Participant satisfaction ratings of an employee wellness program

by

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INTRODUCTION

Wellness is a freely chosen life style aimed at achieving and maintaining an individual's good health (Health Insurance Association of America, 1983). The wellness concept provides a positive approach to health through enhancement and prevention programs rather than remedial action. In his research, Ardell (1982) cites five dimensions of the wellness approach: self-responsibility, nutritional awareness, physical fitness, stress management, and environmental sensitivity. Awareness of and commitment to these dimensions contributes to the physical, mental, emotional, social, and spiritual balance of life. Ardell also states that the reasons for pursuing wellness is always related to the satisfactions derived. Satisfaction, itself, is the state of being in which the fulfillment of desires, demands, expectations, or needs of a person have been met.

The leisure satisfactions derived by individuals participating in an employee wellness program will be the focus of this investigation. Domains of leisure satisfaction include (Rossman, 1983):

1. autonomy,
2. achievement,
3. environment,
4. family escape,
5. family togetherness,
6. fun,
7. physical fitness,
8. relaxation,

9. risk, and

10. social enjoyment.

The wellness program investigated in this study will be viewed as a leisure construct. Further discussion of the relationship between leisure satisfactions and wellness programs will be discussed in the review of literature.

The Nature of Employee Wellness Programs

A comprehensive employee wellness program may typically include activities in each of the areas of physical fitness, recreation, health screening and assessment, stress management, nutritional awareness, behavioral change assistance, and counseling. Additional issues of concern are weight control, high blood pressure detection and control, alcohol/drug abuse prevention, and smoking cessation. Specific activities include aerobics, volleyball, open play, strength training, and relaxation techniques to name a few.

Beginning in the 1970s, employers increased support and provision of wellness programs for employees at the worksite. This increased support and provision has been reflected in the implementation of over 500 comprehensive wellness programs in the corporate setting (Hartman & Cozzetto, 1984) and in the provision of some form of wellness programming in an additional 50,000 organizations (Frier, 1983). These programs were initiated to support the development and maintenance of positive health behaviors. Wellness programs have been viewed as advantageous in reducing the physical/mental illnesses and injuries

derived from unhealthy behaviors in general (Davis, 1984). Davis stated that regular participation in wellness programs may help reduce the risk of heart disease, stroke, cancer, drug abuse, and mental illness.

This recent trend in the increasing number of wellness programs is in part a response to increasing health care costs. Health care expenditures soared from $42 billion in 1965 and $321 billion in 1982 to an estimated $462 billion at the national level in 1985 (Kondrasuk, 1984). Employers pay nearly half of these health care costs in health insurance premiums (Hartman & Cozzetto, 1984). Health related problems, such as cancer, stroke, or injury also cost employers additional amounts of money in medical costs, time lost from work, employee turnover, and retraining of disabled employees. Hartman and Cozzetto state that involving employees in wellness programs is viewed as a strategy to decrease or prevent the health care costs employers incur.

Employers are also interested in providing wellness programs to help employees maintain a healthy lifestyle as an attempt to enhance work performance, productivity, morale, and quality of life in general. Employees provided with the opportunity to satisfy and maintain both physical and mental health needs are capable of better performance on the job (Cooper, 1982; Donoghue, 1977; Finney, 1984; Havlicek, 1980; Malmo, 1975). Better performance in turn is reflected by increased productivity. In addition, employers who take an interest in the welfare of their human resources, positively influence the employee's feelings and attitudes toward work and personal life (Dionne, 1983, 1983; India, 1984). Dionne (1984) states that positive

feelings and attitudes toward work and life in general relates to increased job satisfaction, reduced stress levels, and commitment to sustaining good health.

Evaluation Concerns

A primary concern of employee wellness program justification is the analysis of derived benefits. Cost/benefit analysis focuses on the present and future cost efficiency of a particular method (combination of activity, facility, equipment, and staff) compared to the benefits achieved (Hartman & Cozzetto, 1984). Hartman and Cozzetto state that an alternative approach is cost/effectiveness analysis. The cost/effectiveness approach assumes that a certain objective of the program is worth achieving and then seeks the least costly and most effective means of achieving the objective. Regardless of which method is used, research documenting costs and results is needed to support the provision and to aid the management of wellness programs (Davis, 1984).

Wanzel (1984) has stated that the success of employee wellness programs as a concept is partly dependent on its viability in organizational terms of employee absenteeism, productivity, turnover, morale, and health care costs. Evaluation studies measuring the costs and benefits of employee wellness programs have been initiated in recent years. Reviews of studies completed by corporations have indicated that helping employees maintain a healthy lifestyle not only benefits the employee, but the company as well (Cooper, 1984; Crossley & Hudson,

1983; Dionne, 1983, 1984; Finney, 1984; Hartman & Cozzetto, 1984; Hilsman, 1984; India, 1984; Finney, 1984; Patton, 1983). Indications of positive results were related to lower employee turnover, reduction in employee absenteeism, increased productivity, lower health care costs, and contributions to higher quality of life.

However, Teague and Mobily (1983) have stated that empirical validation produced through subjective measures over a long period of time has been needed. Wanzel (1984) has additionally stated that concrete data produced over time has been needed for program justification. This type of research has been recognized and initiated by some of the corporations providing employee wellness programs. Control Data Corporation, Johnson & Johnson, Kimberly Clark Corporation, Xerox, Tenneco, and Texas Instruments have been in the process of conducting their own research (Cooper & Collingwood, 1984; Dionne, 1984; Hartman & Cozzetto, 1984; Naisbitt & Aburdene, 1985). Results of these studies may provide the economic figures needed to assess the degree of program justification.

Additional approaches to employee wellness program evaluation have also been utilized. Fourouzesh and Rutzker (1984) surveyed Fortune 500 companies in 1982 to gain insight into the characteristics of wellness programs and examine the extent of activities offered. Tenneco has structured their evaluation process around achievement of behavioral change objectives (Baun & Landgreen, 1983). Crossley, Aguilas, and Forsyth developed a practical approach evaluation used to compare employee health status, job performance, and individual perception of benefits (Crossley & Hudson, 1983). The 1982 study

utilizing this approach was found to be successful as a way for program managers to document benefits derived from employee fitness programs in the Dallas/Fort Worth area.

Leisure Satisfactions as an Evaluation Approach

Rossman developed an approach to evaluation of employee wellness programs different from other evaluation methods. Rossman (1982) developed a Leisure Program Evaluation instrument which he utilized in a study with Johnson & Johnson's Employee Recreation and Fitness Program (1983). The leisure program evaluation instrument was used to investigate the sources of satisfactions reported by employees in relation to participation in specific activities. Employees rated 25 statements which described a specific source of satisfaction. Statements included: I enjoyed the physical exercise; I learned more about the activity; I enjoyed the companionship. The 25 source statements reflected 10 domains of leisure satisfaction. Participant satisfactions in the Johnson & Johnson programs were generally accounted for in the domains of fun, social enjoyment, physical fitness, and achievement. Participants of physical fitness programs reported the major source of satisfaction with a program was satisfaction derived in the physical fitness domain. Participants in sport leagues reported a high degree of satisfaction with the social enjoyment domain.

Rossman found that what employees report as the source of their satisfactions with participation was useful for determining the worth

of specific programs. Documentation of perceived satisfaction domains within each program were examined. Comparisons were then made in relation to the congruence between reported satisfactions and the employer's goals and objectives of program provision (Rossman, 1983). Rossman stated that this examination was useful for further program planning and decision-making tasks of adjustment, replacement, and elimination.

Statement of Problem

The purpose of this study problem is to examine and assess the reported satisfaction sources which reflect 10 domains of leisure satisfaction within particular activities of a specific employee wellness program. The information derived from the examination and analysis will be utilized to: determine if the wellness programs contribute to the satisfactions of employees; and determine the degree to which the wellness programs contribute to satisfactions of employees. The differences of four wellness program formats and four wellness program areas will also be examined in relation to satisfactions. Additional information regarding degree of participation importance, compared importance, and overall satisfaction will be collected and examined, and analyzed in relation to wellness program activities. The study will also identify participation patterns and demographic information specific to the study population. This data will be gathered using Rossman's (1983) Leisure Program Evaluation instrument.

The information derived from examination and analysis of the data will be utilized in program evaluation specific to the employee wellness program. This information will be compared to the goals and objectives for provision of the employee wellness program. This comparison may provide practical implications for program alterations and justification.

Research Questions

This study will address the following questions:

1. To what degree do wellness programs aid in contributing to leisure satisfaction domains of employees?

2. Are there differences in the satisfactions of employees in different wellness program activities?

3. Are there differences in the satisfactions of employees in different wellness program formats?

4. Are there differences in the satisfactions of employees in different wellness program areas?

5. Are there differences in importance of participation and compared importance of participation ratings by employees in different wellness program activities?

6. Are there differences in the overall satisfaction ratings by employees in different wellness program activities.

Hypotheses

Hypothesis: Wellness programs do not aid in contributing to leisure satisfaction domains of employees.

Sub-hypotheses:

There are no significant differences in average satisfaction scores among the wellness program activities.

There are no significant differences in average satisfaction scores among the wellness program formats.

There are no significant differences in the average satisfaction scores among the wellness program areas.

Hypothesis: There are no significant differences in average importance of participation scores and average compared importance of participation scores among the wellness program activities.

Hypothesis: There are no significant differences in average overall satisfaction scores among the wellness program activities.

Delimitations

The study is delimited to a survey of employees who participate in selected activities of the Mercy Hospital Wellness Center in Des Moines, Iowa. Employees participating in the survey process will be individuals who: 1) attend the specific activity session during the week of survey dissemination, or 2) have been identified as participants in a seasonal sport league or special event. These employees will receive surveys through the hospital interdepartmental mail.

Definition of Terms

The following terms were defined in order to aid understanding of the study:

Area. The general focus of a program activity. Areas included in this study are: 1) physical fitness, 2) organized sport, 3) mental/relaxation, and 4) social.

Format. The general operating structure of a program activity. Formats included in this study are: 1) leader led, 2) leagues, 3) special event, and 4) open facility.

Health. A sense of physical, mental, and social well-being; effective functioning, both within the individual and by the individual in his environment.

Leisure. Freedom from activities centering around the making of a livelihood; discretionary time; characterized as intrinsically rewarding.

Program Evaluation. A technique to ascertain the value of a specified activity or group of activities.

Satisfaction. The state of being in which the fulfillment of desires, demands, expectations, or needs of a person have been met. Satisfactions derived from participation in wellness programs will be the focus of this study. The 10 satisfaction domains included in this study are:

Autonomy. Independence; freedom from subjection to the influence or control of others.

Achievement. Sense of accomplishment; exploration and discovery of self and surroundings.

Environment. Physical conditions influencing the existing surroundings.

Family Escape. To get away from group of persons an individual lives with in one household.

Family Togetherness. To be gathered or actively involved in the same proximity or activity with the group of persons an individual lives with in one household.

Fun. That which is entertaining, amusing, or diverting.

Physical Fitness. Physiological condition brought about by activities which challenge and restore the individual; increase muscular and heart strength and endurance.

Relaxation. Relief from stress and strain of life; restoration and recuperation.

Risk. To venture upon; exposure to the chance of loss or injury.

Social Enjoyment. Pleasure of participation in friendly relationships.

Wellness. A freely chosen lifestyle aimed at achieving and maintaining an individual's good health; includes a balanced integration of physical, mental, emotional, social, and spiritual concepts.

Wellness Program. Organization and implementation of activities which advocate and promote the wellness concept. A wellness program may focus on such issues as physical fitness, recreation, stress

management, nutrition, smoking cessation, alcohol/drug abuse prevention, and lifestyle counseling.

Rationale

Evaluation involves judging the worth of a program. An evaluation technique is characterized as a method of gathering information needed to help standardize and improve services through the illustration of best techniques and methods of operation. Evaluation functions as an approach for program planning and decision making, and as an approach for documenting the benefits of program delivery. The provision of an employee wellness program requires large sums of financial resources to support the facilities, equipment, professional leadership, and program activities. The individual employer requires evaluation information to help justify the financial expenditure as well as determine if participants and the organization are benefiting from program provision. An employer is interested in providing program activities which maximize benefits and satisfy employees. The most direct method of determining the satisfactions of employees in a wellness program is to ask participants what the sources of satisfactions are and to what degree are the sources satisfied.

The results of this study will have implications for program justification and planning. If the program activities are satisfying to employees, the information from evaluation of leisure satisfactions will help with justification of the program structure and delivery method. If the program activities are different in contributing to

satisfactions of employees, the differences in degree of satisfactions may be useful for program planning and decision-making tasks of alterations or elimination. The integration of management's goals and objectives of program provision functions as an important component of this evaluation process as well.

The additional information derived from importance of participation, compared importance of participation, and overall satisfaction differences among activities may be useful in providing implications for program justification and planning if used in combination with the leisure satisfaction results.

Summary

The leisure satisfactions derived by individuals participating in an employee wellness program will be the focus of this investigation. The examination of 25 source statements reflecting 10 domains of leisure satisfaction may be helpful as an alternative approach to program evaluation of an employee wellness program. The results of the data analyses may provide implications for program justification and planning.

REVIEW OF LITERATURE

The review of literature is a synthesis of theory, applications, and research related to employee wellness programs. The composition of such programs draws from the areas of physical fitness, recreation, stress management, nutrition, and health enhancement in general. Other important components are program management, development, and evaluation. The comprehensive approach to implementation of employee wellness programs is recent; thus, related research is limited. However, enough literature is available to provide the background and to indicate the current concerns of employee wellness programs. Review of literature specific to the study problem includes examination of program evaluation, leisure theory, satisfaction, and instrument development.

The review of literature is divided into four sections: 1) the development of employee wellness programs; 2) overview of employee wellness program evaluation concerns; 3) employee wellness programs as a leisure construct; and 4) the development of the leisure program evaluation instrument measuring satisfactions. Following the last section, there will be a brief summary of the four sections.

The Development of Employee Wellness Programs

Wellness programs in the occupational setting have had several successful pilot programs to draw examples from. Johnson & Johnson was believed to be the first company to sponsor recreation for employees with picnics in the early 1880s and men's and women's teams in golf,

baseball, softball, and basketball by 1889 (Nudel, 1984). By the 1940s, recreation, physical fitness, and health education activities were being utilized as a result of World War II requiring maximum productivity from industrial workers. Thus, there was a perceived need to help employees relieve tensions, keep fit, and develop unity (Murphy, 1984). Additional program innovations continued to develop through the following years. E. I. du Pont de Nemours and Company was the first employer to provide an alcoholism program beginning in 1942 (Davis, 1984). Murphy (1984) and Nudel (1984) both reviewed additional development of wellness programs. The National Aeronautics and Space Administration was the first company to develop a program entirely devoted to fitness in 1962. The Chicago Heart Association conducted a blood pressure screening and referral program for area industrial settings in the mid-1960s. The Xerox Corporation provided both fitness and health education programs beginning in 1967. These programs were limited in scope, typically focusing on single issues. However, they served as models for comprehensive programs currently operating.

In the 1970s, the nation as a whole began to realize the benefits of a healthy lifestyle. People jogged, ran marathons, bicycled, swam, and played racquetball and tennis in increasing numbers. Aerobics became a popular discussion topic, as well as activity. Employers also promoted involvement in wellness related activities by constructing on-site facilities, developing and implementing a variety of activities, and hiring professional leaders. Xerox, IBM, Chase Manhattan Banks, Good Year, Rockwell International, Kimberly-Clark, Johnson & Johnson,

Metropolitan Life Insurance, Texas Instruments, Exxon, Control Data Corporation, and New York Telephone were just a few of the major corporations who initiated comprehensive wellness programs and the supporting facilities and staff (Baun & Landgreen, 1984; Dionne, 1983, 1984; Finney, 1984; Frier, 1983; Hartman & Cozzetto; Marcotte & Price, 1983; Nudel, 1984).

