HOTEL GENERAL MANAGERS' WELLNESS IMPACT ON THE HOTELS' PROFIT

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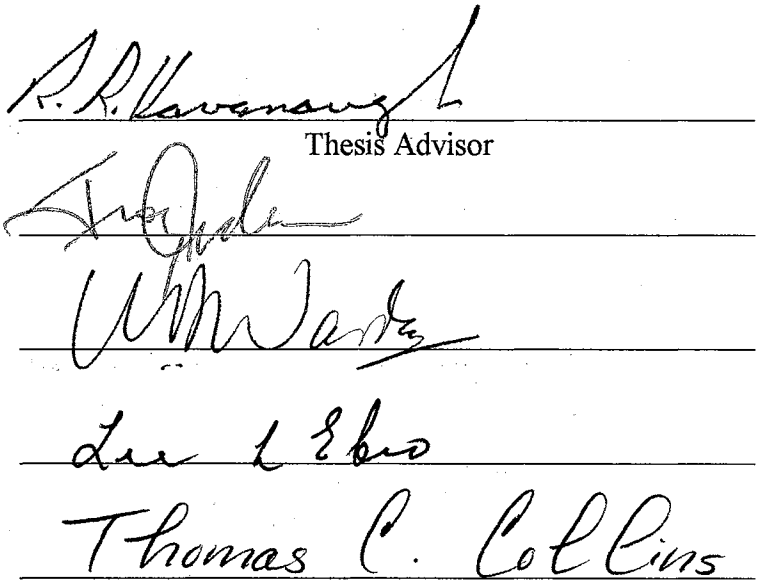

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CHAPTER 1

INTRODUCTION

The United States labor pool is changing rapidly. The birth rate has been declining since 1957 (U.S. Bureau of the Census, 1995). In 1957, it reached an all time high with an increase of 1.82 percent change in the overall population. In 1980 it reached a second high of 1.19 percent increase, and in the past few years the change has been only 1.09 percent. The post-World War II baby boom generation, which makes up the largest segment of the U.S. population, is now approaching 50 years of age. There are fewer people available to fill the kinds of entry-level jobs so prevalent in the hotel industry.

Services are the fastest-growing sector of the American economy (Cetron, 1994) and the hospitality industry is service oriented. Hotels, a part of the hospitality industry, are also part of the largest industry in the United States, tourism. By the year 2000, one of every 10 individuals in the United States will work for the hospitality industry (Cetron, 1994).

Today, the median age of the United States general population is 34, by the year 2025, the median age will be 38 (U.S. Bureau of the Census, 1995). The majority of the hospitality management work force today is 25-40, white, and male. By 2000, white males will account for only 12-15 percent of the new entrants into the workforce (Rice, 1991). Adults, between the ages of 45-54, are the fastest-growing segment of the American population, while the percentage of people aged 25-34 will shrink over the next

decade (Cetron, DeMicco & Williams, 1996). The United States Census Bureau projects the shrinking in this age group to be about 11.1 percent (Sympson, 1996). This shrinking segment encompasses the average age of hotel managers, leaving managers that are 35 and over as the majority of managers available for the future. Health promotion is imperative for the aging work force in the hotel industry.

Sixteen million new jobs will be created by the year 2000 in the United States, but there will be only 14 million workers to fill them (Urkov, 1991). By the year 2005, the pace of expansion in the hospitality industry is expected to generate 3 million new jobs when it is hard-pressed to fill the 9 million jobs in existence today. The Bureau of Labor Statistics reports the need for hospitality managers, foodservice and lodging management, will increase 44 percent, with the creation of another 232,000 positions by the year 2005 (Sympson, 1996).

As the pool of skilled workers able to fill expanded or enriched jobs begins to "dry up," employers will face increasingly stiff competition. Low unemployment nationwide and declining population among the young have human resource professionals worried about competing for qualified workers. Of the top three industries, the one that is experiencing the greatest labor shortage is the hospitality industry (McGee, 1989).

Operators and major chains are delaying new openings and future growth because they cannot find enough hourly workers. According to Tami Kaiser, director of training and development for the Promus Hotel Corporation, "It's getting harder to staff our hotels than it is to find people to stay in our hotels," (Sympson, 1996, p.44).

This industry also continues to experience the chronic problem of overall employee turnover, which averages 120 percent annually (Sarabakhsh, Carson, & Lindgren, 1989). When absenteeism (primarily sick days) increases, productivity decreases. Turnover rates of managers in the hospitality industry are 225 percent annually and higher, costing companies millions of dollars in recruiting, training and other human resource functions (Hogan, 1992; Van Dyke & Strick, 1990).

Prior to leaving a hotel company, an employee often has behavioral and attitudinal problems that are manifested in tardiness, poor performance, low morale, and absenteeism (Alfus, 1995; Williams, DeMicco, DeSilva, & Vannucci, 1995). Productivity, profitability, and the overall success of the hotel are all negatively effected by turnover. Most service companies perpetuate a cycle of failure by tolerating high turnover and employee dissatisfaction. This cycle induces indifferent attitudes toward customers and poor service, which translates into poor perceptions of service by the customer and, therefore, lower sales. Customer dissatisfaction further fuels decreases in employee satisfaction, which equates to higher turnover. This higher turnover then further deteriorates service (Schlesinger & Heskett, 1991). J. Willard Marriott's solution is, "take care of your employees so they will take care of your customers" (Williams et al., 1995).

With the tremendous growth of tourism and the hospitality industry, the aging of the workforce has brought about a labor shortage that could slow future growth. Reducing absenteeism and turnover, decreasing job burnout and stress, and controlling health care costs are all important for hotel companies to remain profitable in the future. This study will explore one solution to these hotel problems, the wellness of general

managers. Is there an association between the general managers behavioral and perceived wellness to the financial performance of the hotel?

In order for tourism in the United States to continue to grow, there needs to be enough hotels (supply) to effectively satisfy the demand. The customers also demand to experience satisfactory service. For service levels to meet or exceed the customer's expectations, the hotel employees will need to be well trained. Training is an ongoing process and is extremely costly when turnover rates are high. In the past, the hospitality industry tolerated high turnover because there were more potential employees in the labor pool, but the supply of potential workers is no longer abundant in most markets (Woods & Macaulay, 1989). Human capital will become an increasingly valuable asset.

Statement of the Problem

Worksite health promotion is a fairly new concept to the hotel industry. A hotel company that is proactive in dealing with the aging of the labor pool; the growth, expansion, and creation of new jobs in the market place; the overall shortage of labor; and the chronic problem of turnover will prosper in the future. One solution to these problems would be to attract and retain productive long-term employees. Long-term employees will make up the future management team in many corporations. Long-term, productive employees have less absenteeism, less turnover and lower health care costs. Thus, the health and productivity of each employee will acquire growing importance throughout the 1990's and beyond (Urkov, 1991).

The approach to decreasing labor costs many hotel companies used in the '80's and early '90's was through downsizing of their staffing levels. Sometimes this short-term fix affected customer service levels and employee morale in a negative manner. The approach the researcher recommends for the new millennium is wellness: a wellness attitude that is modeled by the general manager and subsequently in the management staff. This "well" aging labor market will be cost-effective for companies. Health promotion is imperative for the future growth of the hotel industry.

Hotel employees need to have the support from their employer, hotel owners, and/or management companies to take responsibility for their own health. The mission and culture of a corporation ultimately guides this type of needed support. Social learning theorists believe that an environment determines behavior, and the most important aspect of this environment is other people (Dollard & Mueller, 1950). If the corporation promotes health and wellness to their executive staff members and their general managers, this awareness and behavoir may in turn, influence the employees in each of the hotels.

Hotels are an environment that could be conducive to wellness. Most have the physical facilities consisting of kitchens that could produce nutritious meals, exercise facilities to promote fitness, and meeting rooms to conduct behavioral change seminars (smoking, self care and stress coping techniques). It turns out that how people function at work affects how they function elsewhere. There is a positive correlation between leadership, membership, activities, verbalization, and involvement off the job with those qualities on the job (Staines, 1977).

Purpose and Objectives

Health promotion has been proven effective when implemented in companies with employees of all ages. One solution to lowering turnover rates would be to increase employee morale and decrease the days an employee is out sick. Most of the potential benefits of health promotion can be categorized as follows: *improvement in productivity* (reducing absenteeism, improving morale, conserving operating costs, improving the ability to perform, and developing higher-quality staff); *reduction of benefit costs* (reducing health care costs, life insurance, and reducing worker's compensation claims); *reduction of human resources development costs* (recruiting, educating, and training); and *the image of the organization* (general visibility, and a concerned and responsible employer). These benefits provide an organization with direction toward achieving its long-term goal of survival and generating a profit (O'Donnell & Harris, 1994). Bottom-line profits, while ensuring excellent customer service and employee relations, are hotel owners and management company's priorities (Alfus, 1992). They experience increased profits when revenues rise and/or labor expenses decline.

There is an increasing number of "well" companies that have experienced measurable benefits in promoting wellness throughout their labor force. From 1980 to 1991 there were 24 published studies evaluating the health and cost benefits of health promotion in various worksites that showed positive results. Additionally, researchers conducted 24 new studies between 1991 and 1993 that were even better designed and still evidenced positive health outcomes. "When anyone cavalierly dismisses 48 studies with

the glib dismissal of there is no evidence, they are simply ignorant of more than 13 years of increasingly sophisticated research with documentation of both health and cost outcomes" (Pelletier, 1993, p. 50). Larry S. Chapman (1991) published a review of literature and concluded that "Based on the clinical and research literature presented. . . it is safe to assume that a worksite wellness program that is well-designed and effectively implemented will in fact be cost-justifiable" (p. 118). He also concluded that when general wellness, medical self-care, or hypertension is targeted with a health promotion program, there is a strong prediction that the behavior will be altered and then cost reduction takes place for the company. In contrast, several studies (Haughie, 1993; Hung, 1993; Jacobs, 1993; Paxton, Meeting, & Falconer, 1993) argue that justification of wellness programs through cost-benefit analysis has been unusually difficult. Possibly this is why more hotel companies have not implemented health promotion programs as a part of their coporate culture.

There are only a handful of hotel companies that have implemented, supported and encouraged wellness among their employees and managers. Ultimately, managers must take responsibility for their own wellness. They need to decide whether to go to the gym or "happy hour", eat vegetable pasta or fettucine Alfredo, drink one or two glasses of wine or several double martinis, and take a walk break or a smoke break.

It would be beneficial to know if there is an association between a manager's lifestyle habits and perceptions to a hotel's performance. The intent of this study was to measure hotel general manager's wellness. The primary objectives of the study were to:

1. Determine whether an association existed between hotel general managers' wellness scores to actual 1995 annual revenues and profits at the hotels of three different companies.
2. Determine whether an association existed between hotel general managers' wellness scores to annual turnover rates at the hotels of three different companies.

Null Hypotheses

The researcher investigated six hypotheses at three different types of hotel companies. They were investigated individually and are stated as follows:

HO1: There will be no significant association between general managers' wellness scores to revenue percentages generated over budget.

HO2: There will be no significant association between general managers' wellness scores to profit percentages generated over budget.

HO3: There will be no significant association between general managers' wellness scores to annual turnover rates.

HO4: There will be no significant difference from the general managers' wellness scores to the number of the work days missed (absent) due to their own illness and family members' illness.

HO5: There will be no significant difference from the general managers' wellness scores to the number of hours they work each week, their frequency of relocation, and task force assignments.

HO6: There will be no significant difference from the general managers' wellness scores to human resource benefits (availability and use of fitness facilities and meal policies).

Assumptions

The following assumptions were made by the researcher:

1. The respondents honestly completed the instrument to the best of their abilities.
2. The hotels budgets were realistic and based on historical performance.
3. Relocation and task force assignments disrupted the managers daily routines personally and professionally.
4. Work days missed (absent) were due to the participants own illness or illness of other family members within the past 12 months.
5. The benefits (free meals and fitness facilities) were utilized, at least periodically, by the managers if offered by the company.

Limitations

This research is limited in scope and generalizability due to the following factors:

1. The researcher did not analyze accidents, workers compensation, and health care costs at individual hotels due to the results of the pilot study.
2. The sample encompassed 11 hotel brands (flags).
3. The sample was confined to 400 hotels in 50 states in the United States.
4. There will be no way to ascertain whether responses represent the true behaviors and opinions of the respondents.

5. There will be no way to ascertain whether the resondents are representative of hotel managers in general.
6. Healthy respondents typically complete and return health surveys more consistently than unhealthy individuals.

Definitions of Terms

The following terms have been defined to add clarity to the dissertation. These terms were used frequently in this study:

1. Perceived Wellness - The six dimensions of perceived wellness are physical spiritual, psychological, social, emotional, and intellectual (Adams, Bezner, & Steinhardt, in press).
2. Behavorial Wellness - The six dimensions of behavioral wellness are medical self-care, smoking and tobacco use, physical activity, nutrition and eating habits, alcohol use, and stress relief and coping techniques. Behavioral wellness encompasses lifestyle behaviors that are related to disease; the things people do that have a known association to disease, morbidity, and mortality (O'Donnell & Harris, 1994).
3. Body Mass Index (BMI)- A simple but objective anthropometric indicator of the nutritional status of the adult population and seems to be closely related to their food consumption levels (Shetty & James, 1994). Quetelet's Index Formula: weight(kg)/height(m)2. Persons weight in

kilograms with clothes off = A. Persons height in meters, then squared = B. A/B=body mass index. If the index is over 30, the person is considered obese. If between 26 and 30, the person is at risk of obesity or overweight. If between 18.5 and 25, the person is at an acceptable weight. Twenty two is the standard for normality and optimum for health. If below 18.5, the person is undernourished and experiences chronic energy deficiency (Shetty et al., 1994).

4. Well Companies - Well companies incorporate four principles that guide the development and implementation of health promotion and risk-related incentive plans. They provide a financial incentive for employees to do the "right things;" structure the program to assure a positive return on investment; preserve equity; and maintain the organization's ethical responsibility (Jose, 1994).

5. High-level Wellness - Dunn (1961) defined high-level wellness as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable, within the environment where he/she is functioning" (p. 4-5).

6. Wellness Programs--Health Promotion Programs (HPP) - HPP are a means for preventing disease while improving health status and a way of life. HPP are designed to help an individual change unhealthy behavior and life-style. They begin with the motivation of the individual to take responsibility for health. Education and a supportive environment for

maintaining a change in life-style are provided in HPP. These programs introduce the individual to the concept of wellness (O'Donnell & Ainsworth, 1984).

7. Revenue - Sales generated from room revenue, food and beverage revenue, telephone revenue, gift shop revenue, guest laundry and valet revenue, store rents and other income (Gray & Liguori, 1994).

8. House Profit - A measure of management's overall performance as shown by profits on sales and investments (Mosley, Pietri & Megginson, 1996). The purpose of profits are to measure efficiency, to recover one cost element of being in business (return on invested capital), and to provide funds for further expansion and innovation. Profits equal revenues generated minus labor expenses (include cost of absenteeism, turnover and training), cost of food and beverages, cost of supplies and other expenses, and cost of insurance.

9. Management Company - A company contracts with hotel owners to operate their hotel for them. The management company may or may not have any of its own funds invested. The management company is usually paid by a combination of fees plus a share of revenues and profits (Angelo & Vladimir, 1991).

10. Franchise - It is the authorization granted by a hotel chain to an individual hotel to use the chain's trademark, operating systems, and reservation

system in return for a percentage of hotel's revenues plus certain other fees, such as advertising fees (Angelo et al., 1991).

11. Chain - It is a group of affiliated hotels, for example, Holiday Inn, Hilton, Marriott, or Westin (Angelo et al., 1991).

12. Full service hotels - Means a complete line of services and departments are provided, in contrast to a limited-service hotel (Vallen & Vallen, 1996).

13. Turnover Costs - The rate at which employees leave an organization and/or industry (Powers, 1992). Costs include recruiting, interviewing, advertising, administrative costs, training costs, and overtime incurred from co-workers.

14. Corporate Culture - A system of behavior, rituals and shared meaning held by employees that distinguishes the group or organization from other similar units. It is elusive, intangible, implicit, and taken for granted (Ivancevich, Lorenzi, Skinner & Crosby, 1994).

15. Relocation - Physically moving self and/or family to a new residence. Relocation is one event that often poses the greatest threat to family needs. Conflict between a desire to advance in one's career and a strong desire to stay in one place and put down family roots often borders on the disastrous. While relocation may be the most serious threat to employees with families, there are other work-related sources of conflict, i.e. numbers of hours worked per week (Sherman & Bohlander, 1992).

16. Task-force - An organized collection of workers responsible for a task or outcome of a common purpose (Ivancevich, Lorenzi, Skinner, & Crosby, 1994). Employees and managers working at a hotel other than their own for an unspecified amount of time that usually ranges from seven days to many months. The purpose is to assist existing or new managers within their area of expertise. A task-force also assists with new acquisitions of hotels, openings of new hotels, relief from management turnover, and city-wide events.

17. Dependents - Children or parents living at home with a hotel general manager. It does not include the spouse.

18. Work Days Absent - Encompasses work days the general manager missed within the past 12 months due to their own illness or other family member's illness.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The literature is organized from the general to the specific (i.e. it begins with the theory of health behavior and the dimensions of perceived and behavioral wellness). It is followed by the economic impacts of health promotion, the hotel industry, and its corporate culture.

Theories of Health Behavior

In the quest to understand human behavior, researchers have long been interested in trying to understand why people do or do not perform certain behaviors. This quest has led many researchers to speculate about a myriad of factors that influence behavior and to develop theories or models incorporating these factors. Many of the theoretical frameworks have been applied to the understanding of health behavior (Rosenstock, Strecher, & Becker, 1988). The Social Learning Theory is one such framework.

Social Learning Theory

Environment, situations, behavioral capability, expectations, expectancies, self-control, observational learning, re-enforcement, self-efficacy, emotional coping responses and reciprocal determinism are the constructs that are important in understanding and intervening in health behavior (Bandura, 1986; Mischel, 1973). The Social Learning Theory (SLT) synthesizes previously cognitive, emotional, and behavioristic understandings of behavior change. SLT was originally introduced in 1941 in which two major streams of health-related researched flowed--cognitive concepts and reinforcement of behavior. Rotter (1954) applied SLT to clinical psychology and then to generalized expectancies of reinforcement.

In the social cognitive view, people are neither driven by inner forces nor automatically shaped and controlled by external stimuli. Rather, human functioning is explained in terms of a model of *triadic reciprocality* in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other. Cognitive, or thought processes of what people think and their effect on behavior, are considered as the mediator for most natural learning in social settings (Weinstein, 1987). The use of cognitive processes allows an individual to form hypotheses regarding cause and effect associations between associated events. Bandura (1986) was the leading figure in cognitive processes. He renamed SLT to Social Cognitive Theory (SCT), which is defined as the association among personal factors, the social and physical environment. SCT favors the conception of interaction based on

triadic reciprocality. The relative influence exerted by the three sets of interacting factors will vary for different activities, different individuals, and different circumstances. Among the crucial personal factors are the individual's capabilities to symbolize the meanings of behavior, to foresee the outcomes of given behavior patterns, to learn by observing others, to self-determine or self-regulate behavior, and to reflect and analyze experience (Bandura, 1986).

An underlying assumption of SCT is that behavior is dynamic and depends on environmental and personal constructs that influence each other simutaneously. The interaction is such that a change in one has implications for the others (Bandura, 1986). The environment (factors that are physically external to the person, i.e. a hotel) provides the social support (i.e. corporate culture, peers, and other managers) and the physical (i.e. fitness facilities) situation or person's perception of the environment (i.e. their role as a hotel general manager and perceived acceptable behavior) within which the person must function and thus also provides the incentives and disincentives or expectancies (the value placed on the outcome, i.e. higher profits for hotel, so promotion to larger hotel) for the performance of behavior.

What people think, believe, and feel affects how they behave (Bandura, 1986). Environmental influences can affect persons apart from their behavior, as when thoughts and feelings are modified through modeling, tuition, or social persuasion. People activate different reactions depending on their socially conferred roles and status (Bandura, 1986). If variables change, the situation changes, and the behavior, situation and person are all reevaluated. For example, a hotel manager may be so opposed to exercise that friends and

peers expect this person to maintain a sedentary life-style. At some point, a dramatic event may occur (for instance, a friend dies of a heart attack and wellness information is obtained proving death was caused in part by a sedentary life-style) that makes this person decide to start exercising. This person may now encounter the criticism of sedentary friends, who may pressure this person not to exercise and to go with them to happy hour instead. To avoid these negative pressures, new friends who value exercise and support this new behavior, may be sought out. This change, in turn, may motivate a sedentary friend to begin to exercise as well, and the friend will then either change the exercise habits of other sedentary friends, or acquire new friends who are also interested in exercise (Percel, Baranowski, & Parcel, 1990). The expectations of wellness for hotel managers starts at the top level within the culture of the corporation.

The environment can affect behavior without a person's being aware of it. For example, if fresh fruits and vegetables were made available in the hotels employee cafeteria, the managers and employees would probably learn to include those foods in their own diet at home. The continuing interaction among a person, the behavior of that person, and the environment within which the behavior is performed is called reciprocal determinism (Percel et al., 1990). Reciprocal determinism may be used to an advantage in developing programs that do not focus on behavior in isolation but focus instead on changes in the environment and in the individual as well. In the hotel industry, the focus would be on changing the hotel environment to support and encourage wellness to the general managers and subsequently, the employees.

An emphasis on immediate positive rewards or expectancies may be more likely to influence the initiation of some desired behaviors than an emphasis on long-range benefits (Percel et al., 1990). Many researchers have observed that people are more likely to engage in physical activity to achieve short-term benefits than to achieve long-term gains (i.e. avoid a heart attack). For example, immediate results in experiencing less turnover in a hotel company has long-term results of achieving increased profits. Incentive motivation involves a two-way transaction, (i.e. corporate headquarters and general managers). When participants have a voice in incentive arrangements, both parties are influencers and being influenced at the same time. Possession of valued competencies and collective power increases the potential for reciprocal influence. For example, a wellness program that was created and supported by all levels in a company would have better participation and results. If structures are imposed on people without their concurrence, they resist change, and continually devise ways to circumvent the system, and are quick to discard the activities when the external inducements are weak (Bandura, 1986). The benefits of wellness, professionally and personally, would need to be explained for cooperation to exist.

There continue to be new theories developed (i.e. Ralf Schwarzer's Health Action Process Approach and Michael O'Donnell's Model of Health Promotion Behavior) that hold great promise. Although to date, these theories have not received sufficient empirical investigation.

Dimensions of Wellness

The concern about overall wellness in the United States continues to grow even though there has been an awareness of wellness for many years. Thirty-five years ago, Dunn defined wellness as "an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable, within the environment where he is functioning" (Dunn, 1961, p. 4-5). He identified the 12 basic needs of individuals which he indicated are the major ingredients of wellness. The 12 needs are: survival, communication, fellowship, growth, love, imagination, balance, environment, communion with the universal, philosophy of life, dignity, and freedom and space (Dunn, 1959). The National Wellness Institute, founded at the University of Wisconsin, Stevens Point in 1976, convened the first Action Planning Workshop for Wellness (National Wellness Institute, 1986). Participants defined six dimensions of wellness: physical fitness and nutrition; spiritual values and ethics; emotional health; social, family, environmental and community life; intellectual issues; and occupational and vocational concerns.

Maximizing one's potential while suggesting that it is a dynamic process of growing and becoming (Crose, Nicholas, Gobble, & Frank, 1992; Dunn, 1961; Hatfield & Hatfield, 1992; Lafferty, 1979) along with balance among the dimensions are also important features of wellness (Crose, et al., 1992; Greenberg, 1985). Scientists are linking everything from the common cold to cancer to our emotional conditions. They suggest to strengthen the mind, through perceptions, so that the body, through behaviors, can ward off illness.

There are many facets involved in measuring all these dimensions of wellness. The approaches to measuring wellness are typically clinical, physiological, behavioral, and perceptual. This dissertation measures the perceived, behavioral, and body mass index aspects of all the dimensions of wellness through self-reporting.

Behavioral Wellness

Behavioral wellness includes dimensions in medical self-care, smoking and tobacco usage, physical activity, nutrition and eating habits, alcohol use, and stress relief and coping techniques. Coronory heart disease (CHD) is the number one killer and stroke is the third killer of men and women in the United States. Altogether 1.25 million heart attacks occur each year in the U.S. (U.S. Department of Health and Human Services, 1994). The higher ones blood cholesterol level and blood pressure, the greater his/her risk of these diseases. Heart disease, kidney diseases, and stroke have also been closely connected to high blood cholesterol and blood pressure. Factors that also increase a persons chance of getting heart disease is cigarette smoking, what one eats--being overweight (high intake of saturated fat, dietary cholesterol and excess calories), high intake of salt and sodium, heavy consumption of alcoholic beverages, physical inactivity, and lack of stress management (U.S. Department of Health and Human Services, 1994).

Medical Self-Care

An individual is the key decision maker with respect to health and medical care and has the potential to dominate medical decision making, although much of this potential is

unrealized. Self-care may be defined as all those actions that individuals take with respect to health and medical care. The concept of high-level wellness goes beyond simple absence of disease and is consistent with the part of health self-care that deals with improving health. High-level health or wellness can be expected to be related more closely to physical and mental performance for which measurements and standards are available. It is becoming clear that individuals must take primary responsibility for decisions because in the final analysis only the individual can place a value on a benefit or risk associated with medical interventions and the alternatives to them.

Self-efficacy appears to play a major role in medical self-care, perhaps even outweighing the influence of information and skills (Lorig, Seleznick, Lubeck, Ung, Chastain, & Holman, 1989). The major issue is not so much problem severity or professional medical care availability, but rather individuals' beliefs about these factors and their confidence in their ability to deal with the situation.

Included in the medical self-care category (according to the 1992 National Wellness Institute, Inc.) are the following: avoiding exposure to tobacco smoke, drinking plenty of water, flossing ones teeth, skin care from the sun, adequate sleep, back safety issues, and maintaining acceptable blood pressure and total blood cholesterol levels. The American College of Sports Medicine (1991) catagorizes a blood pressure reading of "high" which is 160/90, serum cholesterol of "high" which is over 240 mg/dl, and cigarette smokers as individuals of major coronary risk. Lynch (1992) indicates that self-care programs could have an impact on up to 30 percent of health care claims. *Together* with

other studies of cost savings due to medical self-care, this suggests that widespread use of medical self-care would result in millions of dollars saved.

Nutrition and Eating Habits

Americans fast-paced life-styles and affluence that has been taken for granted have separated the general population from the nutritional bottom line that food is primarily for nourishment and survival. Eating patterns have a substantial impact on health and quality of life. The nutritional status of the United States population needs to be improved through diet. If diet were a national priority, the populations' quality of life, work performance, learning potential, and overall health would be improved (Weaver, Schmidl, Woteki & Bidlack, 1993).

A substantial body of evidence indicates that what we eat is one of the most important influences on our health. For most Americans, overconsumption of certain dietary components that increase the risk of several highly prevalent chronic diseases is a major concern (Tippett & Goldman, 1994). Excess intake of dietary fat and calories, accompanied by lower-than-desirable intake of food that are high in complex carbohydrates and fiber, contributes greatly to unnecessary illness, disability, and death. Five of the ten leading causes of death for Americans are associated with dietary practices: heart disease, some cancers, stroke, diabetes, and atherosclerosis (U.S. Department of Health and Human Services, 1989). The economic consequences of unhealthy eating can be severe. They are reflected in costs to employers for absenteeism, reduced productivity, disability, and excess medical care utilization.

Dietary excess and imbalance cause the major nutritional problems of Americans. Dietitians use scientifically researched nutritional guidelines to counsel, guide, reinforce, and facilitate change in eating behaviors of their clients. Examples of guidelines are the Recommended Dietary Allowances, The Dietary Guidelines for Americans, The Food Guide Pyramid, the Eat Five Fruits and Vegetables a Day Campaign by the National Cancer Institute, and the new nutrition labels entitled, "Nutrition Facts." The Dietary Guidelines for Americans emphasize balance, moderation, and a variety of food choices. The U. S. Departments of Agriculture & the U.S. Department of Health and Human Services (1990) have several suggestions for a healthful diet. They are as follows:

The first is eating a variety of foods every day. To get more energy, Americans need more than 40 nutrients for good health. Calories should consist of 60 percent of calories from carbohydrates, 25 percent from fat (preferably monounsaturated or polyunsaturated), and 15 percent from protein (U. S. Departments of Agriculture & the U.S. Department of Health and Human Services, 1990).

