



Factors contributing to regular mall walking  
by Anna Cecelia Brewer

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Nursing  
Montana State University

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Abstract:

This qualitative study employed ethnography, augmented by aspects of ethnonursing, to identify factors that contribute to participation in and adherence to regular physical activity. The regular physical activity of interest in this study was mall walking. Fourteen formal interviews were conducted with key informants, and supplemental data were obtained from 14 general informants for this study. Fifteen informants were male and 13 were female. Key informants were between the ages of 62 and 77.

Factors that contributed to participation in and adherence to regular mall walking included having a friend(s) or mate with whom to walk, making walking part of a daily routine, and having a safe, controlled environment in which to walk. Physical and psychological benefits of mall walking were also identified as reasons to persist at this activity.

The process of becoming a "regular" mall walker consisted of developing habits over time. "Regulars" were self-monitored participants in mall walking over at least a two year time period. "Regulars" went through the stages of "identifying a reason to start," "deciding to start," and "maintaining and/or persisting." Regular walking was interrupted only by vacations, illness, appointments, or unforeseen circumstances. However, walking was such a part of informants' lives that they would go through a stage of "coming back" to re-affiliate with the other regular walkers.

Nurses and other health care professionals could use findings from this study in the development and implementation of a rewarding yet beneficial activity, mall walking, with their clients.

Recommendations for further research were identified.

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APPROVAL

of a thesis submitted by

Anna Cecelia Brewer

This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

April 6, 1993  
Date

Ruth Vanderhoost  
Chairperson, Graduate Committee

Approved for the Major Department

4/8/93  
Date

Julie E. Johnson  
Head, Major Department

Approved for the College of Graduate Studies

4/12/93  
Date

PA Brown  
Graduate Dean

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Signature

*Anna Cecilia Brewer, M*

Date

*April 13, 1993*

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## ABSTRACT

This qualitative study employed ethnography, augmented by aspects of ethnonursing, to identify factors that contribute to participation in and adherence to regular physical activity. The regular physical activity of interest in this study was mall walking. Fourteen formal interviews were conducted with key informants, and supplemental data were obtained from 14 general informants for this study. Fifteen informants were male and 13 were female. Key informants were between the ages of 62 and 77.

Factors that contributed to participation in and adherence to regular mall walking included having a friend(s) or mate with whom to walk, making walking part of a daily routine, and having a safe, controlled environment in which to walk. Physical and psychological benefits of mall walking were also identified as reasons to persist at this activity.

The process of becoming a "regular" mall walker consisted of developing habits over time. "Regulars" were self-monitored participants in mall walking over at least a two year time period. "Regulars" went through the stages of "identifying a reason to start," "deciding to start," and "maintaining and/or persisting." Regular walking was interrupted only by vacations, illness, appointments, or unforeseen circumstances. However, walking was such a part of informants' lives that they would go through a stage of "coming back" to re-affiliate with the other regular walkers.

Nurses and other health care professionals could use findings from this study in the development and implementation of a rewarding yet beneficial activity, mall walking, with their clients. Recommendations for further research were identified.

## CHAPTER 1

### INTRODUCTION

Historically, the practice of nursing has focused on care given to those who are sick, ill, injured, and unhealthy in acute and chronic care settings or home environments (Phipps, Long, Woods, & Cassmeyer, 1991). In recent years clients, the consumers of health care, are becoming better informed and more active as decision makers in the kind and quality of care they need and want, and nursing is becoming prepared to meet these changing needs of the client. Health promotion directed towards actualizing human potential is increasingly becoming a concern and a part of nursing practice (Pender, 1987). In 1985 it was reported by Stephens, Jacobs, and White that only about 20% of the adult population in the United States engaged in optimal levels of activity. Optimal levels of activity have been described as having sufficient frequency, intensity, and duration for improvement of cardiovascular fitness (Edmunds, 1991; Pollock, 1988). Most optimal levels of activity are considered to be exercise.

Blair (1988) cites the prevalence of inactive (sedentary) Americans as 80% of the total population. Because ample evidence links regular exercise to optimal health, "elimination of sedentary habits in the United States would have a major impact on health for the population" (p. 85-86). Carl J. Caspersen, PhD, MPH,

exercise epidemiologist at the Communicable Disease Center (CDC), Behavioral Epidemiology and Evaluation Branch, reviewed 43 studies that linked inactivity with coronary heart disease (CHD) risk (Powell, Thompson, Caspersen, & Kendrick, 1987). Caspersen likens a sedentary lifestyle as a risk factor for CHD to a high cholesterol level, high blood pressure, or smoking a pack of cigarettes a day. The number one priority for health promotion described in Healthy People 2000, a report of the U. S. Public Health Service (1990), is physical activity and fitness.