Diversity and comprehensiveness of wellness program activities are continuing to develop since the mid-1970s. Recreation activities include softball, basketball, volleyball, and bowling leagues; travel programs; racquetball; socials; and fine arts activities. Fitness activities may include a variety of aerobic dance classes; weight training; swimming; bicycling; and fitness assessments. Health education programs are composed of smoking cessation; nutrition and weight control; alcohol/drug control-rehabilitation; high blood pressure detection and control; and first aid training. Finally, stress management activities may include yoga; meditation; relaxation exercises; and biofeedback training.

Cooper and Collingwood (1984) cite that an estimated $5-7 billion is spent annually on employee wellness activities. Millions of dollars are spent on construction of gyms, tracks, swimming pools, meditation rooms, and biofeedback facilities. Funding provides for the hiring of physical fitness leaders, health educators, leisure activity managers, and medical professionals who develop and implement the wellness programs. Program equipment is a major expense as well.

Marcotte and Price (1983) state that the worksite is an ad-

vantageous setting for program delivery. Employees are nearby during work hours and can save time lost in finding a community facility and travel; and save money spent on memberships. Surveillance and follow-up in programs is also simplified. Additional support of this view can be found in studies by Alderman (1980) and Haskell and Pearson (1984). The studies indicate that 95% of employees participate in multiphasic screening programs at the worksite while comparable community programs receive only 30% participation.

Rosen (1984) concurs that the workplace is an ideal setting for delivery of employee wellness activities. The workplace provides an existing organizational structure, a convenient setting, and a potentially supportive environment for health promotion activities. Large employee populations provide the opportunity for provision of a diversity of programs. The organizational structure and support of management helps provide the opportunities for developing motivational programs, incentive strategies, and environmental controls. Rosen additionally states that a stable employee population provides an excellent opportunity to follow participants' progress over time.

Motivating employees to participate in worksite wellness programs is an important concern of the employer. Feldman's (1983) research focuses on the issues of motivating employees to participate and continue compliance. Feldman identifies six factors and corresponding strategies important for improving participation compliance. The six factors include:

1. In designing wellness programs, the program setting characteristics should be considered and efforts made to reduce impediments to participation by looking at time, place, and scheduling factors.

2. Worker satisfaction with the program can be enhanced with increase of communication, personal contacts, consistency, warmth and concern by program providers, and confidentiality.

3. Program managers can develop and encourage social support networks.

4. Health education communications can be designed for particular audiences and multi-method presentations utilized.

5. Psychological and behavioral methods such as self-monitoring and self-contracting, and material or social reinforcement can be used to initiate and maintain healthy behavior.

6. Wellness promotion can be enhanced by integrating support of management, the organization, unions, and community involvement (p. 24).

Providers of employee wellness programs use a variety of participation incentives to attract employees, enhance participation retention, and promote and reinforce healthy lifestyles. The Speedball Corporation pays each employee $7 a week for not smoking on the job (Marcotte & Price, 1983). Metropolitan Life Insurance and Control Data Corporation employee participants receive benefit package enhancements of money from reduced insurance savings (Dionne, 1984). Other employers, such as Signature, Inc., award participant accomplishments with athletic clothing, sport equipment, and recognition banquets (Hilsman, 1984).

Supporting professional organizations also maintain an important

function in the development and growth of employee wellness programs. The National Employee Services and Recreation Association (NESRA) and the American Association of Fitness Directors in Business and Industry (AAFDBI) are specifically concerned with employee wellness programs. Other associated organizations are American Alliance for Physical, Education, Recreation, and Dance; the American Public Health Association; and Professional Directors of the YMCA. Membership of these organizations includes professionals working in the area of employee wellness. There are other nonprofessional members who are also concerned with the development, promotion, and support of employee wellness programs. These organizations are instrumental in the efforts to carry on related research, evaluation, and development of innovations.

Overview of Employee Wellness Program Evaluation Concerns

The most important issues surrounding the development and continued provision of employee wellness programs are the goals, derived benefits, and evaluation of such programs. These issues are an integrated process. Evaluation involves judging the worth of something. The underlying notion of the evaluation process is the measurement of congruence between prestated goals and results of performance (Tyler, 1942a, 1942b; cited by Rossman, 1982). Whitlock, Groves, and DeCarlo (1980) state that the primary focus in performing evaluation is to gather information needed to help standardize and improve services through the illustration of best techniques and

methods of operation.

Research indicates that the health and well-being of employees directly affects the productivity and financial health of the organization. The American Heart Association says that corporations pay at least $700 million yearly to recruit replacements for heart attack victims. Back pain in 75 million U.S. workers accounts for $1 billion in lost productivity and $250 million in workmans' compensation (Howell, 1985). Howell also states that unfit employees are absent more, are less productive, use more health dollars, and are high risks for job injury, long-term illness, or premature death. Employee health problems, such as back ailments, cardiovascular disorders, high blood pressure, excess body weight, and premature aging produces a major economic impact upon employers.

Kondrasuk's (1984) survey results from professionals directing industrial recreation/fitness programs (226 responses) indicates that the main goal in providing programs is to promote better health (selected by 95% of respondents). The most frequently mentioned financial goal is increasing employee productivity (70% selection). The most common, readily measurable, organizational goal was reducing absenteeism (66% selection). Goals of reduced health and life insurance premiums and reduced workers' compensation comprise a 33% selection response. Even though increased health care expenditures may produce motivation to provide wellness programs on the national level, these respondents value the goals of better health, increased productivity, and reduced absenteeism more.

Overall, employers initiating wellness programs wish to enhance

the quality of employees' lives, as well as meet organizational goals. Evidence shows that there is a positive correlation to improvement of productivity; reduction in absenteeism, turnover rates, and health insurance claims; and improvement of employee self-esteem and morale. A study by Canada Life in 1980 indicates a 22% decline in absenteeism among regular exercisers in its fitness programs. This represents an annual savings of more than $300,000 for the company with 1400 employees. Additionally, results show a 15% to 1.5% decrease in employee turnover among the exerciser group during the six-month study (Finney, 1984; Nudel, 1984; Villeneuve et al., 1983). The New York State Department of Education reports that after a year of participation in wellness activities, 40% of 99 employees used fewer sick leave hours than they did during the year before they started the program (Blair et al., 1980). These findings are consistent with other literature. When levels of absenteeism decline, financial savings increase.

Finney's research on task performance and related benefits of wellness activity participation (1977, 1979, 1982, 1984) suggests that workers who participate in wellness activities perform at a more consistent level than those individuals who did not participate. The 1982 study strongly indicates that participants with high stress levels are able to lower those levels by participating in a recreation/play activity in which they perceived control of their environment. The post activity-work task reports a significantly higher performance level. Finney (1984) cites a study in 1980 by the Veteran's Administration Hospital at Buffalo, New York, as the initial indicator of similar

results. As a result of exercise, increased oxygenation of the brain helps produce a 25% improvement in memory task by participants. Workers also experienced an increase in ability to concentrate and in ability to produce a significant increase in afternoon work output. Workers also report feeling more effective in coping with job tensions. Other research supports these findings (Donoghue, 1977; Havlicek, 1980; Malmo, 1975). These studies indicate that employees' regular participation in wellness programs increases task performance while decreasing stress and anxiety levels.

Other research addresses the personal benefits employee participants experience. A nationwide survey of participants in employee wellness programs by AAFDBI (Howell, 1984) reports results of:

1. 40-50% stopped smoking;
2. 67% lost weight — average 12.4 pounds per person;
3. 78% changed eating habits;
4. 82% exercise on a regular basis; and
5. 13% learned about an unknown medical problem through health screening.

The Johnson Wax Recreation/Fitness Program reports similar results (Adapted from Johnson Wax Magazine, 1984). Participants report that they feel better (1500 of 2500 employees participated), and indicate other benefits of: better physical putput; better ability to deal with stress; leveling out of emotional peaks and valleys; improvement of cardiovascular system; produced feeling of completeness; developed self-acceptance toward potential and growth; exercise helped with eating less and to stop smoking. The program managers

also report that Johnson Wax is not really looking for the profit factor. Management believes that the activities are beneficial to individual employees and that the employees want to participate. Managers also perceive that the programs help produce a unifying effect on the company, improved motivation, and improved employee relations.

The previous research links regular participation in employee wellness programs with reduced absenteeism and turnover; increased performance and productivity; reduced stress levels; increased job satisfaction; improved general health; and reduced cost of health care. These are benefits to both the employee and the employer. Wanzel (1984) states that the success of employee wellness programs as a concept is partly dependent on its viability in organizational terms of employee absenteeism, productivity, turnover, morale, and health care costs.

However, even with these positive indications, there are barriers to wider acceptance of wellness programs. These barriers relate to the lack of detailed cost/benefit evaluation and lack of objective, measurable results. Data on cost savings is limited mostly because of the relative newness of comprehensive wellness programs. Pyle (1979) states that the evaluation process takes at least three years to collect enough cost/benefit data usable for justification of an organization's employee wellness program. A means of producing immediate results or easily measured data to support program adoption is unavailable as well (Marcotte & Price, 1983). Finally, cost/benefit data is difficult to obtain because of policies requiring personnel and organizational confidentiality.

The need for detailed evaluation over time is reflected in the recent sponsorship of grants by AAFDBI, other professional associations, corporations, and equipment suppliers. These grants provide the funding and facilities to undertake the necessary research (Frier, 1983; Hartman & Cozzetto, 1984; Howell, 1985; Naisbitt & Aburdeno, 1985; Wanzel, 1984). Control Data Corporation, Johnson Wax, Kimberly-Clark Corporation, Xerox, and Texas Instruments are each taking the individual initiative to conduct research for as long as five years in length.

Wanzel (1984) suggests that an interdisciplinary approach of appropriate methods of study should be undertaken in evaluation. Fourouzesh and Rutzker (1984) recommended that research investigating the organization's operating structure and management's commitment to provision of wellness programs would be valuable. The basis of this recommendation is from a study of Fortune 500 employee wellness programs in 1982, by Fourouzesh and Rutzker, which examines the characteristics and extent of activities offered.

Tenneco, Inc. structures their evaluation process around behavioral change objectives. Tenneco's main focus of program provision is "the increasing awareness of and commitment to positive health habits and improving the overall quality of life" (Baun & Landgreen, 1983, p. 40). This overall goal is supported by the objectives of:

1. to increase the level of cardiovascular fitness;
2. to increase employees' knowledge of positive health habits and reduce coronary risk factors;
3. to obtain employee ownership in the program and promote self-responsibility;

4. to motivate employees to improve and/or maintain their optimum standard of health; and

5. to further develop program adherence by involving the employees' support groups (families).

Staff functions and wellness program activities are evaluated, based on these objectives.

Crossley, Aguilas, and Forsyth's development of a "practical approach" evaluation assesses the effectiveness of employee recreation/fitness programs statement (Crossley & Hudson, 1983). The approach is viewed as a successful technique after the test of practical use within employee fitness programs of the Dallas/Fort Worth area in 1982. The approach compares employees in health status, job performance, and perceptions of benefits. The employee responses succeed in providing a way for program managers to document benefits. Of particular importance is the generation of data for comparative analysis without undue expenditure of time and financial resources.

Crossley and Hudson (1983) recommend the development of employee recreation and leisure profiles; and in-depth analysis of employee perceptions of company fitness/recreation programs as an evaluation method. Although Rossman (1982) does not recognize Crossley and Hudson in his research, he has developed a Leisure Program Evaluation instrument which directly relates to the focus of the recommendation. The leisure program evaluation investigates the reported satisfactions of participants and can be utilized for determining worth of a wellness program.

The Leisure Program Evaluation instrument gathers the information

needed for judgment of program worth by summing the satisfactions of all participants in various programs. Mill (1961) and Rawl (1971) state that the only individuals qualified to judge the desirability of one pleasure or satisfaction over a different pleasure or satisfaction is the individuals experiencing those pleasures or satisfactions. Programs which maximize satisfactions would be judged as achieving the most good and, therefore, having the most value. Providers and participants of wellness programs are likely to prefer programs that are more satisfying than less satisfying (Rossman, 1982).

Rossman (1982) identifies the two issues of the instrument as: 1) the satisfactions derived from participation, and 2) the relative importance value of programs to individuals. The importance issue relates to the differing importance of various activities to individuals who participate in them. The issues are deduced from leisure theory and applicable concepts of social justice. Rossman states that "the two measures are independent of activity type; therefore, the collection of quantified data on them will permit comparison of how well various programs maximize them" (1982, p. 38).

Employee Wellness Programs as a Leisure Construct

For purposes of this study, employee wellness programs will be viewed as a leisure construct. Although direct links between leisure and wellness lack theoretical research, this view is appropriate in the sense that most wellness activities relate to leisure concepts. Concepts of importance are: employees participate during time away from

work tasks; employees are not required to participate; and employees self-select the activities they wish to participate in.

Leisure can be defined as freedom from activities centering around the making of a livelihood; or as discretionary time. Brightbill (1961) suggests that time is the essence of leisure no matter how an individual tries to modify the concept. This time is then used according to an individual's own judgment of when and what. Iso-Ahola (1980) further defines leisure in objective and subjective concepts. The objective concept defines leisure as time left over after work. The subjective concept relates to state of mind in which leisure is an individual's perception and inference of the quantity and quality of activities. Brightbill additionally addresses the concept of true leisure. True leisure is not imposed upon an individual, as in the case of illness. True leisure does provide freedom of choice and causes an individual to give consideration as to how and when it is used.

Leisure provides many opportunities and great potential for personal development. A primary reason for engaging in the opportunities of leisure is the personal enjoyment and satisfactions that can be found in it. Driver and Brown (1975) state that people participate in leisure to solve problems they cannot solve in life's other social spaces or that they believe can be better solved in leisure experiences. Resolution of the problem state or achieving the preferred state places individuals in a state of pleasure. These pleasurable, positive experiences are the satisfactions derived from leisure participation (Hendee & Bryan, 1978).

Brightbill (1961) discusses in detail the diverse relationships

leisure provides in regard to opportunities for personal development. Brightbill states:

> The recreative uses of leisure time may involve amusement, entertainment, participation in games, or sports, or engaging in the more frivolous pursuits of life, but also those actions and attitudes which connote relaxation, the potential which leisure has for enriching and developing personality, and the opportunities it presents for the release of our creative powers. Because the recreative use of leisure deals almost exclusively with the enthusiasms of mankind, it is impossible to set limitations upon it! (p. 8)

Brightbill views recreation and physical fitness activities to be integrative in nature of purpose. In addition to the physical satisfactions, recreation/physical fitness may be particularly helpful with mental and emotional satisfactions. These activities may provide relief from tensions, anxieties, and frustrations. Leisure pursuits can also revitalize, rejuvenate, and refresh. An individual may find opportunity for social satisfactions with evoked feelings of belonging, retaining self-esteem, and adding excitement to life. An important point of consideration in summing up the potential opportunities and benefits is that the standards of accomplishment can be defined and set by the individual.

Brightbill (1961) states that in addition to health being an absence of illness, it is also a sense of physical, mental, and social well-being. Leisure may provide the opportunities for integration of mind, body, and spirit which needs to be exercised together in order to contribute to the "wholeness" of a person. Ardell (1982) cites this as the basis of the wellness concept. Previous discussion states that wellness is a lifestyle selected by choice, is aimed at achieving

and maintaining an individual's good health, and is preventive in nature. Brightbill views the potential role of leisure as preventive in nature as well. Thus, there are similarities between the concepts of leisure and wellness.