It is also recommended that an individual choose a diet low in fat, especially saturated fat, and cholesterol. Avoiding foods with more than three grams of fat per 100 calories is recommended. A 25 year follow-up study in seven countries found that cholesterol is linearly related to coronary heart disease mortality, and the relative increase in coronary heart disease mortality rates within a given cholesterol increase is the same (Verschuren, Jacobs, Bloemberg, Kromhout, Menotti, Aravanis et al., 1995).

Weight maintenance is enhanced through choosing a diet with plenty of vegetables, fruits and grain products. In addition, in a recent population-based longitudinal study, it

was concluded that the intake of fruits and vegetables may protect against development of stroke in men (Gillman, Cupples, Gagnon, Posner, Ellison, Castelli & Wolf, 1995). A major source of energy is found in fiber and complex carbohydrates through whole grains, beans, peas, pasta, fresh fruits and vegetables. The National Cancer Institute launched a nutrition campaign entitled, "Time to Take Five: Eat 5 Fruits and Vegetables a Day." This campaign is one way to alert the public about the positive values of incorporating at least five fruits and vegetables a day in your diet. Some obvious values to eating fruits and vegetables: 1) low in calories and fat, 2) high in vitamins, minerals, and fiber, 3) fast and easy to prepare. Research has suggested that people who eat diets with lots of fruits and vegetables may have lower risks for some cancers than people who eat few of these foods (National Cancer Institute, 1995).

Sugars being consumed only in moderation for a healthy weight is another recommendation. This can be accomplished by limiting high-sugar sweets to no more than three each week. In addition to sugars, salt and sodium should also be used in moderation. About 10-15 percent of people are "salt sensitive," meaning salt drives their blood pressure up. Avoiding high salt prepared foods found in canned soups, ham, hot dogs and pickles, while choosing foods that include iron and calcium, are also recommended. The final nutritional recommendation is to drink six to eight glasses of water a day while limiting alcohol and caffeine.

The public's concern about and interest in nutrition has reached an all time high. A recent national survey revealed that more than 75 percent of American shoppers view nutrition as a very important issue. Eating practices, for the most part, are not matched

with these positive attitudes toward healthy eating (National Center for Nutrition and Dietetics, 1994).

Alcohol Use

Estimates vary on the extent of alcohol and drug use in the workplace. Occupations that have high rates of drinking problems tend to have several common features (Plant, 1978). First of all, the easy availability of alcohol during work hours seems to contribute to higher rates of drinking problems. Second, strong social pressures to drink have a similar influence. Both of which are prevalent in the hotel and restaurant industry.

Recent studies lend strong support to the notion that the health benefits of wine consumption, mainly aiding in digestion, are not shared by the other alcoholic beverages. Furthermore, very recent laboratory research demonstrated strong anti-oxidants in wine (more so in red than white) capable of resisting the conversion of HDL (the good cholesterol) to LDL (the bad cholesterol) (Whitten, 1995). Recent findings suggest that any alcohol, not just red wine, can be good for the heart when consumed in moderation (Gaziano, 1996).

Alcohol affects the coagulation of blood within the arteries...it makes the platelet less sticky and less likely to form a blood clot that often leads to a heart attack. "Individuals who consume alcohol moderately have fewer heart attacks" (Ellison, 1995, p. 8). It also has favorable effects on fibrinogen and fibrinolysis (Ellison, 1995). Dr. E. Curtis Ellison, chief of the Evans Section of Preventive Medicine and Epidemiology and professor of medicine and public health at Boston University School of Medicine, has been

the man behind the "French Paradox." The "Paradox" being: the more dairy (and other) fat consumed, the higher the rates of death from coronary heart disease. Except . . . the French consume high levels of dairy fat, averaging 600 calories per day, yet have lower rates of coronary disease than even Portugal, Spain or Italy, which have much lower intakes of dairy fat. A 1979 study showed that "countries that consumed more wine had the lowest rates of heart disease" (Ellison, 1995, p. 8).

The key in alcohol consumption is moderation because alcohol can also affect health adversely. Too much alcohol may cause cirrhosis of the liver. In addition, alcoholic beverages supply calories, but little or no nutrients. "If there is a problem with alcohol abuse, abstinence seems the best message" (Ellison, 1995, p. 9). Dr. Arthur Klatsky (1996), a cardiologist with Kaiser Permanente in Oakland, California, on the health benefits of moderate drinking:

> As an estimate, it might be fair to say that while smoking one pack of cigarettes a day cuts life expectancy by 8 to 10 years, and heavy drinking about the same, taking one or two drinks per day probably add three or four years to life expectancy . . . (p. 89)

Smoking and Tobacco Usage

Significant strides have been made in understanding the scope of the health and social issues surrounding the use of tobacco. Probably no area in worksite health has gone through such a major transformation in such a relatively short time. Since the Surgeon General first reported on the health consequences of smoking (U.S. Department *of* Health, Education and Welfare, Public Health Services, 1964), smoking has been recognized as

the most critical behavioral health risk factor and one of the nation's leading health problems. Even as early as 1979, the Surgeon General reported that smoking was the number one preventible cause of premature death in the United States (U.S. Department of Health and Human Services, 1979). That awareness has expanded and has been translated into significant action.

By 1980, the Surgeon General and thousands of studies had stated that smoking was detrimental to the smoker (U.S. Department of Health and Human Services, 1979). By 1990, the Surgeon General had identified tobacco smoke as detrimental to both smokers and those in contact with ambient smoke in the air, or Environment Tobacco Smoke (ETS) (U.S. Department of Health and Human Services, 1990). It has been found that ETS contains cyanide (a poisonous gas) and formaldehyde (a preservative). Nicotine, the best known component of cigarette smoke, is an alkaloid poison, regularly used as an insecticide. Besides containing twice the levels of nicotine, ETS also contains four to five times the level of carbon monoxide, which replaces oxygen in the blood. In addition to the chemicals naturally occurring in tobacco smoke, it may also contain herbicides and pesticides (U.S. Department of Health and Human Services, 1989). In a 1991 report, the National Institute for Occupational Safety and Health (NIOSH) concluded that ETS meets OSHA's criteria for classification as a potential occupational carcinogen. This puts it in the company of items like asbestos, radon, benzopyrene, and vinyl chloride. "The best method for controlling worker exposure to ETS is to eliminate tobacco use from the workplace and to implement a smoking cessation program" (NIOSH, 1991, p. 2).

Bertera (1991) and others found that there were indications that smoking negatively impacted health care costs. He also reported that smokers were absent approximately 1.3 times more than nonsmokers at the DuPont Company. By 1990, many employers were actively seeking ways of controlling health care costs and began implementing smoking cessation programs. Eighty-five percent of employers had some smoking restrictions and 34 percent had eliminated all tobacco use at the worksite. The Office of Smoking and Health made its 1990 report to Congress regarding the costs of tobacco use in the United States. The report stated ". . . the total economic impact for all 50 States was over $52 billion. . ." (United States Department of Health and Human Services, 1989, p. 53). Smoking-related illnesses cost approximately $1,100 for each smoker in each of the United States. The negative impact of smoking equates to 434,000 deaths per year in the United States and nicotine is now recognized as being as addictive as cocaine or heroin.

Smokers have consistently been found to use more health benefits (Penner & Penner, 1990) and sustain more occupational injuries than nonsmokers. Smokers tend to have a higher use of drugs (Whitehead, Smart, & Laforest, 1972) and consume excessive alcohol (Allen & Mazzuchi, 1985). These factors compound the consistenly higher rates of employee absense found among smokers (Van Tuinen & Land, 1986). Cigarette smoking causes nearly 1,000 deaths a day in the United States due to its major contribution to the nine chronic diseases (i.e. heart disease, stroke, cancers and diabetes) (Blair, 1995). Because of all the factors, the Surgeon General has called for the United States to be smokefree by the year 2000 (Office of Smoking and Health, 1990).

Physical Activity

The sedentary lifestyle has been shown to be a contributing factor to several conditions, including cardiovascular disease, stroke, diabetes, and colon cancer (United States Department of Health and Human Services, 1991). For employers, these diseases or conditions translate into higher health care costs, absenteeism, and lower productivity. Workers who are involved in fitness programs are rated by their suspervisors as more productive. In addition, the standard time required to perform various office tasks was reduced significantly for those who became involved in a physical fitness program (Cox, Shephard, & Corey, 1981).

Exercise burns calories and, if a balanced fitness program is chosen, improvements in muscular strength, endurance, and flexibility are visable. In addition, aerobic exercises such as jogging, swimming, cycling, and dancing provide the added benefits of improving cardiovascular and respiratory endurance and resistance to disease. Emerging data indicates that the long-term effects of exercise may have a significant bearing on the following disease entities: hypertension through the reduction of body fat and weight; diabetes by facilitating weight control and improving insulin sensitivity; obesity by utilizing calories to produce weight loss, decreasing body fat, and increasing lean tissue; osteoporosis by facilitating less degeneration among bone and collagen tissue; and cancer through control of body fat and lipid alteration (Collingwood, 1994).

Regular exercise provides psychological benefits as well. These include a positive self-image, a sense of well-being, and a positive attitude in general. Adequate exercise

contributing to muscle tone and energy are a part of the physical wellness umbrella (Lafferty, 1979).

Every U.S. adult should practice moderately intense physical activity almost every day for a minimum of thirty minutes (Pate, 1995). Aerobic, strength training, and muscle tone should all be included in physical exercise. Physical activities are categorized by the activity level. Light activity includes playing baseball or golf; moderate activity includes walking briskly, gardening, cycling, or playing basketball; strenuous activity includes jogging a 9 minute mile, playing football or swimming; and very strenuous activity includes running a 7 minute mile, playing racquetball, or skiing (McArdle, 1986). Aerobic activities can condition a persons heart if they are performed for at least 30 minutes, three to five times a week. Even two 15-minute periods or three 10-minute periods have been found beneficial to one's heart (American College of Sports Medicine, 1991).

The National Association for Sport and Physical Education has produced an "activity pyramid" similiar to the the food guide pyramid (Marroquin, 1996). Starting at the top of the pyramid down to the bottom is as follows:

sit sparingly;

2-3 times per week enjoy leisure activities (golf, bowling, yardwork);

2-3 times per week stretch/strengthen (weight training);

3-5 times per week do aerobic activities (walk, swim, bike);

3-5 times per week play recreational sports (basketball, tennis, racquetball);

everyday take extra steps (walk stairs versus taking the elevator).

Stress Relief and Coping Techniques

Short-term stress can increase resistance to disease. With continuous stress, the mind perceives the threat as inescapable. As a result, the body weakens. Consistent evidence supports the contention that employee absenteeism increases with stress and anxiety. Douglas (1976) found that much of the reported "physical illness" used as excuses for absenteeism was really being driven by personal and environmental stress. Sylwester (1979) used a social adjustment scale and showed that those most often absent also had experienced the most change in their lives.

A meta-analysis of cross-sectional studies suggests that aerobically fit individuals have lesser physiological reponses to stress with faster recovery rates than their sedentary peers (Crews & Landers, 1987). A person can feel the effects right away when they experience stress. This is why nutrition and exercise are so important. Exercise can work to alleviate the tension that builds up from everyday stress (Poynor, 1988). Some studies suggest that exercise has benefits in the management of psychological problems including anxiety, depression, and job-related stress (Sime, 1984). A physically fit individual's more rapid dissipation of physiological tension, or stress resistance, leads to improved productivity (Schaeffer, Snelling, Stevenson, & Karch, 1994). A consistently good eating plan, based on a balanced diet is important in withstanding the impact of chronic stress (Adams, 1980).

Scott and Jaffe (1994) created a five-phase model of the stress cycle. Phase one consists of the stressors or the pressures, demands, challenges, and changes impinged on a person (i.e. budgeted profits). Phase two is the perception or the degree of difficulty,

danger, or threat of the stressor (i.e. poor job performance if general manager does not make budgeted profit). Phase three is the stress response that is activiated when a stressor is perceived as a threat or danger. Phase four is the coping strategies used. The person can deal with the event directly by taking action to master it; they can manage the emotional and physical consequences of the stress response in themselves; or they can avoid, deny, minimize, or rationalize the stressful situation, putting it out of perception. The final phase is the stress symptoms.

Depending on the specific situation and what is needed, the fourth phase will take care of the situation or of the person if the situation cannot be changed, thereby helping a person reduce or remove the stress or its negative effects, or it will be ineffective and dysfunctional which leads to difficulty. If the response is ineffective or dysfunctional, the body eventually becomes exhausted, and physical and emotional symptoms build up. These stress-related symptoms--emotional, physical, and also behavioral (like drugs, alcohol, and overeating)--which mask the effects of stress, thus lead to a myriad of health problems as a secondary result of stress. The particular health problem depends on the makeup of the person (i.e. a person with Type A behavior).

Perceived Wellness

Epidemiological researchers have shown that self-rated perceptions, as used in this research, of health are among the most powerful predictors of subsequent health outcomes (Fylkesnes & Forde, 1991; Kaplan & Camacho, 1983; Mossey & Shapiro, 1982).

Researchers have also suggested that health perceptions are one of the best predictors of physical and mental health care use (Stewart, Hays, & Ware, 1992). Some also believe that perceptions of internal resources enable individuals to survive and thrive under conditions of extreme stress (Antonovsky, 1988; Kobasa, 1979).

Adams relates wellness to consistent efforts to grow with a balance among several dimensions of human existence. These dimensions of wellness were defined as a manner of living that permits the experience of consistent, balanced growth in the physical, spiritual, psychological, social, emotional and intellectual dimensions of human existence (Adams, Bezner, & Steinhardt, in press). The following are perceived dimensions of wellness used in this research.

Psychological Wellness

Adams defines psychological wellness as the general perception that one will experience positive outcomes to the events and circumstances of life. "An individual who is dispositionally optimistic believes that every situation and circumstance will ultimately produce positive outcomes" (Adams et al., in press, p. 30). The opposite would be pessimism. Researchers have suggested that a pessimistic explanatory style is relatively stable across the life span (Burns & Seligman, 1989). Pessimism shows an association to depression (Sweeney, Anderson & Bailey, 1986), low work productivity (Seligman & Schulman, 1986), and poor health outcomes at forty-five years and older--after controlling earlier for physical and emotional health (Peterson, Seligman, & Vaillant, 1988).

Emotional Wellness

An expert defined emotional wellness as possession of a secure self-identity and a positive sense of self-regard (Adams et al., in press). Self-identity and self-regard are facets of self-esteem, which is a major component of emotional wellness (Diener, 1984) and is one of the strongest predictors of general well-being (Burckhardt, 1985; Dirkesen, 1989; Kozma & Stones, 1978). Self-identity is one's own internal self-image. Emotional wellness is shown through love and affection; feelings of earnestness, passion and sincerity; and trust through believing and having confidence. Coping methods with stress and adapting to stress are vehicles that can improve or decrease a person's emotional wellness. The ability one has to relax and devote time to leisure both fall into this category. Emotional illness is mistrust through doubting, apathy, uncaring and even hate and hostility (Lafferty, 1979).

Social Wellness

Social wellness is defined as the perception of available support from family or friends in times of need and the perception of being a valued support provider (Adams et al., in press). A common conceptualization of social support is "the belief that one is cared for and loved, is esteemed and valued, and belongs to a network of communication and mutual obligation" (Cobb, 1976, p. 300).

Sociality encompasses conversability, neighborliness, and hospitableness. Extroversion encompasses openness and friendliness. Both are a part of social wellness (Lafferty, 1979). Illness in the social category is attributed to introversion, anxiety, criticalness and depression.

Social support has been shown to be very important in facilitating recovery and rehabilitation from disease, while reducing the impact of stress on physical and emotional health. It has been found that men with high levels of support had fewer risk factors and symptoms of cardiovascular disease and had lower mortality rates after they held other risk factors constant (Blumenthal, Burg, Barefood, Williams, Haney, & Zimet, 1987; House, Robbins, & Metzner, 1982; Kaplan, Solonen, Cohen, Brand, Syme, & Puska, 1988; Orth-Gomer, Rosengren, & Wilhelmsen, 1993; Reed, McGee, Yano, & Feinleib, 1983; Ruberman, Weinblatt, Goldberg, & Chaudhary, 1984).

Researchers have identified key associations between social support and health (Adams et al., in press). Perception of available support is the most important health protecting feature (Cohen, Sherrod, & Clark, 1988; Cohen & Wills, 1985; Wethington & Kessler, 1986). Perceived availability of support generally assesses the extent to which an individual is "accepted, loved and involved in associations in which communication is open" (Sarason, Shearin, Pierce, & Sarason, 1987, p. 813). In addition, the quality of available support is more important than the quantity (Cohen & Wills, 1985; Levitt, Clark, Rotten, & Finley, 1987; Seeman & Syme, 1987).

Physical Wellness

Physical wellness means the positive perceptions and expectations of physical health (Adams et al., in press). Previously, empirical research used objective physical health as a control variable and neither morbidity or mortality related endpoints suggesting that physical health was the collective focus. Mossey & Shapiro (1982) concluded that both mortality status and odds of death were associated with older age, poor perceived

health, poor objective health, and low life satisfaction in the expected directions. They suggested that perceived health may have contributed to mortality risk because it represented a "finely tuned indicator of physiological well-being" (Mossey et al., 1982, p. 805). Positive health habits, rather than perceived health, may have been the primary influence on mortality. Finally, poor perceived health individuals with good/excellent objective health had a greater risk of mortality than good perceived health individuals with poor/fair objective health.

Spiritual Wellness

Spiritual wellness, or the positive sense of meaning and purpose in life (Chapman, 1986; Crose, et al., 1992) has been proven to have an association to positive health outcomes and well-being (Reker, Peacock, & Wong, 1987; Zika & Chamberlain, 1987; Zika & Chamberlain, 1992). Honesty, loyalty, and conscientiousness; morality, which encompasses virtue, righteousness, and ethics; values, which encompass usefulness, self-worth, and self-esteem are all a part of spiritual wellness. Spiritual illness is evident through the feelings of unimportance and uselessness, immorality, dishonesty and corruptness. Making time each day for thought, meditation or prayer add to spiritual wellness, as does acceptance of others and identification of one's own values (Lafferty, 1979). For some people, religion will be a central component of spiritual health programs. Research in this area is limited but growing.

Intellectual Wellness

Adams defines intellectual wellness as the perception of being internally energized by the optimal amount of intellectually stimulating activity (Adams et al., in press).

Moderate amounts of intellectual stimulation are optimal (Suedfeld, 1979) along with participation in activities that the individual perceives as intellectually enriching and invigorating (Lawton, 1990). Intellectual wellness is a perceptive, intuitive and skilled intellect; competent in comprehension, cognition and apprehension from reading; creativity in design and inventions; and ideas through concepts, opinion and imagination. Intellectual illness is shown through slowness, inactivity, and dullness. Illiteracy in language, literature, speaking and writing; and ignorance through unawareness and being uninformed contribute to intellectual illness (Lafferty, 1979).

Body Mass Index

Research has found that an individual should maintain a healthy weight. A healthy weight reduces the chances of high blood pressure, heart disease, stroke, and certain cancers (Shaw & Davis, 1994). According to the American College of Sports Medicine (1991), the major modifiable cardiovascular risk factors are high blood pressure, high cholesterol, cigarette smoking and physical inactivity.

The guidelines used today in calculating the body mass index [BMI, weight (kilograms)/height(meters)2] is any ratio less than 18.5 is undernourished; 18.5 to 25 is healthy; 26 to 30 is overweight; and over 30 is obese (Shetty & James, 1994). The prevalence of being overweight, >27.8 for men and >27.3 for women, is estimated to be 26 percent in the United States or 34 million among adults 20 to 74 years old. Prevalence

of thinness is estimated to be 14 percent among U.S. adults (Black, Sciacca & Coster, 1994).

Several attempts have been made to determine the effects of chronic energy deficiency on work efficiency and work output. Physical work capacity, which often is measured and expressed as the body's maximal capacity to consume oxygen is largely determined by muscle mass. In physically strenuous work, positive correlations have been found between work capacity measured in this way and work performance.

Assessing the link between poor nutritional status and diminished work productivity is complicated by several variables such as motivation, wages and health status of the individual. The consequences of a low BMI status in an adult are only now being recognized; there is considerable need to evaluate immune function, proneness to illness, morbidity and mortality in low BMI adults. The better nourished individuals, however, proved to be more physically active for a significantly greater proportion of the day than persons with low BMI's. For example, men with a low weight-for-height took significantly longer to complete the same task than men with a higher weight-for-height. Low body weights seem to limit an adults' work output, productivity and income-generating ability. They may be less able to repond to stressful conditions when they suddenly face greater demands. The accepted BMI cut-off point to determine a low rate is 18.5 (Shetty et al., 1994).

Extremes in Body Weight

The highest probability of healthcare expenditures by third party providers for lifestyle-related diseases and disorders occured when there was a combination of baseline

insurance expenditures and BMI extremes. The lowest probability occured when BMIs were near 26 or 27, which is 19 percent above the ideal BMI of 22. This information justifies the continued need for focusing on extremes in body weight as a health priority (Black et al., 1994).

In a 1995 study, it was found that higher levels of body weight in women that were within the normal range of BMI 21-25, as well as having had modest weight gains after 18 years of age, appeared to have an increase risk of coronary heart disease in middle-aged women (Willett, Manson, Stampfer, Colditz, Rosner, Speizer & Hennekens, 1995). This suggests that the current United States weight guidelines may be falsely reassuring women that are over 35 years old and within their recommended range that they are not in danger of coronary heart disease, when they may be.

Obesity is clearly caused by positive energy balance over time, due to overnutrition, physical inactivity, or both. Nearly one half of adult American women and one quarter of American men claim to be dieting. A BMI of 27 kg/m2 is considered the upper limit of a healthful body composition (National Institutes of Health, 1985), and nearly one quarter of adults in the United States exceed that value. Most researchers would agree that overweight is associated with several health problems including coronary heart disease, stroke, hypertension, and arthritis.

Regardless of heredity or metabolic rate, voluntary control of body weight rests on factors that can be manipulated by the individual. These include physical activity, macronutrient composition of the diet, and the volume of energy intake. For weight loss to be maintained, long-term treatment is necessary. Weight management at the worksite has

potential for improving employee health and productivity, enhancing job satisfaction, and ultimately reducing corporate health care costs through prevention.

The Economic Impact of Health Promotion

From an organizational perspective, the most important measure of the health promotion program's (HPP) value is a comparison of benefits and costs and how they effect revenues and profits. Since the 1980's, researchers have proven that health promotion is successful. Effective HPP were thought to be good for a company's employees, but did not provide the arguments that justified the budgets needed to keep them running. Employers were searching for the bottom-line impact of health promotion that needed to be demonstrated in dollars and cents (Sherwood, 1986). Little research had been conducted to verify benefits and there was limited information on the appropriate methodology for evaluating the financial impact of the wellness investment in the early 1980's (Smith, 1987).

Proven positive results from HPP have taken place throughout the 1990's. HPP eliminate excesses in economic costs, aid in attracting and retaining key personnel (decreasing turnover), decrease absenteeism, enhance productivity, improve a public image of the company, and promote a greater allegiance to the company by employees (Bartlett, 1992; Connors, 1992; Pelletier, 1993).

Costs of Health Care

Containing costs while providing health care benefits to all employees is a major issue for all companies. "There is nothing in the Constitution of the United States that says that companies have to pay for the healthcare of their employees. And yet that is the expectation of every worker in this country," says Robert Kaman, President of the Association for Fitness in Business (Mason, 1992, p. 33). Paying medical coverage is supposed to be an employee benefit, not the primary role of companies whose real mission is the profitable production of goods, services, and materials in an intensely competitive international market (Pelletier, 1993).

There are some positive, along with some negative, implications about the United States Health Care Reform proposal. The positive implication would be that all Americans would have access to health care. The negative implication would be the manner in which premiums are paid for by corporations. If this reform takes place, the proposal is to have "community" payments, all companies splitting up the total cost. Today, more companies are being charged premiums on "experience or history." This is why HPP in the worksite have become so popular. If this cost incentive were removed for companies, what would happen to health promotion?

Rising health care costs are a significant concern to all types of businesses across the U.S. (Lowry, 1990). Many companies' costs have risen 15 percent to 20 percent in the past several years (Lesmes, 1993). About 50 percent of employee health care costs are due directly to poor employee habits, lifestyle and stress (Kerr, 1989). D.W.

Edington, the Director of the Fitness Research Center, stated "High-risk people are high-cost people" (Mason, 1994, p.30).

America spends $400 billion health-care dollars annually on treatment for controllable ailments such as obesity, hypertension, high cholesterol, smoking, and alcoholism (Chang & Boyle, 1989). Corporate and industrial America pay for more than one-half the nation's total health-care costs. This equated to more than one trillion dollars in 1988 (Alaniz, 1989). The total cost for medical care in 1992 was about $817 billion and if past trends continue, by the year 2030 it will account for about 28 percent of the Gross Domestic Product (Waldo, Sonnefeld, & Lemieux, 1991). The economy cannot tolerate this level of expenditure.

Fortune 500 companies alone are losing an average of $88 million each per year to employee illness and more than $100 million for medical coverage (Chang & Boyle, 1989). When examining employee medical benefits, the average cost per employee was $3,968, which amounted to an average of 42 percent of net company profits (Data Watch, 1992).

Today, discounts from health insurance companies are awarded to companies that support wellness. By the year 2001, 90 percent of insurance carriers will expand coverage or reduce premiums for policy holders with healthy lifestyles (Cetron, 1994) along with freezing deductables for preventative maintenance medical exams.

Although many companies provide incentives for healthy lifestyles, there are those who curtail costs by penalizing their employees for unhealthy lifestyles--mostly tobacco use and high cholesterol levels. They require that employees pay additional premiums for

their increased health-risk factors (Schachner, 1990; Crenshaw, 1990; Stout, 1991). Therefore, the employees are encouraged to modify or change their present lifestyle habits. Some wellness programs educate and motivate employees and their families to adopt better health habits with the objectives of not smoking, controlling weight, controlling cholesterol and blood pressure levels, wearing seat belts, adopting nutritional food choices, and achieving a moderate level of fitness (Paxton et al., 1993). These are all controllable risk factors versus uncontrollable risk factors like age, inherited traits, and gender. It was thought that if companies were more concerned with containing immediate health care costs rather than adding to long-term benefits, spending on health promotion could suffer (Braus, 1989).

Benefits of Health Promotion

For every one dollar spent by many companies on wellness programs, they saved three dollars in health care expenses (Jacobs, 1993; Peterson, 1995; Povall, 1994). More companies are justifying wellness programs through improved employee morale and other intangible aspects (Alaniz, 1989; Braus, 1989; Buckstein, 1991; Harris, 1989; Hofmann, 1990; Kertesz, 1990; Lightfoot, 1989; Rothman, 1989; Shutt, 1989; Tarkan, 1991; Weinstein, 1989). According to CIGNA Corporation, employers "should not look only at dollars and cents when putting together a wellness program, because it offers social and recruiting benefits as well as helping employers control health-care costs" (Hofmann, 1990, p. 33).

Productivity Enhancement and Reduction of Job Burnout and Stress

The Public Health Service established national priorities in health promotion outlined in Health Objectives for 1990 (USDHHS, 1990). These priority areas included reduction of smoking, reduction of alcohol and drug misuse, diet and nutrition, physical fitness and exercise, and stress management (Lovato, Green & Stainbrook, 1994).

Stress has been linked directly to almost every common disease, from heart disease to the flu. Stress is a major barrier to personal health. Yet some people adopt a kind of fatalistic attitude about it--mistaking it for an external event and seeing themselves as not able to do anything about it. A 1990 Gallup Poll of a national random sample of employee reports of effects of job stress found that 47 percent reported reduced productivity, 40 percent morale problems, 40 percent absenteeism, 30 percent alcohol and drug abuse, 29 percent poor work quality, 28 percent physical illness, 21 percent job turnover, and 21 percent accidents. While some of these may also be causes of work stress, it is clear that people are concerned and deeply affected by the stress of their work (Richardson, 1990).

In the early 1970's, a form of extreme and continuous work stress leading to personal exhaustion and inability to continue working was described as burnout. Maslach and Jackson (1981) identified three components of burnout and developed an assessment tool to assess the presence of each. They are: depersonalization--seeing customers and colleagues as less than human; reduced sense of personal accomplishment--lowered sense of competence or satisfaction from work; and emotional exhaustion--not having anything more to give to work. Burnout can no longer be thought of as an individual phenomenon, but as an organizational concern.

