

COMPARISON OF EMPLOYEE HEALTH-RELATED  
INTERESTS WITH PROVIDED HEALTH  
PROMOTION PROGRAMS

By

ELIZABETH A. SHAMBLIN

Bachelor of Arts

Oklahoma State University


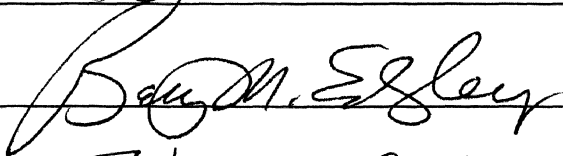
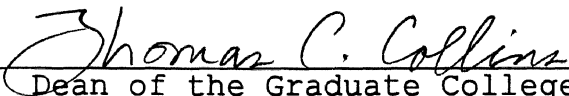
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Thesis Approved:

  
\_\_\_\_\_  
David W. Edwards  
\_\_\_\_\_  
  
\_\_\_\_\_  
Paul M. Egley  
\_\_\_\_\_  
  
\_\_\_\_\_  
Thomas C. Collins  
Dean of the Graduate College

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## CHAPTER I

### INTRODUCTION

With the emergence of preventive medicine as a viable alternative to health care reform, worksite health facilities have become increasingly popular. A national prevention agenda has established an objective that 85% of businesses will have some form of health promotion program by the year 2000 (Public Health Services [PHS], 1990). Currently 81% of private companies of at least moderate size (50 or more employees) offer health promotion programs to employees. Health promotion programs available in the continental United States include: job hazards/injury prevention, exercise/physical fitness, smoking control, stress management, alcohol/drug use, back care, nutrition, high blood pressure, AIDS education, cholesterol, mental health, weight control, cancer, medical self-care, off-the job accidents, STDs, and prenatal education. Injury prevention, physical fitness, smoking control, and stress management are the most prevalent programs, while prenatal education, STDs, and off-the job accidents are the least prevalent

programs offered by private worksites across the continental United States (McGinnis, 1993).

For employers, worksite health promotion programs have rapidly increased in value. Companies, who offer health promotion programs, have experienced reduced health care costs, decreased absenteeism, and increased productivity (McGinnis, 1993). Additional benefits include a more favorable company image, reduced turnover, and improved company loyalty (Pelletier, 1993).

For employees who participate in health promotion programs there are several benefits. Participants become typically healthier than non-participants (Conrad, 1987). It has been documented that participants in a worksite health promotion program have reduced risk factors, such as lowered blood pressure, cholesterol levels, total/HDL ratios, and body fat percentages (Aldana, Jacobson, Kelley, & Quirk, 1994).

Despite the participants' improved health status, participation rates vary from 10-25% for off-site programs to 20-40% for on-site programs (Fielding, 1984). Culture plays an important role in determining whether or not an employee will participate. The

values, norms, peer/co-worker support, organizational structure, and work climate may also negatively affect participation rates (Allen & Allen, 1986). Another barrier is the intent, or interest level of the individual (McGinnis, 1993). Employees who have little interest in a health promotion area will be less likely to participate in a relevant worksite health promotion program.

### Justification

Employee characteristics and organizational factors have been studied in an effort to develop an accurate model of participation (Allen & Allen, 1986). An area of research that has been neglected is an inventory of employee interests in specific health promotion areas with respect to provided health promotion programs. Do the provided health promotion programs indicate the areas of health-related interest of employees?

Employees are usually interested in the fitness aspects of health. Like most of the general population, they want to look and feel good. Therefore their interests concentrate on exercise, and nutrition



for weight control. On the other hand, employers are more interested in reducing absenteeism, health insurance claims, and workers compensation. From employers' perspectives back care, personal safety, smoking cessation, and drug and alcohol abuse programs would be priority. Employee and employer interests may have opposing purposes, and could affect participation rates, and eventually the success of worksite health promotion programs. Therefore employers should not only concentrate on their interests, but also on the interests of the employees. In this study a comparison of employee and employer interests will be examined in an effort to explore possible differences between health promotion programs currently being provided across the country and employee interests.

#### Statement of the Problem

Past research assumes that employees are actively interested and will participate in worksite health promotion programs (Mavis, Stachnik, Gibson, & Stoffelmayr, 1992). Likewise it has been assumed that employee needs and interests are similar to employer needs and interests (McGinnis, 1993). Few studies have

actually made a comparison. The purpose of this study was to compare employee health related interests with provided health promotion programs. This type of research is necessary to avoid program failure due to lack of interest and participation. By assessing employee health-related interests, appropriate programs for both the worksite and the individual can be designed. It is possible that participation and success rates will increase and, more importantly, wasted effort, time, and money will be avoided.