Although physical fitness is the obvious benefit of exercise, research has shown exercise to have other benefits. Haskell (1984) cited several research studies that determined that men and women who selected physically active lifestyles on their own "generally demonstrate fewer clinical manifestations of coronary heart disease (CHD) than their sedentary counterparts; when events do occur, they tend to be less severe and to appear at an older age" (p. 413). A significant decrease in caloric intake was noted in a group of sedentary mildly obese women placed in a moderate exercise training group for which walking was the trained exercise (Nieman & Onasch, 1990). Pender (1987) identified 10 positive outcomes of a systematic walking program:

- (a) decreased percentage of body fat
- (b) improved circulation
- (c) increased muscle tone in legs
- (d) decreased problems of constipation
- (e) improved mental state, with decreased depression and anxiety
- (f) improved recovery index following exercise
- (g) lowered blood pressure
- (h) improved physical fitness

- (i) decreased risk of coronary heart disease
- (j) decreased bone demineralization (p. 315)

Other researchers have cited several psychological benefits of exercise including relief of stress and anxiety, a decrease in feelings of depression (Kobasa, Maddi, & Puccetti, 1982), and an increase in feelings of self-esteem (Hughes, 1984). Bergman and Boyungs (1991) determined an indoor walking program increased lean body composition in older women, indicating weight was not necessarily decreased, but there was a decrease in fat stores throughout the body.

Early in 1979, two major health agencies, the Office of Health Information, Health Promotion, Physical Fitness and Sports Medicine, and the Division of Environmental Epidemiology of the National Center for Health Statistics, conducted a survey called the National Survey of Personal Health Practices and Consequences (NSPHPC) Wave I. Completed interviews for Wave I totaled 3025. A follow-up NSPHPC Wave II was done one year later with a re-interview response of 2436 individuals. In comparing the results of the surveys it was found ". . . that physical fitness was the least stable preventive health behavior over time and the most difficult behavior to maintain" (Pender, 1987, p. 52).

There has been extensive research citing factors that affect adherence to regular exercise (Noland, 1989; Oldridge, 1984; Pollock, 1988; Tappe, Duda, & Ehrnwald, 1989). Among these factors are attitude towards physical activity, time, personality, type of exercise program, lack of reinforcement from other people, inclement weather, desire, self-motivation, spouse influence, medical problems, age,

sex, socioeconomic status, and body weight and composition. Dishman (1988) noted that adherence to exercise regimes averaged from 50 to 80% for the first 5 to 6 months of a program and then decreased to less than 50% for one year or longer. Most of these exercise regimes were structured aerobic activities.

Lewthwaite (1990) examined motivational considerations in physical activity involvement and concluded a number of psychological factors influence sport and exercise behavior. However, the personal factors of goal orientation, self-perception of capabilities, and perceptual-affective experiences are individual differences that affect the meaning attached to physical activity involvement. Social-environmental factors inside a program and outside the program also affect the meaning of physical activity.

#### Significance of the Study

Kulbok (1985) and Dishman (1988) have both acknowledged the importance of exercise as a preventive health behavior. However, they have noted exercise behavior to be the most difficult to maintain over time, particularly for longer than a year.

Mall walking, a form of walking, is done daily by many people in malls nationwide. In almost any mall that is open to the public by 6:00 a.m., a variety of walkers can be seen frequenting that environment. These people appear as single, double, or group walkers. Some move slowly; others walk more rapidly. Most spend from 30 minutes to 1 hour at this walking activity.

During an initial visit to observe mall walking activity, the researcher was approached by a walker known by the researcher to inquire why the researcher was not walking. When told the researcher was checking out the location and the possibility of walking, she stated, "We [she and her husband] come here or to the other mall at least six times a week and have been doing this for the last four years when the weather gets too bad, and we can't walk outside."

Mall walkers are unsupervised participants in activity. Identification of factors that lead to maintenance of an unsupervised routine exercise activity, such as mall walking, would contribute to what is currently known about why people adhere to regular programs of activity. Factor identification would also provide information for nursing interventions directed towards helping the generally sedentary population of the United States. Information that could be used to promote the health benefits of mall walking as a self-monitored achievable exercise activity may aid in persuading sedentary individuals to seek a healthy lifestyle behavior.

Many studies have examined factors affecting the regularity of exercise (Dishman, 1988; Gatch & Kendzierski, 1990; Gauvin, 1990; Noland, 1989). Most of the studies were conducted with subjects in controlled supervised groups achieving defined aerobic criteria (Pollock, 1988) for exercise. Little research has been done to examine why people choose to continue a regular physical activity that is self-monitored, such as mall walking (Dishman, 1988; Noland, 1989).



### Purpose and Aims

The purpose of this study was to identify the factors that contribute to participation in and adherence to regular mall walking. Specific aims of this research study were to: (a) describe the walking habits of regular mall walkers, (b) describe the self-perceived purposes of mall walking, (c) identify if mall walking is a self-determined or a prescribed activity, (d) identify the factors that promote adherence to participation in regular mall walking, (e) determine if any self-reported factors could be used to help inactive people choose mall walking as a regular activity, and (f) determine which theoretical framework, if any, would guide the practice of the resultant behavioral findings and this study.

### Definition of Terms

Regular mall walking: Participation in mall walking for at least 20 minutes three times a week (Murray & Zentner, 1985).

Regular: A mall walker who is observed walking for at least 20 minutes, three times a week.

Key informant: A regular mall walker chosen to complete a formal interview (Leininger, 1985).