Pressures, demands, and worries that make you feel tense are facts of life. These are considered stress, but the key is to keep them within manageable limits, and that is stress control. Stress producing factors (such as heat, cold, fear, and joy) are called stressors, and the body responds to stressors automatically, according to their intensity, with a series of changes in body chemistry. Some stress can be positive, but too much can interfere with your normal activities and contribute to many medical problems such as fatigue, headaches, cramps, prolonged depression, heart disease, ulcers, and colitis (Channing, 1990). Situations can be pleasant or unpleasant, what counts is the intensity of the demand it places on the person to readjust (Selye, 1974).

The physical reaction of the body to stress is basically the same, regardless of the stressor. The two basic forces are physical and mental or emotional activity. Stress from emotional frustration is more likely to produce disease, than stress from physical work or exercise. This harmful stress is called distress. It is continual and causes for constant readjustment (Selye, 1974). The word stress was coined by Hans Selye in 1948 and refers to what he defined as the "general adaptation syndrome" or the wear and tear of the body's responding to the pressures, changes, and challenges of life (Selye, 1974). Selye, a Canadian physiologist, states that stress effects five main areas: emotional (moodiness), physical (headaches, fatigue, indigestion), intellectual (forgetfulness, lack of interest), behavioral (hostile, inconsistent), and institutional (decreased productivity, low morale). Another stress definition proposed by Sutherland (1991) points to the negative aspects of stress as "a condition in which an internal or external demand exceeds a person's coping abilities" (p. 24).

Different people might perceive the same demand as a challenge, a sign of personal failure, or as an overwhelming or hopeless situation. In addition due to their personal style and history, people respond differently to organizational pressure. Different people have different capacities to deal with difficulties. They have different resources and skills that help them meet stressful demands. Work stress thus arises from a mixture of demanding work conditions, individual perceptions of how stressful they are, and individual capacities to respond to them.

Stress has been linked, directly and indirectly, to coronary heart disease, cancer, and various injuries. Its annual cost to corporations has been estimated at $50 to $75 billion (Jenner, 1986). Only three years later, Newsweek stated the overall cost to the economy was as high as $150 billion a year--almost the size of the federal deficit.

Northwestern National Life Insurance (1991) conducted a nationwide study of 600 workers and found that 34 percent of respondents seriously thought about quitting because of job stress, and one in three expects burnout on the job in the near future. Fourteen percent quit or changed jobs in the past two years due to job stress. Some 46 percent of workers called their jobs highly stressful, more than twice as many as in 1985. The study found that companies with supportive policies have less than half the burnout rate of others. The Northwest National Life Insurance survey (1991) found that stress causes far more turnover, reduced productivity, absenteeism, and illness than previously known. Cutting staff to save costs actually increases costs by adding survivor stress. Employers seldom recognize job-related stress, but stress-related disability cases have

doubled in the last ten years. Costs in California averaged $73,270 for each claim (California Worker's Compensation Institute, 1990).

Ken Pelletier, a leading researcher on work/occupational stress, summarizes many research studies in a statement of:

> Stress-related psychological and physiological disorders have become the number one social and health problem of the last decade. Stress-induced disorders have long since replaced epidemics and infectious disease as the major medical problem of the post-industrial nations. . . . Most standard medical textbooks attribute anywhere from 50 to 80 percent of all disease to psychosomatic or stress-related origins (1977, p. 12).

Occupational stress is a negatively perceived quality, which as a result of inadequate coping with sources of stress, has negative mental and physical ill health consequences (Cooper, 1994). Stress-related issues are being addressed more in the working environment. Employees are finding an increasing number of programs being offered on stress-related issues. Wellness programs promote steps to protect ones self against stress. The first step in controlling stress is to identify what is causing the stress. Individuals may feel stress from the home, workplace, or other environments. On the job, individuals encounter deadlines, pressures, work overloads, confusion over assignments or priorities, unprotected changes or reassignments. Even positive changes, such as promotions, can be sources of stress. These are all examples of stress by outside sources, but individuals should also be aware of the stress they impose upon themselves.

Paul Rosch, professor of medicine at the American Institute of Stress, states that "It's a question of setting goals that are appropriate, beyond your grasp but within reach," (Marks, 1995, p. 90). Forty-three percent of all adults suffer noticeable physical and emotional symptoms from burnout. Somewhere between 75 percent and 90 percent of all visits to the doctor's office stem from it. The country loses $7,500 per worker per year to burnout, either through absenteeism, decreases in productivity or workers' compensation benefits (Marks, 1995).

Consistent evidence supports the contention that employee absenteeism increases with stress and anxiety. Ramanathan (1992) found that employee stress was positively related to absenteeism and negatively related to intentions to stay with the company. Employee Assistance Programs (EAP) can be the core provider for stress-management training. A mean absenteeism rate from several companies was significantly reduced four months after an initial EAP contact (Ramanathan, 1992).

Reduction of Absenteeism and Turnover

Some of the human factors influencing productivity--such as absenteeism--are tangible, measurable, and have clear outcomes. Rather consistent findings have been reported for absenteeism studies indicating that fit and active employees seem to have lower absenteeism rates. Also, absenteeism rates decreased after the installation of a fitness program. Blair, Smith, Collingwood, Reynolds, Prentice, & Sterling (1986), Cox, Shephard, & Corey (1981), and Mealey (1979) reported reductions of 20 percent, 35 percent, and 20 percent respectively.

Absenteeism rates in the workplace have risen over 30 percent during the past 25 years despite the considerable improvements in both the quality of health care and socioeconomic conditions (Baun, 1995). Costs of replacing employees can run from $500 for an hourly worker to $5000 for a manager (Karr, 1991). The Vice President of Burger King estimates that the cost of turnover at the managerial level is $17,000 to $20,000 (Hogan, 1992). A hotel that had a base of 180 employees, spent $101,139 the first year opened on training, equating to $802.69 per exiting employee (Williams, DeMicco, DaSilva, & Vanucci, 1995). Some estimates place the cost of turnover in the hospitality industry as high as $2,500 per incident (Wasmuth & Davis, 1983).

There are several factors that contribute to absences and then turnover. Smokers have consistently been found to use more health benefits and sustain more occupational injuries than nonsmokers. They also tend to have higher use of drugs and excessive alcohol. These factors contribute to the consistently higher rates of employee absence found among smokers (Van Tuinen & Land, 1986). Stress, which has already been reviewed, and hypertensives have significantly higher rates of absence. In addition, demographic variables (gender, race and age) were related to absenteeism (Sexton & Schumann, 1985). In a large cross-sectional study, employees with any of six major behavior risks (smoking, overweight, excessive alcohol use, elevated cholesterol, high blood pressure, or inadequate seat belt use) had significantly higher absenteeism (Bertera, 1991).

A comparative study of 1,125 employees of two insurance companies found that with a wellness program absentee rates tumbled: 60 percent for men and 38 percent for

women. The turnover rate was only 1.5 percent versus 15 percent for the non-participants (Cole-Hamilton, 1994). According to a survey, United States workers were out sick 2.7 hours for every 100 hours worked or 1 in every 37 workdays in 1993 (Gibson, 1994).

Turnover can be costly for an organization because of the cost associated with the recruitment and retraining of new personnel. Studies tend to indicate that, compared to nonexercisers, exercisers tend to have a higher probability of continued employment. One follow-up study with the Canadian Life Assurance Company (Cox et al., 1981) reported the rate of turnover was 8 percent lower among program participants. Bernacki and Baun (1984) noted that employees who exercised regularly tended to be better performers in their jobs. Consequently, providing an exercise program and facility might help attract and retain high performers.

Absenteeism is a major problem for worksites, therefore, many HPP have been implemented as an intervention to curb high absenteeism rates. The ever-increasing international competition is encouraging corporations to focus on the potential economic yield of employee fitness programs. Published reports suggest there was an improvement of corporate image, facilitation of recruitment, increase in the quality and quantity of production, decreased absenteeism, reduced turnover, lower health care costs, and fewer industrial injuries. Usually the ratio is benefit-to-cost, which presents a positive value to describe a program in which the benefits are greater than the program costs (Stead, 1994). Increased productivity, loyalty, and morale, with less absenteeism and turnover and an overall long-term savings in health benefit costs are all benefits of wellness programs.

Results of Worksite Health Promotion Programs

Organizations continue to invest in HPP to reduce medical care costs, enhance productivity, and enhance their image. The quality of research evidence to support health promotion as a prudent investment for business is improving. It has reached a level of quality comparable to evidence supporting other investment opportunities in business and thus is sufficient for most business executives.

Organizations have great power to influence employee behaviors through organizational policies and programs. Personnel policies set standards of acceptable or desired employee behavior. Management actions that can have an impact on employee behavior include a written commitment to a healthy work force; a comprehensive HPP; supportive organizational policies; and supportive benefit programs, including risk-rated health insurance. A HPP can have a major impact on the image of an organization. An employer that provides a HPP for its employees demonstrates concern for their well-being. Demonstration of concern and responsibility can have positive impact, not only on internal operations and the recruitment and management of employees but also on dealings with external groups, such as suppliers, clients, and competitors (O'Donnell et al., 1984). An estimated 60 percent of businesses with more than 50 employees offer at least one fitness event per year (USDHHS, 1994).

Prevention, as the saying goes, is the best cure. And prevention is a two-way responsibility--the employees and the employers (Kelly, 1992). It is of prime importance that employees have the tools and understanding to take responsibility for their own health.

It will take more companies to test the waters of supporting employee wellness programs in an attempt to curb rising medical benefit costs (Mason, 1994). As an example, health insurance companies do not want to provide reduced rates for healthy, active individuals because savings from healthy lifestyles do not happen overnight. They want to give discounts on things that save them money today, not several years into the future (Kalish, 1995).

HPP cost effectiveness has been measured in several ways. The impact on overall medical expenses, and the correlation of the number and type of risk factors compared with medical expenses have all been measured. Today's health care costs are driven by forces such as medical inflation, new technology, cost-shifting and administrative inefficiencies (Chenoweth, 1995). The most efficient and effective approach towards controlling health-care costs is to position health promotion activities and programs within an integrated health management framework, like *Coors, Quaker Oats, Northern Telecom*, have done (Chenoweth, 1995). Wellness experts predict that health promotion will be given a higher priority in employee benefit plans within the next decade because there is finally enough evidence to prove that it works (Wojcik, 1994).

Rosen (1991), in The Healthy Company, elaborated on corporate wellness:

> Healthy people make healthy companies. Healthy companies are more likely, more often, and over a longer period, to make healthy profits and to have healthy returns on their investments. So healthy people and healthy associations are at the very core of success in business (p. 22).

A positive management-employee association in a company is achieved by management showing they care about their employees. *Coors* is just such a company. They have promoted employee wellness for more than a decade. Their priority was to encourage wellness in employees' bodies, minds, and spirits. After their health-care costs rose nearly 50 percent from 1983-86, they started quantifying their return of their wellness investment. They found that each $1 they invested, returned $1.24 to $8.33 with an average of $6.15. They estimate that their wellness program saved the company $1.9 million annually by decreasing medical costs, reducing sick leave, and increasing productivity (Clifford & Diaz, 1995).

Johnson & Johnson's health care costs only increased in 1989 by 10 percent when other comparable companies escalated by 20 percent (Verespej, 1991). In Johnson & Johnson's Live for Life Program, participants had a greater increase in daily energy, and had a lower increase in inpatient costs, hospital days, and admissions (Pelletier, 1993). "The very first thing you see when you put in a comprehensive wellness program is a change in morale and attitude," says Peter Soderberg, President of Johnson & Johnson Health Management Inc. (Mason, 1992, p. 33). Seventy five percent of the 33,000 workers participate in their program. The company saved an average of $154 per employee (return on investment) in inpatient healthcare costs and reduced absenteeism (Mason, 1992).

Paty Company, a Tennessee retailer, is another example of a company successful with its implementation of an employee wellness program. It, too, has discovered that the programs "not only raise productivity and company morale, but have helped to reduce

overall insurance costs" (Shutt, 1989, p. 31). The company pays employees to quit smoking as well as to exercise regularly. Up to $1300 per year per employee is available to employees who participate in this incentive.

Resinoid Engineering Corporation found that over a five year period, claims for smoker-related illnessess average cost for each claim rose from $2,000 to $10,000 (Lesmes, 1993). They have effectively controlled their costs by reducing risk, rewarding changed behavior and changing corporate policies. They entered into a long-term partnership with the center for Cardiovascular Research at Northeastern Illinois University, Chicago (Lesmes, 1993). Reformed smokers received $500 cash incentive if they were smoke-free for one year.

The *Traveler's Corporation of Hartford* saved $7.8 million of the employee benefits costs as a direct result of its "Taking Care Program." Because of decreased health benefit claims, increased employee health status, increased productivity and reduced absenteeism, Travelers yielded a $3.40 return for every $1 invested in the program (Mason, 1992).

Quaker Oats Company's medical costs had nearly tripled between 1971 and 1981. They implemented their Live Well-Be Well program that included behavioral modification programs in areas such as nutrition, exercise, stress management, substance abuse prevention, smoking cessation and disease management (Chenoweth, 1995).

Several other companies, such as *Control Data Corporation, Texas Instruments, American Telephone and Telegraph, Forbes, Mesa Limited Partnership, U-Haul, General Electric Aircraft, Florida Power and Light, Baker Hughes, and Safeway* have

started various health promotions in the workplace based on the premise that "an ounce of prevention is worth a pound of cure" (Alaniz, 1989; Deutsch, 1991; Pavett and Whitney, 1990; Pearson, 1990; Violette and Violette, 1990).

For every dollar invested in *Control Data's* wellness program, they saved $3 (Garziona, 1996). Using the Center for Disease Control's StayWell program, they found reduced absenteeism and insurance claims equating to $1.8 million (Pelletier, 1993).

Tenneco found that the average health claim for exercising women was $640 as compared with $1536 for nonexercising women and $562 compared with $1004, respectively, for men (Chang & Boyle, 1989). In addition, they found exercisers had less job turnover (Wojcik, 1994).

Absenteeism at *Lockheed* was 60 percent lower for exercisers than for non-exercisers and the turnover rate was 13 percent lower among those who exercised regularly (Chang et al., 1989). *Chrysler Corporation* examined the types of health risks more likely to result in larger health-claim costs. Smokers were 31 percent higher, poor eating habits of employees were 41 percent higher, employees overweight by 20 percent were 143 percent higher (Litvan, 1995).

DuPont showed a 47.5 percent decline in hourly employee absenteeism who were involved in the health promotion program over six years versus a 12.5 percent decline in the total DuPont hourly work force. Every $1 spent on health promotion yielded $1.42 in lower labor costs (Bertera, 1990). Another interesting point is that within the last 10 years, 21 percent of DuPont employees have refused overtime or a job with more

pressure; 24 percent refused jobs that require increased travel (Marks, 1995). These employees have taken steps to simplify their lives--all a part of balance in wellness.

Johnson & Johnson's Health Care Systems, Inc. published in their 1996 catalog their findings that 10-20 percent of high risk individuals (high cholesterol levels and blood pressure) are the cause of 80 to 90 percent of an organization's health care costs.

When sixteen companies in the Reno/Sparks, Nevada, area were asked what were the two most important reasons for their company to begin or continue an employee wellness program (employee morale, company image, cost control, compete with other companies, respond to employee requests, or employee well-being), 41 percent chose employee well-being, 25 percent chose cost control, and 19 percent selected employee morale as their major reasons to consider a program (Mays, 1992). These companies are interested in protecting their long-term assets--their employees.

The researcher visited St. Anthony's Hospital North Specialized Center of Rejuvenation and Exercise (SCORE) program, a hospital-based program for the evaluation and enhancement of health in Oklahoma City, Oklahoma. Their top account is *Fleming Foods*, also located in Oklahoma City. Fleming spends approximately $30,000 a year for 100 employees to participate in the SCORE program. Dr. Randy Morgan, director of SCORE, found that individuals are willing to change unhealthy practices or habits to avoid potential major health problems. Another company protecting their corporate long-term assets!

According to the United States Office of Disease Prevention and Health Promotion's 1992 National Survey of Worksite Health Promotion Activities, 52 percent

of the 1,507 employers surveyed offered health risk assessments, 42 percent offered physical activity and fitness programs, and 40 percent offered information or activities to help employees stop smoking (Cowans, 1994).

The Hotel Industry

Most hotel managers are paid a set salary and a bonus. Usually, the bonus is paid if the actual year-end profit exceeds the budget (Alfus, 1992). Since hotels are forced to give to the bottom line these days, no unnecessary expense can be reasonably tolerated (Serlen, 1992). Therefore, hotel managers are constantly in search of ways to enhance profits for not only the hotel, but also their own pocketbooks.

A study by Brodzinski (1989) of 93 employees on their most stressful experience on the job in the previous month cited 25 percent were productivity concerns. Productivity of labor is usually the highest expense hotel companies incur. Twenty one percent were new assignments or relocation; 27 percent were supervisor or employee problems; 11 percent were customer interactions; 8 percent problems with peers; and 3 percent were personal problems. Hotel managers are affected by all of these items on a daily basis. If hotel managers were aware of the benefits of wellness, would they implement it into their personal lives and encourage their other managers and employees to do the same?

Hotels with Health Promotion Programs

The hotel properties that have HPP for their employees are-- *Marriott's* headquarters, *PGA National Resort and Spa*, three *Hiltons* in Chicago, and the *Hyatt Corporation.* Marriott has a wellness program for their corporate employees. The Marriott International's Wellness & You! program boasts a 50 percent employee participation rate at its headquarters in Bethesda, Maryland. The program costs the company $35 per employee per year. Within the past two years, Marriott estimated a savings of $160 per participant per year, based on calculations of direct and indirect healthcare costs nationwide. Because of this, they are testing a limited wellness program at their Desert Springs Resort in Palm Desert, California. Their goal is to figure out the best way to care for your body when you're at work. Their program is designed to reduce fatigue and to prevent repetitive-motion injuries (Willen, 1996). In addition, Marriott Corporation has teamed up with San Diego University for use of a Wellness Center for their guests at one of their hotels (McMullen, 1995). Surprisingly, there was no mention of their managers or employees being able to use this facility.

The PGA National Resort and Spa in Palm Beach Gardens, Florida, has taught their staff how to make healthful foods taste good. Dave Sadeghi, PGA's director of food and beverage, had lost 25 pounds after participating in the hotel's wellness program. He inspired many of his colleagues to follow his example (Willen, 1996). Their wellness program included health fairs with health screenings, sporting activities, lectures on health topics and special meals in the employee cafeteria. Sadeghi feels that the program has

attracted many job applicants to the resort even though Palm Beach has a very competitive job market. Their comprehensive wellness program aims to reduce health care costs as well as make its employees more knowledgeable about health. The resort has a registered dietician/sports-and-spa nutritionist on staff.

The three Hiltons in Chicago have used their guest's fitness facilities as an added benefit in the comprehensive employees' wellness programs (Watkins, 1991). Watkins interviewed Shelia O'Keefe, Human Resources Director, who has all 3200 employees eligible for aerobics, swimming, running, a health-fair, and personal development classes. Their employees' cafeteria features a selection of Heart Smart foods and their Chef offers healthy-cooking classes for employees. O'Keefe stated that "it is valuable to the hotel because it helps reduce accidents and increases productivity while it decreases absenteeism and turnover . . . we are concerned for their physical and mental well-being" (Watkins, 1991, p. 60).

Hyatt allows employees discounted or free use of on-site health facilities at all 105 of their hotels. They sponsor health fairs and wellness weeks that offer blood pressure and cholesterol checks, exercise classes and support groups for weight management. They offer low fat cuisine in the employee cafeteria that is also offered to their guests in the restaurants (Fisher, 1992).

Ritz Carlton hotels have added a macrobiotic lunch and dinner menu at all 31 of their properties. These menus offer a wholesome natural diet, using only unadulterated or minimally processed foods (Ruben, 1995). However, the publication did not mention that these same menu items were available to their employees in the cafeteria.

The Waldorf-Astoria in New York opened an on-site, state-of-the-art fitness center. The fitness center is open to hotel guests and the public only, not employees (Fresh Produce and Nutrition Marketing, 1993).

Health experts speculate that operators believe the pace of the hospitality business, the shift work and the facilities, are not conducive to HPP and that they would be a drain on resources (Willen, 1996). Educating the operators of hotels (owners and management) on the benefits of wellness is crucial.

Corporate Cultures

Companies from all different types of businesses have changed their corporate culture and have implemented wellness programs that emphasize balance in one's life. More balance in one's life decreases compulsive overworking. Harold S. Kahler, Jr., President of the Wellness Councils of America, emphasizes that a corporation's culture can help encourage a healthy lifestyle among employees. Wellness has to have the support of the top management, both philosophically and financially (Connors, 1992).

Absenteeism and Turnover from Job Burnout and Stress

Certain types of jobs seem to be especially stress-prone. The National Institute for Occupational Safety and Health ranked 130 occupations, and determined that 12 occupations have the highest stress. Manager/administrator and waitress/waiter were two of the 12. The characteristics of these professions--many demands, little control, and

feeling caught between different groups of people--seem to lead to more stress difficulties and perceived stress (Scott & Jaffe, 1994).

Hiring persons whose natural behavioral tendencies match those required by the position would aid in reducing job stress (Martin, 1996). Using the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter, which both measure an individual's personality preferences or styles, it was found that most of hospitality managers' profiles were ESTJ's or extroversion, sensing, thinking, and judging (Janson, 1994; Martin, 1996; Pavesic & Brymer, 1990) versus introversion, intuition, feeling, and perception. Extroverted, sensing, thinking, and judging (ESTJ) traits produce a "driven manager" who is aggressive and controlling. ESTJ's are suited for management positions because of their tough minded analytical approach and organizational skills; however, they tend to dislike change. "A manager working in the hospitality industry who has this personality type could be constantly under stress" (Martin, 1996, p. 88).

Kobasa (1979) identified the personality style of hardiness as an orientation characterized by commitment (vs. alienation), control (vs. powerlessness) and challenge (vs. threat). She compared two groups of high-stress executives--those who had the most and those who had the least illness and health claims, but who had similar high-demand jobs in the same company. The healthy group she characterized as hardy or stress-resistant. She found that the stress-resistant executives differed from their less-healthy coworkers in the same three qualities: challenge or openness to change; commitment or involvement in work; and control or the sense that one can get what one wants. The more

perceived and actual control over work situations, the more effective a person can be at managing stress.

The results of Martin's study indicated that selecting managers with ESTJ personality types, increasing their responsibility and improving their quality of work life, can increase the chances for individuals to stay longer in the industry (less turnover). Quality of work life is enhanced through wellness and being affiliated with organizations that support wellness.

Hotel managers frequently are asked to "overwork." When overdoing becomes the norm, absenteeism rises, health-care costs rise, creativity languishes, and productivity plummets (Danziger & Reinhart, 1994). These factors result in stress. According to the American Hotel & Motel Association, stress-related problems cost the American economy about $150 billion every year. This figure includes absences, tardiness, and decreased productivity (Serlen, 1992). Burnout and stress are linked to employee dissatisfaction and are also a root cause of employee absenteeism and turnover (Freudenberger, 1975; Pines, Aronson, & Kafry, 1981).

Job burnout is prevalent in the hotel industry (Krone, Tabacchi & Farber, 1989). Not knowing "when to let go" can be hazardous to ambitious hoteliers, who are intent on succeeding. "You get the feeling you have to over commit yourself, which is beneficial as long as you still can be productive...the stress begins to build up, to the point where you start to burn out," says the director of Marketing at the Boston Harbor Hotel (Serlen, 1992, p. 35). Thinking the hotel cannot manage without you is another self-delusion. Balance in one's life is important. "Too many managers today don't make enough

distinction between their jobs and the rest of their lives," says the president of a management consulting firm (Serlen, 1992, p. 35). In a recent study, managers ranked work hours and pressures near the top among reasons for which they leave a job (McFillen, Riegel & Enz, 1986). As in most industries, avoiding stress in the hotel business is practically impossible. Controlling stress can be the key to a successful career in the hotel business. A human resource consulting firm promotes that success is based on how effectively you perform, rather than how long and hard you drive yourself at work. Therefore, job stress and burnout can hinder a hotel's bottom-line profit.

With the shrinking pool of qualified and committed job candidates, combined with high employee turnover rates, it is difficult for many hotel companies to find and retain good employees. Rapid turnover is one of the industry's costliest problems and the way managers relate to their employees can help to reduce turnover (LeBlanc & Mills, 1994). Absenteeism and turnover can be reduced through changing behaviors. Through the demonstration of personal behavior, managers can help modify employee behavior. "I believe that the example a manager sets has more bearing on employee turnover and motivation than anything else," says a President of a training and consulting firm (LeBlanc et al., 1994, p. 30). If wellness starts as a part of a hotel corporation's culture and is encouraged with management teams, employees will be motivated to follow. There needs to be assistance and support for employees in their overall wellness. The employer will enjoy the benefits of a well-balanced and productive employee.

Relocation and Task Force Expectations

Many hotel managers are single or divorced because the demands can be destructive on their social and marital relationships (Sarabakhsh, Carson, & Lindgren, 1989). The typical manager in a hotel is young, male, Caucasian, and college educated who works at least 60 hours a week and is likely to move on to a new position every two years (Krone, Tabacchi, & Farber, 1989).

Hotels are a service business and depend on the personal initiative and ability of their staffs to make guests "feel at home" (Serlen, 1992). Since hotels are open seven days a week, twenty-four hours a day, 365 days a year, there is great pressure for all employees to perform at peak levels. Linda Currier of the American Hotel & Motel Association Educational Institute says, "Life at a hotel can get so hectic, employees easily can become stressed out. You end up operating on everyone else's schedule, not your own. You'll think you've hit high levels of performance, only to find that there are peak levels yet to come" (Serlen, 1992, p. 34). Many employees are expected by managers to work long and irregular hours (Sarabakhsh et al., 1989) as typical business days, usually five and a half to six days a week, equating to a 60-hour work week (Krone et al., 1989).

Establishing a personal or social life and personal routines are difficult (Sarabakhsh et al., 1989) because of these long days, relocation to different cities, and task force commitments away from home. Yet, relocation is essential for upward career mobility in large hotel corporations, so hotel managers usually relocate every 12 to 18 months to other cities and states (Krone et al., 1989). Relocated managers usually live on their hotel property for 30-60 days while searching for a new residence. Hotel relocation policies

allow for free meals when ordering from hotel menus, but most do not reimburse for off-property meals or groceries which makes it difficult to abide by the Food Guide Pyramid (U.S. Department of Agriculture; U.S. Department of Health and Human Services, 1993).

A change in job or work status is particularly stressful. As millions of people have lost their jobs or had their companies merge, reorganize, or downsize, the stress of job shifts becomes overwhelming. When a given life event such as a job change or loss is viewed unscheduled, unexpected, undesirable, and uncontrollable and is added to other pressures, its harmful effects may be increased. Unexpected job disruption often leads to stress symptoms and may require specific coping and support interventions (Pearlin, 1983).

Management companies frequently use hotel managers for task force operations, (i.e. opening of new hotels, citywide special events, or transition periods because of turnover). These assignments last any where from seven days to six months. When on task force, relocating, attending meetings, or visiting superiors, most hotel managers eat large, high fat meals with excessive amounts of caffeine and alcohol. The meeting organizer plans most of these meals in advance. Travel expenses that are reimbursed also reinforce unhealthy behavior. Room service charges and in-room movies are sometimes reimbursed, however, fees for health club usage are not.

Human Resource Benefits

Most hotels have the ability to be "well companies" because most hotels have kitchens, restaurants and health clubs accessible for wellness in nutrition and exercise. Meals that are controlled by the management of a hotel are in the hotel employees'

cafeteria. Some hotels have installed vending machines in employee cafeterias as a potential cost savings venture. As a result, some employees consume fast food delivery or these vending machine items instead of eating banquet leftovers which offered the employees a healthy break. This potential savings may backfire on many hotel companies in two ways: eating a low-fat, high-protein lunch can keep a person alert for the afternoon (Mo, 1991) and using banquet leftovers aided in lowering the cost of food. Recently, a vending company, Restaura, came out with a Wellness Connection program. Snacks and cold food with 30 percent or fewer calories from fat are labeled with a Wellness Connection sticker (Friedland, 1995).

In addition to healthy vending machines in employee cafeterias, more than 10,000 hotels, motels and resorts have met their guests' growing demand for fitness in their on-site facilities. Since 1987, overall health club membership has grown by 39 percent and frequent home fitness activity has skyrocketed by 85 percent (Munro, 1996). More guests are wanting to continue their exercise routines while on the road (on business or vacation). Nearly 40 percent of the nation's travelers use their hotel's health and fitness facilities. Some hoteliers are pumping up their properties with top-quality fitness facilities and operating them as profit centers in order to attract repeat business. The Four Seasons Hotel in Washington DC was just awarded a five-diamond status and they believe it was due to the fitness club.

