relapse. Consider ways to overcome each obstacle. If an obstacle or barrier has been anticipated and a solution developed, then you are more likely to achieve success than if the obstacle was unanticipated.

Examples of solutions to overcome obstacles:

I will adjust other priorities rather than eliminate my free time.

I will remember to prioritize unexpected things as well as expected things.

I will keep up with my schoolwork so I will be able to maintain my relaxation routine during final exams.

I will ask my supervisor to assist me in becoming more productive and time efficient.

List your solutions for overcoming your obstacles.

1. _____
2. _____
3. _____
4. _____



STEP 6 Select A Strategy.

Once you have identified several possible strategies to help you modify your target behavior, you should use the same process to help you decide which strategy to implement. Weigh the potential value and consequence of implementing each strategy and contemplate about your willingness to commit to carrying out each. Do you feel that you can do what is necessary to carry out each strategy? If not, try to identify one that you feel confident you can carry out.

It is important to choose strategies that can be integrated effectively into "normal" daily living. For example, you could fast to lose weight, but eventually, this strategy will fail since you cannot fast forever. It is much more effective to develop exercise and dieting strategies that can be maintained over time until they become a part of normal living.

In addition, the act of developing and choosing the strategy you wish to follow gives you ownership of the problem and the solution. This is also a key element to successful behavior change.

Select the strategy or strategies with the most manageable obstacles. A strategy with unmanageable obstacles will most likely lead to failure.

Record your selected strategy: _____



STEP 7 *Alter Your Surroundings For Change.*

A. Create supportive surroundings.

Recognizing the importance of environmental stimuli or "triggers" (classical conditioning) is an important part of the behavior change process. The act of self-monitoring in Step 2 allows you to recognize the behavior chains and self-defeating thoughts that lead to the practice of the undesirable behavior. Once these triggers and patterns have been identified, you can create surroundings that will disrupt these chains of behavior sequences by: (1) inserting a new behavior into the chain that alters the probable behavioral outcome, (2) substituting new behaviors for the behavior that triggered the undesirable behavior, and (3) using reinforcing self-talk.

How will you create a school environment and a work atmosphere in which it is both difficult to practice the "old" behavior and easy to practice the new behavior?

Example: *I will post my schedule each day.*

I will control my level of involvement in extracurricular activities.

I will research relaxation programs available at my school.

B. Create a social support system.

Social support is a powerful aid to successful behavior change. Research clearly indicates that social support increases the odds of success for changing behavior for most people. A social support system might include a "buddy system" with someone who is also trying to modify his/her behavior. Individuals who themselves behave in ways consistent with your desired health behavior (role models) can also provide good support. Your support system should have a common interest or focus and be able to share experiences, successes, and behavioral management strategies with you. Other support systems may include ongoing small groups (i.e., Weight Watchers), which are instrumental in facilitating skill development.

How will you build a support network for yourself?

Examples: *I will spend time with other people who share similar recreation interests.*

I will ask a friend to remind me to practice regular relaxation, especially during times when I may omit it.

I will ask my advisor to positively acknowledge my successful efforts to manage my work efficiently.

C. Establish a Contract for Behavior Change.

Behavioral contracts also encourage the development of social support when the role and responsibilities of those involved are clearly defined and supportive in nature. A behavioral (contingency) contract is an agreement between two or more people which is designed to facilitate the behavior change process for one of the individuals. An effective contract specifies: (1) the individuals who are entering into the supportive relationship, (2) short term goal(s) for behavior change, (3) specific behaviors which each/all parties agree to perform, (4) the amount of change which is necessary in order to successfully achieve goals, (5) a self-identified reward which will be received when performance criteria are met, (6) the time frame within which goals are to be met, and (7) the signatures of all participants. The contract serves as a form of public commitment which increases the likelihood of persistence when obstacles to maintaining the new behavior occur. This commitment between contractees also facilitates development of social support for behavior change.

Try using the Contract for Behavior Change below.

Contract For Behavior Change			
I, _____, pledge to meet the following goal: _____ _____			
I agree to do the following: _____ _____ _____			
My friend, who has signed this contract below, agrees to provide me with the following supportive actions:			
1) _____ _____			
2) _____ _____			
3) _____ _____			
We will meet on _____ (date), to discuss my behavior change progress and to confirm support for my behavior change efforts.			
_____ Your Signature	_____ Date	_____ Signature of Supporting Friend	_____ Date



STEP 8 Reward Yourself.

The reward you receive for goal attainment may be either self-reinforcement or reinforcement by others. Providing self-reinforcement offers several advantages over reinforcement administered by others. Taking advantage of the opportunity to immediately administer reinforcement following the desired behavior is important because research shows that behavior that is rewarded is more likely to be continued. Creating rewards that are meaningful to you will also increase your motivation to achieve your goal. Self-administered rewards also reinforce the belief that you can effectively manage your own behavior.

