EMPLOYEES' PERCEPTIONS OF THE WORKSITE HEALTH CLIMATE

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To the Associate Vice President for Research and Dean of the Graduate School:

I am submitting herewith a thesis written by Robin S. Bennett entitled "Employee's Perceptions of the Worksite Health Climate." I have examined this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science with a Major in Health Studies.

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ABSTRACT

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This study examined employees' perceptions of the worksite health climate and possible differences between male and female perceptions, and health promotion program participants' and nonparticipants' perceptions. Constructs measured included interpersonal support, organizational support, and health norms. The Worksite Health Climate Scales (Ribisl and Reischl, 1993) were administered to 400 randomly selected employees of a medium-sized electronics manufacturing company in the Southwestern United States. Descriptive statistics and t-tests were used to analyze the data on 124 completed surveys. Significant differences were found between men and women's perceptions regarding flexibility to exercise, support for healthy behaviors, job tension, and smoking norms. Significant differences were found between health promotion program participants' and nonparticipants' perceptions regarding job tension and anti-smoking attitudes. Overall scores on the Worksite Health Climate Scales were moderate. An extremely low mean score existed for the Health Information scale, and an extremely high mean score existed for the Pro-Exercise Attitudes scale.

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CHAPTER I

INTRODUCTION

Lifestyle is widely recognized as a prime predictor of health. Individual lifestyle is a major contributor to top killers such as heart disease, stroke, and cancer (National Center for Health Statistics, 1995). These lifestyle illnesses create a great concern for corporate America's costs associated with absenteeism, low morale, high turnover, and rising health care costs. To combat such cost related problems, worksites are initiating programs to improve employee health and reduce risk factors. The traditional worksite health promotion program has capitalized on the ability to teach, modify attitudes, and motivate changes in behavior such as smoking cessation, increased exercise, stress management, and weight reduction.

Success of such programs is based upon individual behavior change, yet such successes are usually only short-term. What researchers believe to be the missing link in traditional health promotion is the lack of an environment which supports and reinforces employee health and well-being (Green, Richard & Potvin, 1996; McLeroy, Bibeau, Steckler & Glanz, 1988; Opatz, 1985; Ribisl & Reischl, 1993; Stokols, 1992, 1996). Like any other environment, the worksite is a place where values, norms, and social networks exist and thrive. It is within these contexts, the worksite climate, that opportunities and resources to improve and maintain health exist.

Worksite health climate is the interaction of the multi-faceted elements of an organization with persons and groups. It is an interaction which has the potential to shape health practices and policies, and to effect the health and well-being of an organization and its members (Green et al., 1996; Stokols, 1996). The link between health and such climate dimensions as social support, the physical environment, group norms, and organizational support have been researched and documented (Allen, Allen, Kraft, & Certner, 1987; Johnson & Hall, 1988; McLeroy et al., 1988; Stokols, 1996). Much of the research in the area of environment and health has its roots in traditional public health and public health education. The emergence of this theme in worksite health promotion is in response to the complexity of behavior change and a need for a comprehensive approach to long-term change.

An essential element in building and shaping healthy work climates is identifying the various dimensions that make up the work environment. The limitations of environmental interventions have been associated with the lack of understanding of these multiple dimensions and the relationships among them (Stokols, 1996). Drawing upon the literature on environmental health constructs, and the work of researchers who have developed measurements of these constructs (Allen et al., 1987), Kurt Ribisl and Thomas Reischl (1993) developed a multidimensional measure of worksite health climate. These scales are intended to identify and measure the important worksite climate dimensions which directly influence employee health.

Purpose of the Study

The primary purpose of this investigation was to measure employees' perceptions of the worksite health climate at a medium-sized electronics manufacturing company located in the Southwestern United States. Specific factors to be measured in these scales were 12 constructs included under the general categories of organizational support, interpersonal support, and health norms within the organization. This research also examined employee perceptions by demographics and through comparison of worksite health promotion program participants and nonparticipants.

Hypotheses

The null hypotheses for this study were as follows:

1. There is no statistically significant difference between male and female employees' perceptions of the following worksite health climate constructs: (a) employer health orientation, (b) job flexibility to exercise, (c) health information, (d) supervisor social support, (e) co-worker social support, (f) support for healthy behaviors, (g) nutrition norms, (h) exercise norms, (i) pro-exercise attitudes, (j) smoking norms, (k) job tension norms.

2. There is no statistically significant difference between worksite health promotion participants and nonparticipants regarding their perceptions of the following worksite health climate constructs: (a) employer health orientation, (b) job flexibility to exercise, (c) health information, (d) supervisor social support, (e) co-worker social

support, (f) support for healthy behaviors, (g) nutrition norms, (h) exercise norms, (i) pro-exercise attitudes, (j) smoking norms, (k) job tension norms.

Definition of Terms

The following terms are defined for the purpose of this study:

1. Employees. Persons paid salaries or wages by the company to perform job duties which contribute to the goals and missions of the company.

2. Health Norms. Social behavior standards within the worksite pertaining to an employee's nutrition, exercise, smoking, and stress (Ribisl & Reischl, 1993).

3. Interpersonal Support. Supervisor and co-worker support at the worksite in regard to an employee's health (Ribisl & Reischl, 1993).

4. Organizational Support. Organizational policies and practices which have the ability to influence an emlployee's health efforts (Ribisl & Reischl, 1993).

5. Worksite. The physical environment in which an organization's daily work is conducted.

6. Worksite Health Climate. The multi-faceted dimensions of the worksite which have the potential to affect employee health by influencing the adoption or maintenance of healthy lifestyle behaviors. Such factors include organizational support, interpersonal support, and health norms which exist within an organization (Ribisl & Reischl, 1993).

7. Worksite Health Promotion Nonparticipants. Those employees of the company who are not registered participants in the company's health promotion program.

8. Worksite Health Promotion Participants. Those employees of the company who are registered participants in the company's health promotion program.

Assumptions

For the purpose of this study, the following assumptions were made:

1. Employees are aware of and have perceptions of the worksite health climate in their company.

2. Employee perceptions of worksite health climate can be measured.

3. Employees will answer the survey items honestly.

Limitations / Delimitations

The study included the following limitations and delimitations:

1. Subjects will be limited to those employees who voluntarily participate in the survey.

2. Subjects will be limited to full-time employees.

3. Measurements will rely upon employees' self-report of health climate perceptions.

4. The small size of the sample will limit the generalization of the study.

Significance of the Study

The effort of Ribisl and Reischl (1993) to quantify worksite health climate was an endeavor to identify the factors that facilitate and hinder current health promotion efforts. This is a comprehensive approach to measuring the multiple dimensions of the workplace environment, and is unique in that others have focused on single facets such as physical or social elements (Green et al., 1996; Ribisl & Reischl, 1993; Stokols, 1996). The progress

of environmental-based interventions has been impeded by a lack of sound measurements, and thus, a lack of insight into the interaction of worksite climate constructs and its effects on health.

Such information could provide valuable knowledge into the predisposing, enabling, and reinforcing factors of the environment that influence health promotion efforts. Consideration of these factors in health promotion planning and evaluation allows programs to fit with the organization (Green et al., 1996), providing a humanistic approach to an otherwise universal system (Allen et al., 1987). The scales could be used as a supplement to health risk assessments to detect needed changes in the workplace with regards to health norms, and social and interpersonal support. Information from the scales may also provide valuable feedback which can be used to plan new health promotion programs (Ribisl & Reischl, 1993).

The Worksite Health Climate Scales are an advancement in the fields of worksite health promotion, human resources, and occupational health because they provide preliminary evidence that worksite health climate exists and can be measured. Such information can be used to aid in the modification of the work environment to provide the information and support systems needed to improve employee health and well being.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review is an in-depth discussion of the evolution of worksite health climate. It includes an overview of its history, elements, definitions, measurements, and its place in worksite health promotion. The literature reviewed encompasses more than a decade of related research, including several historical studies used to establish a foundation for worksite health climate.