In the past, some hotel exercise areas were simply converted suites that had inadequate fitness equipment that was not properly maintained. Today, the emphasis is on hotels furnishing their gyms with a variety of top-quality commercial equipment and

services (i.e. mini spas). Some hotels have preferred to offer less equipment and have it function better than have a lot of machines that were always breaking down. However, nothing aggravates a guest more than having to wait to use his/her favorite machine. To remain competitive, hotels need first-rate staffing, equipment, and facilities. Some hotels lease out their space to club management firms that specialize in running this type of business. Some hotels contract with an off-site facility for their guests to use. In addition, some hotels are also offering their guests fitness equipment in their room. This service awards the guests with privacy, convenience and scheduling flexibility.

Summary

The key points in the review of literature chapter were the dimensions of wellness and how to measure their costs and benefits. This research concentrated on perceived wellness, behavioral wellness and body mass index. Extensive research has been conducted emphasizing the economic impact of health promotion programs. The costs of the programs versus the benefits were discussed emphasizing how costs were controlled, job burnout and stress were reduced, and absenteeism and turnover reduced.

This chapter also credited many companies that have health promotion programs in place that have shown positive financial results. Specifically, a few hotel companies were mentioned along with discussing the various aspects of the hotel industry, their corporate cultures, the prevelance of turnover from burnout and stress, the relocation expectations of hotel managers, and human resource benefits available to managers.

CHAPTER III

METHODOLOGY

Introduction

The methodology chapter is divided into five main areas: subjects, instruments, procedures, design, and analysis. The subjects area describes the participants, or survey population, in the study. The instrument area describes the composition and creation of the three questionnaires. The procedure section discusses chronologically the methods used by the researcher to gather the data. The design area discusses the type of research design used in the study as well as the independent and dependent variables. The statistical procedures used to test each research hypothesis is also included in the design section. The analysis section describes the analytical procedures used by the researcher.

The contents of this chapter includes the generalizations of the subjects to the target population, United States hotel general managers. The researcher has included in the research design the intentions of the pilot study and the present study.

Subjects/Participants

Hotel General Managers

The target population is United States hotel general managers. In order to generalize to the target population (Warde, 1990), the survey population consisted of general managers employed at limited, full-service, and deluxe hotels ranging in size from 50 to 1064 rooms, with 197 rooms as the mean. The general managers employed a staff ranging from 15 to 900 associates, with 110 associates as the mean. Some general managers had 37 department managers directly reporting to them, but the average was 7.

The hotels were located in various cities and states throughout the United States. Florida and California each had over 30 general managers that particated in the study. Texas, Pennsylvania, North Carolina, Illinois, New York, and Virginia each had the next highest participation. Overall, every state was represented by at least one participating general manager. To protect the anonymity of the respondents, the three companies are referred to as Company X, Y, or Z. Company X had participants from 50 states, Company Y from 22 states, and Company Z from 13 states. The hotels corporate structures included parent companies, limited partnerships, management companies, joint ventures, and real estate investment trusts (Gray & Liguori, 1994).

Instruments

The researcher used a wellness survey that was a combination of questions taken from many reliable and validated sources. The sources included:

1. The Health Logic Questionnaire (People Karch International, 1993).
2. Perceived Wellness Survey (Adams et al., in press)
3. Lifestyle Assessment Questionnaire and Minnesota Job Satisfaction Questionnaire (Eickholt, 1993).
4. St. Anthony's North SCORE program questionnaire (1987).
5. TestWell (The National Wellness Institute, Inc., 1979).
6. Risk Assessment (Risk Assessment Systems, Inc., 1992).
7. HealthPath Questionnaire (StayWell Health Management Systems, Inc., 1990).
8. USDA's Health and Nutrition Guidelines (1996).

All were used in order to assess the present state of wellness of all the hotel general managers accurately. Questions were taken from the aforementioned surveys because no one survey instrument alone measured the key issues addressed in this research. In addition, most of these surveys included clinical measurements (i.e. blood pressure, weight, cholesterol) instead of self-reporteded as used in this research study.

The questionnaire design was self-administered with structured, multiple choice and fill in the blank answers. The researcher divided the wellness survey into several different categories. The first section was behavioral wellness. This score consisted of behaviors in medical self-care, smoking and tobacco usage, alcohol use, physical activity,

nutrition and eating habits, and stress relief and coping techniques. The perceived wellness score also included six categories. They encompassed emotional, social, psychological, physical, spiritual and intellectual items. The final score was the body mass index. This was calculated by using the participants height and weight information.

A questionnaire of personal information asked for the participants date of birth, gender, living conditions, number of working hours, relocation and task force frequency, sick days used, and number of years in the industry and with their current employer. The questionnaire of general hotel information was catagorized by location, type, number of rooms, number of employees, primary customer market segment, fitness facilities and meals offered. Turnover, revenue, and profit were asked in to be reported in percents over or under the hotel's 1995 budget.

The behavioral portion of the wellness survey was printed on the front side of a two-sided bubble sheet. The participants were given directions to read each statement and answer each and every question as honestly as possible with one response. They were to use the responses of 1=never/do not know; 2=rarely; 3=occasionally; 4=frequently; or 5=always on how often the particular behavior occurred in a typical week. They were asked to darken in the appropriate circle with a #2 pencil. The back side of the bubble sheet gave the following instructions: the following statements are designed to provide information about your wellness perceptions. . .please carefully and thoughtfully consider each statement, then select the one response option (1, 2, 3, 4, or 5) with which you most agree. One equaled strongly disagree and five equaled strongly agree.

The validity (the degree to which the questionnaire measures wellness) was achieved through content or face validity. By using questions from wellness experts' questionnaires, various wellness literature reviews, the USDA guidelines, and the director of Oklahoma State University's Wellness Center, the content validity of wellness was achieved. Reliability on the dependability of the instrument to measure the construct accurately was run using internal consistency reliability where Cronbach's Coefficient Alpha equaled .806 for the behavioral raw variables and .808 for the behavioral standardized variables. The perceived wellness portion of the instrument was .911 for the raw variables and .915 for the standardized variables.

Procedures

Pilot Survey

After approval from the Institutional Review Board at Oklahoma State University, (Appendix E) the researcher conducted a pilot study at two hotels. The researcher administered the pilot surveys in two different methods to analyze the rate of return. At the first hotel (managed by Company Y), the researcher took 23 surveys to the human resource director to administer to all the managers at a weekly staff meeting. The next day, the researcher set up a booth in the employee cafeteria that included signage, surveys, pencils, and an incentive. From 10:30 a.m. until 3 p.m. the researcher collected 37 surveys from the hourly associates. As the associates entered into the cafeteria for lunch, they

were handed a survey and explained the importance of their role in the study. While they ate their lunch, they completed the survey. Some participants asked the researcher general questions. The surveys were sealed by the participant in the supplied envelope and put in a box. Granola bars and cookies were given to each survey participant. A total of 125 surveys were taken to the property and 55 were completed, a 44 percent rate of return.

The same process for the 28 managers survey was instituted at the second hotel (managed by Company Z). All 28 managers returned a survey, 100 percent rate of return. The 225 surveys for the hourly associates, however, were passed out with their paychecks by the security department. A total of 37 surveys were returned, a 16.5 percent rate of return. Appendix A has a sample copy of the cover letter, survey, and survey evaluation forms from this pilot study.

Based on the pilot study, appropriate changes were made to the survey instruments. Improvements were made in question clarity, decreasing the number of questions so completion would be 15 minutes, and additional instructions of proper survey completion were added. The cover letter was also revised clarifying the purpose of the research using the Dillman (1978) method. In addition, the survey population was redefined. Further research will need to be conducted on role modeling of the general managers to their managers and employees, while the main purpose of this research study was to access hotel general manager's wellness and the impact their wellness had on the profitability of the hotel.

Data Collection

The researcher contacted representatives of Company X, Company Y, and Company Z by telephone, briefly reviewing the purpose of the research. A proposal, outline of the research, and sample survey were federal expressed to each company contact. Once approval was obtained from the companies, the researcher administered the surveys in several different methods, again to analyze the different rates of return for future research.

The wellness bubble sheet, personal information, and hotel information surveys (Appendix C) were mailed to 1800 of Company X general managers , 71 of Company Y, and 30 of Company Z general managers. The Company Z representative E-mailed their general managers notifying them to expect the arrival of the surveys and the Company X and Company Y representatives wrote a cover memo that supported the research and attached it to each of the survey packets (Appendix B).

All survey packets contained a cover letter from the researcher and the Director of the Hotel and Restaurant School, at Oklahoma State University using the Dillman (1978) method of recommendation of letter content (Appendix B). This cover letter included the significance of the research to the hospitality industry, their voluntary participation, assurance of complete confidentiality, completion of the surveys in an approximate 15 minute time frame, and the targeted return date. Reference to the self-addressed envelope back to O.S.U. was also included in the cover letter.

The first set of packets were mailed in June of 1996 to Company Z general managers. Address labels were generated from the companys roster and placed on legal size envelopes with Oklahoma State University, School of Hotel and Restaurant Administration's return address. Thirty were mailed on June 10 with a requested return date of June 21. On June 17, a friendly reminder and thank you postcard was sent to all 30 general managers (Dillman, 1978) (Appendix D). Of these initial 30 that were mailed, 20 resulted in usable completed returns, or 66.7 percent.

On July 8, 1996, 1800 survey packets that included the cover letter from the researcher on OSU letterhead, the three questionnaires and an addressed return envelope to the researcher's attention at OSU were sent to the Company X representative. The Executive Vice President included a memo supporting the research in each of the packets (Appendix B). The packets were mailed out of their corporate headquarters on July 25 to each hotel. Due to the large number of packets, there was not an initial coding process used for individual hotel identification. The follow-up technique used consisted of a thank you or reminder letter, and contained the same information on the postcard to the Company Z general managers (Appendix D). This follow up letter was mailed out of the corporate headquarters one week after the initial mailing to all 1800 hotels. Out of the 1800 packets mailed, 340 usable surveys were returned or 18.9 percent. This same mailing process was used with Company Y, which returned 40 usable surveys or 56.3 percent (Table 1).

Research Design

The researcher did not employ experimental manipulation nor random assignments of subjects to conditions because the events (aspects of the managers' wellness and 1995 financial data) had already occurred. Therefore, neither of the variables were manipulated in this ex post facto research, and the hypotheses were correlational or observational (Gay, 1992).

The methods that make up the design of the research are descriptive and correlational (Gay, 1992). The descriptive research involved the collection of data by using self-reported sample surveys (a cross-sectional approach) to test the hypotheses concerning the current wellness status of the subjects. Correlational research involved the collection of data in order to determine whether and to what degree an association (Shavelson, 1988) existed between the independent variable--wellness and the dependent variables--profit, turnover and revenues. The degree of association was expressed as correlation coefficients.

Analysis

Both descriptive and inferential statistics were used in this research in analyzing the data. Descriptive statistics were used as a representation of the data which described the results of the research or what happened in the study (Gay, 1992). These statistics were primarily used in analyzing the demographic variables. The measure of central tendency,

the mean or average, was used to describe the set of each wellness category for each of the three companies with a single number. The measure of variability (variation or spread) around the mean was described in standard deviations. The inferential statistic methods were used to draw inferences or generalizations about the population of hotel general managers in the United States from the data available from a representative sample in three companies.

The interval data from the wellness surveys (using a Likert Scale) showed either a small standard deviation, scores were close together, or a large deviation if the scores were spread out. A normal curve or normal distribution was determined in order to use certain statistical techniques.

Jacob Cohen, the father of power analysis, tests the power of a statistical test of a null hyposthesis, which is the probability that it will lead to the rejection of the null hypothesis (Cohen, 1988). The power of a statistical test depends upon three parameters: the significance criterion, the reliability of the sample results, and the effect size or the degree to which the phenomenon or differences exist.

Measures of association or Pearsons product-moment correlation coefficient was used on the interval data to measure the strength of association or determine whether the association was linear between the variables wellness and profit. If the two variables were highly related, the correlation coefficient was near +1.00 (positive) or -1.00 (inversely). If not, a coefficient near .00 was obtained. Extreme scores were eliminated to avoid distortion of linearity. Pearson's "r" correlation technique was used when both variables were continuous. The general managers' wellness scores (behavioral, perceived, and body

mass index) for each individual company were correlated to the companys annualized turnover percent; revenue percents over or under budget; and profit percents over or under budget. Cohen measures the effect size or "r" in correlational analyses. Along with the probability (p value) or level of significance, correlation coefficients can also indicate the magnitude of the associations between variables. For finding differences in correlation coefficients, this Case I research used a significance level of .05, two-tailed tests for all three companies. The power level of .80 and a small effect size (.15 or detection of a difference of 1/5 of a standard deviation) with Company X sample size of 340 (Cohen, 1988). Company Y sample size of 40 had a power level of .70 and an effect size of .40. Company Z sample size of 20 had a power level of .70 and a medium effect size of .50.

In the analysis of the personal and business information, frequency tables were computed for the responses on each item. Analysis of variances and Duncan's post- hoc tests, along with t-tests were performed to answer the six hypotheses.

The following steps were taken to calculate the behavioral risk composite: 1). Several answers were recoded from a 5 to a 1 so that positive, "well" behaviors were always the highest number; 2). Each of the six component answers (self-care, nutrition, alcohol use, smoking and tobacco use, physical activity, and stress relief) were then summed; 3). Self-care had a total possible points of 40; nutritional eating habits 70; alcohol use 10; tobacco use 15; physical activity 30; and stress coping techniques 45; 4). Then the sums of the six components were summed, with a total possible points of 210 for the behavioral risk composite.

The following steps were taken to calculate the perceived risk composite: 1). Each of the six components had 5 points possible; 2). The mean for each of the six components (psychological, emotional, social, physical, spiritual, and intellectual) was calculated; 3). The six means were summed; 4). The standard deviation among the six means plus adding 1.25 as the correction factor were calculated (Adams et al., in press).

Analysis of variance tests (ANOVA) were used to compare the means of three independent samples to see if they differed significantly from each other. The ANOVA was used in analyzing the general manager's wellness scores (continuous data) from three separate hotel companies at three separate levels (behavioral, perceived, and body mass index) to examine the possiblity of existing differences in predetermined levels of the following dependent variables' means (discrete/catorgorized data): sick days absent due to self; sick days absent due to family illness; number of hours spent at work each week; relocation frequency; and task force frequency.

The t test was used to determine whether the three wellness means at each of the three companies individually and two discrete variables were significantly different: dependents living at home; the availability and usage of on-site and off-site fitness facilities; and employee meal policies.

The data on the bubble sheets were scanned at the O.S.U. Testing Center. The remaining data was coded and entered on the software program PC File III. Statistical analysis was performed using Statistical Analysis System (SAS) program. Results and discussion of these results follow in Chapters 4 and 5.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to determine whether an association existed between hotel general managers' wellness scores to actual 1995 annual revenues and profits of the hotels. In addition, this study investigated the association between hotel general managers' wellness scores to the annual turnover rates of the hotels. Frequency of absenteeism, frequency of relocation and task force assignments, and usage of human resource benefits were also investigated in conjunction with the general manager's wellness.

The survey return rates from the three hotel companies are presented first followed by a description of the demographic data. The results to the six hypotheses were tested using three statistical techniques: Pearson's correlation coefficients, analysis of variance using Duncan's tests, and t-tests. Determinations were made to whether associations existed, or if there were significant differences, between general managers' wellness scores and the six variables stated in the hypotheses.

Return Rate

A total of 1901 subjects were sent surveys. Surveys were sent to general managers in the United States at 1800 franchise hotels of Company X, 71 to hotels managed by Company Y, and 30 were mailed to general managers employed by Company Z conference centers. A total of 400 usable surveys were returned or 21.04 percent (Table 1). Company X general managers returned 340 usable surveys (19 percent), Company Y returned 40 (56.3 percent), and Company Z returned 20 (66.7 percent) usable surveys.

Unusable surveys, 4.9 percent, were due to several factors: the hotel was either not open in 1995 or the present company was not managing the hotel, making financial information unavailable. In addition, some of the answers were left blank on the wellness survey bubble sheet and/or height and weight information was not completed making it impossible to calculate an accurate behavioral risk composite, perceived risk composite, and body mass index. A few general managers sent in only their bubble sheet and not the personal or hotel information.

TABLE 1

SUMMARY OF SURVEY SAMPLING FROM ALL THREE HOTEL COMPANIES

Company	Total Mailed	Total Usable* Returns	Return Rate %
X	1800	340	19.0
Y	71	40	56.3
Z	30	20	66.7
Total	1901	400	21.0

Note. *94 unusable surveys due to partial completion.

Personal Characteristics of Respondents

Descriptive statistics were used to describe demographic characteristics of the respondents using means, standard deviations, and frequencies. Tables 2 through 9 were constructed to give the reader a better understanding of the personal and business characteristics of all of the respondents at the time of the study.

Company X and Company Z had approximately the same percent of male (81 percent) and female (19 percent) general managers who responded (Table 2). Company Y had a higher percent of males than females who responded (93 percent males and 7 percent females).

The survey asked for the respondents "birth year (19__)" instead of for their present age for improved accuracy. The researcher calculated the respondents ages which ranged from 21 to 76 years old (Table 2). The mean age for the three companies was approximately 42 years old.

The majority of the general managers currently live with a spouse or family members (78.7 percent). Company Z general managers' body mass index (proportion of height to weight) was significantly better (lower, with a mean of 26) when the manager lived with a spouse or family members rather than living alone (Pr > F=.0159).

The majority of the general managers had dependents living at home (56.3 percent). These dependents were children and/or parents.

TABLE 2

FREQUENCY TABLE OF PERSONAL CHARACTERISTICS
OF ALL RESPONDENTS

Personal Characteristic	Frequency	%
Gender		
Male	323	80.7
Female	77	19.3
Age		
21-30 years old	33	8.3
31-40 years old	160	40.0
41-50 years old	137	34.3
51-60 years old	58	14.5
Over 61 years old	12	2.9
Living Arrangements		
Alone	68	17.1
With Roommate(s)	17	4.2
With spouse/family	315	78.7
Dependents Living at Home		
Yes	225	56.3
No	175	43.7

Note. N=400

Even though the personal characteristics and demographic information were not stated as hypotheses, the researcher statistically analyzed this information in order to identify any significant differences. The respondents who did not have any dependents (children or parents) living at home (43.7 percent) did show a positive significant difference in many areas of the wellness scores (Table 3). The body mass index, however, was not different whether or not there were dependents. The wellness means of general managers who did not have any dependents living at home were significantly higher (better) in the categories listed in Table 3 than those who did have dependents living at home.

TABLE 3

T-TEST TO DETERMINE IF DEPENDENTS LIVING AT HOME HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL AND PERCEIVED WELLNESS SCORES**

Wellness Variable	Company	t value	P value
Stress Coping Techniques	X	-1.9928	.0471*
Selfcare	Y	-2.2735	.0287*
Psychological	Z	-2.9085	.0094*
Emotional	Z	-2.7324	.0137*
Spiritual	Z	-2.3214	.0322*
Intellectual	Z	-4.3301	.0067*

Note: All variables mentioned have a wellness mean that is greater for no dependents living at home versus dependents living at home as reflected by a negative (-) t value.
*P < .05.
**Body Mass Index was not affected by dependents living at home.

The majority of general managers in the three age groups (21-30, 51-60, and over 61) reported that they did not have dependents living at home (Table 4).

TABLE 4

FREQUENCY TABLE OF
DEPENDENTS BY AGE

Age of Respondent	Percent With Dependents	Percent Without Dependents
21-30 years old	31.2	68.8
31-40 years old	62.0	38.0
41-50 years old	65.8	34.2
51-60 years old	40.0	60.0
Over 61 years old	7.7	92.3

Note. N=400

Business Characteristics of Respondents

The majority of the general managers reported working 51 to 60 hours each week (Table 5). Very few worked under 40 or over 71 hours each week.

The majority (42.2 percent) of the general managers reported that they relocated every three or more years (Table 5). Forty percent of the general managers reported never being relocated (moving to a different community). A total of 60 percent of the managers did report some frequency of being relocated. The exception was Company Y which relocated 47.5 percent of their general managers every 2 years, 47.5 percent every 3 or more years, and only 5 percent never relocated.

General managers reported that 33.5 percent of them never were assigned to a task force (Table 5). In contrast, a total of 66.5 percent of the managers reported being assigned to a task force.

TABLE 5

FREQUENCY TABLE OF BUSINESS CHARACTERISTICS
OF ALL RESPONDENTS

Business Characteristic	Frequency	%
Hours Work Each Week		
Under 40	5	1.3
40 - 50	100	25.0
51 - 60	187	46.7
61 - 70	91	22.8
71 or more	17	4.2
Frequency of Relocation*		
Never	160	40.0
Every 1 year or less	6	1.5
Every 2 years	65	16.3
Every 3 or more years	169	42.2
Frequency of Task Force Assignments**		
Never	134	33.5
Once a year	106	26.5
Twice a year	63	15.8
3 or more times a year	97	24.2

Note. N=400

*Company Y relocated 47.5 percent of their general managers every 2 years, 47.5 percent every 3 or more years, and only 5 percent never.

**When a general manager works at a hotel other than their own to assist existing or new managers, within their discipline of expertise, with an acquisition or an opening of a new hotel.

A strong majority of general managers reported that they were never absent within the past 12 months from work due to their own sickness or a family member's sickness (Table 6). Between 20 and 30 percent reported only missing 1 to 2 days within the past 12 months. Company Y general managers reported higher percents in "no days absent" due to their own sickness (70 percent) and "no days absent" due to family sickness (82 percent).

TABLE 6

FREQUENCY TABLE OF ABSENTEE CHARACTERISTICS OF ALL RESPONDENTS

Absentee Characteristic*	Frequency	%
Due to own Sickness		
None**	233	58.2
1 - 2 days	133	33.2
3 - 4 days	22	5.5
5 days	5	1.3
6 or more days	7	1.8
Due to Family Sickness		
None**	295	73.7
1 - 2 days	79	19.8
3 - 4 days	18	4.5
5 days	2	0.5
6 or more days	6	1.5

Note. N=400

*Within the past 12 months.

**Company Y general managers reported higher percents in no sick days (70 percent) and no family sick days (82 percent).

Table 7 shows that when equalizing the number of males to females, the females were absent more often due to the family member's illness except when the absence was 6 or more days.

TABLE 7

FREQUENCY TABLE OF GENDER ABSENCES DUE TO FAMILY ILLNESSES

Days Absent due to Family Illness	Percent Males	Percent Females
None	74.3	72.0
1 - 2 days	18.9	20.7
3 - 4 days	4.4	4.9
5 days	.6	1.2
6 or more days	1.8	1.2

Note. N=400

The general managers reported working in the hotel industry from a minimum of 1 year up to a maximum of 55 years (Table 8). The mean for all 400 general managers was 18 years working in the hotel industry.

TABLE 8

MEAN AND STANDARD DEVIATION OF NUMBER OF YEARS WORKING IN THE HOTEL INDUSTRY

Company	N	Minimum	Maximum	Mean	Std. Dev.
X	340	1	55	17.6	8.75
Y	40	11	34	21.5	6.48
Z	20	10	50	18.1	8.76
Total	400	1	55	18.0	8.62

The statistical mean of general managers working for their present employer was 7.7 years (Table 9). Company X general managers reported being employed by their present employer an average of 7 years. Company Y general managers had a mean of 8 years. Company Z reported the minimum of 8 years and maximum of 50 years employment with an overall mean of 16 years.

TABLE 9

MEAN AND STANDARD DEVIATION OF NUMBER OF YEARS WORKING FOR PRESENT EMPLOYER

Company	N	Minimum	Maximum	Mean	Std. Dev.
X	340	1	45	7.2	6.5
Y	40	1	18	8.1	4.8
Z	20	8	50	16.1	9.2
Total	400	1	50	7.7	6.8

Characteristics of Hotel Properties

Tables 10, 11, and 12 describe several characteristics of the general managers hotels in each of the three companies. Each of the companies had a general manager who participated in the study working at a 1,000+ room hotel. Company X and Company Z had a mean of 180 rooms as the average size of their hotels. Company Y mean was almost double at 315 rooms.

The proportion of the number of associates employed at the hotel to the number of sleeping rooms ranged from approximately 1 associate for every 2 rooms at Company X, 1 associate for every 1.5 rooms at Company Y, to 1 associate for every 1.3 rooms at Company Z. Depending on the size of the hotel property, the number of managers who directly reported to the general manager ranged anywhere from 0 to 37.

A Company X hotel reported having experienced the largest annual turnover rate for 1995 at 380 percent. The mean of each company ranged from 29 percent to 55 percent, which are below the industry norm stated in Chapter 2.

Assuming the 1995 budgets were achievable and realistic, the general managers reported a positive trend in achieving both budgeted revenues and profits. The highest mean was in Company Z with 24 percent above budgeted revenues and 38 percent above budgeted profits. Company Y reported exceeding profit margins beyond revenue margins of 5 percent over in revenues and 10 percent over in profits. Company X reported means of 2 percent and 3 percent respectively for exceeding budgeted revenues and profits. All

three companies were efficient in managing expenses and bringing revenues down to the bottom line.

TABLE 10

CHARACTERISTICS OF COMPANY X HOTEL PROPERTIES

Descriptors	Minimum	Maximum	Mean	Std. Dev.
Sleeping Rooms	30	1009	183.92	97.20
Employees	6	900	97.62	76.54
G. M. direct report managers	0	24	6.73	3.67
Turnover percent	0	380	55.49	62.42
Revenue percent +/- budget	-30	+75	1.91	8.66
Profit percent +/- budget	-75	+66	3.09	12.61

Note: N=340.

TABLE 11

CHARACTERISTICS OF COMPANY Y HOTEL PROPERTIES

Descriptors	Minimum	Maximum	Mean	Std. Dev.
Sleeping Rooms	75	1064	315.22	173.76
Employees	20	550	204.95	107.62
G. M. direct report managers	4	32	9.20	6.54
Turnover percent	0	203	44.74	42.94
Revenue percent +/- budget	-20	+30	4.84	9.98
Profit percent +/- budget	-26	+72	10.15	17.72

Note: N=40.

TABLE 12

CHARACTERISTICS OF COMPANY Z HOTEL PROPERTIES

Descriptors	Minimum	Maximum	Mean	Std. Dev.
Sleeping Rooms	0	1000	182.85	208.87
Employees	0	400	129.20	112.77
G. M. direct report managers	0	37	7.70	7.39
Turnover percent	0	88	28.60	22.64
Revenue percent +/- budget	-20	+300	24.45	66.50
Profit percent +/- budget	-10	+484	38.19	106.88

Note: N=20.

Human Resource Benefits

The two benefits most hotel companies could easily extend to their associates because of the hotel facilities are the use of fitness facilities and offering a healthy meal for each shift they work. The researcher asked the general managers if the hotel had a fitness facility on the property and whether the managers were able to use it. The results of all three companies showed that the majority of the hotels did have a fitness facility on site (Figure 1). Most of Company X hotels did not allow the managers at the hotel to utilize the facility for personal exercise, whereas the majority of Company Y and Company Z general managers reported that their managers were able to use the on-site fitness facilities. Approximately half of the hotels had an agreement set up with a local off-site fitness facility for their guests to use the facility, however, the majority of the hotels did not allow the managers to use this off-site facility (Figure 1).

The majority of the hotels in all three companies offer their associates a healthy meal for each shift worked. The majority of the hotels in Company X and CompanyY, however, did not offer this meal complimentary to the associates (Table 13).