The Development of the Leisure Program Evaluation Instrument Measuring Satisfactions

Rossman's Leisure Program Evaluation instrument is centered on the subjective view of leisure. Neulinger (1974) states that examining the subjective experience requires examination of questions such as:

> What does an activity mean to the person?
>
> How does he feel about it?
>
> Why does he do it?
>
> What satisfactions does he get out of it? (p. 36)

Rossman bases the theoretical concept of instrument development on the early works of Lynd and Lynd (1929), Lundberg, Komarowski, and McInney (1934); Thorndike (1937); Havighurst (1957); and Donald and Havighurst (1959). Their examinations of perceived multiple satisfactions of leisure significantly indicates that there are different meanings derived from participation in different activities. All leisure activities do not provide the same experiences and people enter different activities with different satisfaction expectations.

There are satisfactions derived in different life sectors such as on the job, in the family, in retirement, and in life in general.

Driver and Brown's (1975) research indicates that people participate in leisure to solve problems that they cannot solve in life's other social spaces or that they believe can be better solved in leisure experiences. Hendee and Bryan (1978) additionally state that the satisfactions of leisure lead to human benefits which are the more general and enduring improved human conditions resulting from continuing satisfaction. Long-term societal and individual benefits are the ultimate goals of leisure service provision. Ragheb (1980) states that discovering the sources of satisfaction is important for its contribution to individuals' happiness and well-being. Ragheb also states that discovering the interrelationships among leisure participation and satisfactions can enable decision makers and practitioners to plan and implement leisure services.

The use of satisfactions as a measure of the subjective leisure experience is well-accepted. Rossman (1982, p. 35) cites uses of satisfactions for contributing to planning, counseling, and the sociology of leisure (McKechnie, 1974); to predict demand for leisure services (Driver & Brown, 1975); to identify substitutable activities (Christensen & Yoesting, 1977); and to identify specific markets (Hawes, 1978). Rossman (1982) indicates that an area of satisfaction research that has not been undertaken is that of evaluation purposes — to judge the worth of a leisure program. Hendee and Bryan (1978) state that the quality of leisure experience is determined by the extent to which satisfactions are met. Satisfactions are linked to experiencing leisure and thereby can establish the worth of a leisure experience. Rossman's primary objective in development and validation

of an instrument was to identify the evaluation questions which link satisfactions of leisure participation to the worth of the leisure experience.

The first step of the Leisure Program Evaluation instrument construction is Rossman's identification of evaluation criteria based on the research of Tinsley et al. (1977), Driver (1977), and Beard and Ragheb (1980). Each researcher investigates approaches to documenting what satisfactions individuals receive with participation. Tinsley identifies 45 needs which could potentially be satisfied through leisure involvement. Factor analysis of the 45 general needs results in a 10 factor solution. An additional analysis of 27 leisure activity specific needs results in an 8 factor solution. Tinsley utilizes the 27 leisure specific activity needs in a 27 paragraph leisure needs assessment instrument (Tinsley & Kass, 1979). Tinsley's work provides the initial demonstration that "it is possible to assess the satisfactions derived from participation in leisure activities by using collapsed need dimensions that lead to instruments which can be completed by respondents in a reasonable amount of time" (Rossman, 1982, p. 39).

Driver (1977) reports 19 different domains of satisfactions which represent different psychological outcomes that are desired or expected from recreation participation. Driver's psychological outcomes are based on an information processing model of human behavior, unlike the need-reduction model of Tinsley. Driver derives his domains from the results of 25 empirical studies which provided over 16,000 questionnaires. Driver identifies a multitude of items within each domain,

but indicates that only representative items from each domain are needed to investigate satisfaction.

Beard and Ragheb's (1980) approach to satisfaction documentation is the Leisure Satisfaction Scale (LSS). The LSS is composed of six subscales: psychological, educational, social, relaxation, physiological, and aesthetic. The scale includes 51 items. Responses to the scale items are given in response to a general concept of leisure rather than focusing on a specific activity.

Rossman combined the work of Tinsley (1977), Driver (1977), and Beard and Ragheb (1980) and content analyzed and compared the statements of each domain. Similar domains were combined and the result was 11 domains as follows:

1. self-actualization,
2. companionship,
3. power,
4. compensation,
5. social service,
6. security,
7. intellectual-aesthetic,
8. autonomy,
9. aesthetic,
10. environment, and
11. equipment.

A total of 56 satisfaction statements were identified with at least two or more in each domain. Most of the satisfaction statements were from Driver's work (1977), and some modifications of wording were

taken. A few examples of statements included: I enjoyed the physical exercise; I learned more about the activity; I gained a better sense of self-worth; I had fun.

Likert scaling of the statements was utilized to measure the intensity of each satisfaction statement. A Likert 7-point response format with "very satisfying" and "contributed no satisfaction" as the two end scale anchors and "satisfying" as the midpoint was used. This format allowed for a sufficiently large distribution of responses. The Likert scaling format was used because of its ability to record intensity and its acceptance in studying leisure satisfactions as a valid device for recording self-reporting satisfactions (Hawes, 1978; Tinsley et al., 1977).

Rossman also added three questions to the instrument that relate to overall satisfaction and importance of participation. The overall satisfaction question related to the general rating of an activity. The two importance questions were based on investigation by Kelly (1978). Kelly asked study respondents to indicate the activities which were most important to them and to indicate which activities they would least like to give up. Reliable answers to the importance question were found to be secured by straightforward posing of the question.

Rossman pilot tested the 56 satisfaction statements, and additional overall satisfaction and importance statements in programs operated by the Champaign and Urbana Park Districts and the University of Illinois — Department of Campus Recreation. The 56 statements were revised to a shorter 40-item instrument. The graphic design and

layout were also revised to make the instrument easily understood and would take approximately 10 minutes of time to complete.

Rossman's major data collection was from programs operated by Village of Oak Park, Illinois, Recreation Department. Rossman stratified the data by activity, activity format, and activity type. Rossman also added descriptive questions for age and sex. The data were collected from 725 individuals and 67 different programs.

The two goals of the major data collection were to reduce the items in the instrument to the most parsimonious representation of interpretable domains and to examine the validity of the instrument. Of the 40 satisfaction statements representing 11 domains, only 7 leisure satisfaction domains composed of 19 items were found in the study. The domains included:

1. achievement,
2. family escape,
3. environment,
4. risk,
5. autonomy,
6. physical fitness, and
7. social enjoyment.

Rossman concluded that the ability of the Leisure Program Evaluation instrument to provide sufficient discriminating power useful as an evaluation technique may provide program managers with information to keep score and direct attention on the strength and source of satisfactions leisure program participants are receiving. Determination of the strength and source of satisfactions may help with the provision

of services that are the most beneficial to employees and the organization. The instrument could be used by program managers to routinely report information measuring the outcomes of program services for individual participants. This information could be useful for determining which programs require alteration or elimination. Rossman additionally states that the instrument could be best utilized as a complement to or as a component of existing evaluation methods. Finally, Rossman suggested that use of the instrument could be easily used in a variety of program situations regardless of types or number of activities and participant population.

Rossman explored further use and development of the instrument through practical application. An evaluation, utilizing the Leisure Program Evaluation, was conducted at the Johnson Wax Company in Racine, Wisconsin, in 1982 (Rossman, 1983). Rossman used a revised form of the instrument which contained 25 statements and reflected 10 satisfaction domains. Revision of the instrument was as recommended by Rossman's previous work (1982). Two evaluation issues were identified in the Johnson Wax study as being important in documenting the worth of the employee recreation and fitness program (Rossman, 1983). First, what did employees participating in the selected programs report as their sources of satisfactions? Second, was there congruence between the employee satisfactions and stated company policy of why the programs are offered? The final study summary found that satisfactions of employee participants were identified and that the employees were experiencing satisfactions which corresponded to the desired purposes of program provision.

Summary

The development of comprehensive employee wellness programs had a variety of program models to draw from. Early programs were limited in scope but generally focused on provision of recreation, physical fitness, or health education activities. The 1970s witnessed a rapid increase of employers providing facilities, professional leadership, and comprehensive programming for employee participation in wellness programs. Worksite provision of wellness programs was considered as ideal and advantageous for involving employees. The rapid expansion of employee wellness programs was followed with concern for motivating participation and continued compliance. Professional organizations concerned with the development and growth of employee wellness programs helped with research, evaluation, and program development concerns.

A primary purpose of providing wellness program activities for employees is the link to benefits of reduced absenteeism and turnover; increased performance and productivity; reduced stress levels; increased job satisfaction; improved general health; and reduced health care costs. Previous research finds positive indications toward stated benefits. However, long-term research documenting detailed cost/benefits is needed. This evaluation concern is recognized and related research is currently underway.

Other interdisciplinary approaches to evaluation of employee wellness programs are deemed as useful. Different approaches relate to systematic program evaluation, behavioral change, and employee perceptions. The use of the Leisure Program Evaluation measuring

satisfactions directly relates to the employee perception evaluation approach.

The concept of leisure and its uses provides opportunities for personal development. Employee wellness programs relate to those leisure concepts and personal development opportunities. Therefore, employee wellness programs are viewed as a leisure construct in this study.

Development of the Leisure Program Evaluation instrument is based in leisure theory and research examining derived satisfactions of leisure participation. The instrument validation indicates that the instrument provides sufficient discriminating power to be useful as an evaluation technique and can provide program managers with appropriate information for program planning and decision making. A study at the Johnson Wax Company utilizing a revised instrument reports support for the practical application within an employee wellness program.

METHODS

The purpose of this study was to examine and assess the reported satisfaction sources which reflect 10 domains of leisure satisfaction within activities of a specific employee wellness program. The information derived from examination and analysis was used: to determine if the wellness program contributed to satisfactions of employees and to determine the degree of those contributions; and to determine activity, format, and area differences in relation to satisfactions, importance of participation, compared importance of participation, and overall satisfaction.

The study undertaken was based primarily on Rossman's (1982, 1983) research: the development of the Leisure Program Evaluation instrument; and practical application. The study topic was fully investigated in regard to development of employee wellness programs, evaluation of such programs, leisure theory, and leisure satisfactions.

Description of the instrument, selection of the sample, collecting the data, and analyzing the data are the subjects of this chapter.

Description of the Instrument

Items on the instrument represent a synthesis of research by Tinsley et al. (1977), Driver (1977), and Beard and Ragheb (1980). Rossman (1982) utilized this research in the development of the Leisure Program Evaluation instrument. The instrument developed was composed of seven satisfaction domains and 19 corresponding source statements. A 7-point Likert response scale was designed with

"very satisfying" and "contributed no satisfaction" as the two dichotomous scale anchors and "satisfying" as the scale midpoint. The Likert scaling has the ability to measure the intensity of each satisfaction statement.

Rossman examined the validity of the seven domains and 19 statements. The domains were also separated into subscales and examined in terms of conceptual and empirical factors. The results of the analyses indicated that it was possible to obtain instrument scale items which have both construct validity and discriminating power. Additional analyses of domains and the effect of sex, age, format, and area were investigated as well. Results of the study implied that satisfactions derived from participation in leisure programs were independent of a participant's age and sex. However, satisfactions were partially determined by the program format and program area. Format and area cannot be separated from leisure experiences, so Rossman suggested that examination of satisfactions domains should focus on which domains do not vary across formats and areas and which domains differentiate between formats and areas.

Analyses of importance of participation, compared importance of participation, and overall satisfaction validated their inclusion in the instrument. Correlation of importance measures and satisfaction domains were found to be separate and independent criteria, as an individual could be satisfied with a program which is rated as not that important. Analysis of satisfaction domains and overall satisfaction indicated that the two concepts were independent of each other. The satisfaction domains provided the detailed discriminating

data needed to differentiate between leisure programs which the overall satisfaction measure failed to provide.

Rossman (1983) revised the instrument into a 25 satisfaction statement form which reflected 10 domains of leisure satisfaction. The 10 domains included:

1. achievement,
2. autonomy,
3. environment,
4. family escape,
5. family togetherness,
6. fun,
7. physical fitness,
8. relaxation,
9. risk, and
10. social enjoyment.

A list of the 10 domains and corresponding satisfaction statements has been included as Appendix A. This instrument also contained the questions regarding overall satisfaction, importance of participation, compared importance of participation, age, and sex. Rossman (1983) applied the revised instrument in a study with the Johnson Wax Company in Racine, Wisconsin.

Rossman (1982) suggested addition of questions to the instrument in regard to participation patterns and socioeconomic variables. This investigator added questions to the instrument on length of participation, frequency of participation, participation in other programs,

occupation, income, and education. These questions were to be used for description of the sample population.

Selection of the Sample

The selection of the Mercy Hospital Employee Wellness Center in Des Moines, Iowa, was made for several reasons. The Mercy Wellness Center was established the spring of 1981 with the construction of recreation and fitness facilities that adjoined the worksite. The facilities included a swimming pool, gymnasium, racquetball court, whirlpool, locker rooms, and exercise area equipped with stationary bicycles, treadmills, and nautilus equipment. These facilities have provided the means for current provision of 22 wellness program activities. Therefore, the Mercy Wellness Center has had an operating history of five years and has provided a variety of regularly scheduled activities useful for data collection. The wellness center membership of 1100 employees and average weekly participation of 2600 visits (duplicated) have provided the opportunity for a large number of potential respondents. Finally, the Mercy Wellness Center had not undertaken any method of program evaluation to assess the outcomes of those activities.

The wellness center manager (Eugene R. Abler) was contacted and presented with a brief research proposal (Appendix B). After agreeing to participate in the study, the wellness center manager was requested to submit an informed consent statement (Appendix C). The wellness center manager and the investigator then selected 15

activities and identified appropriate methods for data collection. The investigator also stratified the 15 activities within the four activity formats and four activity areas. A list of the 15 activities and corresponding formats and areas has been included as Appendix D. Finally, the wellness center manager was asked to identify the goals and objectives of why programs were offered to employees (Appendix E).

Collecting the Data

The instrument was administered by two methods: in program or interdepartmental mail. Within the ongoing programs, each individual was given the instrument by the investigator, asked to complete the form, then requested to return the form after the day's activity to the designated evaluation box. The investigator attended the following session of each activity and distributed instruments to participants who were absent from the preceding session. Some special events and leagues offered at an earlier time in the year required that instruments be distributed to individuals through the interdepartmental mail. The investigator requested that instruments be completed within 24 hours and returned through the interdepartmental mail or directly dropped off at the wellness center. Copies of instrument cover letters for each distribution method have been included in Appendices F and G. The instrument distributed to each of the participants has been included in Appendix H. Posters identifying the evaluation project and describing the procedures were placed at the two wellness

center entrances. A poster was also placed above the instrument return box to identify its location.

Analyzing the Data

Data obtained from returned instruments were coded and submitted for analysis using the NAS AS/6 computer at the Computation Center at Iowa State University. Frequencies, means, standard deviations, and one-way analysis of variance using the Duncan Multiple Range Test were computed using the Statistical Package for the Social Sciences (SPSSX).

Summary

The Leisure Program Evaluation instrument (Rossman, 1982, 1983) was administered to participants in selected activities of the Mercy Wellness Center at Mercy Hospital in Des Moines, Iowa, in order to examine the satisfactions of employees participating in those activities. Descriptive and inferential statistics were used to identify the outcomes of selected activities, thus providing information used for program justification and program planning.