The first section reviews traditional worksite health promotion programs and includes an introduction to environmental interventions. The second section explores the relationship between environment and health, providing an understanding for the multitude of health-related elements in an environment. The remaining portion of the literature review examines the concepts specific to worksite health climate.

In an attempt to define worksite health climate, the third section includes a discussion of the five elements of worksite culture and the role of climate in the workplace. The fourth section discusses the significance of measuring worksite health climate, methods which can and have been used, and past attempts at building a comprehensive tool. The final section includes an overview of Ribisl and Reischl's (1993) Worksite Health Climate Scales, the data collection tool to be used in the current research effort.

Worksite Health Promotion

Worksite health promotion programs have become increasingly popular over the past decade because of the emerging evidence suggesting the potential of such programs to increase productivity and job morale, decrease turnover and absenteeism, and lower health care costs (Fielding, 1990; Gebhardt & Crump, 1990; Pelletier, 1993). The success of health promotion programs is predominately based upon their ability to impact health habits and attitudes. Most organizations direct resources towards individual change designed to modify personal lifestyle behaviors associated with health risks (McLeroy et al., 1988; Stokols, 1992).

In workplace programs, behavioral change is a plausible approach to addressing the costs related to health risks. Lifestyle is recognized as a major contributor to the top 10 leading causes of death in the United States, and according to Opatz (1985), is "the most important factor affecting health and longevity" (p. 5). With moderate resources, organizations can address and impact those behaviors known to contribute to disease, accidents and injuries, and premature death (Fielding, 1990).

A review of health and cost-effective outcome studies conducted over a 13-year period by Kenneth R. Pelletier (1991, 1993) provides evidence of potential returns on such investments. In his 1991 review of 24 published worksite health promotion studies, positive health outcomes were indicated in all 24 studies and positive economic benefits were found in seven of the studies in which cost/benefit analysis was conducted (Pelletier, 1991). The 1993 review of 24 new studies produced similar feedback. All but one study

provided evidence of positive health outcomes and five studies analyzing cost/benefit revealed positive returns (Pelletier, 1993).

These reviews included investigations of historical programs like Tenneco, Blue Cross/Blue Shield, AT&T, and Johnson & Johnson's comprehensive *Live for Life* program (Pelletier, 1991). Perhaps the most widely recognized of these is the Johnson & Johnson study which reported significantly lower health care costs, inpatient admissions, and hospital days for employees exposed to the program versus those in a control group (Bly, Jones, & Richardson, 1986).

The more recent studies included in Pelletier's 1993 review include programs by Dupont, General Motors, Postal Employees, and Coors. The Coors Brewing Company study by Geisel (1992) reported a $6.00 savings in reduced healthcare costs, less sick leave, and increased productivity for every dollar invested. All of these studies contribute to the more than 13 years of strong evidence of the health and cost benefits of worksite health promotion programs. Besides the economic considerations, other benefits of these programs have been found, including improvement in recruitment and retention of quality employees, and enhanced company image (Fielding 1990).

As described by O'Donnell and Harris (1994), health promotion programs typically consist of three levels of intervention: (1) awareness programs; (2) behavioral change, and; (3) organizational / environmental adaptation. Level 1 interventions are designed to provide information, empower change, and link individuals with the resources needed to facilitate and maintain change (O'Donnell & Harris, 1994). It is a means of disseminating

information that will educate and motivate employees to take responsibility for their own health and well-being. Examples include newsletters, health fairs, screening sessions, posters, and / or educational classes. Used alone, the impact of Level 1 interventions is often minimal, since employees are not provided a mechanism to make the needed changes (Opatz, 1985).

Level 2 programs provide the means for lifestyle modification. Through the use of specific behavior modification techniques and direct participation, employees can learn new skills or reduce undesirable behaviors (O'Donnell & Harris, 1994). Behavioral change programs address issues such as fitness, stress, nutrition, weight loss, smoking, and lower back injury. Such programs can be ongoing, or last a minimum of 8 to 12 weeks. Level 1 and 2 interventions, though integral components of health promotion programs, only serve to lay the foundation needed to adopt healthier lifestyles. Behavior changes are maintained and supported through Level 3 interventions. These interventions attempt to create an environment conducive to positive behavior change which promotes employee well-being (O'Donnell & Harris, 1994). Available food choices, peer influence, facilities, sick leave policies, and ergonomics all play a role in producing a work environment which can ultimately influence health (Opatz, 1985). Although Opatz (1985) considers environmental support to be perhaps the most significant aspect of worksite health promotion, most organizations have limited their involvement in health promotion to Levels 1 and 2, i.e., education/motivation and specific behavioral change programs.

While traditional worksite health promotion programs have been successful in the influence of employee health behaviors, if positive changes are not maintained through environmental support, risk will remain prevalent (Pender, 1989). As pointed out by Opatz (1985), organizations are not providing the support and encouragement needed for the maintenance of healthy behaviors. Organizations, understandably, expect individuals to take some personal responsibility for the consequences of their lifestyle choices and the impact it has on their health. However, the organization must also recognize the impact of its work environment on those lifestyle choices, and how the company's health climate can either enhance or discourage employees' motivation towards practicing healthy behaviors.

Environment and Health

Environment can be defined as independent variables, or as a conglomeration of complex issues. It is the constant interaction of these facets which result in an environment, a place in which individuals exist and interact (Lindheim & Syme, 1993). It is how individuals interact with the environment and with each other that determines the healthfulness and well-being of people and places (Lindheim & Syme, 1993; Stokols, 1992).

An important step in health promotion is to recognize the aspects of health which have the potential to be influenced, and the capacity of the environment to do so. Environment-related health outcomes most commonly found in literature are physical health, mental and emotional well-being, and social cohesion (Johnson & Hall, 1988; Lindheim & Syme, 1983; McLeroy et al., 1988; Pender, 1989; Stokols, 1992). Health

itself is a direct or indirect outcome of many aspects, such as disease, illness, comfort, stress, self-satisfaction, safety, and quality of life (Stokols,1992).

Stokols (1992) has identified five health-related roles of the environment which he believes work concurrently to influence the health and well-being of individuals and organizations as a whole. These factors include: (1) a medium for disease; (2) stressor; (3) source of safety or danger; (4) enabler of health behavior; and (5) provider of health resources. The worksite environment is a prime place for such factors to coexist. It is a powerful environment full of social contact, distinct physical characteristics, economics, resources, and technology. This being the case, corporations have the opportunity and potential to use environmental elements to provide individuals the tools to change and maintain healthy lifestyles. The most powerful of these elements are the physical, social, and psychological environments (Opatz, 1985).

The physical environment is the geographic location, physical design and furnishings of the workplace which have been found to either enable or impede health. Such aspects include climate, lighting, architecture, noise, ergonomic design of work areas, ventilation, sanitation, aesthetics, and the accessibility of health-behavioral support (Green et al., 1996; Stokols, 1992). The direct or indirect effects of physical features of the environment on health stretch from physical illness, injury, and comfort to alleviating stress and promoting emotional well-being.

This link between physical environment and health dates back as early as the nineteenth century when typhus, cholera, yellow fever, and tuberculosis were rampant.

With the sanitation and water management movement of Great Britain came the strive for clean water, fresh air, sunlight, and open space (Lindheim & Syme, 1983). Today, health and well-being are not so simple, and such details are often overlooked in the design of worksites.

Social environment entails the social support networks, interpersonal relationships, conflicts, management processes and responsiveness, flexibility, and economic stability that exist within the worksite (Johnson & Hall, 1988; McLeroy et al., 1988; Stokols, 1992). Though social context is viewed and dealt with differently, its effects are consistent. All are powerful influences on individual health-related behaviors ranging from disease and illness to emotional stress.

Perhaps the most recognized element of social environment is support, both social and organizational. This is a common component in many behavioral change models used in health promotion such as the Health Belief Model, the Theory of Reasoned Action, and the Social Learning Theory. Relationships provide much more than support. They provide valuable resources, information, and contacts pertinent to social stability and health (Israel & Schurman, 1990).