Fitness Facilities

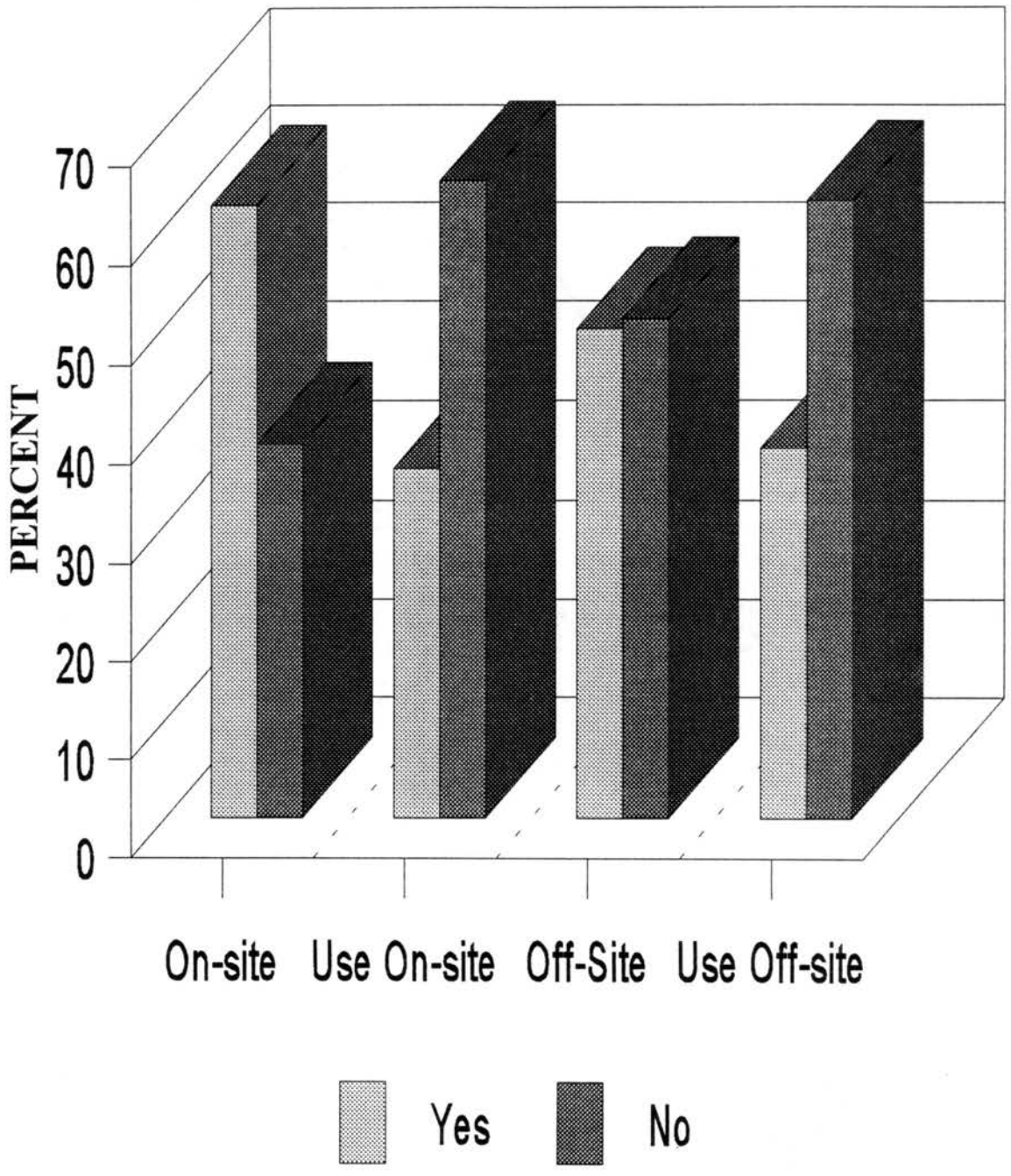

TABLE 13

POSSIBLE HUMAN RESOURCE BENEFITS
AT THREE HOTEL COMPANIES

Human Resource Benefit	Frequency	%
Associate Meal Offered		
Yes	304	76.0
No	96	24.0
Free Meal Offered*		
Yes	166	41.5
No	234	58.5
Healthy Meal Offered		
Yes	283	70.7
No	117	29.3

Note: N=400
*The majority of Company Z hotels offer a free employee meal.

Dimensions of Wellness

The answers that the 400 respondents returned to the researcher on their personal wellness are reported in Tables 14 through 34. The first section has the results of the behavioral wellness questions (Tables 14 through 24). The next section reports the answers to the perceived wellness questions (Tables 25 through 33). Some of the actual survey questions have been abbreviated for conservation of space in each of the tables. The last wellness section, body mass index, is reported on Table 34.

Behavioral Wellness

Each of the six components that make up the behavioral wellness composite are reported separately: medical self care, nutrition and eating habits, alcohol use, smoking and tobacco usage, physical activity, and stress relief and coping techniques. The frequency of the respondents answers are reported in percents below each of the Likert scale options of 1 to 5. Respondents were asked to darken in the number 1 for "never/do not know," 2 for "rarely," 3 for "occasionally," 4 for "frequently," and 5 for "always."

Medical Self-Care

During the course of a typical week, how often do the respondents drink 6 to 8 glasses of water per day and protect their skin from the sun was answered "occasionally" (Table 14). The general managers "rarely" floss their teeth daily. The majority of the respondents reported that they frequently slept 7 to 8 hours a night and bent their knees when they lifted heavy objects. Over 68 percent reported wearing a seat belt/shoulder harness while in a car.

TABLE 14

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Self-Care

During the course of a typical week, how often do . . .

Questions*	1	2	3	4	5**
1. I drink 6 to 8 glasses of water per day?	9.3	27.5	28.0	23.0	12.3
2. I floss my teeth once per day?	14.3	31.5	20.0	17.8	16.5
3. I protect my skin from the sun by using sunscreen?	4.5	17.3	30.8	30.8	16.8
4. I wear my seat belt while in a car?	3.7	8.0	7.2	12.3	68.7
5. I get 7 to 8 hours of sleep each night?	1.3	15.0	23.8	39.7	20.3
6. I bend my knees when lifting heavy objects?	0	1.0	13.8	50.7	34.5

Note: N=400

*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.

**Answers are reported in percent of total N.

The last two self-care questions asked the respondent to describe their blood pressure and their total blood cholesterol (Table 15). The majority were low or normal.

TABLE 15

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Blood Pressure and Cholesterol

How would you describe your . . .	Frequency	%
Blood Pressure		
I don't know**	27	6.7
High	16	4.0
High and taking medication	32	8.0
Low or Normal*	325	81.3
Total Blood Cholesterol		
I don't know	58	14.5
Higher than recommended	96	24.0
Low or Normal*	246	61.5

Note. N=400

*All of Company Z general managers reported normal/low blood pressure.

**Ten percent of Company Y general managers reported "do not know ."

Nutrition and Eating Habits

The majority responded that during the course of a typical week, they "rarely" "eat something for breakfast every day" or "eat 3 servings of fruit a day," both are habits that are recommended by the USDA. A recommendation this is followed, however, is they "rarely" "eat a hamburger, hot dog, piece of pizza or a deli sandwich daily," or "eat donuts, cookies, a piece of pie or cake daily" (Table 16). "Occasionally" the majority of

the respondents "eat 4 servings of vegetables a day" and "eat at fast food restaurants." The respondents practiced nutritional habits in the areas they answered "Frequently." "Frequently" they bake, broil, grill, roast, or boil their food, read the "Nutrition Facts" food labels, choose low or non fat alternatives, eat pasta with a tomato base or olive oil sauce, and eat poultry, lean meats and fish. There was a wide range of answers (1 to 5) to how often they removed the skin from chicken and fat from meat or if they added salt to their food.

TABLE 16

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Nutrition and Eating Habits

During the course of a typical week, how often do . . .

Questions*	1	2	3	4	5**
7. I bake, broil, grill, roast, boil my food, not fry?	.5	2.7	25.5	53.2	18.0
8. I remove the chicken skin and meat fat?	7.5	19.3	23.0	24.3	26.0
9. I eat something for breakfast every day?	6.5	33.0	20.0	17.0	23.5
10. I drink products containing caffeine?	5.2	13.3	20.3	36.5	24.8
11. I eat a hamburger, hot dog, or pizza daily?	6.2	43.7	36.7	12.3	1.0
12. I eat donuts, cookies, pie or cake daily?	12.3	47.1	29.6	10.3	.8
13. I eat 3 servings of fruit a day?	4.5	39.7	35.0	16.8	4.0
14. I eat 4 servings of vegetables a day?	2.0	25.0	35.6	31.3	6.0
15. I read the food labels, "Nutrition Facts"?	16.5	19.3	24.0	27.3	13.0
16. I choose low/non fat alternatives?	5.2	15.0	25.5	36.5	17.8
17. I eat at fast food restaurants?	4.2	35.2	44.5	15.3	.8
18. I eat pasta with olive oil or tomato sauce?	4.0	9.5	30.3	34.6	21.6
19. I add salt to my food?	19.5	25.0	22.5	23.3	9.8
20. I eat poultry, lean meats, and fish?	1.0	1.8	17.3	63.5	16.5

Note: N=400

*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.

**Answers are reported in percent of total N.

Alcohol Use

The majority of respondents reported that they "rarely" drank 1 or 2 alcoholic beverages with their dinner (Table 17). Twenty-three percent of the respondents reported "occasionally, frequently, or always" drinking three or more alcoholic beverages every day.

TABLE 17

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Alcohol Use

During the course of a typical week, how often do . . .

Questions*	1	2	3	4	5**
21. I drink 1- 2 alcoholic beverages with my dinner?	26.3	31.3	21.5	16.5	4.5
22. I drink 3 or more alcoholic beverages every day?	44.7	32.5	15.0	5.2	2.5

Note: N=400
*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.
**Answers are reported as a percent of the total N.

Smoking and Tobacco Usage

More than half of the respondents reported that they minimize their exposure to cigarette smoke while in a car, at work, or at home (Table 18). The respondents were evenly dispersed between the number of active smokers (27.2 percent) and former smokers (27.3 percent), however, the majority of the respondents (45.5 percent) never smoked. If the respondent reported being a smoker (presently or formerly), 44 percent reported smoking over 10 cigarettes a day (Table 19).

TABLE 18

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Tobacco Use

During the course of a typical week, how often do . . .

Questions*	1	2	3	4	5**
23. I minimize my exposure to cigarette smoke?	14.0	14.3	12.8	25.0	34.0

Note: N=400

*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.

**Answers were reported in percents of total N.

TABLE 19

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Smoking and Tobacco Use

How would you describe your . . .	Frequency	%
Use of tobacco products?		
Active Smoker	109	27.2
Former Smoker	109	27.3
Never Smoked	182	45.5
# of cigarettes you smoke or smoked daily?		
40 or more	24	6.0
30 -39	29	7.2
20 - 29	77	19.3
10 - 19	45	11.3
1 - 9	43	10.8
Never Smoked	182	45.5

Note. N=400

Physical Activity

During the course of a typical week, the majority of the respondents "never" or "rarely" "include strength training in their exercise program" or "participate in aerobic sports" (Table 20). In addition, "rarely" do they exercise daily for at least 20 to 30 minutes or include aerobic training in their exercise routine. "Occasionally" was answered to how often they breathed heavily and perspired when they exercised and to how often they participated in moderately-intense sports (like golf, bowling, or walking).

TABLE 20

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Physical Activity

During the course of a typical week, how often do . . .

Questions*	1	2	3	4	5**
24. I include strength training when I exercise?	30.0	33.0	18.3	9.8	9.0
25. I include aerobic training when I exercise?	20.0	31.8	18.5	16.0	13.8
26. I exercise for 20-30 minutes daily?	16.8	35.2	20.3	18.5	9.3
27. I breathe heavily and perspire when I exercise?	14.8	17.8	27.8	24.8	15.0
28. I participate in aerobic sports?	30.8	33.2	20.5	11.0	4.5
29. I participate in moderately-intense sports?	8.0	22.3	33.5	26.5	9.8

Note: N=400

*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.

**Answers were reported in percents of total N.

Stress Relief and Coping Techniques

As their technique to relieve stress, over 50 percent reported "never" taking medication or drugs (Table 21). Approximately 50 percent reported "rarely" eating more than usual or losing their temper to relieve stress. Thirty-four percent of the respondents "occasionally" drink alcohol to relieve stress. Thirty-eight to 49 percent of the respondents answered that they "frequently" engage in exercise, hobbies, recreation or listen to music; talk with friends; find something to laugh or joke about; and confront the source of stress rather than avoid the source. The majority of the respondents answered that they "always" take their paid vacations from work.

TABLE 21

BEHAVIORAL WELLNESS ANSWERS FROM ALL RESPONDENTS

Stress Relief and Coping Techniques

To relieve stress . . .

Questions*	1	2	3	4	5**
30. I engage in exercise, hobbies, listen to music.	.8	9.0	29.5	38.5	22.3
31. I eat more than usual.	19.5	40.5	25.8	12.5	1.8
32. I drink alcohol.	24.8	25.3	33.7	13.3	3.0
33. I take medication/drugs.	61.0	24.5	6.2	2.7	5.5
34. I talk with friends/family.	2.0	8.8	29.0	40.2	20.0
35. I take my paid vacations from work.	7.3	15.1	26.9	20.9	29.9
36. I lose my temper.	11.0	50.2	33.5	4.2	1.0
37. I find something to laugh or joke about.	1.0	5.0	26.3	49.2	18.5
38. I confront the source of stress rather than avoid.	1.3	5.0	34.5	45.5	13.8

Note: N=400

*Respondents were asked to use **1** for **never/do not know, 2** for **rarely, 3** for **occasionally, 4** for **frequently**, and **5** for **always**.

**Answers were reported in percents of total N.

Summary of the Behavioral Risk Components

Tables 22, 23, and 24 break down the six components of behavioral wellness for each individual company. An overall behavioral risk composite is reported for each companies total N. The larger the number for each answer, the more "well" the respondents are in that company. Several were recoded so that if the respondent answered a 5 (always), it was reversed to a value of 1, so that positive, well behaviors were always the highest number (i.e. If "I drink alcohol to relieve stress" was answered with a 5--always, this answer was reversed to a value of 1). Calculation steps were described in Chapter 3.

The mean score of each of the six components were divided by the total possible points to equal the percent of total possible (first column in table). Company Y respondents reported the highest "well" attributes in nutrition, physical activity, stress coping techniques and the overall behavioral risk composite achieving 72 percent (mean score of 151.4) of the total possible points. Company Z respondents reported the highest well attributes in self-care, alcohol use, tobacco use, and had the next highest overall behavioral risk composite. Company X overall behavioral risk composite was 68 percent (mean score of 143) of the total possible.

TABLE 22

BEHAVIORAL RISK COMPOSITE

Company X

Components	% of Total Possible*	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Self-Care	74	14.0	38.0	29.43	4.37
Nutritional Eating Habits	65	27.0	69.3	45.77	7.37
Moderate Alcohol Use	65	2.0	10.0	6.47	0.99
No Tobacco Use	67	2.0	15.0	10.00	4.01
Physical Activity	59	9.0	27.0	17.74	3.30
Stress Coping Techniques	74	24.0	44.1	33.47	3.52
Behavioral Risk Composite	68	97.0	185.0	143.02	15.22

Note: N=340

*The higher the percent of total possible points of the mean score, the higher the wellness of the companies respondents in that component.

TABLE 23

BEHAVIORAL RISK COMPOSITE

Company Y

Components	% of Total Possible*	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Self-Care	76	20.0	40.0	30.57	4.32
Nutritional Eating Habits	70	36.0	62.0	48.75	5.98
Moderate Alcohol Use	68	5.0	9.0	6.77	0.91
No Tobacco Use	79	4.0	15.0	11.82	3.63
Physical Activity	64	13.0	24.0	19.30	2.64
Stress Coping Techniques	76	29.0	41.0	34.17	3.23
Behavioral Risk Composite	72	123.0	173.0	151.40	12.37

Note: N=40

*The higher the percent of total possible points of the mean score, the higher the wellness of the companies respondents in that component.

TABLE 24

BEHAVIORAL RISK COMPOSITE

Company Z

Components	% of Total Possible*	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Self-Care	77	24.0	37.0	30.70	3.18
Nutritional Eating Habits	69	37.0	63.0	48.60	7.18
Moderate Alcohol Use	70	5.0	9.0	7.00	1.12
No Tobacco Use	79	4.0	15.0	11.90	3.49
Physical Activity	61	10.0	24.0	18.40	3.83
Stress Coping Techniques	73	23.0	40.0	32.90	4.87
Behavioral Risk Composite	71	119.0	180.0	149.50	17.12

Note: N=20

*The higher the percent of total possible points of the mean score, the higher the wellness of the companies respondents in that component.

Perceived Wellness

The 36 perceived wellness questions were divided into six categories and are reported in Tables 25 through Table 30. All of the 400 respondents' answers are reported in percents for each response using the Likert scale 1 (Strongly Disagree) through 5 (Strongly Agree) ranking. The perceived risk composite for each hotel company is outlined in Tables 31 through 33 by showing the companies mean score for psychological, emotional, social, physical, spiritual, and intellectual components.

Psychological

The majority of the respondents "strongly disagreed" that they rarely counted on good things happening to them; that in the past they hardly ever expected things to go their way; and that things would not work out the way they wanted them to in the future (Table 25). The majority did not answer 5 (strongly agree) to any of the psychological questions. They did, however, answer 4 to always being optimistic about their future; always looking on the bright side of things; and that in the past, they have expected the best.

TABLE 25

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Psychological

Question*	1	2	3	4	5**
1. I am always optimistic about my future.	1.0	3.0	21.5	50.2	24.3
7. I rarely count on good things happening to me.	35.7	28.0	22.5	9.8	4.0
13. I always look on the bright side of things.	2.0	4.0	20.8	44.5	28.8
19. In the past, I have expected the best.	.8	2.2	18.0	47.5	31.5
25. I hardly ever expected things to go my way.	45.2	32.0	15.5	6.0	1.3
31. Things will not work out the way I want them.	53.7	30.0	8.0	6.0	2.2

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Emotional

Eighty percent, or 320 of the 400 respondents, "strongly disagreed" that they are worthless individuals (Table 26). The majority also "strongly disagreed" that there had been times when they felt inferior to most of the people they knew, and that they were uncertain about their ability to do things well in the future. They "strongly agreed" that they were confident about their own abilities. The majority marked the number 4 to always being secure with who they are, and that in the past they have felt sure of themselves among strangers.

TABLE 26

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Emotional

Question*	1	2	3	4	5**
2. There have been times when I felt inferior.	36.7	30.8	22.5	8.0	2.0
8. I feel confident about my abilities.	1.0	1.8	7.7	43.5	46.0
14. I sometimes think I am a worthless individual.	80.5	12.3	3.7	1.5	2.0
20. I am uncertain about my abilities in the future.	48.0	27.8	10.8	9.0	4.5
26. I will always be secure with who I am.	1.3	4.7	15.3	39.5	39.2
32. I have felt sure of myself among strangers.	3.7	10.0	23.5	39.5	23.3

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Social

A large majority "strongly disagreed" that they sometimes wondered if their family would really be there for them when they were in need (Table 27). They also "strongly disagreed" that in the past they have not always had friends with whom they could share their joys and sorrows. The majority of the respondents "strongly agreed" that their family had been available to support them in the past. The number 4 (on the "agree" side) was answered to the questions about members of their family coming to them for support; their friends knowing they could always confide in them and ask them for advice; and their friends being there for them when they needed help.

TABLE 27

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Social

Question*	1	2	3	4	5**
3. Members of my family come to me for support.	1.8	8.5	30.0	38.2	21.5
9. I wonder if my family will be there for me.	64.7	17.3	8.3	5.5	4.2
15. My friends know they can confide in me.	2.0	2.0	12.0	43.5	40.5
21. My family has been available to support me.	2.5	4.0	9.8	27.8	56.0
27. I have not always had friends to share joys.	30.5	20.8	20.0	20.3	8.5
33. My friends will be there for me when I need help.	1.3	5.0	24.8	41.0	28.0

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Physical

The majority of the respondents "strongly disagreed" that their physical health had restricted them in the past, or that they expected their physical health to get worse (Table 28). Using the Likert scale answers of 5 (strongly agree) and 4, the majority of the respondents felt that their body seemed to resist physical illness, their past physical health had been excellent, their present physical health is excellent, and that they expect to always be physically healthy.

TABLE 28

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Physical

Question*	1	2	3	4	5**
4. My physical health has restricted me in the past.	69.0	18.3	6.5	4.2	2.0
10. My body seems to resist physical illness.	1.8	3.5	16.3	38.2	40.2
16. My physical health is excellent.	3.7	4.7	20.8	44.2	26.5
22. My past physical health has been excellent.	1.3	2.2	18.8	32.5	45.2
28. I expect to always be physically healthy.	3.2	10.3	24.0	39.5	23.0
34. I expect my physical health to get worse.	38.0	29.5	21.0	9.8	1.8

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Spiritual

The majority of the respondents "strongly disagree" that life does not hold much future promise for them; and that they have felt in the past that their life was meaningless (Table 29). The majority responded that they believe there is a real purpose for their life. Approximately 40 percent answered each of the following questions with a 4 (or agreeing): I feel a sense of mission about my future, and it seems that my life has always had purpose. There was a variance in answering 1, 2, and 3 (strongly disagree moving towards agree) to sometimes not understanding what life is all about (84.5 percent).

TABLE 29

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Spiritual

Question*	1	2	3	4	5**
5. I believe that there is a real purpose for my life.	1.8	2.0	16.0	33.7	46.5
11. Life does not hold much future promise for me.	77.2	14.0	4.5	3.5	.8
17. Sometimes I don't understand what life is all about.	33.2	28.5	22.8	11.0	4.5
23. I feel a sense of mission about my future.	2.7	4.2	25.5	42.0	25.5
29. I have felt in the past that my life was meaningless.	67.7	18.3	9.0	3.2	1.8
35. It seems that my life has always had purpose.	2.2	6.0	20.3	44.2	27.3

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Intellectual

The majority of the respondents "strongly disagreed" that they avoided activities which required them to concentrate, and that their life had often seemed void of positive mental stimulation (Table 30). The majority answer was number 3 (neutral) to the amount of information that they process in a typical day is just about right for them (i.e. not too much and not too little). The majority of the respondents answered 4 (closer to agree than disagree) to "they will always seek out activities that challenge them to think and reason; generally, they feel pleased with the amount of intellectual stimulation they receive in their daily lives; and in the past, they have generally found intellectual challenges to be vital to their overall well-being".

TABLE 30

PERCEIVED WELLNESS ANSWERS FROM ALL RESPONDENTS

Intellectual

Question*	1	2	3	4	5**
6. I will always seek out activities that challenge me.	.2	2.7	20.0	48.7	28.3
12. I avoid activities which require me to concentrate.	64.5	25.8	5.2	2.7	1.8
18. I feel pleased with the amount of intellectual stimulation.	1.8	5.7	25.3	50.5	16.8
24. The amount of information I process is just about right.	5.2	16.8	41.5	27.8	8.8
30. I have found intellectual challenges to be vital.	1.3	3.0	19.5	49.0	27.3
36. My life has often seemed void of positive mental stimulation.	55.5	25.0	13.5	3.7	2.2

Note: N=400

*Respondents were asked to use **1** for **Strongly Disagree** and **5** for **Strongly Agree.**

**Answers are reported in percents of total N.

Summary of the Perceived Risk Components

The perceived risk composite tables list each of the six perceived components for each of the three companies (Tables 31, 32 and 33). The higher the percent of total possible points of the mean, the more "well" the companies respondents are in that category. The necessary steps for calculating this composite was described in Chapter 3.

Company Y had the highest means in all six of the perceived wellness categories with the overall perceived risk composite (15.45). Company X had the next highest with a mean of 14.85.

TABLE 31

PERCEIVED RISK COMPOSITE

Company X

Components	% of Total Possible	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Physical	81	1.0	5.0	4.04	0.66
Emotional	83	1.16	5.0	4.14	0.62
Social	80	2.0	5.0	3.98	0.58
Psychological	80	2.0	5.0	4.01	0.59
Spiritual	82	1.5	5.0	4.12	0.64
Intellectual	79	2.33	5.0	3.94	0.51
Perceived Risk Composite		6.52	24.0	14.85	2.56

Note: N=340

*The higher the percent of the total possible points of the mean score, the higher the wellness of the companies respondents in that component.

TABLE 32

PERCEIVED RISK COMPOSITE

Company Y

Components	% of Total Possible	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Physical	83	2.5	5.0	4.16	0.60
Emotional	84	3.0	5.0	4.21	0.58
Social	82	2.8	5.0	4.10	0.50
Psychological	86	3.1	5.0	4.29	0.51
Spiritual	86	2.8	5.0	4.31	0.51
Intellectual	82	3.2	5.0	4.10	0.44
Perceived Risk Composite		11.67	21.23	15.45	2.16

Note: N=40

*The higher the percent of the total possible points of the mean score, the higher the wellness of the companies respondents in that component.

TABLE 33

PERCEIVED RISK COMPOSITE

Company Z

Components	% of Total Possible	Min. Points Scored	Max. Points Scored	Mean	Std. Dev.
Physical	75	1.8	5.0	3.73	0.85
Emotional	75	1.0	5.0	3.74	1.08
Social	71	1.5	4.5	3.55	0.86
Psychological	75	2.2	5.0	3.76	0.78
Spiritual	76	1.8	5.0	3.81	0.88
Intellectual	76	2.5	4.8	3.78	0.71
Perceived Risk Composite		6.1	17.87	13.18	3.30

Note: N=20

*The higher the percent of the total possible points of the mean score, the higher the wellness of the companies respondents in that component.

Body Mass Index

To calculate the body mass index for each respondent, the following formula was used: weight in kilograms divided by height in meters squared (Shetty & James, 1994. The body mass index for all 400 respondents had a mean of 26.76 with a minimum of 17 and maximum of 44 (Table 34). This ranges from undernourished to greatly obese, with the majority of the general managers being overweight. Any ratio less than 18.5 is considered undernourished; 18.5 to 25 is considered healthy; 26 to 30 is overweight; and over 30 is considered obese (Shetty & James, 1994). Company X had the minimum of 17 (undernourished) and maximum of 44 (obese).

TABLE 34

BODY MASS INDEX OF ALL RESPONDENTS

Minimum Ratio	Maximum Ratio	Mean*	Std. Dev.
17.15	44.07	26.76	5.83

Note. N=400.

Analyses of Null Hypotheses

The researcher investigated six hypotheses. All six hypotheses compared each of the companies general managers' wellness scores to specific variables. The following tables (Tables 35 through 73) summarize the general managers' wellness scores by reporting only the behavioral risk composite, the perceived risk composite, and the body mass index. The six components that make up each of the risk composites are discussed in detail in Chapter 5.

Correlation Analyses

Revenue, Profit, and Turnover:

The first three hypotheses (HO1, HO2, and HO3) were correlated for each company (Tables 35, 36, and 37). The measures of association used were Pearson's product-moment correlation coefficients for the following interval data. They measured the strength of association or determined whether there was an association between the general managers' wellness scores and the variables in hypothesis 1 (revenue), 2 (profit), and 3 (turnover). The Pearson's product-moment correlation coefficients "r" was reported in each of the following tables. If the "r" value is astericked (*), the coefficient was significant with a p value of .05 or less.

TABLE 35

PEARSON'S PRODUCT MOMENT CORRELATION ANALYSIS OF "r" VALUES** REVENUE, PROFIT, AND TURNOVER PERCENTS TO THE THREE WELLNESS COMPOSITES

Company X

Variable:	Revenue 1	Profit 2	Turnover 3
Behavioral Risk Composite	.090	.082	-.029
Perceived Risk Composite	.111*	.112*	-.012
Body Mass Index	-.034	.001	.062

Note: N=340;
*Significance level of the p-value was reached at $P < .05$.
**"r" = degree of association

The researcher rejected HO1 and HO2 for Company X and failed to reject HO3. HO1 and HO2 had a positive correlation between Company X profits and revenues to the general manager's perceived risk composite. The p value for the perceived risk composite when associated to revenue was .0401 and the p value associated to profit was .0395.

The other coefficients "r" values that showed significance were the following perceived components: psychological (optimistic), physical (excellent health), spiritual (meaning and purpose in life), and intellectual (internally energized by stimulating activities).

TABLE 36

PEARSON'S PRODUCT MOMENT CORRELATION ANALYSIS OF "r" VALUES* REVENUE, PROFIT, AND TURNOVER PERCENTS TO THE THREE WELLNESS COMPOSITES

Company Y

Variable:	Revenue 1	Profit 2	Turnover 3
Behavioral Risk Composite	-.064	-.054	-.044
Perceived Risk Composite	.011	.039	.106
Body Mass Index	.110	.117	.055

Note: N=40;
"r" = degree of association

TABLE 37

PEARSON'S PRODUCT MOMENT CORRELATION ANALYSIS OF "r" VALUES* REVENUE, PROFIT, AND TURNOVER PERCENTS TO THE THREE WELLNESS COMPOSITES

Company Z

Variable:	Revenue 1	Profit 2	Turnover 3
Behavioral Risk Composite	.133	.160	-.202
Perceived Risk Composite	.199	.273	-.201
Body Mass Index	.083	.031	.062

Note: N=20;
"r"= degree of association

The researcher failed to reject HO1, HO2, and HO3 for Company Y and Company Z. Both of these results are discussed in detail in Chapter 5.