### Hypothesis

The following hypothesis was tested at the .05 level of significance: there is no difference between program interest of employees and the health promotion programs being provided across the continental United States.

### Extent of Study

### Limitations of Study

1. The subjects were limited to employees of private worksites who fully completed a Live for Life health profile questionnaire.
2. The subjects were limited to an employed population. Therefore, generalizations about other populations cannot be made from the results of this research.
3. No attempt was made to randomly select the sample subjects.
4. Information on participants was self-reported.

#### Assumptions

1. Subjects completed the Live for Life health profile questionnaire honestly and accurately.
2. Data collectors were knowledgeable and qualified in their various areas.

#### Definition of Terms

The following are terms that are used in this study:

Employee Interests - A level of an employee's interest that would be able to persuade the employee to participate in a worksite health promotion program.

Employer Interests - A level of an employer's interest in health promotion, as measured by the number of provided worksite health promotion programs.

Worksite - Private businesses located in the continental United States with 50 or more employees (McGinnis, 1993).

Worksite Health Promotion Program - A worksite effort to promote health through any of the following measures: policies, screenings, activities, information, and facilities (McGinnis, 1993).

Participation - The act of an employee joining, becoming actively involved, and regularly attending a worksite health promotion program (Glasgow, Hollis, Ary, & Lando, 1990).

Health Belief Model - A health behavior modification model which illustrates that a person's intent to change is affected by his/her attitude towards a health behavior, specifically a person's interest in changing a lifestyle behavior, and belief in his/her ability to change (Rosenstock, Becker, & Strecher, 1988).

Personal Efficacy - The belief that one can successfully perform a behavior that is necessary to yield a particular outcome (Bandura, 1977).

## CHAPTER II

### REVIEW OF THE LITERATURE

Research on employee interest level is limited. The review of literature concentrates on factors affecting employee interest level. Specifically, employee demographics, risk factors, and attitudes are discussed. Also research on health promotion programs currently being provided is examined.

#### Employee Characteristics

A study by Zavela, Davis, Cottrell, and Smith (1988) on employee intent to participate in a worksite health promotion program at the University of Oregon found that program intenders were primarily married females in clerical job positions, with an average age of 40. Married faculty of both sexes with an average age of 45 were least likely to participate.

Mavis et al. (1992) observed that different employees were interested in different types of health

promotion programs. In an extensive study at a worksite wellness program at Michigan State University, they found that graduate students were more interested in worksite health fairs while women and clerical-technical support staff were more interested in behavior change programs.

### Risk Factors and Employee Interests

Employees who smoke are usually not as interested in worksite health promotion programs as non-smokers (Adams, & Biener, 1992; Conrad, 1987; Davis, Jackson, Kronenfeld, & Blair, 1984; Glasgow et al., 1990; & Settergren, Wilbur, Hartwell, & Rassweiler, 1983) and employees at risk for obesity were interested in worksite health promotion programs (Davis, Jackson, Kronenfeld, & Blair, 1987; & Settergren et al., 1983). Employees level of stress were also related to employees area of interest. Employees who had high levels of stress, either due to poor emotional health or job pressure, were interested in worksite health promotion programs (Davis et al., 1984; Davis et al., 1987; & Zavela et al., 1988).

## Attitudes and Employee Interests

The health belief model is a health behavior theory which illustrates that a person's intent to change is affected by his/her attitude towards a health behavior. The person must express interest in changing a lifestyle behavior and believe that he/she has the ability to change (Rosenstock et al., 1988). Davis et al. (1984) used the health belief model in examining the state of South Carolina employees intent to participate in a worksite health promotion program. The subjects satisfaction level with current health status and their intent to change were analyzed in the following health areas: 1) weight, 2) nutrition, 3) exercise, 4) smoking, 5) alcohol consumption, and 6) stress management. Furthermore, the researchers analyzed psychosocial variables, such as: 1) personal efficacy, 2) job stress, 3) trait anxiety, and 4) health knowledge, with respect to the employees satisfaction level, and intent to change in the six health areas. The results indicated a significant relationship between personal efficacy and both satisfaction level, and intent to change in the six health areas. Job stress and trait anxiety were



significant only for degree of satisfaction, while health knowledge did not have any effect.