Social support has been well established as a contributor to disease. An individual's place in a group where support is lacking has been linked to suicide, tuberculosis, schizophrenia, alcoholism, accidents, and cardiovascular disease (Johnson & Hall, 1988; Lindheim & Syme, 1983; & Repetti, 1987). The worksite is host to a social

environment, and the quality of that role is important to health promotion if positive change is to survive

Psychological environment is the personal factors which emerge as a direct result of the physical and social environments. Individual factors such as emotional and mental well-being are often a positive or negative effect of surroundings (Stokols, 1992). Reflecting on earlier discussions of behavioral change models, familiar psychological elements such as self-efficacy, locus of control, and personality types also prevail in explanations of health behavior (Israel & Schurman, 1990).

A sense of personal competence, challenge, sense of control, creativity, optimism, and feelings of worth and belonging lend themselves to the psychological environment. This in turn contributes to individuals' abilities to cope with stress, their susceptibility to disease and illness, and their willingness to change (Israel & Schurman, 1990; Johnson & Hall, 1988; Stokols, 1992). Psychological environment is the interaction of personsto physical and social environment, those elements over which individuals have limited control. Changing those environmental elements by creating a healthy climate enhances the ability of individuals to maintain healthy lifestyles.

Worksite Health Climate

By definition, a worksite is in fact an environment. The worksite is a multi-faceted unit where people strive towards a common purpose. By this definition, worksites, organizations, and corporations are cultures (Allen, 1997; Allen et al., 1987). Allen et al. (1987) defines culture as the "more or less enduring constellation of forces within the

group or organization that causes its members to respond in specific ways to a defined entity" (p. 6). It is the concept of environment and the standards by which the environment functions. Culture encompasses values, norms, social support, organizational support, and organizational climate.

Values are emotionally tied beliefs about living and behavior (Allen, 1997; O'Donnell & Harris, 1994). They provide direction for behavior and give importance to goals. Values are commonly illustrated by themes that represent organizational missions. On an individual basis, values are the basis of making decisions. For organizations they can foster commitment and enthusiasm if matched with the personal values of its members (O'Donnell & Harris, 1994).

Norms are "expected, accepted, and supported" (Allen et al., 1987, p. 7) behaviors often referred to as the building blocks of culture. They exist within every culture, are pervasive, and have a profound effect on individual choices (Opatz, 1985). For with norms, comes sanctions for breaking them (Allen et al., 1987). What makes them powerful is the ability to change them.

Organizational norms differ from setting to setting, and from subgroup to subgroup. Norms exist and survive in organizations because they are set to meet the needs of the organization's members. They can, and should, be changed and designed to better enhance positive, long-term behavior change, for they are a central component of healthy worksite cultures (Allen et al., 1987; O'Donnell & Harris, 1994).

The importance of social support has been previously addressed. Support is a key element of social identity and provides the framework for building norms and values (McLeroy, 1988). Individuals are profoundly influenced by the norms which exist within primary support groups (Allen & Allen, 1987). Peers within these groups can promote healthy behaviors by serving as role models, eliminating barriers, and providing recognition for success (O'Donnell & Harris, 1994). This type of social support can exist and thrive if it, in turn, is fostered by a healthy organizational culture.

Organizational support is the message sent from top management. It is the policies and practices set in place to support health efforts (Ribisl & Reischl, 1993). Organizational support in itself promotes a sense of well-being by sending a message of concern for employee health. As discussed previously, environments act as enablers of health behaviors and provider of health resources (Stokols, 1992). Organizations have a choice to do so in a way that fosters health-promotive behaviors or not. Values, norms, and social support can be designed to promote health, but if that message is not supported by management, change cannot take place.

The last component of corporate culture is organizational climate. The terms organizational climate and/or corporate climate have been used in the field of human resources since the mid 1960's. Similar to the above definition of culture, the historical business perspective of climate is viewed as the internal environment of an organization (LaFollette, 1975). The most common definition found in literature comes from Forehand and Gilmer (as cited in Gunter & Furnham, 1996; James & Jones, 1974; LaFollette, 1975),

who describe organizational climate as "the set of characteristics that describe an organization and that (a) distinguish one organization from another, (b) are relatively enduring over a period of time, and (c) influence the behavior of people in the organization".

In the field of health promotion, however, climate is only one component of the larger issue of culture, though the terms are often used synonymously. Allen (1997), a forerunner in the research on organizational change, defines climate as the ability of an organization to adapt to changes in environmental conditions. In this case, culture is the panoramic view of the corporate atmosphere, ever-changing. Climate is the capacity of the organization to adapt to those changes. The role of climate in organizational behavior change is considered by LaFollette (1975) to be a result of the many components of environment, and a useful predictor of organizational health.

Three key factors have been identified to be an integral part in bringing about, and maintaining healthy cultures, and healthy behaviors. These core factors are (1) a sense of community, (2) a shared vision, and (3) a positive culture. The identification of these elements were a result of a study conducted by the Human Resource Institute in the early 1980's (Allen & Allen, 1987). The reported findings were those factors that were most important in blocking solutions to the problem and that contributed most to the solutions.

A sense of community exists when people feel as if they belong, where mutual care and trust are present. With this sense of community individuals become connected beyond just their role in the organization (Allen, 1997; Allen & Allen, 1987). Sense of community

and belonging opens the lines of communication and feedback about lifestyle choices (O'Donnell & Harris, 1994). Individuals are more receptive to hear criticism, accept advice, and try new behavior if they are comfortable within their community and the community is that of a caring nature.

A shared vision signifies inclusion into a culture when members hold similar values and are enthusiastic about the goals and processes of the organization (Allen, 1997). It comes about when a diverse group of people are allowed to integrate personal goals with those of the organization (O'Donnell & Harris, 1994). When health is an integral part of the culture, an opportunity exists for members to work towards their own health goals while thriving towards the common goal of the organization. This shared vision also lends itself to motivation, support, and inspiration when members of the organization are able to discuss their shortcomings, strengths, and difficulties (Allen & Allen, 1987).

The last element, a positive culture, is the link that ties climate to culture. Positive culture is an outlook in which opportunities and strengths are recognized (Allen, 1997). It is a way of thinking in which problems are examined, solutions sought, and challenges met. In a positive culture, needed behavior changes are viewed as opportunities for lifestyle enhancement rather than personal defeats (O'Donnell & Harris, 1994).

Each of the previously discussed components lends itself to the next, and ultimately to the health of the organization. Climate, both an element and result of culture, is also a complex view of the influence of environment on individual health

behavior. Regardless of how it is referred to, organizations must be aware of their role in both the choice of individuals to change lifestyle behaviors and their ability to maintain those changes (Opatz, 1985). For the purpose of this study, the term "health climate" will be used to refer to all of the aforementioned environmental dimensions which have the ability to influence health behaviors.

Measuring Worksite Health Climate

To create healthy worksite cultures, climate constructs must first be assessed to determine areas of needed change. Since its introduction into corporate human resources, climate has generally been measured in two ways, by objective and subjective means (Gunter & Furnham, 1996; James & Jones, 1974; LaFollette, 1975). For climate to be measured, it is first assumed that such climate constructs exist at some level within the organization and that they are relatively permanent. The method by which climate should be measured is a topic of debate among researchers. The ultimate decision resides upon research objectives, the researcher's believe about the effect of climate on behavior, and the preference of the researcher (James & Jones, 1974).

Objective measurements are the physical or structural features of an organization. Though accurate and reliable means of measurement, objective measures tend to focus only on true environmental elements independent of individual perceptions (LaFollette, 1975). Objective indices are often characterized as separate and distinct variables, which does not allow for interpretation of the interrelationship of the variables to each other or to organizational behavior (Gunter & Furnham, 1996). These exclusive attributes of

objective measurements limit theirs ability to truly measure the broad spectrum of behavior influencing elements of an organization.

Individual perception is a more commonly used measurement of organizational climate. Perceptions can be measured categorically or dimensionally. Categorical measurements, though not a popular method, classify organizations into theoretical types (Gunter & Furnham, 1996). The dimensional method classifies the organization into pre-established dimensions true to organizational climate, encompassing the multi-facets of culture (Gunter & Furnham, 1996).