Analyses of Variance Tests of Signficiant Differences

Absenteeism: The next hypothesis, HO4, was statistically analyzed using ANOVA's to test for significant differences. The researcher failed to reject HO4 for Company X (Tables 38 and 39). There was no significant difference between their wellness scores and absenteeism.

TABLE 38

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO OWN SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Days Absent Due to Own Sickness	F value	Pr > F
Behavioral Risk Composite	.47	.7560
Perceived Risk Composite	1.11	.3505
Body Mass Index	.59	.6688

Note: N=340.

TABLE 39

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO FAMILY SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Days Absent Due to Family Sickness	F value	Pr > F
Behavioral Risk Composite	2.33	.0558
Perceived Risk Composite	1.16	.3280
Body Mass Index	.35	.8418

TABLE 40

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO OWN SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Days Absent Due to Own Sickness	F value	Pr > F
Behavioral Risk Composite	.42	.6623
Perceived Risk Composite	1.40	.2587
Body Mass Index	2.49	.0965

Note: N=40

TABLE 41

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO FAMILY SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Days Absent Due to Family Sickness	F value	Pr > F
Behavioral Risk Composite	1.63	.2092
Perceived Risk Composite	2.50	.0955
Body Mass Index	3.57	.0381*

Note: N=40
*P < .05.

The researcher rejected HO4 for Company Y (Tables 40 and 41). There was a positive significant difference to the number of days the Company Y general manager was absent from work due to family member's sickness and his/her own body mass index. For the complete ANOVA table and Duncan's post hoc table of means, refer to Appendix F, Tables 74 and 75.

TABLE 42

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO OWN SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Days Absent Due to Own Sickness	F value	Pr > F
Behavioral Risk Composite	.96	.4031
Perceived Risk Composite	.56	.5808
Body Mass Index	.79	.4713

Note: N=20

TABLE 43

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN ABSENTEEISM DUE TO FAMILY SICKNESS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Days Absent Due to Family Sickness	F value	Pr > F
Behavioral Risk Composite	.41	.8699
Perceived Risk Composite	2.01	.1644
Body Mass Index	1.20	.3252

Note: N=20

The researcher failed to reject HO4 for Company Z (Tables 42 and 43). There was no significant difference between their wellness scores and days absent, whether they were due to the general manager's own illness or family member's illnesses.

Hours Worked, Relocation, and Task Force Assignments

Tables 44 through 52 show the results of HO5 in analyses of variance tests of significant differences for each hotel company. The researcher failed to reject HO5 for Company X (Tables 44, 45, and 46).

TABLE 44

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN HOURS WORKED EACH WEEK WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Number of Hours Worked Each Week	F value	Pr > F
Behavioral Risk Composite	1.74	.1415
Perceived Risk Composite	.60	.6598
Body Mass Index	.49	.7460

Note: N=340

TABLE 45

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN FREQUENCY OF RELOCATION WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Frequency of Relocation	F value	Pr > F
Behavioral Risk Composite	.41	.7492
Perceived Risk Composite	.80	.4965
Body Mass Index	1.26	.2869

Note: N=340

TABLE 46

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN FREQUENCY OF TASK FORCE ASSIGNMENTS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Frequency of Task Force Assignments	F value	Pr > F
Behavioral Risk Composite	1.29	.2780
Perceived Risk Composite	2.15	.0941
Body Mass Index	.29	.8348

Note: N=340

The researcher also failed to reject HO5 for Company Y (Tables 47, 48, and 49) and Company Z (Tables 50, 51, and 52). The researcher discussed the results of the three risk composites' non-significance along with the significant behavioral and perceived wellness components in Chapter 5.

TABLE 47

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN HOURS WORKED EACH WEEK WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Number of Hours Worked Each Week	F value	Pr > F
Behavioral Risk Composite	2.66	.0832
Perceived Risk Composite	.20	.8168
Body Mass Index	1.25	.2991

Note: N=40

TABLE 48

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN FREQUENCY OF RELOCATION WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Frequency of Relocation	F value	Pr > F
Behavioral Risk Composite	.27	.7640
Perceived Risk Composite	.59	.5592
Body Mass Index	.07	.9369

Note: N=40

TABLE 49

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN FREQUENCY OF TASK FORCE ASSIGNMENTS WHEN COMPARED TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Frequency of Task Force Assignments	F value	Pr > F
Behavioral Risk Composite	1.21	.3195
Perceived Risk Composite	2.76	.0564
Body Mass Index	1.01	.3997

Note: N=40

TABLE 50

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES
IN HOURS WORKED EACH WEEK WHEN COMPARED
TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Number of Hours Worked Each Week	F value	Pr > F
Behavioral Risk Composite	.23	.8739
Perceived Risk Composite	.52	.6716
Body Mass Index	1.01	.4159

Note: N=20

TABLE 51

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN
FREQUENCY OF RELOCATION WHEN COMPARED
TO BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Frequency of Relocation	F value	Pr > F
Behavioral Risk Composite	.16	.8548
Perceived Risk Composite	1.40	.2742
Body Mass Index	.65	.5368

TABLE 52

ANALYSIS OF VARIANCE TEST OF SIGNIFICANT DIFFERENCES IN
FREQUENCY OF TASK FORCE ASSIGNMENTS WHEN COMPARED
TO BEHAVIORAL, PERCEIVED, AND BMI SCORES
Company Z

Frequency of Task Force Assignments	F value	Pr > F
Behavioral Risk Composite	.09	.9652
Perceived Risk Composite	.38	.7695
Body Mass Index	.54	.6627

T-Tests to Determine if Human Resource Benefits

Had Different Means

On Site and Off Site Fitness Facilities and Associate Meal Policies

Tables 53 through 73 show the results of HO6 thru t-tests for each individual company. The researcher rejected HO6 for Company X (Tables 53 through 59).

TABLE 53

T-TEST TO DETERMINE IF A HOTEL HAS AN ON-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

If hotel has an On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	.6269	.5312
Perceived Risk Composite	1.0234	.3069
Body Mass Index	-.7465	.4559

Note: N=340

TABLE 54

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE ON-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Ability to Use On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.6501	.5161
Perceived Risk Composite	-.6765	.4992
Body Mass Index	-1.2056	.2288

Note: N=340

TABLE 55

T-TEST TO DETERMINE IF HOTEL HAS OFF-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

If hotel has an Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	2.5102	.0125*
Perceived Risk Composite	.0103	.9918
Body Mass Index	-1.2242	.2217

Note: N=340
*P < .05.

The Company X general managers had a higher behavioral risk composite if their hotel had an off-site fitness facility. The two main categories that contributed to this positive significant difference of higher means were self-care (P value = .0024) and physical activity (P value = .0089). Appendix F (Tables 91, 92, 93 and 94) *are the* detailed T-Tests Tables of Means.

TABLE 56

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE OFF-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Ability to use Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	3.9967	.0025*
Perceived Risk Composite	.5165	.6058
Body Mass Index	-.7422	.4585

Note: N=340
*P < .05.

The Company X hotels that had an agreement with a local off-site fitness facility, which their managers could use, showed a higher behavioral risk composite. The three main areas that contributed to this positive significance of higher means were self care (P value = .0076), nutrition (P value = .0351) and physical activity (P value = .0073). The T-Test Tables of Means are in Appendix F, Tables 95 through 98.

TABLE 57

T-TEST TO DETERMINE IF EMPLOYEE MEAL IS OFFERED HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Benefit--Employee Meal Offered	t value	P value
Behavioral Risk Composite	-.4752	.6349
Perceived Risk Composite	.1918	.8431
Body Mass Index	-.8676	.3862

TABLE 58

T-TEST TO DETERMINE IF EMPLOYEE MEAL OFFERED IS FREE HAD SIGNFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Benefit--Free Employee Meal Offered	t value	P value
Behavioral Risk Composite	.2760	.7827
Perceived Risk Composite	.8733	.3831
Body Mass Index	-.6857	.4934

Note: N=340

TABLE 59

T-TEST TO DETERMINE IF HEALTHY EMPLOYEE MEAL IS OFFERED HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company X

Benefit--Healthy Employee Meal Offered	t value	P value
Behavioral Risk Composite	.7817	.4349
Perceived Risk Composite	1.5702	.1173
Body Mass Index	-.5004	.6171

Note: N=340

The researcher failed to reject HO6 when performing t-tests to Company Y (Tables 60 through 66). There was no significant difference between the wellness scores and human resource benefits (the availability and use of fitness facilities and associate meal policies).

TABLE 60

T-TEST TO DETERMINE IF HOTEL HAS ON-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

If hotel has an On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.1430	.8870
Perceived Risk Composite	-1.0363	.3066
Body Mass Index	1.0760	.2887

Note: N=40

TABLE 61

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE ON-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Ability to use On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.8655	.3922
Perceived Risk Composite	-.5127	.6111
Body Mass Index	1.7018	.0970

Note: N=40

TABLE 62

T-TEST TO DETERMINE IF HOTEL HAS OFF-SITE FITNESS FACILITY
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

If hotel has an Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.5230	.6040
Perceived Risk Composite	-.1537	.8786
Body Mass Index	-.1916	.8491

TABLE 63

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE OFF-SITE FITNESS FACILITY
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Ability to use Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.6937	.4921
Perceived Risk Composite	-.9166	.3651
Body Mass Index	.3823	.7044

TABLE 64

T-TEST TO DETERMINE IF EMPLOYEE MEAL IS OFFERED
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Benefit--Employee Meal Offered	t value	P value
Behavioral Risk Composite	-.8230	.4156
Perceived Risk Composite	-.6967	.4902
Body Mass Index	-.7398	.4640

TABLE 65

T-TEST TO DETERMINE IF EMPLOYEE MEAL OFFERED IS FREE HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Benefit--Free Employee Meal Offered	t value	P value
Behavioral Risk Composite	-.5462	.5881
Perceived Risk Composite	-.4885	.6280
Body Mass Index	-.9576	.3443

Note: N=40

TABLE 66

T-TEST TO DETERMINE IF HEALTHY EMPLOYEE MEAL IS OFFERED HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Y

Benefit--Healthy Employee Meal Offered	t value	P value
Behavioral Risk Composite	.2259	.8225
Perceived Risk Composite	.2446	.8081
Body Mass Index	.1679	.8675

Note: N=40

The researcher rejected HO6 with t-tests for Company Z (Tables 67 through 73). The researcher discussed the results of this decision in Chapter 5.

TABLE 67

T-TEST TO DETERMINE IF HOTEL HAS ON-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

If hotel has an On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	2.2397	.0380*
Perceived Risk Composite	.0598	.9530
Body Mass Index	-.8914	.3845

Note: N=20
*P < .05.

The behavioral risk composite showed a positive significant difference when the hotel property had an on-site fitness facility. The two categories that contributed to the positive significant difference of higher means were nutrition (P value = .0266) and physical activity (P value = .0565). Tables 99 through 103, located in Appendix F, display the T-Test means.

TABLE 68

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE ON-SITE FITNESS FACILITY HAD SIGNFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Ability to use On-Site Fitness Facility	t value	P value
Behavioral Risk Composite	.2174	.8304
Perceived Risk Composite	-1.3011	.2096
Body Mass Index	.8721	.3947

TABLE 69

T-TEST TO DETERMINE IF HOTEL HAS OFF-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

If hotel has an Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	-.8278	.4186
Perceived Risk Composite	-.9477	.3558
Body Mass Index	.0811	.9362

TABLE 70

T-TEST TO DETERMINE IF MANAGERS ARE ABLE TO USE OFF-SITE FITNESS FACILITY HAD SIGNIFICANTLY DIFFERENT MEANS IN BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Ability to use Off-Site Fitness Facility	t value	P value
Behavioral Risk Composite	.6380	.5315
Perceived Risk Composite	-.6588	.5184
Body Mass Index	-.5522	.5876

TABLE 71

T-TEST TO DETERMINE IF EMPLOYEE MEAL IS OFFERED
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Benefit--Employee Meal Offered	t value	P value
Behavioral Risk Composite	-.4989	.6239
Perceived Risk Composite	1.4326	.1691
Body Mass Index	1.1108	.2813

TABLE 72

T-TEST TO DETERMINE IF EMPLOYEE MEAL OFFERED IS FREE
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Benefit--Free Employee Meal Offered	t value	P value
Behavioral Risk Composite	-2.0662	.0535
Perceived Risk Composite	-.2299	.8207
Body Mass Index	.3470	.7326

TABLE 73

T-TEST TO DETERMINE IF HEALTHY EMPLOYEE MEAL IS OFFERED
HAD SIGNIFICANTLY DIFFERENT MEANS IN
BEHAVIORAL, PERCEIVED, AND BMI SCORES

Company Z

Benefit--Healthy Employee Meal Offered	t value	P value
Behavioral Risk Composite	-.9096	.3750
Perceived Risk Composite	.6559	.5202
Body Mass Index	.0401	.9685

CHAPTER 5

DISCUSSION

Introduction

With the average age of the United States labor force increasing and the decreasing number of entry-level workers, the hospitality industry with its present tremendous growth has to curb its overwhelming turnover rates and enhance its attraction for skilled managers and associates. Reducing absenteeism and turnover, decreasing job burnout and stress, and controlling health care costs all are important for hotel companies to remain profitable in the future.

The failure in meeting job expectations to produce a profit is a primary reason for management turnover. Therefore, this study has analyzed the wellness of hotel general managers to see if there is a positive association between their wellness (behavioral and perceived) and the hotels' financial results (profits and revenues). The primary objective of this research was to determine whether an association existed between hotel general managers' wellness scores and actual 1995 annual revenues and profits at the hotels. A summary of the descriptive data begins this chapter. Then the significant findings of each hypothesis are discussed in detail with recommendations to the hotel industry. The "so what" question is answered in the "Implications to the Hotel Industry" section. Recommendations for future research end this chapter.

Summary of Descriptive Data

Three nationally recognized hotel companies were surveyed. They are identified here as Company X, Y, and Z to protect the anonymity of the respondents. Ninety percent of the total responses were from Company X hotels. Therefore, the correlations, analysis of variances, and t-tests were performed separately for each company. Most of the demographic data, however, was reported in frequencies for all of three companies combined (Tables 2, 4, 5, 6, and 7). If any of the frequency percents of the total respondents were not applicable for each individual company, the researcher noted it on the respective table in Chapter 4.

There was no significant difference in the three risk composite wellness scores for the total respondents when compared to age, gender, or living arrangements. Differences were noted, however, in the 12 separate wellness components within the discussion of the significant hypotheses later in this chapter.

The one exception in the risk composite was that Company Z general managers' body mass index was significantly better, with a mean of 26 versus 36 (over 30 is obese), when the manager lived with a spouse or family rather than living alone. This may relate to the assumption that a person living alone is more apt to consume restaurant foods including convenience foods, that are high in fat and calories rather than a home-cooked, well-balanced meal.

Dependents Living at Home

Nearly 44 percent of the total general managers did not have dependents living at home (children and/or parents) as noted in Table 2. This survey defined dependents as children and/or parents. A spouse was referred to only in the question about living arrangements. In a t-test procedure (Table 3), there was a significant difference in the Company X general managers' behavioral wellness category of stress when there were no dependents at home (P value = .0471). These individuals reported coping with stress better than those who had dependents living at home. Stress has been found to be a major barrier to personal health. Stress has been linked directly to almost every common ailment, from heart disease to the flu. This positive difference could possibly be due to less home stress to add to their professional stress. The lack of dependents also provides the home setting as a "cooling down" time to dispense the stress of the day.

Company Z showed a significant difference (Table 3) when there were no dependents at home in 4 of the 6 perceived wellness components: psychological (P value = .0094); emotional (P value = .0137); spiritual (P value = .0322); and intellectual (P value = .0067). Positive outlooks on the events and circumstances of life, (or optimism), a secure self-identity, positive sense of self-regard, meaning and purpose in life, and being internally energized all were judged higher by the general managers who did not have any dependents living at home. It is interesting to note that social perceptions were not significantly different.

The Company Y general managers rated themselves higher in self-care activities when there were no dependents at home (P value = .0287). In all probability, they have more personal time to devote to their own health. With the time demands on hotel general managers, dependents living at home overall hindered their wellness, whether 31 or 50 years old (Table 4).

Hours Working Each Week

With the majority of the respondents reporting that they work 51 to 60 hours a week (Table 5), there appears to be a corporate culture reinforcing this schedule. In Chapter 2 it was noted that general managers are expected by their employers to work long and irregular hours (Sarabakhsh et al., 1989) as typical business days, usually five and a half to six days a week, equating to a 60-hour work week (Krone et al., 1989).

Company Y has a policy that each manager work a 5-day, 50-hour work week. This went into effect in the early 1990's when Americans left the 1980's behind and started looking for balance and a higher quality work life. They implemented this policy to help decrease management turnover and increase employee morale. This is possibly an area that other corporate human resource departments may want to investigate. About 44.2 percent of the respondents in a recent survey of health professionals felt that health promotion programs in the year 2002 would be located in the human resources department (Harris, 1994). The remaining respondents felt that the benefits department or medical departments would be responsible. In the hotel industry, both of these areas,

benefits and medical, usually fall under the human resource umbrella. This is an exciting new area of responsibility and accountability for future human resource personnel.

Frequency of Relocation and Task Force Assignments

The hotel industry has a reputation for relocating managers almost every year, an area of concern for many new entrants into the work force. Surprisingly, 40 percent of the managers who responded said they never relocated (Table 5). Possibly, these were managers that work for the smaller management or franchise companies. If the manager was relocated, it was generally every 3 or more years.

This is another factor that has changed in the 1990's with the 1980's building boom left behind. In 1989, Krone stated that "hotel managers usually relocate every 12 to 18 months to other cities and states," however, the present economy is encouraging a new cycle of hotel building that may increase the relocation frequency to the 1980's levels.

The respondent's frequency of task force assignments (60 percent) was 1 to 3 times a year. This reflects the fact that most companies are experiencing new hotel openings, acquisitions, and/or continued management turnover.

Turnover

Each general manager had changed companies (turnover) approximately 2 times in their career. Company Z general managers had changed companies once, Company Y

approximately 3 times, and Company X approximately 2.5 times (Tables 8 and 9). The majority have worked in the industry 18 years and 7.7 years with their present employer. The management and employee turnover rates ranged from 0 to 380 percent, with a mean of 29 to 55 percent (Tables 10, 11, and 12). These means are below the industries norm. Employee turnover averages 120 percent annually (Sarabakhsh et al., 1989) and management turnover rates in the hospitality industry are 225 percent annually and higher (Hogan, 1992; Van Dyke & Strick, 1990).

Other statistics that show an industry boom are the statistical means of each company's revenue and profit percents over their last years budget (Tables 10 through 12). The means ranged from over 2 percent up to 38 percent over budget. With the length of time each general manager had been in the hotel industry, the researcher assumes that challenging, yet realistic and achievable budgets were created by the general managers and then accepted by the corporate controllers. These budgets would not be accepted if they were too easily achieved since bonuses, sometimes up to 50 percent of their annual salary, to general managers are paid for achieving and exceeding profits.

General Manager's Age

When comparing the age of Company X general managers to self-care (p value = .0051) and nutrition (p value = .0032), there was a significant association. As the general manager's age increased, the wellness scores in these two categories increased. Having a low or normal blood pressure and low or normal total blood cholesterol count, along with

wearing seat belts and bending their knees when lifting heavy objects contributed the most to this significance in self-care. Having a low or normal blood cholesterol level and blood pressure reduces the risk of heart disease. Often the older people get, the more cautious they become and take prevention and self-care more seriously. Dietary balance, no smoking, moderate intake of salt and sodium, moderate consumption of alcoholic beverages, adequate physical activity, and effective stress management all assist in reducing heart disease (U.S. Department of Health and Human Services, 1994).

Years Worked in the Hotel Industry

In addition, there was also a positive significant association between Company X general managers' nutritional habits and how many years they had worked in the hotel industry (p value = .0239) and how many years worked for their present employers (p value = .0034). As the number of working years and age increased, their nutritional wellness increased. The three factors that contributed the most to the nutritional eating habits were healthy food preparation, the choice of food eaten, and balance of food groups.

There was an interesting positive correlation between the size of Company X hotels (p value = .0058), the number of employees (p value = .0041) and managers (p value = .0426) with the general manager's physical exercise and the overall behavioral risk composite. The larger the hotel and number of subordinates, the better these wellness scores. It is possible that these general managers have always maintained a healthy lifestyle

in their behaviors that contributed to their productivity and promotions to the larger hotels. The researcher contributes this continuation of behavioral wellness to the availability of more people to whom the manager can delegate responsibility and authority, thus allowing more personal time for the general manager to be involved in moderately-intense sports (i.e. community golf outings or early morning workouts). The physical activity component had the lowest percent of possible points (or the worst) of all the behavioral components. It is interesting to note that this probably contributed to the body mass index mean of 26.76 which indicates a risk of obesity or an overweight condition.

Alcohol use and stress coping techniques had no correlation between Company X hotels profit, revenue, size, and the general manager's age, number of years in the industry or with their present employer. Alcoholism and stress are two stereotypes that are associated with hotel managers. Apparently, these behaviors are not affecting the hotel's operation in a negative manner. The researcher contributes this to an increased awareness in the industry that has possibly led to more control over these two conditions:

1. Moderate consumption of alcohol was reported by the respondents (Tables 22, 23, and 24).
2. Over eating and heavy consumption of alcohol were not reported as being used as stress coping techniques (Table 21).

In addition, the younger the general manager, the less exposure they had to tobacco smoke. Forty-five percent of the general managers reported never smoking (Table 19). Only 27 percent are active smokers. As the younger generation moves up

into management, they will be more likely to enforce a smoke-free environment in the hotels' public and employee areas.

Significant Findings and Recommendations

HO1 and HO2

There was a significant positive association between hotel general managers' overall perceived risk composite and the six components to the hotels' revenue and profit percents over budget at Company X (Table 35). Possibly the other sample sizes of 20 (Company Z) and 40 (Company Y) would have shown a significant "r" if they had been larger (Table 36 and 37).

Researchers have suggested that health perceptions are one of the best predictors of physical and mental health care use (Stewart, Hays, & Ware, 1992). Bandura's (1986) Social Learning Theory is based on the idea that what people think, believe, and feel affects how they behave. As stated in Chapter 2, self-rated perceptions of health are among the most powerful predictors of subsequent health outcomes.

Company X not only showed a positive significant correlation between the perceived risk composite to revenue (p value = .0401) and profit (p value = .0395), but also significance in the following components: psychological (profit p value = .0303); physical (profit p value = .0449); spiritual (profit p value = .0205); spiritual (revenue p value = .0310); and intellectual (revenue p value = .0379). These general managers

answered questions that showed they have a positive mental attitude, an optimistic view of their past and outlook into the future, an inner peace, and an understanding of what life is all about. They like to be challenged and mentally stimulated. They perceive themselves as being honest, loyal and conscientious; all attributes that an employer respects and appreciates in an employee. Pessimism, shown to have an association to low work productivity (Seligman & Schulman, 1986), is not evident in these managers' perceptions.

The two perceived components that did not show a significant association to profit and revenue were social wellness (neighborliness and hospitableness) and emotional wellness (love, affection, passion, and sincerity). Popular opinion would tell you that these elements would be vital to success (profits) in the hospitality industry. Spiritual wellness had the highest percent of total possible points in the perceived risk composite and perceived social wellness was the lowest (Tables 31, 32, and 33).

In reference to the size of the hotel in relation to the number of rooms and employees, there was a positive significant correlation to emotional, spiritual, and intellectual components (p values of number of rooms .0342, .0004, and .0013 respectively); (p values of number of employees .0235, .0188, and .0286 respectively). Usually the general managers at the large hotels have been promoted from smaller operations over the years due to performing beyond the company's expectations. Possibly these general managers have always had (or have as a result of recognition) a higher self-esteem, self-confidence, and sense of security. Since the average size of the Company X hotels were small (184 rooms), there needs to be a way that these general managers at the smaller hotels can assess their emotional, spiritual, and intellectual wellness earlier in their

careers. In addition, this may also reinforce the importance of recognition and appreciation from company executives towards managers at any level or size of hotel.

Dunn (1961) identified the 12 basic needs of individuals as survival, communication, fellowship, growth, love, imagination, balance, environment, communion with the universal, philosophy of life, dignity, and freedom and space. Corporate human resource departments could enhance these feelings with fair separation clauses in employment contracts, bonus programs, genuine regional and corporate support, clear and concise outline of expectations of performance, and career pathing.

Company Y and Company Z did not show any significant correlations between perceived wellness scores and the hotel's profit and revenue percents over budget. Since Company Y had the largest perceived risk composite mean of 15.45, or 4 percent larger than Company X, and their revenue and profit (+4.84 and +10.15) were more than double over their budgets than Company X, there may be associations that develop with larger sample sizes. The recommendation the researcher made was to use sample sizes of at least 100. In addition, the collection of data, possibly using a captive audience, which would encompass respondents from all wellness levels (high and low) so that the behavioral wellness components would have a wider range of scores. Possibly, with a wider variance of wellness, there would be an association to the wellness level and the revenue and profit of the hotel.

HO4

Company Y did show a significant difference in the number of days they were absent (82 percent were never absent) due to family member's sickness and their body mass index (BMI=proportion of height to weight) in Table 41. Duncan's post hoc test showed a body mass index mean of 8 points better (lower proportion) when the manager was "never" absent due to a family member's sickness (Tables 74 and 75). Company Y also reported the least amount of general managers' absenteeism. The researcher contributes this to the definite possibility that family members share similar life-style habits that affect the body mass. Reciprocal determinism, the environment within which the behavior is performed, should focus on changes to the environment, the interaction and behaviors of the individual (Percel et al., 1990). Physical activity, macro nutrient composition of the diet, and the volume of energy intake affect the BMI (Black, Sciacca, & Coster, 1994). The members of the family apparently are not sick, so this doesn't require the manager to stay home and tend to their loved ones. Weight management at the worksite has potential for improving employee health and productivity, enhancing job satisfaction, and ultimately reducing corporate health care costs through prevention (Black et al., 1994).

In addition, the physical and spiritual perceived wellness scores showed a positive significant F (Prob > F = .0038 and .0484 respectively). The less often the managers were sick due to their families' illnesses, the higher the mean in physical wellness (Table 85). The managers had a positive perception and expectation of their own physical health that

is probably passed on to their family members. Their strong value system in usefulness and self-worth, along with conscientiousness and ethics probably prohibit them from being absent unless there is a truly critical situation.

Even though Company X did not show a significant difference between the 3 overall wellness composites and days absent, there were significant differences in the 12 wellness components. There was a Prob > F value of .0512 when comparing Company X general managers' physical wellness and days missed due to their own sickness. Also, Duncan's post-hoc test showed that if a Company X general manager was never sick, they had a higher emotional and social perceived wellness score (Tables 76 & 77). However, the F value was not significant. The nutrition and stress components of behavioral wellness were significant (Prob > F = .0250 and .0191 respectively) when the Company X general managers were never absent due to their family's sickness. Possibly, the eating habits and stress coping techniques are shared by all family members, therefore, the family members are not sick as often.

The physical and spiritual perceived wellness scores were better when the Company X general manager was absent less often due to their family's sickness shown in Duncan's post hoc, not the F value (Tables 78 & 79). Duncan's post hoc (but not the F value) also showed a lower mean (lower wellness) when a general manager was absent more due to family sickness or had more exposure to tobacco smoke (Table 80). Possibly, the general manager does not smoke, but a family member does, exposing them and the rest of the family to Environmental Tobacco Smoke (ETS). A good reason to support the

Surgeon General and his call to make the United States smoke free by the year 2000. Company Z did not show any significant differences in HO4.

HO5

Company X general managers had higher wellness means when they worked under 40 hours a week instead of working 71 or more hours a week. Wellness means were not significantly different when working 40-70 hours. This higher mean was evident in Duncan's post-hoc tests when comparing hours worked to coping with stress techniques, psychological, emotional, and spiritual components (Tables 81 - 84). The F value was not significant probably because only 5 percent of these respondents reported working under 40 hours a week. Company Y and Company Z showed no significant differences in the variation of hours worked each week. This is possibly due to the fact that none of their general managers reported working under 40 hours a week. Therefore, it would not seem practical to recommend that general managers work under 40 hours a week. The researcher does, however, suggest that consistently working over 71 hours a week could be detrimental to a general manager's wellness. A recommended revision to the instrument would be to ask for continuous data (respondent fill in the blank) versus checking a multiple choice answer. This change in asking for the average number of hours worked each week may contribute to significance when compared to wellness components not only in perceptions but also lifestyle behaviors.