In a later study, Davis et al. (1987) measured psychosocial variables that produced contradicting results to the first study. This study examined a specific relationship between personal efficacy, job stress, and anxiety and the areas of: 1) weight, 2) exercise, 3) alcohol consumption, and 4) stress management. The researchers found no significant relationship between intent to change a health behavior and degree of satisfaction, and participation in a relevant health promotion program.

#### Health Promotion Programs Currently Provided

Employee health-related behavior is directly influenced by the culture of their workplace (Allen & Allen, 1986). An organization's structure, values, and norms can be supportive or detrimental to an employee's health behavior. However, the relationship between health promotion programs currently being provided and employee interest level in such programs has been investigated minimally. The majority of studies on

employee interest level have concentrated solely on employee personal characteristics.

After controlling for the effect of employee characteristics, Glasgow et al. (1990) examined organizational variables associated with participation on an incentive based worksite smoking cessation program. Specifically, the researchers investigated the number of employees, management level support, and previous health promotion programs. They concluded that a greater percentage of employees from small worksites participated in a smoking cessation program, and that employees who perceived support from management were more likely to join the smoking cessation program. Surprisingly, they found that employees who had participated in a previous smoking cessation program were less likely to participate in a later smoking cessation program.

The 1992 National Survey of Worksite Health Promotion Activities (NSWHPA) revealed information pertinent to this research (McGinnis, 1993). In the NSWHPA, survey 1,507 worksites were sampled and categorized into six industry and four size categories. The industry strata consisted of: 1) manufacturing, 2) wholesale/retail, 3) services,

4) transportation/communications/utilities, 5) finance/insurance/real estate, and 6) agriculture/mining/construction, while the size strata consisted of: 1) small (50 to 99 employees), 2) medium (100 to 249 employees), 3) large (250 to 749 employees), and 4) extra-large (750+ employees). All geographic regions of the United States, except Alaska and Hawaii, were included in the sample.

The 1992 NSWHPA reported the growth of health promotion activity since 1985. Prevalence rates of 18 health promotion areas were investigated, and progress towards national objectives was described as impressive. Of particular progress were the areas of: 1) nutrition, 2) weight control, 3) physical fitness, 4) high blood pressure, and 5) stress management. In fact physical fitness exceeded national objectives in every size category. Likewise drug and alcohol policies surpassed national goals, and are virtually mandated in every worksite. Although smoking cessation programs have not increased since 1985, the number of worksites that have policies prohibiting smoking has increased 118%. This is of interest as consistent findings have indicated that smokers do not generally participate in smoking cessation programs (Adams &

Biener, 1992; Conrad, 1987; Davis et al., 1984; Davis et al., 1987; & Settergren et al., 1983). Back care is another area that has only slightly increased from 29% to 32% in 1992, while off-the-job accidents is the only area that has declined (McGinnis, 1993).

The 1992 NSWHPA indicated that the services industry and transportation/communication/utilities industry provided more worksite health promotion activities to employees than other industries. Also unionized worksites tend to offer more health promotion activities, especially concerning employee safety like: 1) back care, 2) off-the-job accidents, 3) alcohol and drug abuse, 4) injury prevention, and 5) job hazard (McGinnis, 1993).

On the prevalence of worksite health promotion programs, the 1992 NSWHPA stated that a worksite's size is a strong indicator of health promotion activity (McGinnis, 1993). The 1992 NSWHPA found that worksites with more than 750 employees are more likely to offer worksite health promotion activities than are smaller worksites.

Also the 1992 NSWHPA studied employer efforts in designing and implementing health promotion programs. The sources that worksites used in deciding what

programs to implement varied. Approximately 27% used needs assessments, 28% analyzed death and disability reports, and 49% examined health care costs. Mechanisms used in promoting activities were mainly incentive based. Employees were encouraged to participate through financial rewards, and flex-time. The majority of worksites (83%) managed and paid for activities. The survey concluded that lack of interest by employees was a major problem for worksite health promotion (McGinnis, 1993).

### Summary

In the literature reviewed, authorities agree that employee health-related interests are affected by employee characteristics, risk factors, and attitudes. Research on employee characteristics suggest that different groups of employees will be interested in different types of health promotion programs. The majority of studies did show evidence of a direct relationship between employee health-related interests and the risk factors of stress and obesity. On the other hand, the research consistently indicated an inverse relationship between smoking and employee

health-related interests. Available studies relating to employee attitudes found that employees who perceive themselves in better health, and have high self-concepts are interested in making a health behavior change. In conclusion, these studies suggest that lack of interest by employees is a major barrier for the implementation of worksite health promotion program.