RESULTS

This chapter is divided into five sections. The first section describes the Mercy Wellness Center and the sample activities. The second section is a report of the sample size. In the third section, descriptive statistics are used to summarize demographics of the respondents. The fourth section deals with the general findings of totals, means, and standard deviation results of satisfaction statements and computed domains by activity, format, and area; and results of overall satisfaction, importance of participation, and compared importance of participation by activity. The fifth section describes the results of analyses of variance between: domains and activity; overall satisfaction and activity; importance of participation and activity; and compared importance of participation and activity.

Description of the Wellness Center and Activities

The Mercy Wellness Center is a facility established in 1981 to provide services which contribute to the well-being of Mercy Hospital employees. The hospital employs 2800 total employees; approximately 1100 (39%) are members of the wellness center. All employees are eligible for membership and pay a $78 per year fee. Employees' families may participate in specifically designated family activities and the family membership fee is $130 per year. The wellness center professional staff includes a manager, secretary, and three full-time activity leaders. The wellness center is staffed Monday through Friday,

6:00 a.m. to 1:00 a.m. Weekend hours vary with the season. The facility includes a gymnasium, swimming pool, racquetball court, whirlpool, exercise room, and locker rooms. The exercise room is equipped with stationary bicycles, treadmills, mini trampolines, nautilus weights, and wall mirrors.

The wellness center offers 22 different programs with a variety of times and number of sessions. The majority of programs are exercise oriented and generally leader led. However, there are recreation activities, individualized exercise, and health education activities offered which round out the comprehensive overall program. The recreation and health education programs are generally held in limited session periods throughout the year. The management encourages employees to participate in as many activities as possible.

The activities in this study sample are primarily exercise oriented and leader led. There are three aerobics classes (1-3) and four general fitness classes (4-7) (Appendix D). The Feeling Good and Aquatic Exercise activities focus on general fitness for older employees. The Stationary Bicycle, Treadmill, Nautilus, and General Individual (combination of Bicycle, Treadmill, and Nautilus) are individualized activities (8-11) in which participants determine their own schedule and intensity of workout. The Wellness Luncheons (12) are brown-bag gatherings in which a consultant speaks on a topic related to wellness, such as fitness goal setting, weight loss, and stress management to name a few. This activity is a special event which is held several times throughout the year. Health Breaks (13) is a special event activity held one or two times per week in a particular department of

the hospital. Each of the five-minute sessions focuses on relaxation techniques. The Volleyball and Basketball Leagues (14-15) are seasonal activities, usually offered in the fall. Departmental unit employees generally form teams and some employees' spouses do participate in this activity.

Sample Size

A total of 407 Leisure Program Evaluation instruments were distributed to a selected sample of participants in 15 separate activities of the Mercy Hospital Employee Wellness Center in Des Moines, Iowa. A total return of 187 questionnaires was obtained; eight were unusable due to incomplete forms. The 178 usable forms represented a 43% rate of return. The total of 178 employees (unduplicated) completing forms represented 16% of the total number of employees with wellness center memberships.

A total of 203 questionnaires were administered by the researcher to employees participating in each of the 12 aerobic, fitness, relaxation, or individualized ongoing activity sessions. Additional instructions to employees included the completion of only one form for the primary activity of participation for employees who participated in more than one activity. Returns from the ongoing activities represented 73% (130) of the sample and represented a 64% rate of return. A total of 204 questionnaires were administered through the interdepartmental mail to employees who participated in the Volleyball League, Basketball League, and the Wellness Luncheons offered earlier

in the year. Interdepartmental mail returns represented 27% (48) of the sample and represented a 24% rate of return.

Demographics

Seventy-eight percent of the individuals in the sample were female employees. This high percentage reflects the high proportion of women employed at Mercy Hospital. Subjects ranged in age from 20-70+ years with the largest number of subjects in the 20-29 year age range (41%), then 30-39 year age range (35%). See Tables 1 and 2 for distribution of subjects' sex and age.

All occupation groups were represented in the sample with the highest proportion of respondents being other professionals (37%), nurses (25%), and secretary/reception (12%) (Table 3). The other professional category included pharmacists, physical therapists, occupational therapists, and cardiac therapists. Subjects' yearly income primarily ranged from $10,001-30,000 with the largest proportions in $20,001-25,000 (33%) and $15,001-20,000 (26%) (Table 4). The highest level of education attained by most subjects was a bachelor's degree (45%), but all other education levels attained were represented (Table 5).

Most subjects began involvement with a particular program within the past 12 months. The largest proportion of subjects had been involved for 0-3 months (30%) and 4-6 months (21%). However, a representation of subjects involved as long as five years was attained (Table 6). The primary proportion of subjects indicated regular attendance (79%)

(Table 7) in a program. The subjects' length of wellness center membership was widely distributed (Table 8). However, the primary subject responses were 7-12 months (20%), 2 years (20%), and 3 years (20%). A large proportion of employees were involved in other wellness center activities, with 35% participating in one other activity (Table 9). Half of the subjects (50%) had no involvement in any other programs outside of the Mercy Wellness Center. However, participation in other programs was represented by private club (10%), public community (17%), the YMCA (5%), and university programs (10%) (Table 10).

To summarize, the sample consisted primarily of women whose ages ranged from 20-39 and the highest level of education was a bachelor's degree. Most subjects were other professional employees, nurses, or secretary/receptionists. Subjects' income primarily ranged from $15,001-25,000. Most subjects began involvement with a particular program within the last 12 months and had regularly attended the activity. The length of employee wellness center membership was widely distributed. A majority of subjects participated in more than one activity at the wellness center, and half of the subjects had not participated in any other programs outside of the Mercy Wellness Center.

General Findings

The results of participant ratings of activities are detailed in Tables 11-16. Table 11 reports the mean scores, standard deviations, and number of cases for each satisfaction domain and corresponding

Table 1. Subjects' gender

Gender	n	%
Male	39	22
Female	139	78
Total	178	100

Table 2. Subjects' age

Age in years	n	%
20-29	74	41
30-39	63	35
40-49	20	11
50-59	10	6
60-69	7	4
70+	3	2
Not reporting	1	1
Total	178	100

Table 3. Subjects' occupation

Occupation	n	%
Environmental service	1	1
Secretary/reception	22	12
Data processing	9	5
Dietary	8	5
Nurse	44	25
Doctor	1	1
Medical technician	15	8
Administrator	6	3
Volunteer	6	3
Other professional	66	37
Total	178	100

Table 4. Subjects' income

Income per year	n	%
$0-10,000	7	4
$10,001-15,000	22	12
$15,001-20,000	47	26
$20,001-25,000	59	33
$25,001-30,000	25	14
$30,001-40,000	4	2
$40,001-50,000	3	2
$50,001+	3	2
Not reporting	8	5
Total	178	100

Table 5. Subjects' education level attained

Level attained	n	%
Attended high school	1	1
High school degree	16	9
Attended college	34	19
Bachelor's degree	81	45
Attended graduate school	20	11
Master's degree	15	8
Doctoral degree	1	1
Professional degree	9	5
Not reporting	1	1
Total	178	100

Table 6. Subjects' length of involvement in activity

Length	n	%
0-3 months	53	30
4-6 months	37	21
7-12 months	26	14
2 years	24	13
3 years	14	8
4 years	10	6
5 years	9	5
Not reporting	5	3
Total	178	100

Table 7. Subjects' program attendance

Attendance	n	%
1st half program	2	2
2nd half program	5	3
Regular attendance	142	79
Infrequent attendance	23	12
Not reporting	6	4
Total	178	100

Table 8. Subjects' length of wellness center membership

Length	n	%
0-3 months	9	5
4-6 months	10	6
7-12 months	36	20
2 years	35	20
3 years	36	20
4 years	24	13
5 years	24	13
Not reporting	4	3
Total	178	100

Table 9. Subjects' participation in other wellness center activities

Activities	n	%
None	49	27
1	62	35
2	51	28
3	9	5
4	2	2
5	0	0
6	0	0
Not reporting	5	3
Total	178	100

Table 10. Subjects' participation in programs other than the wellness center

Program	n	%
None	89	50
Public community	30	17
Private club	19	10
YMCA	9	5
YWCA	0	0
University	18	10
Other	1	1
Not reporting	9	5
Total	178	100

source statements. The scale for scores is 1 to 7, with 1 = contributed no satisfaction, 4 = satisfying, and 7 = very satisfying. The satisfaction source statement results ranged from 4.33 to 6.47 in mean scores. The range of statement mean scores indicates that each of the satisfaction sources are satisfied in general.

Table 12 reports the rank ordered satisfaction domain mean scores, standard deviations, and number of cases and the same statistics for the overall satisfaction item. The overall satisfaction for all programs was 6.01 out of a possible 7. This result indicates that participants are generally satisfied with the activities.

Participant reported satisfactions with the employee wellness activities in the study are very high. Participant reported satisfactions with activities are principally accounted for by six of the leisure satisfaction domains. These include, in descending order of score magnitude, physical fitness (6.44), fun (5.70), environment (5.57), relaxation (5.56), achievement (5.50), and social enjoyment (5.48).

Table 11. Satisfaction domain and corresponding source statement mean scores, standard deviations, and number of cases

Domain and statement	$\bar{x}$	s	n
Achievement	5.50	.99	162
I learned more about the activity	5.48	1.28	176
It was a new and different experience	4.97	1.49	169
My skills and abilities developed	5.66	1.20	171
I became better at it	5.87	1.02	172
Autonomy	5.09	.91	118
I was in control of things that happened	5.15	1.18	156
It gave me a chance to be on my own	4.75	1.54	127
I had control over things	5.29	1.32	171
Environment	5.57	.82	162
I liked the open space	5.13	1.44	170
The area was physically attractive	5.91	1.18	172
The freshness and cleanliness	5.75	1.16	171
Activity took place in comfortable climate	5.43	1.14	175
Family escape	4.74	1.23	134
Able to get away from family awhile	4.74	1.23	134
Family togetherness	4.33	1.77	72
My family could do this together	4.33	1.77	72
Fun	5.70	1.08	170
I had fun	6.11	1.07	175
It was exciting	5.28	1.36	170
Physical fitness	6.44	.75	160
I enjoyed the physical exercise	6.47	.85	161
It keeps me physically fit	6.35	.97	163
Relaxation	5.56	.97	159
I got to relax physically	5.31	1.39	162
It gave my mind a rest	5.43	1.23	170
It was a pleasant escape	5.90	1.09	175
Risk	4.50	1.17	107
I liked the personal risks involved	4.70	1.55	125
I liked the chance for risk	4.31	1.43	140

Table 11. Continued

Domain and statement	$\bar{x}$	x	n
Social enjoyment	5.48	1.07	154
I enjoyed the companionship	5.40	1.46	162
People were considerate	5.77	1.06	173
Enjoying it with my friends	5.30	1.30	162

N of subjects = 178

The standard deviations of these six domains are generally low (.75-1.08). The four satisfaction domains with the lowest scores include autonomy (5.09), family escape (4.74), risk (4.50), and family togetherness (4.33). These domains generally have higher standard deviations and fewer responses. Therefore, respondents are in less agreement about these scales as outcomes of their participation, and fewer respondents used them to describe their satisfaction with participation in a particular program.

Table 13 reports satisfaction domain mean scores for individual activities. Examination of these scores reveals some general patterns. First, physical fitness is scored the highest of any domain in 12 of the activities and additionally is scored among the top three in two other activities. The only activity where physical fitness is not included in the top three scores is Wellness Breaks. Fun and relaxation scores account for a large proportion of the highest scores in a majority of programs. Relaxation is scored second in eight activities and fun is scored second in six activities. Activities that score relaxation high generally do not score fun high and vice

Table 12. Rank ordered satisfaction domain mean scores, standard deviations, and number of activities

Domain	$\bar{x}$	s	n
Physical fitness	6.44	.75	160
Fun	5.70	1.08	170
Environment	5.57	.82	162
Relaxation	5.56	.97	159
Achievement	5.50	.99	162
Social enjoyment	5.48	1.07	154
Autonomy	5.09	.91	118
Family escape	4.74	1.23	134
Risk	4.50	1.17	107
Family togetherness	4.33	1.77	72
Overall satisfaction	6.01	.73	178

N of subjects = 178

versa. The only exception is in Bilevel Aerobics in which both fun and relaxation have 6.13 mean scores. Environment, achievement, social enjoyment, and autonomy make up the remainder of third highest scores and a few second highest scores. Environment mean scores are rated highly in Fitness, Get Fit-Be Well, Aquatic Exercise, Stationary Bicycle, and General Individual activities. Achievement is rated highly in Regular Aerobics, Advanced Aerobics, and Get Fit-Be Well. Social enjoyment scores are high in Get Fit-Be Well, Aquatic Exercise, Volleyball League, and Basketball League activities. Finally, autonomy is rated highly in Feeling Good, Treadmill, Nautilus, and Health Breaks. The only domain departing from these general patterns is risk. Risk is rated as the highest score for Feeling Good, Wellness Luncheons, and Health Breaks. However, these mean scores may be

skewed because of the low number of respondents in these activities.

Further examination of Table 13 reveals that family escape and family togetherness responses are generally low in mean scores. Regular Aerobics, Advanced Aerobics, Fitness, and Stationary Bicycle activities reveal scores that are less than satisfying for family togetherness. Volleyball League and Basketball League also reveal less than satisfying scores for family escape. However, Volleyball League and Basketball League activities reveal higher scores for family togetherness. Fitness, General Individual, and Health Breaks also reveal higher scores for family escape. Risk and autonomy reveal low mean scores in various activities as well.

Further examination of satisfaction domain scores within activity formats (Table 14) and activity areas (Table 15) reveal similar results to those previously discussed. Physical fitness is scored highly in all but one category of format and area. The mental/relaxation area is the only category Physical Fitness is rated lower. Family escape and family togetherness also reveal lower scores with family togetherness less than satisfying in the leader led format and the physical fitness area, and family escape less than satisfying in the leagues format and the organized sport area. Exceptions to the low scores include higher scores for the leagues format and the organized sport area for family togetherness, and special event format and mental/relaxation area for family escape.

Physical fitness, fun, and achievement are rated highest in leader led activity formats. The league activity format rates physical fitness, fun, and social enjoyment domains as the most

Activity number								
7	8	9	10	11	12	13	14	15
6.45	6.20	6.50	5.90	6.36	5.50	5.50	6.48	6.77
5.59	4.85	5.05	5.11	5.07	4.95	4.60	6.45	6.58
5.75	5.03	5.47	5.42	5.30	4.97	5.63	5.63	5.50
5.70	5.53	5.70	5.54	5.51	5.50	6.76	5.24	4.50
5.73	4.33	5.03	5.47	5.17	5.25	5.38	5.43	5.44
6.23	4.41	4.67	5.05	4.75	5.10	4.17	6.27	6.10
5.33	4.50	5.63	5.54	5.11	4.42	6.27	4.55	4.39
4.25	3.30	4.92	4.50	4.69	5.83	7.00	4.14	4.31
5.25	4.00	4.80	5.33	5.17	4.80	6.00	3.82	3.67
4.33	3.00	4.20	4.33	4.29	4.75	—	5.64	5.60
6.64	5.55	6.10	6.00	6.00	6.00	6.00	5.86	6.08
11	11	10	10	14	14	7	21	13

satisfying. The special event activity format reports physical fitness as well but differs with high ratings of risk and relaxation. Fun and social enjoyment scores should be noted as low scores in this category. Finally, the open facility format reveals high scores for physical fitness, environment, and relaxation. Special notice should be taken in this category of the fourth highest score of autonomy. This reflects on the fact that the open facility format activities are individualized in nature.