The perceptual approach is an indication of how individuals perceive the organization and to what extent the measured dimensions characterize the climate (LaFollette, 1975). Perceptions can reflect the interaction between the personal characteristics of the perceiver and the multiple characteristics of the organization (James & Jones, 1974). Perceptions add a human slant to objective features and personal feedback on acceptable behaviors.

Behavior is generally the focus of climate change. A successful measurement of climate is one which contrasts what is happening within the organization with what might ideally happen. "The important thing is not the actual behavior ... but people's perception of them" (Allen et al., 1987, p.49). Perceptions of the climate can aid an organization in its capacity to support desirable behaviors while eliminating those detrimental to health and well-being (Stokols, 1992). Individuals are more receptive to answering inquiries

about group behavior than personal behavior. When the element of blame is eliminated, the focus of change can be on the organization rather than individual (Allen et al., 1987).

Concern and limitations about the measurement of perceived climate exist. One major concern is the emphasis on measurement techniques which results in a lack of understanding of the constructs to be measured (James & Jones, 1974). This approach limits the study from the onset by not clearly defining the climate to be measured. With respect to organizational climate, James and Jones (1974) recommend that researchers: (1) determine perceptions through objective situations rather than affective reactions; (2) assess group consensus rather than diversity; (3) appropriately explain each level of analysis; and (4) investigate the relationship between the measures of climate, behaviors, attitudes, and performances.

While abundant research exists and continues to be investigated concerning evidence of health climate, few valid and reliable tools exist to measure it (LaFollette, 1975; Ribisl & Reischl, 1993). As mentioned above, human resource managers have used climate scales to explain job satisfaction, job performance, and organizational behavior for several years. As the cost of health care continues to rise, corporations have linked this premise to health, since the ability to maintain healthy lifestyles is greatly influenced by many of the same climate elements.

Few existing health climate scales, however, provide the full spectrum of work climate elements specific to employee health (Ribisl & Reischl, 1993). One such measurement, the "Work Environment Scales" developed by Moos (1987), touches upon

broad areas of health climate such as support, peer cohesion, task orientation, work pressure, autonomy, clarity, control, innovation, and physical features. Other related scales as cited by Ribisl and Reischl (1993) include a safety climate measurement by D. Zohar, and a work environment physical feature assessment by J. C. Vischer. According to Ribisl and Reischl (1993), these available tools are too broad or too specific, and lack the needed measurements to assess a climate for health promotion.

Two major contributions in the area of worksite health climate are the "Culture Norm Indicator," by Allen et al. (1987) and the "Wellness-Oriented Workplace," by Chapman (as cited in Ribisl and Reischl, 1993). These tools, however, are not psychometrically sound tools for research purposes. The response formats of both scales restrict the range of responses by use of dichotomous responses, and both lack evidence of their validity (Ribisl & Reischl, 1993).

The Worksite Health Climate Scales

The Worksite Health Climate Scales (WHCS) developed by Kurt Ribisl and Thomas M. Reischl (1993) were created in an effort to progress worksite health research. In their research, Ribisl and Reischl sought to identify important social climate dimensions of the workplace, develop reliable scales to assess such health dimensions, and begin testing the validity of the scales. In an attempt to develop a more comprehensive approach to assessing worksite health climate, the process of designing this tool builds upon past research on social climate and organizational climate, as previously discussed (Ribisl & Reischl, 1993).

The work of Ribisl and Reischl (1993) was an investigation into the concept of health climate. To the extent possible, limitations of the study were justifiable do to the exploratory nature of the study. The results of this study provided support of the idea that worksite health climate exists and can be measured. As discussed in the methodology, this research demonstrated the reliability of self-reported questionnaires to measure employees' perceptions, and provided preliminary evidence of the Worksite Health Climate Scales' validity.

Further investigations to continue validation of the scales in various worksites is needed to advance the implications of its use in the field of health promotion. The Worksite Health Climate Scales may prove to be useful in the planning, assessment, and evaluation of worksite health promotion programs (Ribisl & Reischl, 1993). If used in conjunction with health risk assessments, or other health measurements, it could provide valuable supplemental information about worksite norms, support, and attitudes needed to promote healthy interventions. The confidentiality and anonymity of the scales allow employees to freely discuss issues they may otherwise be apprehensive about, providing helpful information to employers about the health of their organization (Ribisl & Reischl, 1993).

Summary

Decades of research exist on individuals, health, and environment. This chapter presented an overview of this research in an attempt to provide understanding of worksite health climate as a powerful mediator of the health and well-being of individuals within the

worksite. Traditional worksite health promotion programs were reviewed to define the role of environment in intervention strategies; environment was examined as a major influence on health; worksite health climate was defined and investigated; measurement techniques were reviewed; and the Worksite Health Climate Scales were described. Further discussion of the data collection tool will be included in Chapter III, under instrumentation.

CHAPTER III

METHODOLOGY

The methodology of this quasi-experimental research design is discussed in relationship to the following: (a) population and sample, (b) procedures to collect the data, (c) instrument utilized to collect the data, and (d) treatment of the data. In addition, the protection of human subjects is also discussed.

Population and Sample

The target population of this study was employees at a medium-sized electronics manufacturing company located in the Southwestern United States. A randomized sample was obtained from the 1,366-employee workforce using a random sample table. Two study samples of 300 employees each were randomly selected from a bifurcated population of registered wellness participants and nonparticipants, for a total of 600 subjects.

Protection of Human Subjects

Prior to the collection of data, appropriate approval was obtained from the Human Subjects Review Committee at Texas Woman's University (Appendix A). Permission to conduct the study was obtained from both the agency in which the research was conducted (Appendix B) and the Graduate School at Texas Woman's University (Appendix C).

To protect the rights of the subjects, participation in the study was completely voluntary and all responses were kept confidential and anonymous. All subjects received a written explanation of the nature of the study, the estimated time for completion of the survey, a consent statement, and a number to call should they have questions (Appendix D).

Procedures

Subjects in the sample were administered the Ribisl and Reischl (1993) Worksite Health Climate Scales (Appendix E) through the company's interoffice mail on April 28, 1997. Included with the surveys were a cover letter from the company's worksite health promotion program director (Appendix F), a cover letter from the researcher (Appendix D), and a pre-addressed envelope for return of the questionnaire. Participants were asked to complete the survey, seal it in the provided envelope, and return it through interoffice mail to the company's worksite health promotion program office.

On May 7, 1997 the investigator picked up completed, unopened surveys from the company's worksite health promotion program director. Of the 600 sent out, 112 completed surveys were returned . Surveys continued to be collected for an additional week, bringing the total to 124 completed surveys (31% response rate).

Instrumentation

The survey used in this study consisted of the Worksite Health Climate Scales (Ribisl and Reischl, 1993) and an added demographic section (Appendix E). Permission was obtained from one of the original authors to use and/or modify the Worksite Health Climate Scales (Appendix G). The demographic questions were added by the researcher

to obtain demographic information and to identify the respondent's status as a participant or nonparticipant in the company's worksite health promotion program. Data collected from this section included the following items: (1) gender, (2) race, (3) age range, (4) job type, and (5) participation in the health promotion program. The survey included a total of 74 questions, and was estimated to take approximately 15 minutes to complete.

The Worksite Health Climate Scales (Ribisl and Reischl, 1992) is a combination of 12 scales under three categories: organizational support scales, interpersonal support scales, and health norms scales, consisting of a total of 69 questions. Each scale employs a 5-point Likert-type response format of three types: attitude ranging from *strongly agree* (5 points) to *strongly disagree* (1 point); proportion of employees, ranging from *almost all employees* (5 points) to *almost no employees* (1 point); and frequency of occurrence ranging from *almost always* (5 points) to *almost never* (1 point). Negatively worded items receive a reversed point assignment.