## CHAPTER III

### PROCEDURES FOR RESEARCH

This study is a cross-sectional study comparing employee interests with provided worksite health promotion programs. This section discusses the methods and procedures used in this study.

#### Subject Selection

The subjects for this study consisted of 79,070 male and female employees drawn from approximately 250 worksites representing seven industrial companies across the continental United States. The subjects voluntarily completed the Live for Life health profile questionnaire, administered by a national worksite health promotion consultant corporation between June 1988 to August 1989.

The 1992 National Survey of Worksite Health Promotion Activities sample was drawn from the Dun & Bradstreet list of businesses and classified according to Standard Industrial Classification codes and the number of employees at each worksite. Worksites

surveyed were categorized according to six industry and four size categories:

Industry Strata	Size Strata
* Manufacturing	* Small (50 to 99 employees)
* Wholesale/Retail	* Medium (100 to 249 employees)
* Services	* Large (250 to 749 employees)
* Transportation/ Communications/Utilities	* Extra-Large (750+ employees)
* Finance/Insurance/ Real Estate	
* Agriculture/Mining/ Construction	

The survey sample covered all geographic regions of the country (excluding Hawaii and Alaska). Excluded from the survey were public worksites, including federal, state, and local government. Prospect Associates and Response Analysis respectively.

#### Methods and Procedures



Data was collected using the Live for Life health profile questionnaire developed by a national worksite health promotion consultant corporation. Participants were assured of complete confidentiality. The instrument was written at an eighth-grade reading level and was designed for an average completion time of thirty minutes. A toll-free telephone number was made available to answer questions about the instrument.

The Live for Life health profile questionnaire contained 183 questions grouped as follows: 1) general information, 2) tobacco use, 3) nutrition, 4) exercise, 5) personal safety (including motor vehicle safety), 6) dental health, 7) self-care and preventive medical care, 8) men's health, 9) women's health, 10) medical history, 11) alcohol use, 12) general well-being, 13) biometric measures, and 14) interest in attending health promotion programs.

The health profile question, from which data was collected for determining interest, queried interest in making a lifestyle change in 14 different health promotion areas (see Appendix A). The areas of lifestyle change included the following: a) exercise, b) losing weight, c) quit smoking, d) stress management, e) eating or preparing low fat foods, f)

selecting foods high in fiber, g) alternatives to sugar, h) seasoning without salt, i) controlling blood pressure, j) personal safety, k) dental health, l) self-care practices, m) back care, and n) managing alcohol or drug use. In selecting their degree of interest in making a lifestyle change in the above mentioned areas, subjects chose to be very interested, somewhat interested, or not at all interested (see Appendix A, p.43).

Completed questionnaires were returned to a national worksite health promotion consultant corporation for processing. Interest level in each health promotion area was calculated and analyzed by selected demographic characteristics of the population: a) age, b) sex, c) ethnicity, d) education level, and e) job classification.

The data used for employer interests was the number of private provided worksite health promotion programs in the continental United States. This data was obtained from the 1992 National Survey of Worksite Health Promotion Activities. A total of 1,507 worksites were surveyed by telephone, representing 74% of eligible worksites. The survey instrument was pretested in late 1991. One pretest and one pilot test

were conducted before fielding the survey in the winter and spring of 1992. The instrument included questions on worksite demographics, program administration, benefits and results, and health promotion activities corresponding to the broad approaches in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*: Preventive services, Health Promotion, and Health Protection. Questions covered policies, screenings, information or activities, and services or facilities within each subject area. A typical question format was, "During the past 12 months, did your worksite offer cholesterol screenings to any employees?"

### Statistical Analysis

The three options (very interested, somewhat interested, and not at all interested) originally given to subjects were merged into two categories of interested, or not interested. The two options, very interested and somewhat interested, were merged into the category of interested. After the data was collected, it was uploaded to the mainframe computer at

Oklahoma State University, and analyzed with S.A.S. statistical software. The Lawshe-Baker nomograph (Downie & Heath, 1974), a Chi-square statistical analysis test, was used in a comparison of the percentages of the employee health-related interests with the percentages of the provided health promotion programs secured from the 1992 National Survey of Worksite Health Promotion Activities.