Physical fitness, environment, and relaxation are rated highly in the physical fitness activity area. Physical fitness, fun, and social enjoyment means are rated highly in the organized sport activity area. The mental/relaxation activity area differs with high mean scores in autonomy and family escape, as well as relaxation. The social activity area reveals high scores in physical fitness, relaxation, and risk. Although the social enjoyment domain is not rated within the top three scores of this area, the score is fifth highest in rank.

Finally, Table 16 reports the mean scores for overall satisfaction, importance of participation, and compared importance of participation. Participants are, in general, mostly satisfied or pleased in relation to their overall satisfaction with a particular activity. The range of mean scores is 5.55 to 6.64. Advanced Aerobics, Aquatic Exercise, and Stationary Bicycle activities report the highest overall satisfaction. Importance of participation mean scores are generally reported between somewhat important and very important in value. The activities with the highest ratings are

Table 14. Satisfaction mean scores for activity format

Domain	Format number 1	2	3	4
Physical fitness	6.54	6.59	5.50	6.25
Fun	5.91	6.50	4.83	5.02
Environment	5.77	5.58	5.10	5.30
Relaxation	5.70	5.00	6.02	5.57
Achievement	5.81	5.43	5.29	5.01
Social enjoyment	5.61	6.20	4.98	4.71
Autonomy	5.14	4.49	5.44	5.21
Risk	4.59	4.21	6.13	4.42
Family escape	4.85	3.76	5.33	4.83
Family togetherness	3.88	5.63	4.75	3.95
Overall satisfaction	6.10	5.94	6.00	5.91
N of subjects	78	34	21	45

The three highest scoring scales in each format are underlined.

Format number code:
1. Leader led
2. Leagues
3. Special event
4. Open facility

Advanced Aerobics (6.41), Aquatic Exercise (6.64), and Nautilus (6.40). The Wellness Breaks activity (6.00) is indicated as being important to participants. However, the compared importance of participation to other programs is lower in value (4.20). Wellness Luncheons (5.00/4.70), Volleyball League (4.86/4.48), and Basketball League (4.46/3.62) reveal lower mean scores than other activities in importance of participation and compared importance of participation. However, the participants of these programs report that they

Table 15. Satisfaction mean scores for activity area

Domain	Area number 1	2	3	4
Physical fitness	6.43	6.59	5.50	5.50
Fun	5.60	6.50	4.60	4.95
Environment	5.61	5.58	5.63	4.97
Relaxation	5.65	5.00	6.76	5.50
Achievement	5.54	5.43	5.38	5.25
Social enjoyment	5.32	6.20	4.17	5.10
Autonomy	5.17	4.49	6.27	4.42
Risk	4.53	4.21	—	5.83
Family escape	4.84	3.76	6.00	4.80
Family togetherness	3.90	5.63	—	4.75
Overall satisfaction	6.03	5.94	6.00	6.00
N of subjects	123	34	7	14

The three highest scoring scales in each area are underlined.

Area number code:
1. Physical fitness
2. Organized sport
3. Mental/relaxation
4. Social

are mostly satisfied or pleased in overall satisfaction with participation (Table 16).

To summarize, participant satisfaction with programs in general is primarily accounted for in physical fitness, fun, environment, relaxation, achievement, and social enjoyment domains. However, all domains do reveal satisfying or better mean scores. Participants are also generally satisfied in overall satisfaction with the activities as a whole. The examination of mean scores of satisfactions in specific activities indicates that participant satisfaction is

Activity number								
7	8	9	10	11	12	13	14	15
6.64	5.91	5.80	6.40	6.07	5.00	6.00	4.86	4.46
6.50	5.40	5.70	6.44	5.80	4.70	4.20	4.48	3.62
6.64	5.55	6.10	6.00	6.00	6.00	6.00	5.86	6.08
11	11	10	10	14	14	7	21	13

generally accounted for by physical fitness, fun, and relaxation domains. Environment, achievement, social enjoyment, and autonomy, and achievement also reveal high mean scores in various activities. The family escape, family togetherness, risk, and autonomy domains generally account for the lower mean scores in activities. However, a few exceptions in specific activities do occur. Results of satisfaction domain scores in activity formats and areas also reveal similar results to those in the activity examination.

Finally, employees in each of the activities are generally satisfied in overall satisfaction with participation. Importance of participation scores in each of the activities reveals that the activities are generally rated as important to participants. The compared importance of participation to other programs by individuals generally indicates that most participants are unlikely to give up participation in a particular activity.

Analyses of Variance

This researcher sought to determine whether there were significant differences of satisfactions among the wellness program activities. Therefore, each of the 10 domains was analyzed using the one-way analysis of variance in relation to the 15 activities, the four formats, and the four areas. The researcher also sought to determine whether there were significant differences in overall satisfaction, importance of participation, and compared importance of participation variables among the 15 activities. One-way analysis of variance was

also used for each variable in relation to the 15 activities. Additional analysis using the Duncan Multiple Range Test was utilized in each of the one-way analysis of variance tests.

Significant differences were found in the comparisons between each satisfaction domain and the activities. The specific differences between pairs of activities have been addressed in the results as well. Significant differences were also found in the comparisons between the 10 domains and activity format and activity area. Results of the format and area analyses have been included in Appendix I. Discussion of the results has not been addressed because of the related nature of format and area to activities. The only one-way analysis of variance which did not result in a significant difference was the achievement domain by area (Appendix I, Table I15). Additional discussion of the one-way analysis of variance for overall satisfaction, importance of participation, and compared importance of participation by activities has been included in this section of results. Significant differences were found in each of the tests.

One-way analysis of variance between physical fitness ratings and the 15 activities (Table 17) showed significance, $F(14, 145) = 1.90$, $p < .03$. Additional analysis revealed that Advanced Aerobics, Bilevel Aerobics, Get Fit-Be Well, and Basketball League participant ratings produced high mean scores and were significantly different from various paired groupings with Feeling Good, Nautilus, and Health Breaks.

One-way analysis of variance between fun ratings and the 15 activities (Table 20) showed significance, $F(14, 155) = 4.99$, $p < .0001$.

Table 17. Analysis of variance physical fitness by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	13.7173	.9798	1.9000	.0307*
Within groups	145	74.7764	.5157		
Total	159	88.4937			

*Significant at the .05 level.

Table 18. Means and standard deviations of physical fitness scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	6.47	.87
2. Advanced Aerobics	17	6.68	.47
3. Bilevel Aerobics	15	6.77	.42
4. Fitness	9	6.28	1.03
5. Feeling Good	3	5.67	1.15
6. Get Fit-Be Well	7	6.72	.49
7. Aquatic Exercise	11	6.45	.72
8. Stationary Bicycle	10	6.20	.75
9. Treadmill	10	6.50	.82
10. Nautilus	10	5.90	1.31
11. General Individual	14	6.36	.72
12. Wellness Luncheons	1	5.50	—
13. Health Breaks	3	5.50	1.00
14. Volleyball League	21	6.48	.37
15. Basketball League	13	6.78	.39

Table 19. Pairs of activities with significantly better mean scores for physical fitness

Activity[a]	Different from activity
2	10/13
3	5/10/13
6	13
15	5/10/13

[a]See Table 18 for activity name and score.

Additional analysis revealed that Regular Aerobics, Advanced Aerobics, and Bilevel Aerobics were perceived to contribute highly to fun. These activities were significantly different in score from the individualized activities (8-11) and special event activities (12-13) (Table 21). Significant differences were found between the higher scoring of Get Fit-Be Well and the lower scoring of Stationary Bicycle and Health Breaks. Finally, the Volleyball League and Basketball League received high mean scores and were significantly different from the individualized activities (8-13), the special events activities (12-13), Aquatic Exercise, and Feeling Good (Tables 21 and 22).

One-way analysis of variance between environment ratings and the 15 activities (Table 23) showed significance, $F(14, 147) = 1.37$, $p < .17$. Additional analysis revealed that both Bilevel Aerobics and Get Fit-Be Well contributed highly to the environment satisfaction, and were significantly different from Stationary Bicycle and Wellness Luncheons (Tables 24 and 25).

One-way analysis of variance between relaxation ratings and the 15 activities (Table 26) showed significance, $F(14, 144) = 2.66$,

Table 20. Analysis of variance fun by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	61.5379	4.3956	4.9987	.0000*
Within groups	155	136.2989	.8793		
Total	169	197.8368			

*Significant at the .05 level.

Table 21. Means and standard deviations of fun scores among activities

	Activity	n	$\bar{x}$	s
1.	Regular Aerobics	16	5.97	1.20
2.	Advanced Aerobics	17	6.09	.89
3.	Bilevel Aerobics	15	6.13	1.03
4.	Fitness	9	5.72	.94
5.	Feeling Good	3	5.17	.76
6.	Get Fit-Be Well	7	5.93	.61
7.	Aquatic Exercise	11	5.59	.83
8.	Stationary Bicycle	10	4.85	.91
9.	Treadmill	10	5.05	1.42
10.	Nautilus	9	5.11	1.08
11.	General Individual	14	5.07	.98
12.	Wellness Luncheons	10	4.95	1.04
13.	Health Breaks	5	4.60	.96
14.	Volleyball League	21	6.45	.52
15.	Basketball League	13	6.58	.53

Table 22. Pairs of activities with significantly different mean scores for fun

Activity[a]	Different from activity
1	8/9/11/12/13
2	8/9/10/11/12/13
3	8/9/10/11/12/13
6	8/13
14	7/8/9/10/11/12/13
15	5/7/8/9/10/11/12/13

[a]See Table 21 for activity name and score.

Table 23. Analysis of variance environment by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	12.5114	.8937	1.3717	.1738*
Within groups	147	95.7698	.6515		
Total	161	108.2812			

[a]Significant at the .05 level.

Table 24. Means and standard deviations of environment scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	5.78	.75
2. Advanced Aerobics	17	5.66	.91
3. Bilevel Aerobics	15	5.92	.75
4. Fitness	9	5.64	.55
5. Feeling Good	3	5.17	.29
6. Get Fit-Be Well	7	6.11	.66
7. Aquatic Exercise	10	5.75	.77
8. Stationary Bicycle	9	5.03	.57
9. Treadmill	9	5.47	.47
10. Nautilus	9	5.42	.83
11. General Individual	14	5.30	.88
12. Wellness Luncheons	8	4.97	.11
13. Health Breaks	2	5.63	.88
14. Volleyball League	21	5.63	.54
15. Basketball League	13	5.50	.66

Table 25. Pairs of activities with significantly different mean scores by environment

Activity[a]	Different from activity
3	8/12
6	8/12

[a]See Table 24 for activity name and score.

$p < .002$. Additional analysis revealed that the Health Breaks activity was significantly higher in score than almost every other activity. This analysis also reveals that the Basketball League was significantly lower in score than most other activities (Tables 27 and 28).

One-way analysis of variance between achievement ratings and the 15 activities (Table 29) showed significance, $F(14, 147) = 2.49$, $p < .003$. Additional analysis revealed that the Stationary Bicycle was rated significantly lower than a majority of other activities. Advanced Aerobics was rated significantly higher than Treadmill and General Individual and received the highest mean score for achievement (Tables 30 and 31).

One-way analysis of variance between social enjoyment ratings and the 15 activities (Table 32) showed significance, $F(14, 139) = 4.23$, $p < .0001$. Additional analysis revealed that the Stationary Bicycle significantly contributed less to social enjoyment in each of the grouped pairings (Table 34) as did Treadmill, Nautilus, General Individual, Wellness Luncheons, and Health Breaks. Aquatic Exercise, Volleyball League, and Basketball League revealed a greater perceived contribution to social enjoyment as well (Tables 33 and 34).

One-way analysis of variance between autonomy ratings and the 15 activities (Table 35) showed significance, $F(14, 103) = 3.09$, $p < .001$. Additional analysis revealed that Advanced Aerobics, Treadmill, Nautilus, and Health Breaks received high mean scores and were significantly different from most other activities. Stationary Bicycle, Regular Aerobics, Wellness Luncheons, Volleyball League, and

Table 26. Analysis of variance relaxation by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	30.5461	2.1819	2.6601	.0018*
Within groups	144	118.1094	.8202		
Total	158	148.6555			

*Significant at the .05 level.

Table 27. Means and standard deviations of relaxation scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	5.60	1.21
2. Advanced Aerobics	16	5.79	.70
3. Bilevel Aerobics	13	6.13	.73
4. Fitness	8	5.33	1.18
5. Feeling Good	2	5.83	1.18
6. Get Fit-Be Well	5	5.13	.90
7. Aquatic Exercise	10	5.70	.95
8. Stationary Bicycle	10	5.53	.77
9. Treadmill	10	5.70	.96
10. Nautilus	8	5.54	1.05
11. General Individual	13	5.51	1.03
12. Wellness Luncheons	10	5.50	1.24
13. Health Breaks	7	6.76	.42
14. Volleyball League	21	5.24	.66
15. Basketball League	10	4.50	.50

Table 28. Pairs of activities with significantly different mean scores for relaxation

Activity[a]	Different from activity
1	15
2	15
3	14/15
7	15
8	15
9	15
10	15
11	15
12	15
13	1/2/4/6/7/8/9/10/11/12/14/15
14	15

[a]See Table 27 for activity name and score.

Table 29. Analysis of variance achievement by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	30.1546	2.1539	2.4852	.0034*
Within groups	147	127.4045	.8667		
Total	161	157.5590			

*Significant at the .05 level.

Table 30. Means and standard deviations of achievement scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	5.91	1.04
2. Advanced Aerobics	17	6.01	.93
3. Bilevel Aerobics	15	5.92	1.17
4. Fitness	8	5.31	.86
5. Feeling Good	3	4.75	.25
6. Get Fit-Be Well	6	6.00	.76
7. Aquatic Exercise	11	5.73	.90
8. Stationary Bicycle	9	4.33	.66
9. Treadmill	9	5.03	1.37
10. Nautilus	9	5.47	.74
11. General Individual	12	5.17	1.12
12. Wellness Luncheons	9	5.25	1.05
13. Health Breaks	4	5.38	.92
14. Volleyball League	21	5.43	.57
15. Basketball League	13	5.44	.80

Table 31. Pairs of activities with significantly different mean scores for achievement

Activity[a]	Different from activity
1	8
2	8/9/11
3	8
6	8
7	8
10	8
14	8
15	8

[a]See Table 30 for activity name and score.

Table 32. Analysis of variance social enjoyment by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	52.1438	3.7246	4.2260	.0000*
Within groups	139	122.5063	.8813		
Total	153	174.6501			

*Significant at the .05 level.

Table 33. Means and standard deviations of social enjoyment scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	15	5.53	.97
2. Advanced Aerobics	17	5.41	.97
3. Bilevel Aerobics	13	5.46	1.03
4. Fitness	8	5.29	.58
5. Feeling Good	2	5.66	.94
6. Get Fit-Be Well	7	6.00	.77
7. Aquatic Exercise	10	6.23	.83
8. Stationary Bicycle	8	4.42	.96
9. Treadmill	7	4.67	1.66
10. Nautilus	7	5.05	.95
11. General Individual	12	4.75	.98
12. Wellness Luncheons	13	5.10	1.33
13. Health Breaks	2	4.17	.71
14. Volleyball League	20	6.27	.50
15. Basketball League	13	6.10	.52

Table 34. Pairs of activities with significantly different mean scores for social enjoyment

Activity[a]	Different from activity
1	8
2	8
3	8
6	8/9/11/13
7	8/9/10/11/12/13
14	1/2/3/4/8/9/10/11/12/13
15	8/9/10/11/12/13

[a]See Table 33 for activity name and score.

Basketball League generally contributed less to Autonomy in most pairings as well (Tables 36 and 37).