The original WHCS, developed by Ribisl and Reischl (1993) was an 83-item version consisting of measurements from three categories: organizational support, interpersonal support, and health norms. Two studies were conducted by Ribisl and Reischl (1993) to develop and modify the scales based upon internal consistency and item discrimination. Items that failed to uphold proper discrimination or consistency were dropped from the scale. One interpersonal support scale was dropped and two new health norm scales were added.

Of the revised scales, 6 of the 12 scales revealed good reliability with an alpha

greater than .80. Those scales with less than acceptable internal consistency were revised to clarify meaning by modifying words and items. Of the 12 revised and tested scales, internal consistency measured a > .70, nine of which measured a > .80. The final version of the WHCS consists of the following 12 scales with corresponding number of items: employer heath orientation (4 items); job flexibility to exercise (4 items); nutrition norms (7 items); exercise norms (7 items); pro-exercise attitudes (4 items); smoking norms (4 items); anti-smoking attitudes (4 items); job tension norms (5 items); support for healthy behaviors (8 items); health information (6 items); supervisor social support (8 items), and; co-worker social support (8 items).

At the time the scales were developed, a preliminary investigation of validity was also conducted. Ribisl and Reischl (1993) used three hypotheses to aid in this examination. The first was that climate would vary across worksites. To provide support that health climate exists, significant differences between worksites should be measured to represent the diversities in work settings and employees. The second hypothesis was that individual differences on several demographic variables would have little correlation with perceptions of health climate. This was to provide further support for differences between worksites while controlling for demographic differences. The final was that health climate perception would be related to measures of employee health practices and outcomes.

Ribisl and Reischl (1993) conducted a MONOVA on the participating seven worksite's mean scores to determine a significant difference between climates. In addition, univariate ANOVAs were used to examine the individual scales and their impact

on overall differences. Results of the overall MONAVA and 12 ANOVAs were statistically significant, revealing that variability between the worksite were greater than the variability of ratings within the worksites. These findings also lend further support to Ribisl and Reischl's notion that employees generally hold common perceptions of their work environment, thus a measurement for worksite health climate.

The variability of these perceptions was not found to be consistently or strongly related to 4 of the 5 demographic variables assessed. MANOVAs and descriptive statistics computed for the 12 scales failed to show significant relations between the health climate variables to age, ethnicity, education, or number of years at the company. Gender of the respondents was related to seven of the WHCS. Further analysis of this finding disclosed that these gender differences may be largely related to the different types of jobs men and women in the study held, and to the greater number of hours worked by the men than women.

Men reported greater flexibility in their job and greater supervisor social support. Women, on the other hand, reported greater co-worker social support. They also rated health norms to be more positive, healthier nutrition norms, more favorable exercise attitudes, less favorable smoking attitudes, and lower norms for smoking at work than men. Waldron's study (as cited by Ribisl & Reischl, 1993) corroborates these findings by claiming that women are generally more knowledgeable about, and practice healthier behaviors than men. Due to the significance of these findings, gender was included in the present study to further investigate possible theories of such differences in health climate

perceptions.

To test the validity of the WHCS, climate variables were correlated to health and well being outcome variables such as physical symptoms, exercise habits, healthy nutrition habits, smoking status, job stress, and job satisfaction. The positive results of the analyses support the initial hypotheses that employees' perceptions of the worksite health climate would be positively correlated to healthy variables, thus providing preliminary indication of construct validity.

Organizational support was correlated positively with job satisfaction and negatively with job stress. Such indications related specifically to the role of employer's health orientation and flexibility to exercise, while health information was not significantly correlated to any health outcome variable. Flexibility to exercise also indicated positive exercise habits and smoking status.

Among the interpersonal support scales, supervisor and co-worker support were correlated with health status, while perceived support for healthy behaviors was correlated with specific health habits. As anticipated by Ribisl and Reischl's (1993) hypotheses, those that rated support for healthy behaviors as high, also reported that they exercised more, had healthier eating habits, and were less likely to smoke.

Several of the health norms scales correlated significantly with expected health outcome variables, though some more than others. Nutrition and exercise were positively correlated to their counter behaviors, but the smoking norm scale was not. The pro-exercise and anti-smoking attitude scales did not relate to respondents anticipated health behavior, although they did correlate with other health and well-being variables. For job

tension norms, greater worksite norms for tension correlated positively to health symptoms and job stress, and negatively to job satisfaction, consistent with other findings in the study.

Treatment of the Data

Descriptive statistics were used to report the results by gender, age, race, job type, and health promotion program participation status. Subjects' scores were determined for each of the 12 scales by summing their responses to each item on the scale. The following negative item statements were reversed-scored before being added to the score: 11, 14, 15, 23, 24, 25, 26 and 32. T-tests were used to treat and analyze the data and address the research hypotheses. An alpha level of .05 was used to test the statistical significance of the results in order to accept or reject the hypotheses. SPSS for Windows was used for all statistical analyses.

CHAPTER IV

FINDINGS

The primary purpose of this study was to measure employees' perceptions of the worksite health climate at a medium-sized electronics manufacturing company located in the Southwestern United States. The Worksite Health Climate Scales (WHCS), developed by Ribisl and Reischl (1993) were administered to collect data on employees' perceptions of organizational support, interpersonal support, and health norms within the organization. Five demographic questions were included to gather descriptive information about the respondents and to be used for statistical comparison.

Descriptive data regarding the subjects, analyses of significant differences to address the research null hypotheses, and additional findings are reported in this chapter. The section on descriptive data includes information on the respondents' gender, race/ethnicity, age range, job type, and health promotion program participation status. The section on analysis of significant differences includes t-test analysis of mean scores by gender and by health promotion program participation status for each of the 12 scales included in the WHCS.

Descriptive Characteristics of the Subjects

Of the 400 subjects randomly selected from a 1,366 employee workforce, 124 employees returned questionnaires for a response rate of 31%. Descriptive statistics were

tabulated on demographic data items as reported by respondents who completed the WHCS.

The research sample (N = 124) consisted of 69 (63.7%) male and 55 (36.3%) female employees. Sixty-nine (63.7%) of the subjects were registered health promotion program participants and 55 (36.3%) were nonparticipants. The majority (74.2%) of the subjects identified themselves as Caucasian. Table 1 presents the race/ethnicity of the entire sample. The subjects ranged in age from 18 - 65 years (see Table 2), with the largest number of employees (80) falling between the ages of 31 - 50. The sample was drawn from a population of three general job-types. The sample proportions for these job types were 37.9% Engineering; 37.1% Administrative; and 23.4% Manufacturing. The largest group of respondents (47) were Engineers.

Table 1

Ethnicity of Sample

Ethnicity	Frequency	%
African American	10	8.1
Caucasian	92	74.2
Hispanic	5	4.0
Asian	10	8.1
Other	5	4.0
Non-Response	2	1.6
Total	124	100

Table 2

Age Range of Sample

Age Range	Frequency	%
18-25	7	5.6
26 - 30	13	10.5
31 - 35	19	15.3
36 - 40	18	14.5
41 - 45	22	17.7
46 -50	21	16.9
51 - 55	14	11.3
56 - 60	6	4.8
61 - 65	4	3.2
Total	124	100

Analysis of Significant Differences

Table 3 presents mean scores for all 124 respondents for each of the 12 scales used in the study. Questionnaires with missing data for a scale were not included in the analysis for that scale. Score totals varied among the 12 scales depending on the number of items in the scale. The minimum number of items per scale was four, the maximum was eight. High scores indicated positive perceptions of the organization for all scales except Smoking Norms and Job Tension Norms, where low scores indicate positive norms (little

to no people smoke, and little to no job-tension). The scale with a mean score falling closest to its maximum possible score, indicating an extremely high score, was attained for the Pro-Exercise Attitudes scale (M = 17.57, SD = 5.73). The scale with a mean score falling closest to its minimum possible score, indicating an extremely low score, was indicated for the Health Information scale (M = 9.08, SD = 2.90). Overall, scores on the remaining 10 scales were moderate, falling around half of the maximum possible score.