## CHAPTER IV

### RESULTS AND DISCUSSION

#### Results

The sample consisted of 41,591 men (52.6%) and 37,479 women (47.4%); 1) 80.3% White, 2) 2.6% Black, 3) 3.3% Hispanic, 4) 2.6% Asian, 5) .7% American Indian, and 6) .5% other. The education levels of the subjects ranged from some trade or high-school to graduate degree, with the majority of subjects having at least some college education (54.3%). The job classification of the subjects consisted of: 1) 28.6% clerical, 2) 13.5% managerial/administrative, 3) 22.9% sales/marketing, 4) 21.3% professional/technical, 5) 4.4% craft trade, 6) 8.0% service, and 7) 1.2% other. Breakdown of the subjects age were 43.8% less than 36 years, 50.7% between 36 to 55 years, 5.4% greater than 55 years. Refer to Table 1 for a breakdown of the demographic characteristics of the study population.

TABLE 1  
Demographic Characteristics of Study Population (N = 79,070)

Characteristics	Number	Percentage <sup>1</sup>
<u>Gender</u>		
Male	41,591	52.6
Female	37,479	47.4
<u>Age</u>		
Under 36	34,656	43.8
36-55	40,108	50.7
55 +	4,306	5.4
<u>Ethnicity</u>		
American Indian	553	.7
Asian	2,056	2.6
Black	9,963	12.6
Hispanic	2,609	3.3
White	63,493	80.3
Other	395	.5
<u>Education Level</u>		
Some trade or high-school, & trade or high school graduate	22,219	28.1
Some college, & college graduate	42,935	54.3
Some graduate school	4,823	6.1
Graduate degree	9,093	11.5
<u>Job Classification</u>		
Clerical	22,614	28.6
Managerial	10,674	13.5
Sales	18,107	22.9
Professional	16,842	21.3
Crafts	3,479	4.4
Service	6,326	8.0
Other	949	1.2

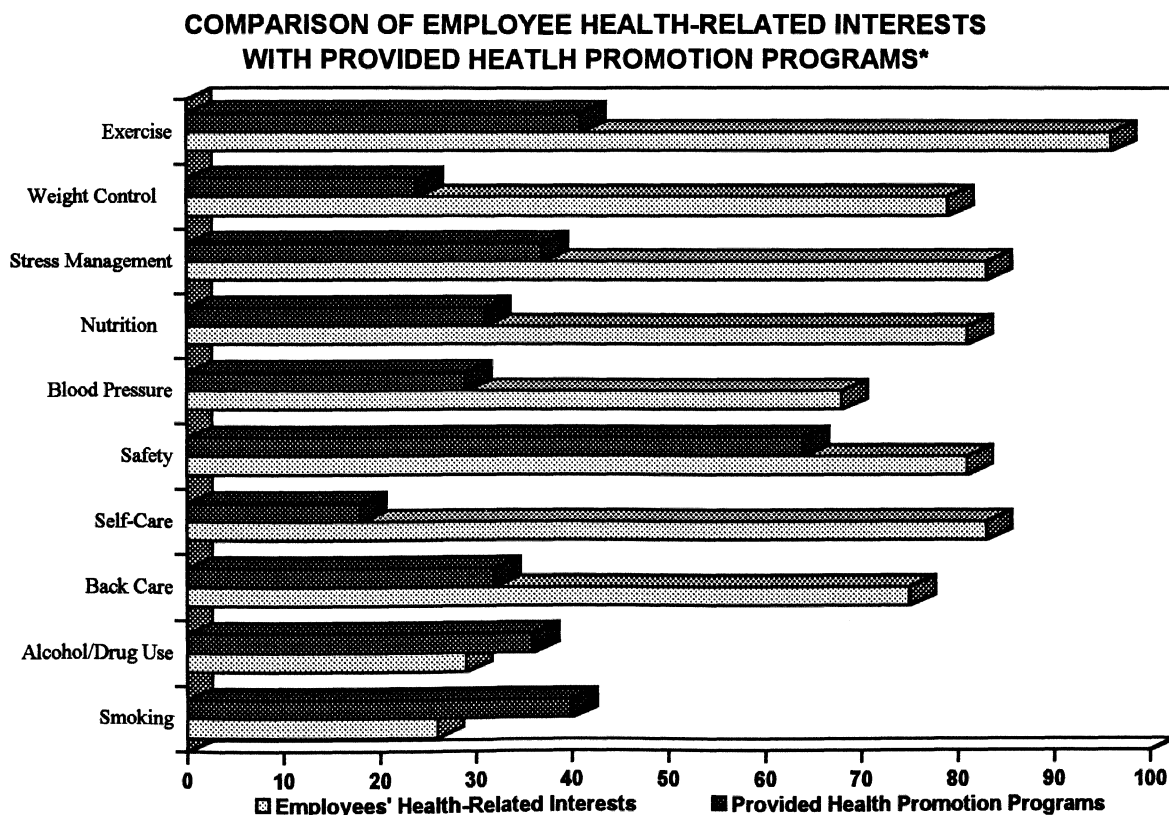
<sup>1</sup> Population percentages may not add to 100.0 due to rounding