One-way analysis of variance between risk ratings and the 15 activities (Table 38) showed significance, $F(14, 92) = 2.68$, $p < .003$. Additional analysis revealed that Advanced Aerobics and Treadmill contributed significantly to risk and were quite different from Fitness, Stationary Bicycle, and Volleyball League. Get Fit-Be Well, Wellness Luncheons, and Health Breaks also received high mean scores; however, they also revealed a low number of responses and high standard deviations. In general, participants used risk less as a rating in regard to specific programs (Tables 39 and 40).

One-way analysis of variance between family escape ratings and the 15 activities (Table 41) showed significance, $F(14, 119) = 1.88$, $p < .04$. Additional analysis revealed that for most groupings of pairs, Aquatic Exercise, Nautilus, General Individual, and Health Breaks had higher mean scores and significantly contributed more

Table 35. Analysis of variance autonomy by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	28.5477	2.0391	3.0867	.0005*
Within groups	103	68.0436	.6606		
Total	117	96.5913			

*Significant at the .05 level.

Table 36. Means and standard deviations of autonomy scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	10	4.73	.80
2. Advanced Aerobics	13	5.54	.65
3. Bilevel Aerobics	11	5.12	.76
4. Fitness	5	4.60	.76
5. Feeling Good	2	5.67	1.41
6. Get Fit-Be Well	6	5.00	1.30
7. Aquatic Exercise	7	5.33	.82
8. Stationary Bicycle	8	4.50	.87
9. Treadmill	10	5.63	.79
10. Nautilus	8	5.54	.62
11. General Individual	12	5.11	.88
12. Wellness Luncheons	4	4.42	1.03
13. Health Breaks	5	6.27	.49
14. Volleyball League	11	4.55	.72
15. Basketball League	6	4.39	.80

Table 37. Pairs of activities with significantly different mean scores for autonomy

Activity[a]	Different from activity
2	1/8/12/14/15
9	1/8/12/14/15
10	8/14/15
13	1/3/4/6/8/11/12/14/15

[a]See Table 36 for activity name and score.

Table 38. Analysis of variance risk by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	41.9676	2.9977	2.6767	.0025*
Within groups	92	103.0324	1.1199		
Total	106	145.0000			

*Significant at the .05 level.

Table 39. Means and standard deviations of risk scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	10	4.40	1.08
2. Advanced Aerobics	12	5.21	.62
3. Bilevel Aerobics	10	4.45	1.42
4. Fitness	5	3.30	.57
5. Feeling Good	1	6.00	—
6. Get Fit-Be Well	4	5.38	1.78
7. Aquatic Exercise	6	4.25	1.29
8. Stationary Bicycle	5	3.30	.97
9. Treadmill	6	4.92	1.39
10. Nautilus	5	4.50	.61
11. General Individual	8	4.69	1.44
12. Wellness Luncheons	3	5.83	1.04
13. Health Breaks	1	7.00	—
14. Volleyball League	18	4.14	.74
15. Basketball League	13	4.31	.90

Table 40. Pairs of activities with significantly different mean scores for risk

Activity[a]	Different from activity
2	4/8/14
6	4/8
9	4/8
12	4/8/14
13	4/7/8/14/15

[a]See Table 39 for activity name and score.

to family escape than did Stationary Bicycle, Volleyball League, and Basketball League (Tables 42 and 43).

One-way analysis of variance between family togetherness ratings and the 15 activities (Table 44) showed significance, $F(12, 59) = 1.48$, $p < .16$. Additional analysis revealed that Volleyball League and Basketball League received high mean scores and were significantly different from Regular Aerobics, Advanced Aerobics, and Stationary Bicycle (Tables 45 and 46). Fewer individuals used family togetherness as an identifier of satisfaction among the activities as well.

One-way analysis of variance between overall satisfaction ratings and the 15 activities (Table 47) showed significance, $F(14, 163)$, $p < .21$. Additional analysis revealed that Advanced Aerobics and Aquatic Exercise participants rated the activities very high in overall satisfaction. However, all activities were rated high by their participants. Significant differences between pairs were found between Advanced Aerobics and Stationary Bicycle, and Aquatic Exercise and Regular Aerobics, Fitness, Stationary Bicycle, and Volleyball League (Tables 48 and 49).

One-way analysis of variance between importance of participation ratings and the 15 activities (Table 50) showed significance, $F(14, 163) = 6.88$, $p < .0001$. Additional analysis revealed that Volleyball League and Basketball League were significantly lower in mean scores than most of the other activities. In a number of pairs, Wellness Luncheons were also rated significantly lower. Aquatic Exercise and Fitness participants rated participation in those activities as being very important (Tables 51 and 52).

Table 41. Analysis of variance family escape by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	36.5433	2.6102	1.8789	.0353*
Within groups	119	165.3149	1.3892		
Total	133	201.8582			

*Significant at the .05 level.

Table 42. Means and standard deviations of family escape scores among activities

	Activity	n	$\bar{x}$	s
1.	Regular Aerobics	15	4.73	1.33
2.	Advanced Aerobics	16	4.88	1.09
3.	Bilevel Aerobics	12	4.67	1.30
4.	Fitness	7	4.71	.76
5.	Feeling Good	3	5.00	1.00
6.	Get Fit-Be Well	6	5.00	1.55
7.	Aquatic Exercise	8	5.25	1.04
8.	Stationary Bicycle	10	4.00	1.25
9.	Treadmill	10	4.80	1.03
10.	Nautilus	9	5.33	.87
11.	General Individual	12	5.17	1.53
12.	Wellness Luncheons	5	4.80	1.64
13.	Health Breaks	4	6.00	1.41
14.	Volleyball League	11	3.82	.60
15.	Basketball League	6	3.67	.82

Table 43. Pairs of activities with significantly different mean scores for family escape

Activity[a]	Different from activity
7	14/15
10	8/14/15
11	14/15
13	8/14/15

[a]See Table 42 for activity name and score.

Table 44. Analysis of variance family togetherness by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	12	51.2665	4.2722	1.4763	.1592*
Within groups	59	170.7335	2.8938		
Total	71	222.0000			

*Significant at the .05 level.

Table 45. Means and standard deviations of family togetherness scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	7	3.57	1.90
2. Advanced Aerobics	7	3.29	1.38
3. Bilevel Aerobics	3	4.33	2.52
4. Fitness	4	3.50	2.38
5. Feeling Good	—	—	—
6. Get Fit-Be Well	5	4.60	1.95
7. Aquatic Exercise	6	4.33	1.63
8. Stationary Bicycle	5	3.00	1.41
9. Treadmill	5	4.20	1.79
10. Nautilus	3	4.33	2.89
11. General Individual	7	4.29	1.38
12. Wellness Luncheons	4	4.75	2.06
13. Health Breaks	—	—	—
14. Volleyball League	11	5.64	1.12
15. Basketball League	5	5.60	1.14

Table 46. Pairs of activities with significantly different mean scores for family togetherness

Activity[a]	Different from activity
14	1/2/8
15	8

[a]See Table 45 for activity name and score.

Table 47. Analysis of variance overall satisfaction by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	9.4307	.6736	1.2987	.2132*
Within groups	163	84.5468	.5187		
Total	177	93.9775			

*Significant at the .05 level.

Table 48. Means and standard deviations of overall satisfaction scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	5.94	.57
2. Advanced Aerobics	17	6.29	.59
3. Bilevel Aerobics	15	6.00	.85
4. Fitness	9	5.78	1.09
5. Feeling Good	3	6.00	1.00
6. Get Fit-Be Well	7	5.86	.90
7. Aquatic Exercise	11	6.64	.50
8. Stationary Bicycle	11	5.55	.69
9. Treadmill	10	6.10	.99
10. Nautilus	10	6.00	.82
11. General Individual	14	6.00	.78
12. Wellness Luncheons	14	6.00	.68
13. Health Breaks	7	6.00	.58
14. Volleyball League	21	5.86	.36
15. Basketball League	13	6.08	.76

Table 49. Pairs of activities with significantly different mean scores for overall satisfaction

Activity[a]	Different from activity
2	8
7	1/4/8/14

[a]See Table 48 for activity name and score.

Table 50. Analysis of variance importance of participation by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	71.9260	5.1376	6.8812	.0000*
Within groups	163	121.6976	.7466		
Total	177	193.6236			

*Significant at the .05 level.

Table 51. Means and standard deviations of importance of participation scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	6.06	.93
2. Advanced Aerobics	17	6.41	.62
3. Bilevel Aerobics	15	6.07	1.03
4. Fitness	9	5.67	1.22
5. Feeling Good	3	5.67	.58
6. Get Fit-Be Well	7	5.86	.90
7. Aquatic Exercise	11	6.64	.67
8. Stationary Bicycle	11	5.91	.54
9. Treadmill	10	5.80	1.23
10. Nautilus	10	6.40	.70
11. General Individual	14	6.07	.92
12. Wellness Luncheons	14	5.00	1.11
13. Health Breaks	7	6.00	1.00
14. Volleyball League	21	4.86	.65
15. Basketball League	13	4.46	.52

Table 52. Pairs of activities with significantly different mean scores for importance of participation

Activity[a]	Different from activity
1	12/14/15
2	12/14/15
3	12/14/15
4	14/15
6	14/15
7	4/12/14/15
8	12/14/15
9	12/14/15
10	12/14/15
11	12/14/15
13	12/14/15

[a]See Table 51 for activity name and score.

One-way analysis of variance between compared importance of participation and the 15 activities (Table 53) showed significance, $F(14, 149) = 9.53$, $p < .0001$. Additional analysis revealed that the Basketball League was significantly lower in score than all other activities. Participants rated that they were more likely to give up that activity. Wellness Luncheons, Health Breaks, Volleyball League, and Stationary Bicycle also revealed lower ratings of compared importance of participation (Tables 54 and 55).

Summary

This chapter described the Mercy Wellness Center and sample activities. This chapter also described the results of statistical analysis. The sample size was reported. Descriptive statistics of totals, percentages, means, and standard deviations were used to discuss demographics and general findings. One-way analyses of variance using the Duncan Multiple Range Test were used to further describe the differences among satisfaction domains and activities, as well as the differences of overall satisfaction, importance of participation, and compared importance of participation among activities.

Table 53. Analysis of variance compared importance of participation by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	14	114.2018	8.1573	9.5251	.0000*
Within groups	149	127.6031	.8564		
Total	163	241.8049			

*Significant at the .05 level.

Table 54. Means and standard deviations of compared importance of participation scores among activities

Activity	n	$\bar{x}$	s
1. Regular Aerobics	16	5.75	1.34
2. Advanced Aerobics	17	6.18	.53
3. Bilevel Aerobics	15	6.00	.85
4. Fitness	8	5.50	1.31
5. Feeling Good	3	5.33	.58
6. Get Fit-Be Well	7	5.71	1.11
7. Aquatic Exercise	10	6.50	.71
8. Stationary Bicycle	10	5.4	.70
9. Treadmill	10	5.7	.82
10. Nautilus	9	6.44	.53
11. General Individual	10	5.80	.92
12. Wellness Luncheons	10	4.70	.95
13. Health Breaks	5	4.20	2.28
14. Volleyball League	21	4.47	.60
15. Basketball League	13	3.61	.65

Table 55. Pairs of activities with significantly different mean scores for compared importance of participation

Activity[a]	Different from activity
1	12/13/14/15
2	12/13/14/15
3	12/13/14/15
4	13/14/15
5	15
6	13/14/15
7	8/12/13/14/15
8	12/13/14/15
9	12/13/14/15
10	8/12/13/14/15
11	12/13/14/15
12	15
14	15

[a]See Table 54 for activity name and score.

DISCUSSION

The purpose of this study was to examine and assess the reported satisfaction sources which reflect 10 domains of leisure satisfaction within activities of a specific employee wellness program. The information derived from examination and analysis was used to determine if the wellness programs contributed to the satisfactions of employees and to determine the degree of those contributions; to determine the satisfaction domain differences among activities, formats, and areas; and to determine overall satisfaction, importance of participation, and compared importance of participation differences among activities.

The information derived from identification and discrimination of satisfactions within specific activities is to be used in the examination of congruency with the employee wellness program goals and objectives. The implications from this process may be utilized as potential support for program justification and/or as assistance for program planning and decision making.

The following null hypotheses were proposed:

Hypothesis: Wellness programs do not aid in contributing to leisure satisfaction domains of employees.

Sub-hypotheses:

There are no significant differences in average satisfaction scores among the wellness program activities.

There are no significant differences in average satisfaction scores among the wellness program formats.

There are no significant differences in the average satisfaction scores among the wellness program areas.

Hypothesis: There are no significant differences in average importance of participation scores and average compared importance of participation scores among wellness program activities.

Hypothesis: There are no significant differences in average overall satisfaction scores among the wellness program activities.

Sampling and Demographics

Generalizations of the results from this study to wellness programs in general should be avoided. Results of this study may only be specified to the Mercy Wellness Center at Mercy Hospital in Des Moines, Iowa, and those activities specifically included in the study. Furthermore, results of the study may be biased because of the selected sampling process used to obtain data and because of low number of subjects in some activities.

The 64% rate of return from ongoing activities is reflective of the respondent follow-up procedure. The investigator attended the following activity session after questionnaire dissemination to remind employees to return the forms and to hand out questionnaires to employees who were absent from the preceding session. The rate of return may also be reflective of the identification of the ongoing study with posters placed throughout the wellness center. The low number of subjects in some ongoing activities may be reflective of the mild spring weather being experienced at the time of

data collection.

The 24% rate of return from interdepartmental mail is reflective of the researcher not utilizing a follow-up procedure similar to the ongoing activities. However, the interdepartmental mail cover letter was designed to motivate the employees to complete and return the questionnaire within 24 hours of receiving it in the mail. An additional factor influencing this low rate of return may be that the Wellness Luncheons, the Volleyball League, and the Basketball League activities are held at an earlier time in the year. Thus, participants in those activities may have difficulty in assessing the felt satisfactions related to those activities.

The researcher would also like to point out that reported length of involvement with a particular activity may be skewed. The Volleyball League, Basketball League, and Wellness Luncheons are generally offered over a short period of time during the year. The length of participation question addresses the activity in general and does not take into consideration the nature of seasonal activities.

Activity Contributions to Satisfactions

The Mercy Wellness Center activities of this study do contribute to the leisure satisfactions of employees. The overall satisfaction score for all activities is very high and indicates that employees are generally satisfied with the activities. The scores of the 10 domains in general are very high as well. Each domain score is at least satisfying and most domains are near to very satisfying in

value. Physical fitness is rated the highest of any domain and is followed in magnitude of descending scores by fun, environment, relaxation, achievement, social enjoyment, autonomy, family escape, risk, and family togetherness. The participant reported satisfactions are principally accounted for by the six top ranking domains. Autonomy, family escape, risk, and family togetherness ratings are lower and generally have higher standard deviations and fewer responses. Therefore, respondents are in less agreement about these domains as satisfaction outcomes and fewer respondents use them to describe their satisfactions with participation.

In general, employees who participate in the Mercy Wellness Center activities report being satisfied with participation because of opportunities for enjoying the physical exercise and keeping physically fit; for having fun; for escape from daily tasks and chance for relaxation; for participating in a pleasurable setting or facility; for experiencing personal achievement related to the activity; and for interacting with friends and co-workers.