Relocation frequency in Company Y general managers resulted in a positive significant difference in self-care behaviors (Prob > F = .0117) and psychological perceptions (Prob > F = .0314). When the general manager relocated every 2 or 3 years versus never relocating, Duncan's post-hoc test showed a significantly higher mean not only in self-care, but also stress coping techniques (Tables 86 & 87). Apparently these managers have had to learn balance and deal with stress throughout their lives and careers. They may have had to relocate 8 times (21 years in the industry/2.5 year) within their careers learning how to manage stress effectively. As a result, possibly the Company Y general managers do not become complacent but consistently pay attention to their own behaviors as they adapt to new cities, states, cultures, and communities, thus shaping their personality to enable them to deal with stress better. Psychologically, they feel they are accomplishing their present goals and are consequently asked to go to a different hotel and make a positive impact there.

Company X and Company Z general managers' wellness scores were not affected by the frequency of relocation. The significant difference discussed above may be because Company Y relocates 47.5 percent of their general managers every 2 years, 47.5 percent every 3 or more years, and only 5 percent, never (Table 5). Whereas, Company X and Company Z reported 40 percent never relocating. When a researcher chooses their survey population, they are hoping to generalize their research findings to the overall target population. Choosing companies that manage or own approximately 50 to 100 hotels in their portfolio (needing to relocate their managers frequently) would probably result in a clearer picture of the effects of relocation on a general manager's wellness.

Company Y general managers' self-care behaviors were different depending on task force frequency (Prob > F = .0432). Duncan's post-hoc test showed a higher self-care mean when the general managers were assigned to task forces twice a year, rather than never (Table 88). In addition, the managers intellectual and perceived risk composite means in Duncan's test were higher (better) when the manager went on task force 2 times a year or 3 or more times a year rather than never (Tables 89 & 90). Being asked to share their knowledge with other managers is probably intellectually stimulating for most general managers. Their perceived sense of being needed and appreciated by the company also contributes to these components. The researcher recommends the same action for task force as relocation when choosing the survey population. In addition, choosing a company that is growing, adding hotels to their portfolio, would also be advantageous to assess the true affects of task force assignments on general manager's wellness.

HO6

Company X general managers showed a positive significant difference in their behavioral risk composite if their hotel was affiliated with an off-site fitness facility which they were able to utilize as shown in Tables 55 and 56. Self-care, nutrition, and physical activity were significant components in this composite (P value = .0076; P value = .0351; and P value = .0073 respectively). Tables 91 through 98, located in Appendix F, display the T-Tests Tables of Means for these components. Ninety-seven percent of the general managers aged 21 to 30 years and 84 percent of the managers aged 31-40 were

working for Company X. These generations have grown up in a culture that promotes and markets health and health care products. They are more likely to seek out gyms before or after work. The off-site facility showed a significant difference but the on-site facility did not. The researcher suspects that general managers, the leaders of the hotel, do not want to compromise their perceived respect by "dressing down" in front of their associates. In addition, since the majority of them are at work 51-60 hours a week, by the end of the day they are ready to leave the hotel property. Off-site facilities tend to have more up-to-date fitness equipment that is better maintained than an on-site fitness facility.

Company Z general managers' behavioral risk composite showed a significant difference when the hotel had an on-site fitness facility (Tables 67 & 99). Tables 100 and 101 (Tables of Means) show higher means in nutrition and physical activity components when the hotel had an on-site fitness facility. However, there was no significant difference if they were able to use it. Viewing their guests use of the facilities, may possibly motivate them to engage in more physical activity elsewhere. Psychological and intellectual perceived components, means shown in Tables 102 and 103, were significant (P value = .0334 and P value = .0410 respectively) when the Company Z did not have an on-site fitness facility (P value = .0103). Possibly, the peer pressure of working-out was eliminated by the hotel's facilities and the company's corporate policies. Recommendations for revisions to the survey instrument would be to inquire about the equipment available in the facilities, the hours the facilities are open, the approximate number of guests that use the facility, and the written company policies on use of the facilities.

Company Y general managers did not show a significant difference in their wellness scores when compared to any of the human resource benefits (Tables 60 through 66). Company X and Company Z general managers' wellness scores, even nutrition, did not show any significant differences when associate meals were offered, whether they were free or not, healthy or poorly balanced. Apparently, if the general managers eat in the employee cafeteria, the food items and/or cost do not make a difference in their wellness. Since "healthy food items" could be subjective from a person's personal opinion, the survey instrument should ask for a description of some of the typical menu items offered in the cafeteria. A professional evaluation could then catagorize the items as being healthy or not.

Organizations have great power to influence employee behaviors through organizational policies and programs. Personnel policies set standards of acceptable or desired behavior. Management actions that can have an impact on employee behavior include a written commitment to a healthy work force; a comprehensive health promotion program; supportive organizational policies; and supportive benefit programs that include risk-rated health insurance (O'Donnell et al., 1984). These ideas for actions by management in all types of hotel companies are expressed in the next section of this chapter titled Implications. These are the suggested steps to be taken by hotel companies to remain profitable and grow in the future with the ever-changing work force.

Implications to the Hotel Industry

Impact of Perceived Wellness on Revenue and Profits: When general managers answered questions about their perceived wellness in a positive, optimistic manner, the hotels exceeded their revenues and profits over budget. Therefore, hotel's financial success or failure affect the general managers perceived wellness score. Since perceived wellness impacted many areas of the hotels' success (i.e. profit and revenue), human resources could concentrate on programs enhancing self-esteems, holding educational/leadership training seminars that intellectually stimulate, communicating performance expectations effectively, buying in on realistic and achievable budgets, having clear and concise separation clauses in management contracts, insisting on timely and consistent annual performance reviews, staying competitive with bonus criteria, offering on-going career pathing, and rewarding long-term superior performance. The self-fulfilling prophecy may be apparent in these perceptions. Social (hospitableness) and emotional (passion and sincerity) perceptions are areas that future Total Quality Management programs should address since these areas did not rate high.

Impact of Relocation Frequency on Stress and Self-care Behaviors: General managers that practice self-care behaviors, are optimistic about their future, and cope with stress effectively, have relocated every 2 or 3 years. The personality and behaviors of these general managers have apparently met with, or exceeded, company expectations. Possibly, their performance levels in leadership and company' financial gains have resulted in the company paying for their expertise (promotions) to be shared at hotels in other

cities and states. With the number of moves and promotions these general managers have experienced (possibly 8), they have effectively learned how to deal with stress, while maintaining healthy behaviors and attitudes. These general managers should be the role models for other managers. People activate different reactions depending on their socially conferred roles and status, as described in the Social Learning Theory (Bandura, 1986).

If a general manager becomes complacent psychologically and behaviorally after working at the same hotel for many years, possibly relocating him/her to a different hotel, city, and state may rejuvenate the level of motivation to perform better for the hotel and become more productive personally. Bandura (1986) states that the SLT is applicable if the variables change (average performance), and the situation changes (relocation), the behaviors are all reevaluated by the individual.

Impact of Task Force Frequency on Perceived Wellness: General managers practice better self-care behaviors and have a better overall perceived wellness score (especially intellectual), when they have participated in task force assignments two or three times a year than a manager that doesn't ever participate. When companies buy new hotels, acquire additional management contracts, experience excessive turnover at an existing hotel, or have a hotel that will experience peak business due to a city-wide event, it would be beneficial to the general manager to be asked and participate in assisting the hotel in need. Being asked to share their knowledge with other managers would be intellectually stimulating and require them to stay abreast of current company policies and industry trends. Their perceived sense of being needed and appreciated by their company also adds to their overall wellness.

With growth in the economy, the number of jobs available now and coming available in the near future (the pace of expansion in the hospitality industry is expected to generate 3 million new jobs by 2005), it is a great time to start recruiting potential managers into the hotel industry. Recruiting efforts, starting in high school and colleges, could first concentrate on eliminating the negative stereotypes associated with the hotel industry and focus on the benefits. For example, with positive wellness scores associated with frequency of relocation and task force assignments, recruiting efforts could emphasize the maintenance and balance in a quality of work life while seeing different parts of the country at the company's expense.

Impact of Using Off-Site Fitness Facilities on Behavioral Wellness: When a general manager can use an off-site fitness facility as a company benefit, their behavioral wellness (especially self-care, nutrition, and physical activity) components are better. Physical fitness programs were the initial major focus of most work site health promotion efforts. "In fact fitness and health promotion had become so intertwined that their images were frequently confused. . . in a number of cases the use of the runner or aerobicizer as an icon for total well-being in corporate health promotion materials antagonized sedentary managers who were aware that they faced greater risks from smoking, stress, elevated cholesterol, lack of hardiness, or other risks than from lack of exercise" (Harris, 1994, p. 529, 530). However, the lowest behavioral component score for all three hotel companies' general managers was physical exercise, so some improvement needs to be made in the approach of activity behavioral change.

The general manager could conduct a guest survey and facilitate focus groups inquiring if their guests prefer on-site or off-site fitness facilities. If the preference is an on-site facility, a carefully orchestrated plan that would meet the specific needs of the guest should be the first step. Top-quality commercial equipment with maintenance contracts and offering additional services, like mini spas, would need to be apart of the plan. Or, if the guests prefer, eliminate (or don't build) the on-site facility and contract with a nearby off-site facility that has a first-rate staff, equipment, and facilities that would be available for guests and managers. A possible compromise would be to offer off-site facility use and provide some fitness equipment for in-room training for those guests that prefer to exercise in private. Since 1987, home fitness activity has skyrocketed by 85 percent and health club membership by 39 percent (Munro, 1996).

Since the body mass index of the majority of the general managers was categorized as overweight, some type of physical activity needs to be promoted. Tenneco found that the average health claim for exercising women was $640 as compared with $1536 for nonexercising women and $562 compared with $1004, respectively, for men (Chang & Boyle, 1989). In addition, they found exercisers had less job turnover (Wojcik, 1994). Absenteeism at Lockheed was 60 percent lower for exercisers than for non-exercisers and the turnover rate was 13 percent lower among those who exercised regularly (Chang et al., 1989).

Impact of Offering Free and Healthy Meals on Nutritional Eating Habits: A general managers' nutritional eating habits were not affected, positively or negatively, by the benefit of a hotel offering a employee meal, free or healthy. Employee cafeterias do

not have to furnish free meals. Instead, offer a clean, reserved space could be provided so associates could bring in their own lunch from home. Vending machines with healthy alternatives and assorted juices could be supplied through a contract vending service for convenience. If the hotel wanted to defer the cost of food on left-over buffet items, they could charge a minimal fee and offer the items in the cafeteria. Since none of the nutritional behavioral scores were high (good), possibly the chef or a local dietitian could offer a nutritional awareness class once a month to the associates. The agenda should include interpretation of the nutrition facts on food labels since over half of the respondents presently do not read them.

Impact of Absenteeism on BMI and Perceived Wellness: A general manager that has an "acceptable" body mass index, a positive perception and expectation of their own physical health, and has a strong value system in usefulness, self-worth and conscientiousness is absent less often due to a family member's illness because of sharing family values and lifestyle habits. Weight management classes should be promoted to managers that encompass physical activity and nutritional guidelines. Inclusion of the spouse and other family members may enhance the success of such a program. DuPont showed a 47.5 percent decline in employee absenteeism who were involved in their HPP (Bertera, 1990). In a comparative study of two insurance company's employees, the absentee rates tumbled by 60 percent for men and 38 percent for women when participating in their company's HPP (Cole-Hamilton, 1994).

Impact of Dependents on Behavioral and Perceived Wellness: When general managers had dependents living at home, there was a lack of behavioral self-care and

effective stress coping techniques, and perceptions in psychological, emotional, spiritual, and intellectual wellness. Since there was a majority of managers that had dependents (children or parents) living at home and their wellness variables were affected negatively, health promotion programs could be offered at the hotels in physiological self-care categories (i.e. blood pressure tests and total blood cholesterol tests) and also in effective stress management. Johnson & Johnson's Health Care Systems, Inc. published in their 1996 catalog their findings that 10-20 percent of high risk individuals--those with high cholesterol levels and blood pressure--were the cause of 80 to 90 percent of organization's health care costs.

Since the body mass index (proportion of weight to height) was better for those who had living arrangements with a spouse or family, establishing nutritional and exercise routines could also be a part of the health promotion program for those managers that live alone or that desire a lower body mass. Employees of Chrysler Corporation that were overweight by 20 percent had 143 percent higher health-claim costs (Litvan, 1995). The older, the more years worked, and the larger the hotel, the better the general manager's behavioral risk composite (especially self-care, nutrition, and physical exercise). In addition, the perceived emotional, spiritual, and intellectual wellness components, and less exposure to tobacco smoke were apparently better at the larger hotels. Teaching an awareness of healthy lifestyle behaviors, the dangers of Environmental Tobacco Smoke, and showing an appreciation and recognizing superior performance needs to be instilled in the company's culture in order to affect managers at all levels and all ages.

Recommendations for Future Research

Proven positive results from health promotion programs have taken place throughout the 1990's. These programs have eliminated excesses in economic costs, aided in attracting and retaining key personnel (decreasing turnover), decreased absenteeism, enhanced productivity, improved public image of the company, and promoted a greater allegiance to the company by employees (Bartlett, 1992; Connors, 1992; Pelletier, 1993; O'Donnell & Harris, 1994).

The initial step in planning for health promotion is analysis of the current situation. Wider use of analysis of medical insurance and disability claims data would allow health promoters to more accurately characterize the current burden of illness in their population of concern (Harris, 1994). "Wider use of survey research into employee perceptions about health, perceived risks, self-efficacy, desired messages and formats, and desired activities would allow us to meet consumer demand in a more effective way" (Harris, 1994, p. 540). Management can be surveyed to determine their key concerns about health, morale, image, recruitment and retention, and productivity. Merging the employee perceptions and the management's concerns would present a complete picture of the challenges and demands facing a health promotion effort in a hotel company.

The researcher would like to conduct future research using some of the same variables used in this study with hotel companies that could each produce a sample size of at least 100. The timing of the research would be moved up to March and April for data collection, so prior year's financial data is more readily available.

Revisions of this research project and additional research questions that should be answered in the future are:

1. Is there an association between the hotel's customer satisfaction scores to the managers' wellness scores? In order for health promotion to become an accepted and entrenched part of an organization's culture, staying in touch with the hotel's customers is vital.
2. Is there an association between the manager's cultural diversity to the wellness scores?
3. Is there an association between the general managers' wellness scores to their associates'? Does role-modeling take place? Wellness experts predict that health promotion will be given a higher priority in employee benefit plans within the next decade because there is finally enough evidence to prove that it works (Wojcik, 1994). If the general manager has healthy lifestyle behaviors, he/she can serve as a positive role model to all employees. Also, is the associate's nutritional and eating habits score affected by the availability of meals, free and healthy even though the general managers is not?
4. Is there an association between health care costs to the wellness of the hotel associates? Information about health care costs were asked for in the pilot study, but was not easy for the hotels to report. An instrument asking for information that is readily available to hotel's human resource

departments on current health care costs (insurance and claims) would be necessary for an adequate response rate.

5. What method would need to be used to receive responses from high-risk general managers on their wellness? A limitation of this research is that healthy respondents typically complete and return health surveys more consistently than unhealthy individuals based on prior research (Golaszewski, Lynch, Clearie, & Vickery, 1989). This wider range of general managers' wellness scores may influence significance on future research when comparing behaviors to profit margins.

6. Assess the wellness levels of general managers at hotels that have a high turnover rate (closer to the industry's norm) and compare their results to this research. A limitation of this research was that the reported turnover rates for the total hotel were drastically below the industry's norm.

In addition, the researcher would like to conduct future research on profit and revenue achievement levels to budget. These two variables would be compared to the frequency of manager relocation (all levels of managers), gender differences (statistically equalizing male and female responses), and absenteeism rates (of entire hotel, not just the general manager).

Hotel organizations should place a higher priority on worksite health promotion since this research suggests that general managers' wellness affects the hotels' financial returns. The researcher does not suggest that hiring or promotion decisions be based on discriminatory variables (i.e. age, living arrangements, gender, or spirituality) that has been

found to ultimately affect wellness scores. Clearly the Equal Employment Opportunity laws prohibit this type of action. This information, however, can help the industry in several other areas. Harris (1994) conducted a survey of members of the editorial board of the American Journal of Health Promotion to determine what they felt was the future of worksite health promotion. When asked how important various reasons for sponsorship would be to employers, survey respondents predominantly felt that employers would offer health promotion programs in the future to ***manage medical/health care costs, to manage employee health, to increase productivity, and to aid in recruitment***. The specific activities that were projected to be included in the year 2002 health promotion programs included: physical fitness (85.5 percent frequency)

smoking control (82.7 percent frequency)

blood pressure control (83.7 percent frequency)

personal stress management (76.0 percent frequency)

weight management (76.0 percent frequency)

cholesterol management (74.0 percent frequency)

self-care (72.0 percent frequency)

nutrition (72 percent frequency).

The greatest costs and risks may well be due to smoking, uncontrolled high blood pressure, nonuse of seat belts, premature births, domestic violence, and stress from turbulent business conditions or management styles (Harris, 1989). All of these areas could be assessed at hotels to see where the specific needs lie.

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APPENDIXES

APPENDIX A

Pilot Survey

Oklahoma State University

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES

School of Hotel and
Restaurant Administration
210 HES West
Stillwater, Oklahoma 74078-0337
405-744-6713, FAX 405-744-6299

February 28, 1996

Dear Hotel Employee:

This survey is part of a research study designed to examine hotel employees' wellness perceptions and behaviors. Your participation in this study is *VOLUNTARY*. Your decision whether to participate will not affect your future relations with the hotel in any way.

Your individual answers are for research purposes only and they will be kept strictly **confidential**. Under no circumstances will your individual responses be reported to anyone in your hotel. Your personal information is necessary in order to match your answers with the answers provided by your co-workers. As I analyze the responses, I will not know whose survey I have.

Thank you in advance for participating in this survey. Your accurate information will help make this study a success. The entire survey process should take you approximately **15 minutes**. Your response is important to me. If you have any concerns about the confidentiality of the process or questions in general, please contact me. I would rather talk further with you about these concerns than miss the opportunity of your cooperation.

Please complete the survey using a #2 pencil and then return the completed surveys in the sealed envelope to me when you finish your lunch. If you do not have enough time now, you may return the survey to your Human Resource Director by Friday, March 8.

Sincerely,

Deanne Roe Gipson

Deanne Roe Gipson
Graduate Teaching Assistant
Oklahoma State University
School of Hotel and Restaurant Administration

Enclosure

Wellness Survey

Instructions: ***The following statements are designed to provide information about your wellness perceptions and behaviors. Please carefully and thoughtfully consider each statement using the following responses on how often you do the following:***

Almost always (90% or more of the time) 5 ____
Very often 4 ____
Occasionally 3 ____
Almost never (less than 10% of the time) 2 ____
Do not know/Not Applicable 1 ____

Use a #2 Pencil

Physical Wellness--Self Care

	1	2	3	4	5
1. I minimize my exposure to tobacco smoke.	1	2	3	4	5
2. I look for alternatives to taking medications when ill.	1	2	3	4	5
3. I drink enough water (6-8 glasses per day).	1	2	3	4	5
4. I floss my teeth once per day.	1	2	3	4	5
5. I protect my skin by using sunscreen.	1	2	3	4	5
6. I maintain my blood pressure within the recommended range.	1	2	3	4	5
7. I maintain my total blood cholesterol level within the recommended range.	1	2	3	4	5
8. I wear my seat belt/shoulder harness while in a car.	1	2	3	4	5
9. I get 7 to 8 hours of sleep each night.	1	2	3	4	5
10. I bend my knees and limit bending at my waist when lifting heavy objects.	1	2	3	4	5

Exercise and Fitness

	1	2	3	4	5
1. Stretching is a routine part of my exercise program.	1	2	3	4	5
2. I exercise with the proper footwear.	1	2	3	4	5
3. My exercise program includes strength training (weights) twice a week.	1	2	3	4	5
4. My exercise program includes endurance training (aerobic) twice a week.	1	2	3	4	5
5. I exercise daily for at least 30 minutes.	1	2	3	4	5
6. When I exercise, I breath heavy and perspire.	1	2	3	4	5
7. My main source of exercise is playing golf or bowling.	1	2	3	4	5
8. My main source of exercise is when I run, swim, walk, or bicycle.	1	2	3	4	5
9. My main source of exercise is playing basketball, tennis, or baseball.	1	2	3	4	5
10. I exercise on a treadmill, stationary bike or stairmaster.	1	2	3	4	5

Nutrition and Eating Habits: *How often do….*

	1	2	3	4	5
1. I bake, broil, grill or steam food not fry food.	1	2	3	4	5
2. I remove the skin from chicken before I cook it.	1	2	3	4	5
3. I eat something for breakfast.	1	2	3	4	5
4. I eat a hamburger, a hot dog, or a deli sandwich with cheese as a daily meal.	1	2	3	4	5
5. I drink whole Vitamin D milk, (not skim, not 2% or not 1%.)	1	2	3	4	5
6. I eat donuts, cookies, a piece of pie or cake as a part of my daily meal.	1	2	3	4	5
7. I eat fruit (canned or fresh) with every meal.	1	2	3	4	5
8. I eat vegetables with every meal.	1	2	3	4	5
9. I include beans (i.e. red, black, kidney, lentils, pinto) in my daily meal.	1	2	3	4	5
10. I choose low/non fat alternatives (margarine, yogurt, milk, and/or cheese.)	1	2	3	4	5
11. I eat eggs, bacon, ham, or sausage as a part of my daily meal.	1	2	3	4	5
12 I eat chips or pizza as a part of my daily meal.	1	2	3	4	5
13. I eat at fast food restaurants.	1	2	3	4	5
14. I eat white rice and white bread, not brown rice and whole grain bread.	1	2	3	4	5
15. I eat pasta with olive oil or tomato sauce, not a white cream sauce.	1	2	3	4	5
16. I eat poultry, lean meats, and fish.	1	2	3	4	5
17. I add salt to my food while cooking and/or after it is served.	1	2	3	4	5

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Strongly Agree 5
Agree 4
Disagree 3
Strongly Disagree 2
Don't know/Not Applicable 1

Personal Psychological Profile					
1. I am satisfied with my life.	1	2	3	4	5
2. I make decisions with a minimum of stress and worry.	1	2	3	4	5
3. I am always optimistic about my future.	1	2	3	4	5
4. I have a high commitment towards accomplishing my goals.	1	2	3	4	5
5. I rarely count on good things happening to me.	1	2	3	4	5
6. I am satisfied with the balance between my work time and my leisure time.	1	2	3	4	5
7. I like myself as I am.	1	2	3	4	5
Stress Relief: *To relieve stress....*					
1. I engage in exercise, recreation, or hobbies.	1	2	3	4	5
2. I overeat.	1	2	3	4	5
3. I drink alcohol.	1	2	3	4	5
4. I take medication/drugs.	1	2	3	4	5
5. I talk with friends/family.	1	2	3	4	5
6. I lose my temper.	1	2	3	4	5
Wellness attitudes and beliefs					
1. There have been times when I felt inferior to most of the people I know.	1	2	3	4	5
2. Members of my family come to me for support.	1	2	3	4	5
3. I believe that there is a real purpose for my life.	1	2	3	4	5
4. I will always seek out activities that challenge me to think and reason.	1	2	3	4	5
5. In general, I feel confident about my abilities.	1	2	3	4	5
6. Sometimes I wonder if my family will really be there for me when I am in need.	1	2	3	4	5
7. Life does not hold much future promise for me.	1	2	3	4	5
8. I avoid activities which require me to concentrate.	1	2	3	4	5
9. I sometimes think I am a worthless individual.	1	2	3	4	5
10. My friends know they can always confide in me and ask me for advice.	1	2	3	4	5
11. Sometimes I don't understand what life is all about.	1	2	3	4	5
12. Generally, I feel pleased with the amount of intellectual stimulation I receive in my daily life.	1	2	3	4	5
13. I am uncertain about my ability to do things well in the future.	1	2	3	4	5
14. My family has been available to support me in the past.	1	2	3	4	5
15. I feel a sense of mission about my future.	1	2	3	4	5
16. The amount of information that I process in a typical day is just about right for me.	1	2	3	4	5
17. I will always be secure with who I am.	1	2	3	4	5
18. In the past, I have not always had friends with whom I could share my joys and sorrows.	1	2	3	4	5
19. I have felt in the past that my life was meaningless.	1	2	3	4	5
20. In the past, I have generally found intellectual challenges to be vital to my overall well-being.	1	2	3	4	5
21. In the past, I have felt sure of myself among strangers.	1	2	3	4	5
22. My friends will be there for me when I am in need of help.	1	2	3	4	5
23. It seems that my life has always had purpose.	1	2	3	4	5
24. My life has often seemed void of positive mental stimulation.	1	2	3	4	5

Physical Wellness

Tobacco Use

1. Circle the letter A. B. or C. which best describes your cigarette smoking status.

A. Never smoked

B. Used to smoke

Circle how many years since you last smoked on a regular basis.
0-5 6-10 11-15 16-20 21 or more

C. Currently smoke

Circle the number of years you have been smoking.
1-5 6-10 11-15 16-20 21 or more

Circle the average daily amount you smoke.
Less than a pack 1 pack 2 or more packs

Alcohol and Caffeine Consumption

Circle the response that best describes your use of alcohol.

1. During the past **two weeks**, circle how often you had alcohol to drink.

Every day
Most, but not all days
2-3 times each week
About once each week
1 time
Not at all

2. When you drink alcohol, circle how many drinks you usually have?
(Drink = 1 glass of wine, 1 bottle/can beer, 1 shot of liquor or a mixed drink)

I do not drink 1 2 3 4 5 6 or more

3. Circle what you usually drink? Wine Beer Spirits

4. Circle how often you consume caffeine containing products such as coffee, teas, colas.

4 or more cups a day Once a day
2-3 cups a day Rarely or never

Personal Information

Listed below are several questions designed to help the researcher better understand you. Remember, this information is anonymous and your responses will only be used by the investigator. Please complete the following questions by circling the appropriate answer or filling in the blank.

1. My present age is: _____
2. My gender is: Male Female
3. My current height is (with shoes off): _____ft. ____in.
4. My current weight is (in the morning with clothes off): _____lbs.
5. Circle your current marital status: Married Single (Separated/Divorced)
6. Do you have any children? Yes No
7. How many hours do you normally spend at work each week?

   Under 30 31-40 41-50 51-60 More than 61 hours

6. My job requires me to relocate:

   Never every 0-18 months every 2-3 years every 4 or more years

9. Circle the total number of years you have been employed in the hotel industry.

   Less than 1 year 1-3 4-8 9-15 16-20 21 years or more

10. Circle the number of years you have held a position in each category that applies:

Executive Committee Member	0-3	4-8	9-15	16-20	over 20 years
Salaried Management	0-3	4-8	9-15	16-20	over 20 years
Hourly associate	0-3	4-8	9-15	16-20	over 20 years

11. Circle how many sick days you used last year.

    None 1-2 3-4 5 6 or more days

12. Circle A, B or C indicating which **DIVISION** (department) you work in.

    A. ROOMS DIVISION: Includes Housekeeping/Laundry, Front Office, Bellstand, Front desk, PBX, and Engineering

    B. FOOD AND BEVERAGE DIVISION: Includes Restaurants, Kitchen, Bars, Room Service and Banquets

    C. ADMINISTRATIVE DIVISION: Includes Sales, Human Resources, Security, Accounting, and Executive Office staff

Human Resource Director's and Controller's Survey (Complete one per hotel)

1. Type of hotel:
   Airport Resort/Destin. Suburban Highway Downtown
2. Location in the United States:
   East: North West: North Central: North
   South South South
3. Number of rooms:
   Less than 100 101-200 201-300 301-400 over 401
4. Number of employees:
   Less than 100 101-200 201-300 301-400 over 401
5. Your city's and state unemployment rate
   City: % State: %
6. Does your hotel have an on-site fitness facility? Yes No
   If so, are your employees permitted to utilize it? Yes No
   If so, are your managers permitted to utilize it? Yes No

7. Does your hotel offer every employee one free meal per shift worked? Yes No
   If yes, are there healthy alternatives offered (i.e. salad bar)? Yes No

Using your 1995 year-end profit and loss statement, please answer the following questions:

		Rooms Division	Food & Beverage	Administrative Division
1.	Annualized turnover percent	%	%	%
2.	Sick/absent dollars shown as a percent of departments total payroll, taxes and benefits	%	%	%
3.	Health Care Costs/Insurance shown as a percent of departments total payroll, taxes and benefits	%	%	%
4.	Revenue: Percent of achieving or missing budget (+ or -)	%	%	N/A
5.	House or Department Profit: Percent of achieving or missing budget (+ or -)	%	%	N/A

Survey Evaluation

Thank you for your willingness to become involved in ***my first survey*** *regarding this research project. Your involvement is sincerely appreciated.*

Cover Letter on Oklahoma State University Letterhead:

1. Do you understand the purpose of the research?

2. Do you feel comfortable that these surveys will be kept confidential?

3. Were you made to feel it was important for you to complete these surveys?

Survey Forms:

1. Were the directions clear?

2. Were you able to complete the survey in approximately 15 minutes?

3. Were most of the questions easy to read and easy to understand?

4. Was the form easy to fill out?

Personal Information:

1. Were the questions clear?

2. Any other comments or suggestions for changes or revisions on any of these forms?

APPENDIX B

Cover Letters to Hotel General Managers

Oklahoma State University

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES

School of Hotel and
Restaurant Administration
210 HES West
Stillwater, Oklahoma 74078-0337
405-744-6713, FAX 405-744-6299

July 17, 1996

Dear General Managers:

With the tremendous growth of tourism and the hospitality industry, the aging of the United States labor pool has caused a labor shortage that could slow future advancements. The controlling of health care costs, reducing absenteeism and turnover, and decreasing job burnout and stress is important for hotel companies to remain profitable in the future. The overall wellness of hotel general managers may be one solution to these problems.