Table 3

Mean Scale Scores for All Respondents (N = 124)

Worksite Health Climate Scale	M	SD	Min.	Max.
Employer's health orientation	14.48	2.84	1.00	20.00
Job flexibility to exercise	11.09	3.68	1.00	20.00
Health information	9.08	2.90	6.00	30.00
Supervisor social support	30.36	10.20	8.00	40.00
Co-worker social support	26.18	7.94	8.00	40.00
Support for healthy behaviors	20.87	6.02	8.00	40.00
Nutrition norms	18.08	3.34	7.00	35.00
Exercise norms	14.42	2.97	7.00	35.00
Pro-exercise attitudes	17.57	5.73	4.00	20.00
Smoking norms	11.81	3.14	4.00	20.00
Antismoking attitudes	14.36	2.81	4.00	20.00
Job tension norms	17.12	4.75	5.00	25.00

Gender Differences

An independent t-test was used to determine if there were statistically significant differences between male and female mean scores. A two-tailed test was utilized, with .05 level of significance. A statistically significant difference was found in scores for the Flexibility to Exercise, Job Tension, Smoking Norms, and Support for Healthy Behavior scales. Females had significantly higher scores when reporting perceptions regarding Job Tension, t (119) = -2.22, p = .03, Smoking Norms, t (119) = -2.02, p = .05, and Support for Healthy Behaviors, t (119) = -2.06, p = .04. Table 4 presents a summary of this analysis on the 12 scales.

Health Promotion Program Participation Status

Mean scores for the Worksite Health Climate Scales differed slightly between subjects who identified themselves as health promotion program participants, and those who did not. An independent t-test was utilized to determine if such differences were statistical significant. An alpha level of .05 was utilized. Health promotion program participants had significantly higher mean scores for the Antismoking Attitudes scale than did nonparticipants, t (119) = 2.48, p = .02. A significant difference was also found between mean scores for the Job Tension, participants having higher scores than nonparticipants, t (119) = 2.70, p = .01. As shown in Table 5, there were no other significant differences found among the remaining scales.

Table 4

Significance of Differences Between Male and Female Mean Scores

	Males		Females		
Worksite Health Climate Scale	M	SD	M	SD	p
Employer's health orientation	14.38	2.83	14.64	2.89	.62
Job flexibility to exercise	11.58	3.47	10.22	3.90	.05*
Health information	9.03	2.98	9.18	2.78	.78
Supervisor social support	30.94	10.08	29.26	10.45	.40
Co-worker social support	26.01	7.51	26.48	8.73	.79
Support for healthy behaviors	19.97	5.35	22.47	6.85	.04*
Nutrition norms	18.24	3.27	17.82	3.49	.51
Exercise norms	14.21	2.78	14.78	3.26	.33
Pro-exercise attitudes	17.66	6.80	17.42	3.22	.82
Smoking norms	11.38	2.43	12.57	4.04	.05*
Antismoking attitudes	14.53	2.78	14.07	2.87	.39
Job tension norms	16.40	4.58	18.36	4.84	.03*

* Significant at alpha level .05.

Table 5

Significance of Differences Between Health Promotion Program Participants and Nonparticipants

	Participants		Nonparticipants		
Worksite Health Climate Scale	M	SD	M	SD	p
Employer's health orientation	14.45	2.76	14.51	2.95	.91
Job flexibility to exercise	11.20	3.50	10.95	3.92	.70
Health information	9.31	2.71	8.78	3.13	.33
Supervisor social support	29.42	11.91	31.47	7.61	.27
Co-worker social support	25.67	8.30	26.80	7.51	.44
Support for healthy behaviors	21.44	6.05	20.12	5.97	.24
Nutrition norms	17.78	3.27	18.47	3.42	.26
Exercise norms	14.59	2.75	14.19	3.25	.46
Pro-exercise attitudes	17.64	7.24	17.49	2.80	.89
Smoking norms	12.22	3.62	11.28	2.32	.10
Antismoking attitudes	14.91	2.75	13.66	2.77	.02*
Job tension norms	18.10	4.58	15.81	4.70	.01*

* Significant at alpha level .05

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents concluding information presented under the following headings: (a) Summary of the Study, (b) Discussion, (c) Conclusions, and (d) Recommendations.

Summary of the Study

This study was conducted to examine the perceptions of employees at a medium-sized electronics manufacturing company located in the Southwestern United States pertaining to organizational support, interpersonal support, and health norms within the organization. The purpose of the study was to measure employees' perceptions of the worksite health climate at a medium-sized electronics manufacturing company located in the Southwestern United States. In addition, this study included the collection of demographic characteristics of employees and compared differences in perceptions between male and females, and also between health promotion program participants and nonparticipants.

A random sample of 400 employees, from a 1,366-employee workforce were selected as subjects in this study. Respondents were 63.7% male, and 36.3% female (31% response rate). Of the 124 respondents, 63.7% were registered health promotion program

participants, 36.3 % were not. The tool used to collect data was the Worksite Health Climate Scales, developed by, developed by Kurt Ribisl and Thomas Reischl (1993), which measured constructs pertaining to organizational support, interpersonal support, and health norms within the organization. Five additional questions were added by the researcher to obtain demographic information.

Possible scores on the WHCS ranged from 4.00 to 40.00 depending on the number of items per scale. Scores closest to the maximum are desirable for all scales with the exception of Smoking Norms and Job Tension Norms, desirable score being closest to the minimum. The highest mean score, when compared to the maximum possible score, was attained on the Pro-Exercise Attitude scale. The Health Information Scale had the lowest mean score when compared to the maximum possible score. The mean perception scores for remaining 10 scales were moderate (they fell within half of the maximum possible score).

Statistical analysis utilized independent, two-tailed t-tests. Statistically significant differences were found in scores between males and females for the Flexibility to Exercise scale, Support for Healthy Behaviors scale, Job Tension scale, and Smoking Norms scale. Statistically significant differences were found between health promotion program participants' and nonparticipants' scores on the Job Tension scale and Anti-Smoking Attitudes scale.

Discussion

The results of this study contributed to Ribisl and Reischl's (1993) notion that a comprehensive tool could be appropriate for measuring worksite health climate. Participants in this study were willing and able to express perceptions of organizational support, interpersonal support, and health norms through the use of a self-report questionnaire.

Overall scores on the Worksite Health Climate Scales were moderate. An extremely low mean score existed for the Health Information scale. This indicates low perceptions among employees regarding the distribution of health information (less than three times a month). An extremely high score was noted for Pro-Exercise Attitudes. High Pro-Exercise scores indicates that on average, employees have high perceptions about the benefits of exercise. Employees know the benefits of exercising, but do not necessarily perceive exercise as a norm within the organization.

For the most part, findings add continued validation to the scale because employees within the organization have relatively similar beliefs regarding the worksite health climate (Ribisl & Reischl,1993). Moderate mean scores may be indicative to the size and distribution of the organization. The organization in the study is fairly large and comprised of three general job-types, Administrative, Engineering, and Manufacturing. Individuals or groups tend to place greater emphasis on those health outcomes most desirable based upon their age, economic resources, and exploratory tendencies (Stokols,

1992). The diversity of the group represented in the sample may be a plausible explanation for the moderate scores, one group's perceptions negating the other.

The statistically significant differences found between male and female mean scores for four of the worksite health climate scales is similar to findings by Ribisl and Reischl (1993). Women's higher perceptions of job tension, smoking norms and support for healthy behaviors may be related the type of work tasks and roles that men and women perform in this organization. Ribisl and Reischl (1993) cite research by T. D. Jick and L. F. Mitz which suggest that women tend to have more tedious, understimulating jobs in which they have little control or influence. This may also explain the difference in perceptions regarding flexibility to exercise where women indicated lower flexibility to do so.

The variable pertaining to health promotion program participation was not found in other studies addressing worksite health climate. This portion of the research is reflective of a possible need to examine significant differences that exist between perceptions of participants and nonparticipants. There were, however, few significant differences between the groups. These findings indicate that employee perceptions about the worksite health climate are not related to their participation in the health promotion program.