The examination of the satisfaction domain mean scores for individual activities reveal some general patterns. First, physical fitness is scored the highest of any domain in 12 of the activities and is scored highly in two other activities. Fun and relaxation scores also account for a large proportion of the second highest scores in a majority of activities. Activities with high scores for relaxation generally have lower scores for fun and vice versa. This result is an indication of the type of activity as the aerobics classes and sport leagues participants give fun high ratings,

and the individualized activities and special events (particularly Health Breaks) participants give relaxation high ratings. The environment, achievement, social enjoyment, and autonomy domains have scores which are generally the third highest in various activities. Risk is an exception in the general pattern because high scores are recorded in three separate activities. However, these risk scores may not have any real indication because the activities reporting those scores are low in the number of respondents. Family escape, family togetherness, risk, and autonomy are generally lower in mean scores for most activities, which corresponds to the observations made about the domains in general.

The comparison of satisfactions between format and area reveals similar results as well. The leagues format and the organized sport area both have the highest scores in physical fitness, fun, and social enjoyment. The leader led and open facility formats directly relate to the physical fitness area and have highest scores in physical fitness, environment, and relaxation domains. The only difference in this comparison is that achievement is the third highest score and environment is the fourth highest score for the leader led area. The special event format and the social area are related and both reveal high scores for physical fitness, relaxation, and risk. These results indicate that the formats and areas related to each other in regard to the activity they represent have domains with similar mean scores. These results also indicate that there are differences between the unrelated categories of format and area.

Examination of the mean scores for overall satisfaction in each

of the activities reveals that participants are satisfied with a particular activity in general. Examination of the importance of participation and compared importance of participation mean scores also reveals that most of the activities are important to the participants and the participants are unlikely to give up those activities. Scores for Wellness Luncheons, the Volleyball League, and the Basketball League are lower and indicate that the activities are not as important to the participants and those participants may be likely to give up the particular activity. The only activity which reveals a different pattern is Wellness Breaks. Participants rate the activity as important but may be likely to give up the activity. This result may be due to the time of program delivery. Wellness Breaks do not have a regularly scheduled time during the day of activity involvement. Therefore, if the participant is involved in a work task when the relaxation leader arrives on the department floor, the individual may decide to not participate.

To summarize, the wellness program activities do contribute to the satisfactions of employees and the mean scores indicate that the degree of satisfaction for each domain is very high in general. Physical fitness followed by fun and relaxation account for the highest degree of satisfaction in a majority of programs. Results of the examination of formats and areas also indicate similar patterns. Overall, employees are satisfied with participation in the activities in general. Most employees also rate importance of participation and compared importance of participation with high scores. However, the examination of mean score general results indicates that there are

differences in the leisure satisfactions of participants in different activities.

Analyses of Variance

The analyses of variance using the Duncan Multiple Range Test was utilized to determine if there were significant differences in satisfactions among the activities and to determine what those specific differences were. The same statistical procedures were used for analyses of satisfaction domains in relation to formats and activities. However, results were not reported in the results section because of the format and area similarities to the activity type (Appendix I). Finally, analysis of variance using the Duncan Multiple Range Test was utilized to determine if there were any significant differences between overall satisfaction, importance of participation, and compared importance of participation among the activities; and to determine what those specific differences were. Each of the analysis of variance tests between the outlined variables showed significance at the .05 error level. The only exception was the analysis between achievement and area. Examination of the area categories in relation to achievement revealed that the mean scores were very close in value.

The results of the analyses and activity discrimination clearly indicates that there are differences in the perceived ratings of satisfaction domains. The information obtained from the analyses is important in determining which activities contribute the most to

particular satisfactions and which activities contribute the least to the satisfactions of employees. Examination of this information should also take into consideration the nature of the specific activity.

Physical fitness

The physical fitness scores in all of the activities are high in value with Advanced Aerobics, Bilevel Aerobics, Get Fit-Be Well, and the Basketball League receiving the highest ratings. These high ratings can be attributed to the high level of cardiovascular intensity involved in each of the activities. Feeling Good, Nautilus, and Health Breaks received lower ratings and this is reflective of their low levels or lack or cardiovascular intensity. Only one participant of the Wellness Luncheons activity used physical fitness as a satisfaction, and this is also reflective of the lack of actual physical activity involved in the activity.

Fun

Fun also reports high ratings in most of the activities; however, there are score differences which should be discussed. The sport league activities have the highest mean scores and are followed in high scores by some of the aerobic and fitness classes. The high scores in these activities relate to the high level of variety and action involved in each session. The individualized activities and special event activities report lower levels of fun. The low scores of individualized activities can be attributed to lack of variety related to the specific activity. Therefore, the activity unlikely contributes to the excitement source of the fun domain. The researcher

also notes that low scores in Wellness Luncheons and Health Breaks may relate to the excitement source as well. Health Breaks generally focus on one specific activity and are geared at relaxing the individual. The lower score in the Wellness Luncheons should be noted. If the topics of the luncheons are meant to provide information and do not involve active participation, the low value is probably not of concern. However, if the activities do focus on active involvement of participants, alteration of the activity may need to be addressed.

Environment

In general, the mean scores for environment are generally high. Bilevel Aerobics and Get Fit-Be Well reveal the highest ratings. The Stationary Bicycle activity and Wellness Luncheons activity have significantly lower scores than the two highly scored activities. The low score in the Stationary Bicycle activity may be attributable to the condition of the equipment. The site of the Wellness Luncheons may also need to be examined as a contributor to a lower rating of satisfaction.

Relaxation

The scores of relaxation for each activity are generally high. The Health Breaks activity mean score is 6.76 out of a possible 7. The specific focus of this activity is to help the participants to relax, relieve tension, then return to work. The Basketball League is significantly different from almost every other activity. Generally, physical activities contribute to both physical and mental

relaxation if the activity is sustained at a certain level of intensity over a certain amount of time. Basketball is generally a stop and start activity. The league format also involves substitution of players. Therefore, participants are not likely to sustain the intensity of activity over time.

Achievement

Mean satisfaction scores for achievement are generally high. However, the Stationary Bicycle activity reveals a significantly lower score in a majority of pairs with other activities. Further examination of this activity is needed to determine what factors contribute to lower participant ratings of the activity.

Social enjoyment

This analysis reveals that the individualized activities generally contribute less to social enjoyment. This finding is attributable to the individual nature of the activity. The Wellness Luncheons activity and Health Breaks activity also reveal significantly lower scores in a few pairings. The Health Breaks activity focuses on an individual type of experience as well. The Wellness Luncheons need further examination because the activity is social in nature. The activities with highest scores are the sport leagues and this is certainly attributable to the grouping of friends and co-workers to form teams.

Autonomy

The Health Breaks activity reveals the highest mean score and is attributable to the chance for an individual to be on his/her own and to have control over what is happening in the few minutes of the activity session. The individual activities generally have high scores. However, the Stationary Bicycle activity has significantly lower scores in the pairings with Treadmill and Nautilus. This result indicates that further examination should be undertaken in regard to the Stationary Bicycle activity. The sport leagues also reveal lower scores but can be attributed to participation with other people and generally not having control of other participants' actions.

Risk

In general, fewer participants report risk as a satisfaction and those that did generally give lower ratings in comparison to other domains. However, Advanced Aerobics and Get Fit-Be Well reveal higher scores. This may be attributable to the high intensity of physical activity involved in these activities. Treadmill also reveals a high score and this may be a reflection of the treadmill apparatus itself. The Health Breaks and Wellness Luncheons activities also reveal high scores but the low number of subjects suggests that these activities are not a valuable indicator of this satisfaction.

Family escape and family togetherness

Because of the dichotomous nature of these two satisfactions, they are discussed together. Both domains reveal less than satisfying

scores in a few activities; however, some of the low scores in one domain are related to high scores in corresponding activities of the other domain. This relationship is revealed in the sport leagues where family escape is low and family togetherness is high in ratings. In both domains, the Stationary Bicycle has low scores and is revealed in the pairs of significant difference.

In general, family togetherness has scores which are satisfying or less than satisfying. The standard deviations are very high; therefore, respondents do not agree on this satisfaction. The low family togetherness ratings are not an unexpected finding because the activities with low ratings generally do not involve employees' families. The ratings of family escape are rated as satisfying in general and the standard deviations do indicate that the respondents are generally in agreement. However, family escape may not be an important indicator of leisure satisfaction in employee wellness programs because the focus of program provision is to provide an outlet from work tasks rather than the family.

Overall satisfaction

The scores of overall satisfaction for each activity are very high; therefore, the participants are satisfied in an overall sense. The analysis reveals that Advanced Aerobics and Aquatic Fitness are both significantly higher in score than the Stationary Bicycle activity; however, the researcher feels that the difference does not have any significant implication.

Importance of participation and compared importance of participation

Both variables are related to a degree; therefore, they are discussed together. In general, employees rate their participation in a particular activity as important and are unlikely to give up the activity. However, the significant differences in these analyses supports the observations made about importance in the general findings. The sport leagues and Wellness Luncheons reveal significantly lower scores in both importance measures. Therefore, further evaluation of these activities by the program manager is needed to determine what changes may be needed to enhance the motivation to continue participation. The Health Breaks activity also warrants additional scrutiny as it is significantly lower in score than a number of other activities in relation to compared importance but did not reveal any significance of difference in the importance of participation. Finally, the Stationary Bicycle activity is significantly lower in importance than the Nautilus activity and warrants additional scrutiny by the program manager.

To summarize, the researcher did expect differences in the satisfaction among the 15 activities. The determination of differences may be helpful to the program manager in assessing achievement of expected outcomes for a particular activity. The analyses to determine significant differences of satisfactions, overall satisfaction, and the importance variables among activities does identify some specific differences. However, some of the differences are attributable to the differences in the varying focuses of activities. Activities that

reveal significant differences of concern are identified and are included as recommendations to the program manager.

Congruency with Program Goals

The final step of this study is the determination of congruency between satisfactions with activity participation and the program goals and objectives of activity provision. The administrative program goals include:

1. develop employee awareness of services;
2. progressively increase employee participation;
3. encourage and support participation of employees in all departmental units;
4. progressively increase program growth and development; and
5. contribute to the health and well-being of employees.

Specific objectives of the Mercy wellness program include:

1. to facilitate in assisting employees effectively cope with daily rigors of job tasks;
2. to facilitate and positively effect the physical and mental fitness of employees;
3. to facilitate and positively effect the morale of employees; and
4. to provide a variety of fun and educational activities which promote healthy employee behavior.

The results of this study can be directly related to the general goal of contributing to the health and well-being of employees. The

activities in this study positively contribute to leisure satisfactions as rated by participants. Therefore, the assumption can be made that the Mercy Wellness Center program does contribute to the health and well-being of employees.

The assessment of satisfactions has more specific implications for the congruency with specific program objectives. The data from this study indicates that employees in activities report that their participation affords them realized opportunities for physical fitness, fun, relaxation, achievement, social enjoyment, and environment satisfactions. All of these satisfactions are related to the outlined program objectives to some degree. Physical fitness and relaxation are analogous to the objectives of assiting employees cope with rigors of job tasks and positively effecting the physical and mental fitness of employees. Mental fitness is closely related to the achievement domain which deals with participant feelings of task mastery and accomplishment. All of the outlined satisfactions relate to the morale of employees. Fun is related to high morale and provides evidence that while in wellness activities, the employees are in the cheerful state usually associated with morale. The social enjoyment domain includes items such as enjoying the activity with friends which relates to the objective of providing fun activities promoting healthy employee behavior. Most importantly, the physical fitness domain which was rated the highest in most activities is by far the most analogous to all of the specific objectives of the program.

Summary

A wide range of satisfactions are provided by the wellness activities. The employees of the Mercy Wellness Center are experiencing the satisfactions in activities which are desired by the company. Furthermore, the employees are generally pleased in terms of overall satisfaction and participation in the programs is important. Therefore, the results of this study can be used for documentation and justification of the activities in general. The information from this study may also be used by the program manager for more specific determination of which activities need adjustment, elimination, or replacement in relation to specific expectations of activity focus and outcome.

Implications of the Study

The results of this study clearly indicate that the activities of this study do contribute to the leisure satisfactions of employees. The degree of contribution is also very high. The examination of differences of satisfactions among activities indicates that there are differences; however, these differences generally relate to the specific focus of the activity. However, the research does indicate that further examination of five activities should occur. The Stationary Bicycle activity should be examined in terms of the condition of the equipment and the expected outcomes of those individuals who regularly participate. The Health Breaks are important to the participants and do contribute a high degree of relaxation. However, participants

are likely to give up participation; therefore, further examination of this program should occur as well. The Wellness Luncheons also need examination in terms of the presentation topics, setting of program delivery, and general expectations of the participants. Finally, the Volleyball League and the Basketball League activities need additional examination in terms of motivating employees to continue participation in the future.

Recommendations for Future Study

Although the present study is informative with respect to the questions posed, additional questions regarding the satisfactions of participants in employee wellness programs should be addressed. These questions include:

1. Does length of involvement in an activity have an effect on the satisfactions of employees?
2. Does activity attendance have an effect on the satisfactions of employees?
3. Does additional participation in other activities have an effect on the satisfactions of employees?
4. Does participation in programs outside of the employee wellness program have an effect on the satisfactions of employees?

The researcher also recommends the following alterations for gathering data:

1. Administer questionnaires to a random sample of employee

members and request the individuals to indicate the primary activity of participation.

2. Collect the data during a peak season of participation to insure a large number of responses.

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APPENDIX A.

SATISFACTION DOMAINS AND CORRESPONDING STATEMENTS

Achievement
- I learned more about the activity
- It was a new and different experience
- My skills and abilities developed
- I became better at it

Autonomy
- I was in control of things that happened
- It gave me a chance to be on my own
- I had control over things

Environment
- I liked the open space
- The area was physically attractive
- The freshness and cleanliness of the area
- The activity took place in a comfortable climate

Family Escape
- Able to get away from family for awhile

Family Togetherness
- My family could do this together

Fun
- I had fun
- It was exciting

Physical Fitness
- I enjoyed the physical exercise
- It keeps me physically fit

Relaxation
- I got to relax physically
- It gave my mind a rest
- It was a pleasant escape

Risk
- I liked the personal risks involved
- I liked the chance for risk

Social Enjoyment
- I enjoyed the companionship
- People were considerate
- Enjoying it with my friends

APPENDIX B.

RESEARCH PROPOSAL FOR MERCY WELLNESS CENTER

Study Proposal:

Participant Satisfaction Ratings of an Employee Wellness Program

Kathleen Hill

Iowa State University
April, 1986

The following proposal is a general outline of the study I wish to undertake at the Mercy Wellness Center at Mercy Hospital in Des Moines, Iowa. If the proposal is approved, additional questions regarding the selection of activities, method of instrument administration, definition of program goals and objectives, and time frame will need to be addressed. Thank you for your consideration.

Leisure Satisfaction and Evaluation

People participate in leisure to solve problems they cannot solve in life's other social spaces or that they believe can be better solved in leisure experiences. Resolution of the problem state or achieving the preferred state places the individual in a state of pleasure (i.e., an awareness of a positive experience). These pleasurable, positive experiences are the satisfactions derived from leisure participation. The leisure satisfactions important to this study are:

1. Achievement
2. Autonomy
3. Environment
4. Family Escape
5. Family Togetherness
6. Fun
7. Physical Fitness
8. Relaxation
9. Risk
10. Social Enjoyment

Satisfactions lead to human benefits which are more general and enduring of the improved human conditions resulting from continuing satisfaction.

The long term societal and individual benefits are the ultimate goals of leisure provision. The provision of satisfying leisure experiences is the most general and central concern of all leisure program delivery systems. In general, the evaluation of leisure programs entails soliciting information and examining the criteria used in making judgements of worth. The information derived from participant ratings of satisfactions in leisure programs is the core of the proposed evaluation process. Participant evaluation determines whether a program is succeding. This statement is based on the theory that the goal of the leisure experience should be in congruence between the satisfaction sought and the satisfaction obtained.