The results indicated that the majority of subjects were interested in making a lifestyle change in the following categories: 1) exercise (96%), 2) losing weight (79%), 3) stress management (83%), 4) eating or preparing low fat foods (87%), 5) selecting foods high in fiber (86%), 6) alternatives to sugar (70%), 7) seasoning without salt (69%), 8) controlling blood pressure (68%), 9) personal safety (81%), 10) dental health (79%), 11) self-care practices (86%), and 12) back care (75%). However the results did not indicate that the subjects were interested in quitting smoking, and managing alcohol or drug use. There were no differences found within the demographic characteristics of age, sex, ethnicity, education level, and job classification for any of the health-related interest categories.

Of the 1,507 worksites surveyed in the 1992 National Survey of Worksite Health Promotion Activities programs offered were as follows: 1) 41% exercise, 2) 24% weight control, 3) 37% stress, 4) 31% nutrition, 5) 29% blood pressure, 6) 64% safety, 7) 18% medical self-care, 8) 32% back care, 9) 40% smoking cessation, and 10) 36% alcohol/drug use. The data from the 1992 National Survey of Worksite Health Promotion Activities

was compared to the data collected from the Live for Life health profile questionnaire (see Figure 1). The results proved significant for all the categories which include: 1) exercise, 2) weight control, 3) stress management, 4) nutrition, 5) blood pressure, 6) safety, 7) self-care, 8) back care, 9) alcohol/drug use, and 10) smoking.

**FIGURE 1**





Comparison of employee health-related interests with provided health promotion programs is further illustrated in Table II.

TABLE II

COMPARISON OF EMPLOYEE HEALTH-RELATED INTERESTS  
WITH PROVIDED HEALTH PROMOTION PROGRAMS

	Employees' Health-Related Interests(%)	Provided Health Promotion Programs(%)
Smoking	26	40
Alcohol/Drug Use	29	36
Back Care	75	32
Self Care	83	18
Safety	81	64
Blood Pressure	68	29
Nutrition	81	31
Stress Management	83	37
Weight Control	79	24
Exercise	96	41

The hypothesis of this study (as stated in null form) was there is no difference between program interest of employees and the health promotion programs being provided across the continental United States.

After the data obtained in this study was statistically analyzed with the Lawshe-Baker nomograph, a Chi-square statistical test, the following conclusion can be stated. A significant difference at the .05 level was found to exist between program interest of employees and the health promotion programs being provided across the continental United States.

### Discussion

The data from the Live for Life health profile questionnaire revealed that employees were interested in making a lifestyle change in the categories of: 1) exercise, 2) weight control, 3) stress management, 4) nutrition, 5) blood pressure, 6) safety, 7) self-care, and 8) back care. The employees interest in the categories of exercise, and weight control could be attributed to the media's emphasis on the fitness aspect of health. One of the aesthetic results of fitness is losing weight. By achieving and maintaining proper weight, people will be able to look good and feel good about themselves.

The employees interest in the categories of: 1) stress management, 2) nutrition, 3) blood pressure, 4)

safety, 5) self-care, and 6) back care can also be attributed to the "feel good" aspect of health. People naturally want to avoid the pain and inconvenience that results from injury and accidents. Another explanation for the employees interest in these categories is expense, specifically health care costs. Health care cost inflation is rising twice as fast as general inflation. The percentage of the nation's Gross National Product (GNP) for health expenditures is 12.4, and is expected to rise to 18% by the year 2000 (United States Health Care Financing Administration, 1992). Through routine physical and environmental check-ups and proper education, employees can prevent accidents and disease, thus reducing their health care claims and expense.

The employees did not indicate a high interest in smoking cessation and alcohol/drug use programs. The low interest in smoking cessation could be accounted for by the percentage of smokers versus the percentage of non-smokers in the United States. In 1991 the percentage of smokers in the United States was 27% (United States Substance Abuse and Mental Health Services Administration, 1991), which is comparable to the employees interest in smoking cessation (29%).

Non-smokers will probably not express interest in smoking cessation. A smoking cessation program would be relevant for smokers, but those persons may not have the desire to quit smoking. Abrams and Biener (1992) supported this assumption in a study examining employee participation rates in smoking cessation programs. They found that less than 8% of employed smokers were currently ready to quit smoking.