This could represent one of two things: (1) the worksite health climate is unrelated to health promotion initiatives, which supports decades of research that

identifies a corporate climate/ culture within every organization (Allen, 1997; Allen et al., 1987; Gunter & Furnham, 1996; James & Jones, 1974; LaFollette, 1975) that perhaps is the foundation for health climate; or (2) things beyond the scope of health promotion intervention influence employee's perceptions regarding health climate. In either case, further investigation into this topic is needed.

Conclusion

The major intent of this study was to measure employees' perceptions of the worksite health climate at a medium-sized electronics manufacturing company located in the Southwestern United States, and to examine differences in perceptions between specific demographic characteristics. The results of the data analyses were tested at the .05 level of significance, and the following conclusions were made:

Null Hypothesis 1. There is no statistically significant difference between male and female employees' perceptions of the following worksite health constructs: (a) employer health orientation, NOT REJECTED, (b) job flexibility to exercise, REJECTED, (c) health information, NOT REJECTED, (d) supervisor social support, NOT REJECTED, (e) co-worker social support, NOT REJECTED, (f) support for healthy behaviors, REJECTED, (g) nutrition norms, NOT REJECTED, (h) exercise norms, NOT REJECTED, (i) pro-exercise attitudes, NOT REJECTED, (j) smoking norms, REJECTED, (k) anti-smoking attitudes, NOT REJECTED, (l) job tension norms, REJECTED.

Null Hypothesis 2. There is no statistically significant difference between male and female employees' perceptions of the following health climate constructs: (a) employer health orientation, NOT REJECTED, (b) job flexibility to exercise, NOT REJECTED, (c) health information, NOT REJECTED, (d) supervisor social support, NOT REJECTED, (e) co-worker social support, NOT REJECTED, (f) support for healthy behaviors, NOT REJECTED, (g) nutrition norms, NOT REJECTED, (h) exercise norms, NOT REJECTED, (i) pro-exercise attitudes, NOT REJECTED, (j) smoking norms, NOT REJECTED, (k) anti-smoking attitudes, REJECTED, (l) job tension norms, REJECTED.

The topic of worksite health climate is slowly emerging in the field of worksite health promotion. Valid, reliable measurement tools which contain multi-constructs are needed if research in the area of worksite health is to advance. The information obtained from the present research effort may contribute to the validity of the Worksite Health Climate Scales (Ribisl and Reischl, 1993) in various worksite settings.

This information may also deem useful in the planning and evaluation of the current health promotion efforts of the organization involved in this study. Due to the moderate scores on the Worksite Health Climate Scales, the organization may wish to take steps to refine the environment as to promote and maintain healthy behaviors, thus improving employees' perceptions of the worksite health climate. An effort may need to

be made to reach those populations represented in the sample that have concerns regarding a specific topic (e.g. health information, nutrition norms, etc.).

Recommendations

The following recommendations are made for future investigations:

1. Populations from different types and sizes of worksites should be utilized to further establish validity of the Worksite Health Climate Scales (Ribisl & Reischl, 1993) as a universal measurement of worksite health climate.

2. A study should be conducted to further examine relationships between various demographic groups and health climate perceptions.

3. Measures of health status and job quality should be included as variables to further examine the relationship between health climate constructs and employee health and well-being.

4. Relationships between worksite health promotion program participation status (e.g., level of participation, type of activities, etc.) and health climate perceptions should be futher examined.

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APPENDICES

APPENDIX A

Human Subjects Review Committee Approval

TEXAS WOMAN'S
UNIVERSITY
DENTON/DALLAS/HOUSTON

HUMAN SUBJECTS
REVIEW COMMITTEE
P.O. Box 425619
Denton, TX 76204-3619
Phone: 817/898-3377
Fax: 817/898-3416

March 27, 1997

Ms. Robin Bennett
14800 Enterprise Dr., #22D
Farmers Branch, TX 75234

Dear Ms. Bennett: Social Security # 435-21-8965

Your study entitled "Measuring Worksite Health Climate" has been reviewed by a committee of the Human Subjects Review Committee and appears to meet our requirements in regard to protection of individuals' rights.

Be reminded that both the University and the Department of Health and Human Services (HHS) regulations typically require that agency approval letters and signatures indicating informed consent be obtained from all human subjects in your study. **These consent forms and agency approval letters are to be filed with the Human Subjects Review Committee at the completion of the study. However, because you do not utilize a signed consent form for your study, the filing of signatures of subjects with the Human Subjects Review Committee is not required.**

Your study was determined to be exempt from further TWU HSRC review. However, another review by the Committee is required if your project changes. If you have any questions, please feel free to call the Human Subjects Review Committee at the phone number listed above.

Sincerely,

John Engelbrecht

Chair
Human Subjects Review Committee

cc. Graduate School
Dr. Robin Rager, Department of Health Studies
Dr. William Cissell, Department of Health Studies

APPENDIX B

Agency Approval

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF HEALTH STUDIES

AGENCY PERMISSION FOR CONDUCTING STUDY

~~Ommited~~, GRANTS TO Robin S. Bennett, a student enrolled in the College of Health Sciences who is working on a master's degree in Health Studies at the Texas Woman's University, the privilege of its facilities/data in order to study the following problem:

What are employee's perceptions of the worksite health climate at ~~Omitted~~?

The conditions agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (not willing) to allow the completed report to be circulated through interlibrary loan.
5. Other _____

_____

Date: 4-12-97

Robin S. Bennett

Signature of Student

~~Omitted~~

Signature of Agency

Robin C. Page

Thesis Committee Chairman

APPENDIX C

Graduate School Approval

TEXAS WOMAN'S
UNIVERSITY
DENTON / DALLAS / HOUSTON

THE GRADUATE SCHOOL
P.O. Box 425649
Denton, TX 76204-5649
Phone: 817/898-3400
Fax: 817/898-3412

July 9, 1997

Ms. Robin Bennett
14800 Enterprise Dr., #22D
Farmers Branch, TX 75234

Dear Ms. Bennett:

I have received and approved the Prospectus entitled "Health Promotion Program Participants' and Non-Participants' Perceptions of the Worksite Health Climate" for your thesis research project. Best wishes to you in the research and writing of your project.

Sincerely yours,

Leslie M Thompson

Leslie M. Thompson
Associate Vice President for Research and
Dean of the Graduate School

LMT/sjr

cc Dr. Robin Rager
Dr. William Cissell

APPENDIX D

Cover Letter

Dear Employee,

As a graduate student in Health Studies at Texas Woman's University, I am conducting research concerning employees' perceptions of their worksite *health environment*. The study will examine how employees perceive their company's support and commitment to providing a healthy work environment and opportunities for workers to improve their health.

If you decide to participate in this study, I ask that you complete the enclosed questionnaire, which should take no more than 15 minutes of your time. Participation in this research study is completely voluntary, and your responses will be anonymous and confidential. **Your completion and return of this questionnaire constitutes your informed consent to act as a subject in this research**.

I hope you will take a few moments to fill out the attached questionnaire. Once you have completed it, please place the questionnaire in the pre-addressed envelope provided, and return it to ~~Omitted~~ at Mail Stop ~~X~~. Your individual input is valuable to this study!

If you have any questions about the research or about your rights as a subject, please call me, or my advisor, Dr. Robin Rager at (817) 898-2863. Results of the study will be available in the ~~Omitted~~ fitness center, or by contacting me directly.

Sincerely,

Robin S. Bennett
Health Studies Graduate Student
Texas Woman's University

APPENDIX E

Worksite Health Climate Scales

HEALTH ATTITUDES

DIRECTIONS:

These questions ask you about this organization and how you feel it deals with health issues.