Purpose of the Study

The purpose of the study is to examine and assess the reported satisfactions of leisure participation within particular activities of the employee wellness program. The information derived from the examination and analyses will be used to determine if the wellness program activities contribute to the satisfactions of participants and if there are any significant differences in the satisfactions of participants among the activities.

Questions

To accomplish the purpose of the study, it will be necessary to answer such questions as the following:

1. To what degree do the wellness programs aid in contributing to leisure satisfactions of participants?
2. Are there differences in the satisfaction of participants in different activities and corresponding formats and areas?
3. Are there differences in importance of participation, compared importance of participation, and overall satisfaction of participants in different activities?

Sources of Data

Data in this study will be secured from the participants in selected activities of the Mercy Wellness Center Program. Risks to the employees should be minimal because their personal responses to the evaluation instrument will remain confidential and should have no negative impact upon their participation in the activities and their work.

Supervision of the Study

The study is under the general supervision of the advisory committee associated with my graduate program at Iowa State University. Assistance of the Wellness Center Manager will be required to assist in answering additional questions pertinent to the study and to orient the researcher with the Mercy Wellness Center. However, the manager's assistance will not require an undue amount of time away from his daily work tasks.

Instrument Description

The satisfaction rating instrument was developed in a dissertation study by J.R. Rossman at the University of Illinois at Urbana-Champaign (1982). The instrument was initially tested in a wide variety of public leisure programs. Through statistical testing, the form has been refined to its present 25 statement form and is considered valid as an appropriate means for leisure program satisfaction evaluation. Rossman used the instrument to evaluate the employee fitness and recreation programs at Johnson Wax in Racine, Wisconsin. The study results indicated that the program managers benefitted from the study's information.

Instrument Composition:

* 25 satisfaction source statements with a Likert 7 point scaling system (very satisfying - satisfying - contributed no satisfaction)
  Example statements:
  I enjoyed the physical exercise
  It gave my mind a rest
  I had fun
  My skills and abilities developed

* The 25 satisfaction source statements correspond to the ten satisfaction domains identified at the beginning of the proposal.

* Additional variable information rating items specific to the activitiy include:
  1. Importance of participation
  2. Overall satisfaction
  3. Compared importance of participation

* Additional questions asking descriptive information include:
  1. Age
  2. Sex
  3. Education
  4. Occupation
  5. Income
  6. Program attendance
  7. Length of activity attendance
  8. Length of program membership
  9. Participation in other Wellness Center programs
  10. Participation in other programs outside of the Mercy Wellness program

Conclusions and Implications

Conclusions and implications will be formulated upon the basis of the findings and submitted to the manager of the Mercy Wellness Center. The information derived from the study may have implications for recognition of the satisfaction outcomes which may help with justification of the program. The findings may also have implications for needed adjustment or elimination of activities. In general, the activity managers may be able to utilize this information to maximize the probability of certain satisfactions being realized by offering the specific kinds of program activities which contribute to those satisfactions.

APPENDIX C.

INFORMED CONSENT STATEMENT

MERCY HOSPITAL MEDICAL CENTER

May 13, 1986

TO WHOM IT MAY CONCERN,

This is to verify that Kathy Hill has requested that Mercy Hospital Wellness Center in Des Moines be the site for a satisfaction survey. She has met all formal application requirements.

Approval was granted by Administration in April, 1986. It is expected that the survey will be conducted in the month of May with results in June.

Sincerely,

Eugene R. Abler, Manager
Wellness Programs/Center

ERA/bg

SIXTH & UNIVERSITY DES MOINES, IOWA 50314 515-247-3121

APPENDIX D.

MERCY WELLNESS CENTER PROGRAM SELECTED ACTIVITIES WITH CORRESPONDING FORMATS AND AREAS

Activities with Corresponding Formats and Areas

1. Regular Aerobics/F1, A1
2. Advanced Aerobics/F1, A1
3. Bilevel Aerobics/F1, A1
4. Fitness/F1, A1
5. Feeling Good/F1, A1
6. Get Fit — Be Well/F1, A1
7. Aquatic Exercise/F1, A1
8. Stationary Bicycle/F1, A4
9. Treadmill/F1, A4
10. Nautilus/F1, A4
11. General Individual/F1, A4
12. Wellness Luncheons/F4, A3
13. Health Breaks/F3, A3
14. Volleyball League/F2, A2
15. Basketball League/F2, A2

Format Code

F1. Physical Fitness
F2. Organized Sport
F3. Mental/Relaxation
F4. Social

Area Code

A1. Leader Led
A2. Leagues
A3. Special Event
A4. Open Facility

APPENDIX E.

MERCY WELLNESS CENTER

PROGRAM GOALS AND OBJECTIVES

Administrative Program Goals:

The Mercy Wellness Center program was opened in 1981. The hospital administration has supported the existence of the program by commitment to the following goals:

1. Develop employee awareness of services;
2. Progressively increase employee participation;
3. Encourage and support participation of employees in all departmental units;
4. Progressively increase program growth and development;
5. Contribute to the health and well-being of employees.

Specific objectives of the Mercy Wellness Center program included:

1. To facilitate in assisting employees effectively cope with daily rigors of job tasks;
2. To facilitate and positively effect the physical and mental fitness of employees;
3. To facilitate and positively effect the morale of employees;
4. To provide a variety of fun and educational activities which promote healthy employee behavior.

APPENDIX F.

COVER LETTER ACCOMPANYING IN-PROGRAM INSTRUMENT

Mercy Hospital
Medical Center
Des Moines, Iowa 50314

Dear Mercy Wellness Center Participant:

We are interested in what contributed to your satisfaction with the _____ program. Please complete both sides of the attached Leisure Program Evaluation Form and indicate the degree to which EACH of the statements contributed to your satisfacton with this program. Individual responses will remain anonymous and will only be used in an aggregate form to help design future programs. A survey summary will be available at the Wellness Center upon completion of the study.

Completion of the survey requires 5 to 10 minutes. Please return the completed form to the evaluation box located at the Wellness Center sign-in area.

Thank you for your help.

Kathleen Hill

Graduate Student
Iowa State University

Eugene R. Abler

Mercy Wellness Center Manager

APPENDIX G.

COVER LETTER ACCOMPANYING INTERDEPARTMENTAL MAIL INSTRUMENT

Mercy Hospital
Medical Center
Des Moines, Iowa 50314

Dear Mercy Wellness Center Participant:

We are interested in what contributed to your satisfaction with the _____ program. Please complete both sides of the attached Leisure Program Evaluation Form and indicate the degree to which EACH of the statements contributed to your satisfaction with this program. Individual responses will remain anonymous and will only be used in an aggregate form to help design future programs. A survey summary will be available at the Wellness Center upon completion of the study.

Completion of the form requires 5 to 10 minutes. Please return the completed form within 24 hours to the Mercy Wellness Center in the inter-departmental mail or by dropping the form into the evaluation return box located at the Wellness Center sign-in area.

Thank you for your help.

Kathleen Hill

Graduate Student
Iowa State University

Eugene R. Abler

Mercy Wellness Center Manager

APPENDIX H.

LEISURE PROGRAM EVALUATION INSTRUMENT

LEISURE PROGRAM EVALUATION FORM

PROGRAM_____

Listed below are statements that may reflect your satisfaction with this program. Please indicate by circling the appropriate number on each scale the degree to which each statement contributed to <u>your</u> satisfaction with this program. Statements which you believe do not apply to this program should be marked by circling the 0 in the Not Applicable column.

	Very Satisfying						Contributed No Satisfaction	Not Applicable
1. My family could do this together.....	7	6	5	4	3	2	1	0
2. I liked the open space.....	7	6	5	4	3	2	1	0
3. I learned more about the activity.....	7	6	5	4	3	2	1	0
4. I got to relax physically.....	7	6	5	4	3	2	1	0
5. I like the personal risks involved.....	7	6	5	4	3	2	1	0
6. I enjoyed the physical exercise.....	7	6	5	4	3	2	1	0
7. The area was physically attractive.....	7	6	5	4	3	2	1	0
8. It was a new and different experience.....	7	6	5	4	3	2	1	0
9. My skills & abilities developed.....	7	6	5	4	3	2	1	0
10. It gave my mind a rest.....	7	6	5	4	3	2	1	0
11. The freshness & cleanliness of the area.....	7	6	5	4	3	2	1	0
12. It was exciting.....	7	6	5	4	3	2	1	0
13. It keeps me physically fit.....	7	6	5	4	3	2	1	0
14. I was in control of things that happened.....	7	6	5	4	3	2	1	0
15. I enjoyed the companionship.....	7	6	5	4	3	2	1	0
16. The activity took place in a comfortable climate	7	6	5	4	3	2	1	0
17. I liked the chance for risk.....	7	6	5	4	3	2	1	0
18. It gave me a chance to be on my own.....	7	6	5	4	3	2	1	0
19. People are considerate.....	7	6	5	4	3	2	1	0
20. Able to get away from family for awhile.....	7	6	5	4	3	2	1	0
21. Enjoying it with my friends.....	7	6	5	4	3	2	1	0
22. I became better at it.....	7	6	5	4	3	2	1	0
23. I had control over things.....	7	6	5	4	3	2	1	0
24. I had fun.....	7	6	5	4	3	2	1	0
25. It was a pleasant escape.....	7	6	5	4	3	2	1	0

PLEASE TURN AND COMPLETE SIDE TWO

BELOW ARE THREE STATEMENTS ABOUT PARTICIPATING IN THIS PROGRAM. PLEASE CIRCLE A NUMBER ON EACH SCALE THAT BEST REFLECTS YOUR VIEW.

1. How important is participating in this program to you?

   Very Important - Somewhat Important - Not Important
   7 - 6 - 5 - 4 - 3 - 2 - 1

2. Which of the following statements reflects your overall satisfaction with this program?

   Delighted - Pleased - Mostly Satisfied - Mixed - Mostly Dissatisfied - Unhappy - Terrible
   7 - 6 - 5 - 4 - 3 - 2 - 1

3. Please compare this program with all others you participate in from time to time. Compared to your other programs, what priority would you assign it?

   One I would least like to give up _____ One I would give up first
   7 - 6 - 5 - 4 - 3 - 2 - 1

PLEASE GIVE US THE FOLLOWING INFORMATION BY CIRCLING ONE ANSWER FOR EACH QUESTION.

1. Length of involvement in this particular program?

   0-3 months 4-6 months 7-12 months 2 years 3 years 4 years 5 years

2. Program attendance?

   1st half program 2nd half program regular attendance infrequent attendance

3. Length of Mercy Wellness Center membership?

   0-3 months 4-6 months 7-12 months 2 years 3 years 4 years 5 years

4. Do you participate in any other Mercy Wellness Center programs?

   none 1 2 3 4 5 6

5. Do you participate in any other leisure programs other than the Mercy Wellness Center?

   None public community private club YMCA YWCA university other

6. I am male female ?

7. I am ___ years old?

   16-19 20-29 30-39 40-49 50-59 60-69 70+

8. Occupation?

   environmental service secretary/reception data processing dietary nurse doctor

   medical technician administrator volunteer other professional

9. Income range?

   $0-10,000 $10,001-15,000 $15,001-20,000 $20,001-25,000 $25,001-30,000 $30,001-40,000

   $40,001-50,000 $50,001+

10. Education level attained?

    attended high school high school degree attended college college degree

    attended graduate school masters degree doctoral degree professional degree

****

OFFICE USE ONLY

Program Format: 1 2 3 4 5

Program Area: 1 2 3 4 5

Activity Number _____

APPENDIX I.

ANALYSIS OF VARIANCE

SATISFACTION DOMAINS BY FORMAT AND AREA

Table I1. Analysis of variance physical fitness by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	6.6238	2.2079	4.2072	.0068*
Within groups	156	81.8699	.5248		
Total	159	88.4937			

*Significant at the .05 level.

Table I2. Analysis of variance fun by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	56.1549	18.7183	21.9311	.0000*
Within groups	166	141.6819	.8535		
Total	169	197.8368			

*Significant at the .05 level.

Table I3. Analysis of variance environment by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	8.0599	2.6866	4.2355	.0065*
Within groups	158	100.2213	.6343		
Total	161	108.2812			

*Significant at the .05 level.

Table I4. Analysis of variance relaxation by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	14.6856	4.8952	5.6636	.0010*
Within groups	155	133.9699	.8643		
Total	158	148.6555			

*Significant at the .05 level.

Table I5. Analysis of variance achievement by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	17.0962	5.6987	6.4102	.0004*
Within groups	158	140.4628	.8890		
Total	161	157.5590			

*Significant at the .05 level.

Table I6. Analysis of variance social enjoyment by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	42.0860	14.0287	15.8738	.0000*
Within groups	150	132.5641	.8838		
Total	153	174.6501			

*Significant at the .05 level.

Table I7. Analysis of variance autonomy by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	7.9120	2.6373	3.3904	.0206*
Within groups	114	88.6794	.7779		
Total	117	96.5913			

*Significant at the .05 level.

Table I8. Analysis of variance risk by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	13.7639	4.5880	3.6009	.0160*
Within groups	103	131.2361	1.2741		
Total	106	145.0000			

*Significant at the .05 level.

Table I9. Analysis of variance family escape by format

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	20.4870	6.8290	4.8948	.0030*
Within groups	130	181.3712	1.3952		
Total	133	201.8582			

*Significant at the .05 level.

Table I10. Analysis of variance family togetherness by activity

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	37.0500	12.3500	4.5407	.0058*
Within groups	68	184.9500	2.7199		
Total	71	222.0000			

*Significant at the .05 level.

Table I11. Analysis of variance physical fitness by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	4.2830	1.4277	2.6448	.0512*
Within groups	156	84.2107	.5398		
Total	159	88.4937			

*Significant at the .05 level.

Table I12. Analysis of variance fun by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	34.7547	11.5849	11.7922	.0000*
Within groups	166	163.0820	.9824		
Total	169	197.8368			

*Significant at the .05 level.

Table I13. Analysis of variance environment by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	3.0544	1.0181	1.5287	.2092*
Within groups	158	105.2269	.6660		
Total	161	108.2812			

*Significant at the .05 level.

Table I14. Analysis of variance relaxation by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	20.7996	6.9332	8.4051	.0000*
Within groups	155	127.8559	.8249		
Total	158	148.6555			

*Significant at the .05 level.

Table I15. Analysis of variance achievement by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	.9275	.3092	.3119	.8168*
Within groups	158	156.6315	.9913		
Total	161	157.5590			

*Significant at the .05 level.

Table I16. Analysis of variance social enjoyment by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	25.0875	8.3625	8.3870	.0000*
Within groups	150	149.5626	.9971		
Total	153	174.6501			

*Significant at the .05 level.

Table I17. Analysis of variance autonomy by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	15.3930	5.1310	7.2038	.0002*
Within groups	114	81.1984	.7123		
Total	117	96.5913			

*Significant at the .05 level.

Table I18. Analysis of variance risk by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	14.2830	4.7610	3.7515	.0133*
Within groups	103	130.7170	1.2691		
Total	106	145.0000			

*Significant at the .05 level.

Table I19. Analysis of variance family escape by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	3	23.6753	7.8918	5.7577	.0010*
Within groups	130	178.1829	1.3706		
Total	133	201.8582			

*Significant at the .05 level.

Table I20. Analysis of variance family togetherness by area

	df	Sum of squares	Mean squares	F-ratio	F-prob.
Between groups	2	36.9808	18.4904	6.8957	.0019*
Within groups	69	185.0192	2.6814		
Total	71	222.0000			

*Significant at the .05 level.