We are asking that you give your opinions on your wellness as a part of a research project at Oklahoma State University in the School of Hotel and Restaurant Administration. So that the results will truly represent the behaviors and perceptions of United States' hotel general managers, it is important that each questionnaire be completed and returned. Your participation in this study is *voluntary*. Your decision whether to participate will not affect your future relations with your company in any way.

Your individual answers are for research purposes only and you can be assured of complete **confidentiality**. Your name will never be placed on the questionnaire. Please complete the questionnaires using a #2 pencil and then return them to Oklahoma State University in the envelope provided by August 2, 1996.

Thank you in advance for participating in this survey. Your accurate information will help make this study a success. The entire survey process should take you approximately **15 minutes**. If you have any questions or concerns, please contact **Deanne Gipson at 405-744-6713.**

Sincerely,

Raphael R. Kavanaugh, Ed.D., CHA
Professor and Director
School of Hotel and Restaurant Administration

Deanne Gipson
Graduate Research Assistant
Ph.D. Doctoral Candidate

Enclosures

Atlanta 1996
TM © 1992 ACOG
Official Hotel Sponsor
1996 Olympic Games

July 16, 1996

Dear General Managers:

The attached is a survey from the Oklahoma State University College in the School of Hotel and Restaurant Administration. They have asked us to be part of their national survey.

The survey results will be part of a study to help control health care costs, reduce absenteeism and turnover, and decrease job burnout and stress.

I would appreciate it if you would assist in spending a few moments to fill out this questionnaire. Participation is completely voluntary -- you need not feel obligated.

Sincerely,

Craig H. Hunt
Executive Vice President
Worldwide Franchising

Attachment

INTEROFFICE MEMORANDUM

To: General Managers

CC: J.Litt, RVPs, B. Richardson, D. Rowe

From: Patty Cole

Date: July 17, 1996

Subject: ***WELLNESS RESEARCH PROJECT***

With the tremendous growth of tourism and the hospitality industry, the aging of the United States labor pool has brought about a labor shortage that could slow future growth. Controlling health care costs, reducing absenteeism and turnover, and decreasing job burnout and stress is important for hotel companies in order to remain profitable in the future. The overall wellness of hotel managers, as they are role models to their staff, may be one solution to these problems.

Are hotel managers' daily habits conducive to a healthy lifestyle? You are being asked to give your opinions to Deanne Gipson, a graduate student in Hotel and Restaurant Administration. In order that the results truly represent the behaviors and perceptions of United States hotel general managers, it is important that each questionnaire be completed and returned. Your participation in this study is *voluntary*. Your decision whether to participate will not affect your future relations with in any way.

Your individual answers are for research purposes only and you can be assured of complete **confidentiality.** The questionnaire has as identification number for mailing purposes only. This number is used by the researcher so she may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire. Please complete the questionnaires using a #2 pencil, then return the completed questionnaires to Oklahoma State University in the envelope provided within the next week.

Thank you in advance for participating in this survey. Your accurate information will help make this study a success. The entire survey process should take you approximately **15 minutes.** If you have any questions or concerns, please contact Deanne at (405) 744-6713.

Oklahoma State University

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES

School of Hotel and
Restaurant Administration
210 HES West
Stillwater, Oklahoma 74078-0337
405-744-6713, FAX 405-744-6299

June 10, 1996

Dear General Manager:

This letter is in reference to the E-mail **Joseph Sebestyen, General Manager,** sent to you last week. We appreciate your participation in Oklahoma State University's research projects.

With the tremendous growth of tourism and the hospitality industry, the aging of the United States labor pool has brought about a labor shortage that could slow future growth. Controlling health care costs, reducing absenteeism and turnover, and decreasing job burnout and stress is important for hotel companies in order to remain profitable in the future. The overall wellness of hotel managers may be one solution to these problems.

You are being asked to give your opinions on your wellness to Deanne Gipson, a doctoral graduate student in Hotel and Restaurant Administration. In order that the results will truly represent the behaviors and perceptions of United States' hotel general managers, it is important that each questionnaire be completed and returned. Your participation in this study is *voluntary*. Your decision whether to participate will not affect your future relations with your company in any way.

Your individual answers are for research purposes only and you can be assured of complete **confidentiality**. The questionnaire has an identification number for mailing purposes only. This number is used by the researcher so she may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire. Please complete the questionnaires using a #2 pencil and then return the completed questionnaires to Oklahoma State University in the envelope provided by **June 20, 1996.**

Thank you in advance for participating in this survey. Your accurate information will help make this study a success. The entire survey process should take you approximately **15 minutes**. If you have any questions or concerns, please contact Deanne at 405-744-6713.

Sincerely,

Ray Kavanaugh

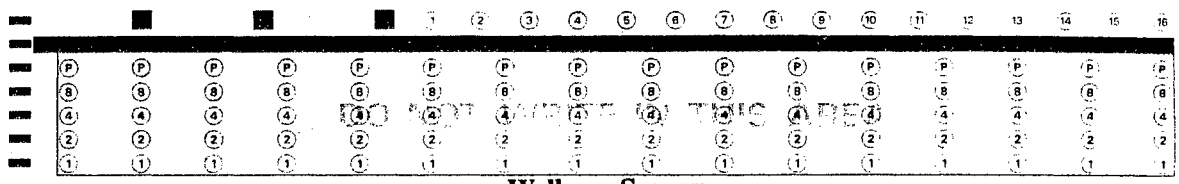
Raphael R. Kavanaugh, Ed.D., CHA
Professor and Director
School of Hotel and Restaurant Administration

Deanne Roe Gipson

Deanne Roe Gipson
Graduate Research Assistant

APPENDIX C

Wellness Survey for Dissertation



Wellness Survey

Instructions: ***The following statements are designed to provide information about your wellness behaviors. Please read each statement and answer <u>each and every</u> question as honestly as possible with <u>one</u> response. Use the responses to the right on <u>how often</u> you do the following in a typical week.***
Please darken in the circle (1, 2, 3, 4, or 5) with a #2 pencil on this survey sheet.

1 Never/Do not know
2 Rarely
3 Occasionally
4 Frequently
5 Always

<u>During the course of a typical week, how often do . . .</u>					
1. I drink 6 to 8 glasses of water per day?	1	2	3	4	5
2. I floss my teeth once per day?	1	2	3	4	5
3. I protect my skin from the sun by using sunscreens or protective clothing?	1	2	3	4	5
4. I wear my seat belt/shoulder harness while in a car?	1	2	3	4	5
5. I get 7 to 8 hours of sleep each night?	1	2	3	4	5
6. I bend my knees and limit bending at my waist when lifting heavy objects?	1	2	3	4	5
7. I bake, broil, grill, roast, boil, or steam my food rather than frying?	1	2	3	4	5
8. I remove the skin from chicken or trim the fat from meat before I cook it?	1	2	3	4	5
9. I eat something for breakfast every day?	1	2	3	4	5
10. I drink products containing caffeine (i.e., sodas, tea, coffee) along with my daily meals?	1	2	3	4	5
11. I eat a hamburger, a hot dog, piece of pizza or a deli sandwich daily?	1	2	3	4	5
12. I eat donuts, cookies, a piece of pie or cake daily?	1	2	3	4	5
13. I eat 3 servings of fruit a day (i.e., apple, banana, orange juice)?	1	2	3	4	5
14. I eat 4 servings of vegetables a day (i.e., lettuce, potatoes, corn, beans)?	1	2	3	4	5
15. I read the food labels, "Nutrition Facts" when grocery shopping (i.e., calories, fat, sodium)?	1	2	3	4	5
16. I choose low/non fat alternatives (i.e., margarine, yogurt, milk, cheese, sour cream)?	1	2	3	4	5
17. I eat at fast food restaurants?	1	2	3	4	5
18. I eat pasta with olive oil or tomato sauce, versus a white cream sauce?	1	2	3	4	5
19. I add salt to my food while cooking and/or after it is served?	1	2	3	4	5
20. I eat poultry, lean meats, and fish?	1	2	3	4	5
21. I drink one or two alcoholic beverages (i.e., beer, wine, or spirits) with my evening meal?	1	2	3	4	5
22. I drink three or more alcoholic beverages each day?	1	2	3	4	5
23. I minimize my exposure to other people's cigarette smoke (i.e., in a car, at work/home)?	1	2	3	4	5
24. I include strength training (i.e., with weights) as part of my exercise program?	1	2	3	4	5
25. I include aerobic/endurance training (i.e., run, swim, bike) as part of my exercise program?	1	2	3	4	5
26. I exercise for at least 20 to 30 minutes daily?	1	2	3	4	5
27. I breathe heavily and perspire during my exercise program?	1	2	3	4	5
28. I participate in aerobic sports (i.e., tennis, basketball, football) as my main exercise?	1	2	3	4	5
29. I participate in moderately-intense sports (i.e., golf, bowling, walking) as my main exercise?	1	2	3	4	5
<u>To relieve stress, . . .</u>					
30. I engage in activities such as exercise, recreation, hobbies, or listening to music.	1	2	3	4	5
31. I eat more than usual (i.e., overeat).	1	2	3	4	5
32. I drink alcohol.	1	2	3	4	5
33. I take medication/drugs.	1	2	3	4	5
34. I talk with friends/family.	1	2	3	4	5
35. I take my paid vacations from work.	1	2	3	4	5
36. I lose my temper.	1	2	3	4	5
37. I find something to laugh or joke about.	1	2	3	4	5
38. I confront the source of stress rather than avoid the source.	1	2	3	4	5

Please Turn the Page Over and Continue Survey.

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Instructions: *The following statements are designed to provide information about your wellness perceptions. Please carefully and thoughtfully consider each statement, then select the one response option with which you most agree.*

	Strongly Disagree 1	2	3	4	Strongly Agree 5
1. I am always optimistic about my future.	1	2	3	4	5
2. There have been times when I felt inferior to most of the people I knew.	1	2	3	4	5
3. Members of my family come to me for support.	1	2	3	4	5
4. My physical health has restricted me in the past.	1	2	3	4	5
5. I believe that there is a real purpose for my life.	1	2	3	4	5
6. I will always seek out activities that challenge me to think and reason.	1	2	3	4	5
7. I rarely count on good things happening to me.	1	2	3	4	5
8. In general, I feel confident about my abilities.	1	2	3	4	
9. Sometimes I wonder if my family will really be there for me when I am in need.	1	2	3	4	
10. My body seems to resist physical illness very well.	1	2	3	4	5
11. Life does not hold much future promise for me.	1	2	3	4	5
12. I avoid activities which require me to concentrate.	1	2	3	4	5
13. I always look on the bright side of things.	1	2	3	4	5
14. I sometimes think I am a worthless individual.	1	2	3	4	5
15. My friends know they can always confide in me and ask me for advice.	1	2	3	4	5
16. My physical health is excellent.	1	2	3	4	5
17. Sometimes I don't understand what life is all about.	1	2	3	4	5
18. Generally, I feel pleased with the amount of intellectual stimulation I receive in my daily life.	1	2	3	4	5
19. In the past, I have expected the best.	1	2	3	4	5
20. I am uncertain about my ability to do things well in the future.	1	2	3	4	5
21. My family has been available to support me in the past.	1	2	3	4	5
22. Compared to people I know, my past physical health has been excellent.	1	2	3	4	5
23. I feel a sense of mission about my future.	1	2	3	4	5
24. The amount of information that I process in a typical day is just about right for me (i.e., not too much and not too little).	1	2	3	4	5
25. In the past, I hardly ever expected things to go my way.	1	2	3	4	5
26. I will always be secure with who I am.	1	2	3	4	5
27. In the past, I have not always had friends with whom I could share my joys and sorrows.	1	2	3	4	5
28. I expect to always be physically healthy.	1	2	3	4	5
29. I have felt in the past that my life was meaningless.	1	2	3	4	5
30. In the past, I have generally found intellectual challenges to be vital to my overall well-being.	1	2	3	4	5
31. Things will not work out the way I want them to in the future.	1	2	3	4	5
32. In the past, I have felt sure of myself among strangers.	1	2	3	4	5
33. My friends will be there for me when I need help.	1	2	3	4	5
34. I expect my physical health to get worse.	1	2	3	4	5
35. It seems that my life has always had purpose.	1	2	3	4	5
36. My life has often seemed void of positive mental stimulation.	1	2	3	4	5
Thank you for your participation.	1	2	3	4	5

Code # _____

Personal Information

Listed below are several questions designed to help the researcher better understand you. Please complete the following questions by filling in the blank or checking (✓) the most appropriate box (□).

1. My gender is: □Male □Female
2. My current height is (with shoes off): _____ft. ____in.
3. My current weight is (in the morning with clothes off): _____lbs.
4. My birth year is: 19__ __.
5. I currently live: □Alone □With roommate(s) □With spouse/family
6. Do you have any dependents (children or parents) living at home? □Yes □No
7. How many hours do you normally spend at work each week?
   □Under 40 □40-50 □51-60 □61-70 □71 or more
8. My job requires me to relocate and change my permanent residence approximately:
   □Never □every 1 year or less □every 2 years □every 3 or more
9. My job requires me to work away from my hotel on task force assignments:
   □Never □once a year □twice a year □3 or more times
10. I have worked in the hotel industry for a total of _____ years.
11. I have worked for the company I am presently employed by for _____ years.
12. During the past 12 months, how many days of work have you missed due to your own sickness?
    □None □1-2 □3-4 □5 □6 or more days
13. During the past 12 months, how many days of work have you missed due to other family members' sickness? □None □1-2 □3-4 □5 □6 or more
14. Check (√) which of the following best describes your use of cigarette/tobacco products:
    □Active smoker □Never smoked □Former smoker
15. I currently smoke or formerly smoked _____ cigarettes each day.
    □Never smoked □1-9 □10-19 □20-29 □30-39 □40 +
16. How would you describe your blood pressure?
    □High □High and taking medication □Low or Normal □I don't know
17. The last time I had my total blood cholesterol checked, it was:
    □Higher than recommended □Low or Normal □I don't know

Please turn the page over and continue the survey.

Hotel Information

1. Check the location/type and brand of your hotel:
   □Airport □Resort/Destination □Suburban □Highway □City Center

2. In what state in the United States is your hotel located? _____

3. How many sleeping rooms are in your hotel? _____

4. What is the annual average number of employees working at the hotel? _____

5. How many managers directly report to you? _____

6. Check your primary customer market segment:
   □Business □Convention/Assn. □Leisure □Other _____

7. Does your hotel have an on-site fitness facility? □Yes □No
   If yes, are you and your managers permitted to utilize it? □Yes □No

8. Does your hotel have an off-site or affiliation with a fitness facility? □Yes □No
   If yes, are you and your managers permitted to utilize it? □Yes □No

9. Does your hotel offer every employee one meal per shift worked? □Yes □No
   If yes, is it free to all employees? □Yes □No
   Are there healthy alternatives offered (salad bar, fruit, vegetables)? □Yes □No

Using your 1995 year-end profit and loss statement, please answer the following questions:

		Total Hotel	
10.	Annualized turnover percent	_____%	(i.e. 120% all personnel)
11.	Total number of paid sick days	_____	(i.e. 254 sick days)
12.	**Revenue:** Percent of achieving or missing budget (+ or -)	_____%	(i.e. -5.2% below budget; or +5.2% over budget)
13.	**House Profit**: Percent of achieving or missing budget (+ or -)	_____%	(i.e. +14.7% over budget; or -14.7% under budget)

*assumption that 1995 budget was realistic and achievable.

APPENDIX D

Follow-up Letter and Postcard

Oklahoma State University

COLLEGE OF HUMAN ENVIRONMENTAL SCIENCES

School of Hotel and Restaurant Administration
210 HES West
Stillwater, Oklahoma 74078-0337
405-744-6713, FAX 405-744-6299

July 24, 1996

Dear General Managers:

Last week a survey seeking your opinion about wellness was mailed to you.

If you have already completed and returned it to Oklahoma State University, please accept our **sincere thanks.** If not, please do so within the next week. Because it has been sent to only a small, but representative, sample of hotel general managers, it is extremely important that yours also be included in the study if the results are to accurately represent the opinions of **United States' hotel general managers.**

If by some chance you did not receive the survey, or it got misplaced, please call me at 405-744-6713, and I will get another one in the mail to you today.

Sincerely,

Deanne Gipson

Deanne Gipson
Ph.D. Doctoral Candidate
Graduate Research Associate

POSTCARD

June 18, 1996

Last week a survey seeking your opinion about wellness was mailed to you.

If you have already completed and returned it to Oklahoma State University, please accept our sincere thanks. If not, please do so within the next week. Because it has been sent to only a small, but representative, sample of hotel general managers, it is extremely important that yours also be included in the study if the results are to accurately represent the opinions of United States general hotel general managers.

If by some chance you did not receive the survey, or it got misplaced, please call me at 405-744-6713 and I will get another one in the mail to you today.

Sincerely,

Deanne Gipson

Deanne Gipson
Graduate Research Associate

APPENDIX E

Institutional Review Board

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 06-20-96 **IRB#:** HE-96-032

Proposal Title: HOTEL MANAGER'S WELLNESS IMPACT ON PROFIT?

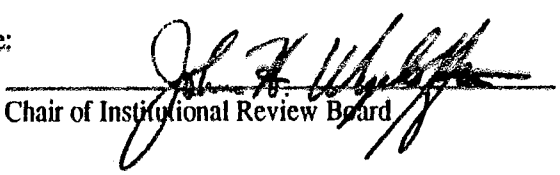
Principal Investigator(s): Raphael R. Kavanaugh, Gail Sammons, Deanne Roe Gipson

Reviewed and Processed as: Modification

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Signature:  Date: June 22, 1996

Chair of Institutional Review Board

APPENDIX F

ANOVA, Duncan's Post Hoc Tables, and T-Tests Tables of Means

TABLE 74

ANOVA IN ABSENTEEISM DUE TO FAMILY SICKNESS WHEN COMPARED TO BODY MASS INDEX

Company Y

Source	DF	SS	MSE	F Value	Prob > F
Model	2	99.32	49.66	3.57	.0381
Error	37	513.95	13.89		
Corrected Total	39	613.27			

TABLE 75

DUNCAN'S POST HOC TEST TABLE OF MEANS ABSENT DUE TO FAMILY SICKNESS WHEN COMPARED TO BMI

Company Y

Catagory	N	Mean	Grouping
Absent 6 or more days	2	33.06	A
None	33	26.35	B
1 - 2 days	5	24.91	B

TABLE 76

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO OWN SICKNESS WHEN COMPARED TO
EMOTIONAL PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
Absent 6 or more days	7	3.52	B
None	194	4.16	A
1 - 2 days	116	4.14	A
3 - 4 days	18	4.19	A

TABLE 77

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO OWN SICKNESS WHEN
COMPARED TO SOCIAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
Absent 5 days	5	3.50	B
None	194	4.02	A
3 - 4 days	18	4.07	A

TABLE 78

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO FAMILY SICKNESS WHEN
COMPARED TO PHYSICAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
None	247	4.08	A
1 - 2 days	70	3.98	A
3 - 4 days	17	3.85	A
5 days	2	2.92	B
Absent 6 or more days	4	2.25	B

TABLE 79

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO FAMILY SICKNESS WHEN
COMPARED TO SPIRITUAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
None	247	4.16	A
5 days	2	3.33	B

TABLE 80

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO FAMILY SICKNESS WHEN
COMPARED TO TOBACCO USE

Company X

Catagory	N	Mean	Grouping
3 - 4 days	17	11.35	A
5 days	2	5.50	B

TABLE 81

DUNCAN'S POST HOC TEST TABLE OF MEANS
HOURS WORKED EACH WEEK WHEN
COMPARED TO STRESS COPING
TECHNIQUES

Company X

Catagory	N	Mean	Grouping
Under 40 hours	5	35.80	A
61-70	82	33.10	B
71 or more hours	16	33.00	B

TABLE 82

DUNCAN'S POST HOC TEST TABLE OF MEANS
HOURS WORKED EACH WEEK WHEN
COMPARED TO PSYCHOLOGICAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
Under 40	5	4.23	A
71 or more hours	16	3.73	B

TABLE 83

DUNCAN'S POST HOC TEST TABLE OF MEANS
HOURS WORKED EACH WEEK WHEN
COMPARED TO EMOTIONAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
Under 40 hours	5	4.63	A
40-50	84	4.09	B
51-60	153	4.15	B
61-70	82	4.17	B
71 or more hours	16	4.01	B

TABLE 84

DUNCAN'S POST HOC TEST TABLE OF MEANS
HOURS WORKED EACH WEEK WHEN
COMPARED TO SPIRITUAL
PERCEIVED WELLNESS

Company X

Catagory	N	Mean	Grouping
Under 40 hours	5	4.37	A
71 or more hours	16	3.82	B

TABLE 85

DUNCAN'S POST HOC TEST TABLE OF MEANS
ABSENT DUE TO FAMILY SICKNESS WHEN
COMPARED TO PHYSICAL
PERCEIVED WELLNESS

Company Y

Catagory	N	Mean	Grouping
None	33	4.22	A
1 - 2 days	5	4.30	A
6 or more days	2	2.83	B

TABLE 86

DUNCAN'S POST HOC TEST TABLE OF MEANS
FREQUENCY OF RELOCATION WHEN
COMPARED TO SELF-CARE

Company Y

Catagory	N	Mean	Grouping
Every 3 or more years	19	31.21	A
Every 2 years	19	30.84	A
Never	2	22.00	B

TABLE 87

DUNCAN'S POST HOC TEST TABLE OF MEANS
FREQUENCY OF RELOCATION WHEN
COMPARED TO STRESS COPING
TECHNIQUES

Company Y

Catagory	N	Mean	Grouping
Every 3 or more years	19	34.47	A
Every 2 years	19	34.32	A
Never	2	30.00	B

TABLE 88

DUNCAN'S POST HOC TEST TABLE OF MEANS
FREQUENCY OF TASK FORCE ASSIGNMENTS
WHEN COMPARED TO SELF-CARE

Company Y

Catagory	N	Mean	Grouping
Twice a year	6	34.00	A
Never	13	28.31	B

TABLE 89

DUNCAN'S POST HOC TEST TABLE OF MEANS
FREQUENCY OF TASK FORCE ASSIGNMENTS
WHEN COMPARED TO INTELLECTUAL
PERCEIVED WELLNESS

Company Y

Catagory	N	Mean	Grouping
3 or more times a year	4	4.38	A
Never	13	3.87	B

TABLE 90

DUNCAN'S POST HOC TEST TABLE OF MEANS
FREQUENCY OF TASK FORCE ASSIGNMENTS
WHEN COMPARED TO PERCEIVED
RISK COMPOSITE

Company Y

Catagory	N	Mean	Grouping
3 or more times a year	4	16.73	A
Twice a year	6	16.96	A
Never	13	14.41	B

TABLE 91

T-TEST OF AVAILABILITY OF OFF-SITE FITNESS FACILITY WHEN
COMPARED TO BEHAVIORAL RISK COMPOSITE

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	176	145.01	15.99	1.21
No	164	140.89	14.09	1.10

TABLE 92

T-TEST OF AVAILABILITY OF OFF-SITE FITNESS FACILITY WHEN COMPARED TO SELF-CARE

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	176	30.13	4.01	.30
No	164	28.69	4.64	.36

TABLE 93

T-TEST OF AVAILABILITY OF OFF-SITE FITNESS FACILITY WHEN COMPARED TO NUTRITION

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	176	46.40	7.61	.57
No	164	45.10	7.09	.55

TABLE 94

T-TEST OF AVAILABILITY OF OFF-SITE FITNESS FACILITY WHEN COMPARED TO PHYSICAL ACTIVITY

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	176	18.19	3.47	.26
No	164	17.26	3.05	.24

TABLE 95

T-TEST OF ABILITY TO USE OFF-SITE FITNESS FACILITY WHEN COMPARED TO BEHAVIORAL RISK COMPOSITE

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	134	146.10	15.94	1.38
No	206	141.02	14.43	1.00

TABLE 96

T-TEST OF ABILITY TO USE OFF-SITE FITNESS FACILITY WHEN COMPARED TO SELF-CARE

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	134	30.22	3.96	.34
No	206	28.92	4.57	.32

TABLE 97

T-TEST OF ABILITY TO USE OFF-SITE FITNESS FACILITY WHEN COMPARED TO NUTRITION

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	134	46.82	7.65	.66
No	206	45.10	7.14	.50

TABLE 98

T-TEST OF ABILITY TO USE OFF-SITE FITNESS FACILITY WHEN COMPARED TO PHYSICAL ACTIVITY

Company X

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	134	18.33	3.53	.30
No	206	17.35	3.10	.22

TABLE 99

T-TEST OF AVAILABILITY OF ON-SITE FITNESS FACILITY WHEN COMPARED TO BEHAVIORAL RISK COMPOSITE

Company Z

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	15	154	15.58	4.02
No	5	136	15.51	6.93

TABLE 100

T-TEST OF AVAILABILITY OF ON-SITE FITNESS FACILITY WHEN COMPARED TO SELF-CARE

Company Z

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	15	50.60	6.71	1.73
No	5	42.6	5.22	2.33

TABLE 101

T-TEST OF AVAILABILITY OF ON-SITE FITNESS FACILITY WHEN COMPARED TO PHYSICAL ACTIVITY

Company Z

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	15	19.3	3.31	.85
No	5	15.6	4.28	1.91

TABLE 102

T-TEST OF AVAILABILITY OF ON-SITE FITNESS FACILITY WHEN COMPARED TO PSYCHOLOGICAL PERCEIVED WELLNESS

Company Z

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	15	3.55	.76	.19
No	5	4.40	.49	.22

TABLE 103

T-TEST OF AVAILABILITY OF ON-SITE FITNESS FACILITY WHEN COMPARED TO INTELLECTUAL PERCEIVED WELLNESS

Company Z

Descriptor	N	Mean	Std. Dev.	Std. Error
Yes	15	3.60	.70	.18
No	5	4.33	.35	.16

VITA

Deanne Roe Gipson

Candidate for the Degree of

Doctor of Philosophy

Dissertation: HOTEL GENERAL MANAGERS' WELLNESS IMPACT ON THE HOTELS' PROFIT

Major Field: Human Environmental Sciences

Biographical:

Personal Data: Born in Detroit, Michigan, on April 3, 1957, the daughter of Robert and Dorothy Roe.

Education: Graduated from West Geauga High School, Chesterland, Ohio in May 1975; received Bachelor of Arts degree in Hotel, Restaurant, and Tourism Administration from the University of South Carolina, Columbia, South Carolina in May 1981; received Masters in Liberal Studies from Rollins College, Orlando, Florida in December 1992. Completed the requirements for the Doctor of Philosophy degree with a major in Food Service Management at Oklahoma State University in December, 1996.

Professional Experience: Graduate Teaching Associate, School of Hotel and Restaurant Administration, Oklahoma State University, 1995-1996; Adjunct Professor, Hotel, Restaurant, and Tourism Administration department, University of South Carolina, 1984-1985; General Manager, Palm Beach Hilton Oceanfront Resort, 1993-1994; Regional Director of Training and Human Resources, General Manager positions, Department Manager positions, Holiday Inns Worldwide/Crowne Plaza Division, 1980-1993;

Professional Memberships: Member of Board of Directors, Hotel and Motel Association, Florida 1993; Vice President, Hotel and Motel Association, Georgia 1991; Member, National Restaurant Association, South Carolina, 1981.