1. Please answer every question even if you are not completely sure of the best answer.
2. Please **CIRCLE** the answer that best describes your feelings. Some of the statements may look or seem like others, but each statement is different and should be rated by itself.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1. This organization values healthy workers	1	2	3	4	5
2. This organization is generally concerned about my health and well-being	1	2	3	4	5
3. It is easy to see that top management has a commitment to improving employee health	1	2	3	4	5
4. It is easy to see that middle management has a commitment to improving employee health	1	2	3	4	5
5. I can make time to exercise at some point during normal work hours	1	2	3	4	5
6. It would be acceptable for me to take time out to exercise during normal work hours	1	2	3	4	5
7. I am able to leave the job briefly to take a brisk walk when I want to	1	2	3	4	5
8. The hours that I need to be at work are flexible, so I can choose to exercise when I want to	1	2	3	4	5

HEALTH NORMS

DIRECTIONS:

These questions ask you about certain types of activities and habits that you see at work. For each each activity, please **CIRCLE** only one number that best describes the number of people at work who are involved in the particular activity.

HOW MANY EMPLOYEES HERE . . . ?	Almost No People	Some People	Half the People	Most People	Almost All People
9. Eat snacks such as carrot sticks, low-fat yogurt, or apples?	1	2	3	4	5
10. Are good role models for making nutritious food choices?	1	2	3	4	5

HOW MANY EMPLOYEES HERE . . . ?	Almost No People	Some People	Half the People	Most People	Almost All People
11. Have unhealthy eating habits?	1	2	3	4	5
12. Make an effort to include vegetables, salads, or fruit into their meals at work?	1	2	3	4	5
13. Are concerned about the amount of cholesterol in the foods they eat?	1	2	3	4	5
14. Regularly choose high fat foods for lunch (e.g. fried foods, ice cream, doughnuts)?	1	2	3	4	5
15. Regularly eat potato chips or candy bars for snacks?	1	2	3	4	5
16. Belong to a health or fitness club (e.g. YMCA, YWCA, or health spa)?	1	2	3	4	5
17. Find time to exercise before or after work?	1	2	3	4	5
18. Are considered "health nuts" because they like to exercise?	1	2	3	4	5
19. Are actively working to improve their physical fitness?	1	2	3	4	5
20. Participate in sports as a way to keep physically active?	1	2	3	4	5
21. Walk for exercise during lunch or other breaks?	1	2	3	4	5
22. Exercise (other than walking) during normal work hours?	1	2	3	4	5
23. Think that people who exercise are a bit "crazy"?	1	2	3	4	5
24. Feel that exercise is not very important?	1	2	3	4	5
25. Think exercise is a waste of time?	1	2	3	4	5
26. Think the benefits of exercise are overrated?	1	2	3	4	5
27. Smoke cigarettes or cigars during work hours, including smoking breaks?	1	2	3	4	5
28. Feel that smoking is a nice way to take a break from work?	1	2	3	4	5
29. Like to smoke on their breaks?	1	2	3	4	5
30. Think smoking is a bad habit?	1	2	3	4	5
31. Feel good about being a non-smoker?	1	2	3	4	5
32. Would like a very lenient smoking policy?	1	2	3	4	5
33. Feel that it is not acceptable to smoke at this workplace?	1	2	3	4	5
34. Experience significant tension from their jobs?	1	2	3	4	5

HOW MANY EMPLOYEES HERE . . . ?	Almost No People	Some People	Half the People	Most People	Almost All People
35. Rarely seem to have enough time to get all their work done?	1	2	3	4	5
36. Would be supportive of you if you were starting to exercise at work?	1	2	3	4	5
37. Share health information with you?	1	2	3	4	5
38. Would assist people who are trying to quit smoking at this workplace?	1	2	3	4	5
39. Would cover for somebody else who wanted to take a quick walking break?	1	2	3	4	5
40. Are interested in hearing about new health information or news?	1	2	3	4	5
41. Would support you if you tried to adopt good health habits (e.g. eating right or exercising)?	1	2	3	4	5

HEALTH NORMS *(continued)*

DIRECTIONS:
These questions are just like the previous questions, except the answer choices are different. Instead of rating "How Many" employees do something, in this section you will be rating "How Often" you see the following activities.

	Once a Month or Less	2-3 Times per Month	Once a Week	2-4 Times a Week	Daily
42. How often can employees be seen smoking at this workplace?	1	2	3	4	5
43. How often are your coworkers pushed to the limit by the amount of work they have?	1	2	3	4	5
44. How often are employees here under a lot of pressure?	1	2	3	4	5
45. How often do employees here worry because of their jobs?	1	2	3	4	5
46. How often do people at work support you in your efforts to improve or maintain your health?	1	2	3	4	5
47. If you were trying to lose weight here, how often would receive encouragement from your coworkers?	1	2	3	4	5

	Once a Month or Less	2-3 Times per Month	Once a Week	2-4 Times a Week	Daily
48. How often are there pamphlets with health information distributed to employees?	1	2	3	4	5
49. How often are there articles on health in the organization's newsletter?	1	2	3	4	5
50. How often is there health-related information displayed at work (e.g. tips on healthy eating or quitting smoking)?	1	2	3	4	5
51. How often are there presentations on a health topic at work? (e.g. such as a lunch presentation)?	1	2	3	4	5
52. How often might you expect to see health information distributed with paychecks?	1	2	3	4	5
53. How often are there memos to employees mentioning health-related information?	1	2	3	4	5

SOCIAL SUPPORT

DIRECTIONS:
These next questions ask you about the support that you receive from your immediate supervisor and coworkers. For each statement, please **CIRCLE** one number that best describes your feelings.

	Almost Never	Some of the Time	Half of the Time	Most of the Time	Almost Always
54. My supervisor is supportive when problems come up at work	1	2	3	4	5
55. My supervisor is willing to listen to my work-related problems	1	2	3	4	5
56. My supervisor shows concern about the welfare of those under him/her	1	2	3	4	5
57. My supervisor is someone who I can truly trust	1	2	3	4	5
58. My supervisor gives clear and helpful feedback about my performance	1	2	3	4	5
59. My supervisor makes it clear what is expected of me	1	2	3	4	5
60. My supervisor is very good about giving advice when problems arise at work	1	2	3	4	5
61. My supervisor is very helpful to me in getting my job done	1	2	3	4	5

	Almost Never	Some of the Time	Half of the Time	Most of the Time	Almost Always
62. My coworkers show concern about the welfare of other people at work	1	2	3	4	5
63. My coworkers are people who I can truly trust	1	2	3	4	5
64. My coworkers care about me as a person	1	2	3	4	5
65. My coworkers go out of their way to praise good work	1	2	3	4	5
66. My coworkers give clear and helpful feedback about my performance	1	2	3	4	5
67. My coworkers are very good about giving advice when problems arise at work	1	2	3	4	5
68. My coworkers do a good job of teaching useful skills	1	2	3	4	5
69. My coworkers are very helpful to me in getting my job done	1	2	3	4	5

DEMOGRAPHICS

DIRECTIONS:
These next questions ask you personal demographic information. This information will be used for statistical purposes only. Please CIRCLE the answer that best describes you.

1. Gender: Male Female

2. Race: African American Caucasian Hispanic Asian Other

3. Age Range: 18 - 25 26 - 30 31 - 35 36 - 40 41 - 45
46 - 50 51 - 55 56 - 60 61 - 65

4. Job-Type: Engineer Administrative Manufacturing

5. Are you a registered health promotion program participant? Yes No

APPENDIX F

Agency Cover Letter

April 28, 1997

Dear ~~Omitted~~ Employee,

In support of ~~Omitted~~ community relations involvement, the ~~Omitted~~ Program is assisting a student at Texas Woman's University with her graduate research in Health Studies. We would appreciate it if you took a few minutes to complete the enclosed survey and return to me in the attached pre-addressed envelope at your earliest convenience. Thank you for your time!

Yours in health,

~~Omitted~~
Health Promotion Coordinator

APPENDIX G

Permission to Use WHCS

December 31, 1996

Dear Robin,

Here is the list of items and codebook for the Worksite Health Climate Scales. Feel free to use them in your research and make minor revisions to them.

Thanks for putting me in touch with Mark Wilson, we had a nice talk on the phone and I may visit him in Atlanta next month.

Cheers,

STANFORD CENTER FOR RESEARCH IN DISEASE PREVENTION
1000 Welch Road, Palo Alto, CA 94304-1825 · Phone 415 / 723-1000 · Fax 415 / 725-6906