Intrinsic rewards are incentives which relate to perception of progress resulting from self-evaluation. These perceptions are related to how "successful" you are in achieving your goals. They influence future goal setting, provide an ongoing source of self-motivation, and enhance self-efficacy. Generally new behaviors must be maintained for a while before we internalize their value and appreciate the value of intrinsic rewards. Until that time it is important to maintain a system of extrinsic rewards to encourage continuance of your target behavior.

Choose enjoyable, positive rewards to motivate yourself to a successful behavior change. Make sure you reward yourself for the attainment of your short term goals as well as your long term goals.

Hints about rewards:

Take care to reward yourself appropriately for your achievements.

Reward yourself as quickly as possible when you are successful.

Adjust your rewards as necessary.

When you first begin to change your behavior, reward yourself each time you are successful; after your target behavior is well-established, reward yourself less frequently.

List rewards appropriate for accomplishing your short term goals:

1. _____
2. _____
3. _____

List the reward for accomplishing your long term goal:

1. _____

Reward examples:

I will rent a videotape and invite friends to watch it with me.

I will buy myself the new compact disc or item of clothing I've been wanting.

I will tell myself how well I am doing and think about how I feel better, physically and mentally.

STEP 9 Implement Your Strategies And Record Your Progress.

Once you begin the change process, focus on progress. Any change that is healthy is better than no change. Remember that you are learning new skills which require practice in order to improve. In the beginning, practicing new strategies usually involves carrying out a rough approximation of the strategy which is ultimately refined through self-corrections and feedback from others. Again, self-monitoring is necessary in order to become and remain aware of which strategies have worked and which have not.

It is time to actually begin your behavior change. As a brief review:

1. Consider the benefits of your behavior change.
2. Be clear about your goals.
3. Use behavior change strategies that you believe will be successful.
4. Plan to encounter and overcome obstacles.
5. Alter your environment to support your lifestyle changes.
6. Be sure to reward yourself.
7. Have fun.

Record your progress as you work through your behavior change. Record keeping can help you to be successful. By observing your progress you can discover reasons for success or failure.

Use the Behavior Tracking Chart on the following page, or your own custom-designed chart, to document your progress. Update your chart regularly and use it to identify not only your progress, but also the situations that promote the behavior and those that discourage the behavior.

STEP 10 Make Adjustments.

It is now time to fine-tune your program by making adjustments that will support maintenance of the behavior change. Don't hesitate to ask for assistance. A little encouragement and a fresh perspective can help you to be successful.

Focus on progress. Again, it is critical to the success of the behavior change plan that you expect progress rather than 100% success in maintaining your goal at all times. A relapse is not a failure but an opportunity to readjust your strategies. Be flexible. Try more than one strategy. It is also important to be gentle with yourself. If you have difficulty, go back through the steps, work on your readiness and use what you have learned to make your next effort more successful.

If, after reviewing your tracking system, you determine that your success is not occurring as you had hoped, review your goals, barriers, and social support network. Make appropriate adjustments. Remember, persistence is important. However, if the behavior change process is all work and no fun and you are beginning to dread the change or feel like quitting, it may be time to alter your approach.

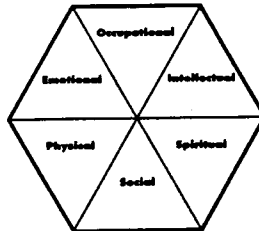
I will refine my plan in the following ways:

1. _____
2. _____
3. _____

Good luck!

[illegible]

THE SIX DIMENSIONS OF WELLNESS



Take a moment to reflect on each of the Six Dimensions of Wellness. Each area affects every other, and together they represent your total wellness status. Aim for wellness in each dimension; the choices and changes you make today will influence those you make tomorrow!

Physical

Do you get enough exercise? Eat a balanced diet? Do you practice safe driving and medical self-care? Do you avoid the use of tobacco, drugs, and excessive alcohol consumption? If you take good care of your body, it will repay you with years of good service.

Social

How satisfying are your relationships with your partner, your family, your friends, and associates? Are you active in community affairs? Do you contribute to protecting the environment by conserving and recycling? Social wellness is based on your ability to interact harmoniously with people and the Earth.

Emotional

Are you able to recognize and accept your feelings, your strengths, and your limitations? Can you manage your emotions and cope with stressful events? Achieving emotional wellness allows you to experience life's ups and downs with enthusiasm and grace and maintain satisfying relationships with others.

Intellectual

Do you feel creatively and mentally challenged? Are you continually seeking to expand your knowledge and skills? An intellectually well person uses available resources to expand knowledge, improve skills, and to increase the potential for sharing with others.

Spiritual

Do you have an appreciation for the meaning of life and the expanse of nature? Are you at peace with your place in the universe? Do you have a set of beliefs and values that give purpose to your life? Spiritual wellness involves developing a strong sense of personal values and ethics.