The lack of interest for alcohol/drug use programs could also be due to the small percentage of the study population who feel that they have an alcohol/drug-related problem. Fielding, Knight, Goetzel, and Laouri (1991) reported the prevalence of alcohol use among a worksite population and revealed that 23% of the employees were at risk for alcohol-related problems. On the Live for Life health profile questionnaire, 29% of the study population were interested in alcohol/drug use programs. The percentages of the present study correspond in that the employees who are at risk for alcohol-related problems were interested in alcohol/drug use programs. The slightly higher percentage of health-related interest in alcohol/drug use could be attributed to employees who reported interest in drug education programs.

The employees interest in alcohol/drug use could be limited by the employees confidence that they felt in self-disclosing such interests. Employees who are interested in making a lifestyle behavior change in their alcohol/drug use may not wish to be scrutinized for having such an interest. As drug use is illegal behavior, consequences from disclosing this behavior could be detrimental. Also the social stigma attached to alcohol/drug-related problems could have adverse effects at home and work for the employee.

When employee interests and the number of provided health promotion programs in smoking cessation and alcohol/drug use were compared, the latter was higher. For employers the long-term savings from smoking cessation and alcohol/drug use programs more than justify the programs' existence. Smoking cessation and alcohol/drug use programs are reported as being very cost-effective (Pelletier, 1993).

When employees' interests and the number of provided health promotion programs in: 1) exercise, 2) weight control, 3) stress management, 4) nutrition, 5) blood pressure, 6) safety, 7) self-care, and 8) back care were compared, the latter was low. Although

employers have met some goals of *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (McGinnis, 1993), there is an obvious need for more worksite health promotion programs in the health-related areas mentioned above. Interestingly, the 1992 National Survey for Worksite Health Promotion Activities states that lack of interest by employees is a problem (McGinnis, 1993). However this study contradicts this national survey by suggesting that employees are interested in health-related areas.

## CHAPTER V

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### Summary

With the emergence of preventive medicine as a viable alternative to health care reform, worksite health promotion programs have become increasingly popular. Past research assumes that employees are actively interested, and will participate in worksite health promotion programs (Mavis et al., 1992). However research on employee health-related interests are less prevalent. This study investigated employee health-related interests, and compared employee health-related interests with provided health promotion programs.

The subjects consisted of 79,070 male and female employees drawn from approximately 250 worksites representing seven industrial companies across the continental United States. The data for employee health-related interests was collected through self-reported answers on a Live for Life health profile questionnaire. The data obtained for the study was

analyzed by selected demographic characteristics of the population: a) age, b) sex, c) ethnicity, d) education level, and e) job classification. The data used for the number of provided worksite health promotion programs in the United States was obtained from the 1992 National Survey of Worksite Health Promotion Activities. The Lawshe-Baker nomograph (Downie & Heath, 1974), a chi-square statistical analysis test, was used for testing the significance of the difference between the percentages of employee health-related interests with the percentages of the provided health promotion programs. A significant difference was found to exist between program interest of employees and the health promotion programs being provided across the continental United States.

### Conclusion

The conclusion of this study indicates that employers need to offer more programs in: 1) exercise, 2) weight control, 3) stress management, 4) nutrition, 5) blood pressure, 6) safety, 7) self-care, and 8) back care. Employers offer alcohol/drug use and smoking cessation programs more than needed to meet employee



program interests. By offering programs that employees are interested in, employers can boost morale and promote healthy lifestyles. More importantly, employers can help improve participation rates of worksite health promotion programs, and produce healthy workers.

### Recommendations

Future research could be directed towards motivational factors of employees. Employers motivation is evident through benefits received, and has been documented extensively. Reduced absenteeism, increased productivity, decreased worker's compensation claims, and reduced health insurance costs are examples of such benefits (McGinnis, 1993). However factors behind employee interests in making a health-related lifestyle change, and/or motivation to participate in worksite health promotion programs need to be clearly defined. Research on how much employee interest levels is necessary to motivate employees to participate in worksite health promotion programs is also needed. Another suggested area for further research is the

relationship between age differences in women and health-related interests.

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## APPENDIX A

### LIVE FOR LIFE HEALTH PROFILE QUESTIONNAIRE

# HEALTH PROFILE QUESTIONNAIRE

**PLEASE PRINT CLEARLY.**

[illegible][illegible]

**DIRECTIONS:**

1. Use a No. 2 pencil only.
2. Please do **NOT** use ink.
3. Erase changes cleanly.
4. Make no stray marks.

# 1 - GENERAL INFORMATION

**\*1.1 What is your date of birth?**

MONTH	DAY		YEAR	
<input type="radio"/> Jan				
<input type="radio"/> Feb				
<input type="radio"/> Mar				
<input type="radio"/> Apr				
<input type="radio"/> May				
<input type="radio"/> Jun				
<input type="radio"/> Jul				
<input type="radio"/> Aug				
<input type="radio"/> Sep				
<input type="radio"/> Oct				
<input type="radio"/> Nov				
<input type="radio"/> Dec				

**\*1.2 What is your sex?**

- ☐ Male  
☐ Female

1.3 What is your primary race or ethnic origin?

- ☐ American Indian  
☐ Asian/Asian American  
☐ Black/Afro-American  
☐ Hispanic  
☐ White (Caucasian)  
☐ Other

**1.4** What is the highest educational level you have completed?

- ☐ Grade school
- ☐ Some high school
- ☐ High school graduate
- ☐ Trade or vocational school
- ☐ Some college
- ☐ College graduate
- ☐ Some graduate school
- ☐ Graduate degree

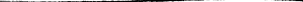
1.5 What type of work do you do? Mark the one answer that best describes what you do rather than the department you are in. (MARK ONE ANSWER.)

- ☐ Clerical  
☐ Managerial/administrative  
☐ Sales/marketing  
☐ Professional/technical  
☐ Craft/trade  
☐ Service  
☐ None/other

1.8 Which of the following categories best describes how you are paid?  
(MARK ONE ANSWER.)

- ☐ By the hour, temporary, part-time or contract position
- ☐ By the hour, full time or permanent position
- ☐ Salary with overtime
- ☐ Salary without overtime

CONTINUE ON PAGE 2.



PLEASE MAKE NO MARKS IN THIS AREA

## 14 - INTERESTS

14.1 Have you participated in any of the following types of programs in the past year? (MARK ALL THAT APPLY.)

- ☐ Weight control  
☐ Stress management  
☐ Exercise  
☐ Nutrition  
☐ Quit smoking  
☐ Alcohol rehabilitation  
☐ Drug rehabilitation

14.2 How interested are you in making lifestyle changes in each of the following areas?

	VERY INTERESTED	SOMEWHAT INTERESTED	NOT AT ALL INTERESTED
Exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Losing weight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quit smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stress management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eating or preparing low fat foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selecting foods high in fiber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alternatives to sugar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seasoning without salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controlling blood pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dental health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-care practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Back care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing alcohol or drug use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14.3 Would you like follow-up information on your top areas of interest if programs become available?

- ☐ Yes  
☐ No

14.4 How would you score yourself in each of the following areas?

	HELP	POOR	FAIR	GOOD	TOP
Nutrition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-care practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smoking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing alcohol or drug use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14.5 How confident are you in your ability to make healthy lifestyle changes?

- ☐ Extremely confident  
☐ Very confident  
☐ Somewhat confident  
☐ Not very confident  
☐ Not confident at all

14.6 You may have a chance to complete another Health Profile Questionnaire in the future. If you want to be able to compare your results from this questionnaire to any future ones, you must authorize the Johnson & Johnson Health Management, Inc. Processing Center to store your questionnaire data. Your computer file will be maintained in strict confidence by the Johnson & Johnson Health Management, Inc. Processing Center.

By your mark below, please indicate your decision on having your computer file stored at the Processing Center for future use.

- ☐ I authorize Johnson & Johnson Health Management, Inc. to store my file for future use.  
☐ I do not want to have my computer file stored for future use.



VITA<sup>1</sup>

Elizabeth A. Shamblin

Candidate for the Degree of

Master of Science

Thesis: COMPARISON OF EMPLOYEE HEALTH-RELATED  
INTERESTS AND PROVIDED HEALTH PROMOTION  
PROGRAMS

Major Field: Health, Physical Education, & Leisure

Area of Specialization: Health Promotion

Biographical:

Personal Data: Born in Ft. Smith, Arkansas,  
September 23, 1970, the daughter of Jack and  
Lily Shamblin.

Education: Graduated from Roland High School,  
Roland, Oklahoma; received a Bachelor of  
Arts degree in Psychology from Oklahoma State  
University in May 1992. Completed  
requirements for the degree of Master of  
Science in Health, Physical Education, and  
Leisure at Oklahoma State University in  
December 1994.

Professional Experience: Graduate Assistant,  
Oklahoma State University Wellness Center,  
August 1993 to present.