Occupational

Do you find your work satisfying? Do you have a balance between your work and leisure time? Do you enjoy responsibilities and look forward to achieving better results? Your attitudes about your work can greatly affect your job performance and interactions with coworkers. Striving toward occupational wellness will help to give you personal satisfaction and allow you to find enrichment in your life through work.

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APPENDIX B

DCS 110 ASSESSMENT OF STUDENT PERCEPTIONS OF THE COURSE
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Your evaluation of DCS 110 is a vital part of our efforts to improve this course and our teaching. Your evaluation and comments will remain confidential (do not sign the evaluation); the instructor will not see the results of the evaluation until after the quarter is over. Please use pencil on the blue scan-tron form.

First, a couple of questions about you:

1. Is this your first quarter of college?
A = yes B = no
2. How many 5 hour courses are you taking?
A = 1 B = 2 C = 3 D = 4
3. Are you taking any Developmental Study courses?
A = yes B = no
4. What degree are you seeking?
A = A.S. or A.A. B = A.A.S. C = Certificate
5. How old are you?
A = 17-21 B = 22-25 C = 26-29 D = 30 +
6. Gender?
A = male B = female

I. Rate each of the following items about the course content according to the following scale:

- A. Very Beneficial
- B. Somewhat Beneficial
- C. Slightly Beneficial
- D. Not at all Beneficial
- E. I was not in attendance on the day this was covered.

7. Introduction to Wellness
8. Wellness Goal Setting
9. Wellness Choices Video
10. Motivation Video, "Even Eagles Need A Push"
11. Vitality/Esprit Worksheet and Discussion
12. Motivation Worksheet and Discussion
13. Healthy Eating Behavior
14. Time Management
15. Stress Management
16. Self-Esteem
17. Communication Skills
18. Healthy Relationships
19. Diversity
20. Career Center Trip
21. Spiritual laws Group Discussion

II. Rate each of the following items about the course content and assignments according to the following scale:

- A. Very Beneficial
- B. Somewhat Beneficial
- C. Slightly Beneficial
- D. Not at All Beneficial
- E. I was not in attendance on the day this was covered.

- 22. Universal Laws Worksheet
- 23. Physical Laws Worksheet
- 24. Emotional Laws Worksheet
- 25. Social Laws Worksheet
- 26. Intellectual Laws Worksheet
- 27. Vocational Laws Worksheet
- 28. Spiritual Laws Worksheet
- 29. Pre/Post Wellness Assessment
- 30. Wellness Goals
- 31. Mid-Term
- 32. Cultural Experience
- 33. Community Service

III. Rate each of the following items about the instructor, the text and the course according to the following scale:

- A. strongly agree
- B. somewhat agree
- C. somewhat disagree
- D. strongly disagree

- 34. the instructor helped student feel free to participate in class
- 35. the instructor stimulated creative thinking
- 36. the instructor was fair and showed no partiality in dealing with students
- 37. the instructor was open to questions and comments
- 38. the instructor's general manner contributed to effective teaching
- 39. if I needed assistance with any course-related problems, my DCS instructor would be helpful
- 40. the text book (The 22 Laws of Wellness) was an effective part of the course
- 41. the supplementary handouts were effective parts of the course
- 42. the goals of the course were made clear to me
- 43. the course met my expectations
- 44. the course has been beneficial to me
- 45. I would recommend this course to others

DCS 110— STUDENT WRITTEN RESPONSES

In addition, we would appreciate comments on the following. Please answer on this sheet.

- IV. What other topics should be included in this course? What Wellness/Personal Development concerns do you have that were not adequately addressed in the course content?**

- V. Picture yourself being approached by another student asking how worthwhile DCS 110 is. How would you respond?**

- VI. Additional comments or suggestions.**

Thank you very much for your cooperation. Your input will help us to improve this course.

VITA

VITA

Christy T. Price was born in Chicago, Illinois on April 14, 1967. She attended schools in the public system of Leyden Township, Franklin Park, Illinois, where she graduated from East Leyden High School in June, 1985. She entered Northern Illinois University, DeKalb, Illinois during September, 1985 where in June, 1989 she received the Bachelor of Science in Social Work and Minor in Psychology. She entered the Master's program in Community Counseling at The University of Nebraska at Kearney, officially receiving the Master's degree in May, 1991 while serving as Resident Hall Director. She worked as a Counselor and Evaluator at Dalton College, Dalton, Georgia during 1991-1992. From 1992-1996 she worked as Instructor in Psychology and as Coordinator of the Dalton College Studies Program while entering The University of Tennessee - Knoxville to pursue the Doctorate of Education in Health Education. The doctoral degree was received August, 1998.

She is presently working as Instructor in Psychology and Education at Dalton College, Dalton, Georgia.