General informant: A regular who was not chosen for a formal interview but who provided information to the researcher, knowing a study was being conducted (Leininger, 1985).

Motivation: The condition of being driven by a force, stimulus, incentive, or influence (Mish, 1988).

Exercise: "Bodily exertion for the sake of developing or maintaining physical fitness" (Mish, 1988). Walking is a type of exercise (DeBenedette, 1988).

Supervised activity: A type of physical activity that has a designated leader who helps monitor participation in and adherence to this activity.

Unsupervised activity: A type of physical activity that is monitored by the participant (self-monitored) and participation in and adherence to the activity can only be reported by the participant (self-reporting).

## CHAPTER 2

### REVIEW OF THE LITERATURE

The literature about exercise, walking as an exercise, and the benefits of regular exercise is extensive. Most regular exercise activities which have been studied are supervised exercise and/or aerobic programs. A dearth of information exists which discusses factors that contribute to initiation of and adherence to self-monitored and/or self-directed regular physical activities such as mall walking.

#### Exercise as a Health Behavior

There is ample evidence linking regular exercise to health and functional capability throughout life. Mish (1988) defined exercise as "bodily exertion for the sake of developing or maintaining physical fitness" (p. 34). Criteria for a regular physical activity were identified by Murray and Zentner (1985) as being for 20 minutes, 3 times a week.

Pollock (1988) defined the four main components of an exercise program as: (a) warm-up periods which last approximately 10 minutes and include such activities as stretching and walking, (b) muscular conditioning involving activities, such as calisthenics and weight training lasting approximately 10 to 20 minutes, (c) aerobics, which can include a fast walk, swimming, bicycling, or dancing that continues for 20

to 40 minutes, and, (d) cool-down periods that last approximately 5 to 10 minutes and include walking or stretching activities. Additional guidelines for exercise recommended by most researchers, according to Pollock, include a frequency of 3 to 5 days per week of aerobic activity at 60 to 90% of maximum heart rate reserve for 20 to 50 minutes. Porcari, McCarron, Kline, Freedson, Ward, and Ross (1987) conducted two related studies of 345 subjects (165 men and 178 women) and determined fast walking, defined as 70% of maximal heart rate, could offer an adequate aerobic training stimulus for most adults.

Gillis and Perry (1991) examined "the relationships between physical activity and health-promoting behaviors in mid-life women" (p. 299). Ninety-two rural women participated in this study. The experimental group consisted of 52 women, while there were only 40 in the control group. Five self-reporting instruments (Cantril's Well-Being Ladder, Rosenberg's Self-Esteem Scale, Health Locus of Control, Health Promoting Lifestyle Profile, and Health Perceptions Questionnaire) were administered at three different time intervals. The theoretical framework for the study was Pender's (1987) Health Promotion Model. Gillis and Perry determined that the subject's level of well being and ability to manage stress were the only two variables which demonstrated statistically significant differences positively influenced by participation in an exercise program.

Smith (1989) reviewed the benefits of aerobic exercise, summarized current knowledge of exercise physiology, and provided a practical guide for helping physicians guide patients through an exercise program. He determined that because

physical exercise has such a wide range of physical and psychological benefits, physicians should start their patients on an exercise program. "Through a combination of personal role-modeling, patient education about exercise physiology and the benefits of exercise, and appropriate use of the exercise prescription, physicians can make a major impact by converting patients from a sedentary to an active lifestyle" (p. 238). Nurses could also make a major impact in converting sedentary clients to active healthy lifestyles, starting with some type of walking.

### Walking as an Exercise

Nurses have the opportunity through patient education, screening clinics, and health promotion activities to provide information which can make an impact in choosing a physical exercise. Pollock, an exercise physiologist and professor of medicine, physiology, and human performance at the University of Florida, was quoted by Monahan (1987) as saying, "Most people can achieve 60% to 70% heart rate reserve in a very short time with walking" (p. 182). Walking, one of the oldest forms of motion, is now considered to be the most basic form of exercise (DeBenedette, 1988).

DeBenedette (1988) included mall walking in her ". . . far from exhaustive list of names recently assigned to an activity that basically consists of putting one foot in front of the other" (p. 148). She reported that "the U. S. Bureau of Census estimates that 100 million Americans walk for pleasure and fitness" (p. 145).

According to DeBenedette, regular walking is identified by walking experts as being

"an excellent form of exercise for almost any healthy individual" (p. 148). Pender (1987) describes walking as an endurance exercise that is safe for people of all ages.

Paffenbarger, Hyde, Wing, and Hsieh (1986) in examining the physical activity and other lifestyle characteristics of 16,936 Harvard alumni found "mortality rates were significantly lower among the physically active" (p. 605). They also found "a gradient effect of walking led to a 21% lower risk of death as distance was increased from less than 3 miles to 9 or more miles per week" (p. 606).

#### Initiation of and Adherence to Physical Activity

Several authors have looked at motivational features of exercise and lifestyle behaviors (Blair, 1988; Gauvin, 1990; Gillis & Perry, 1990; Lewthwaite, 1990; Smith, 1989; Stodefalko, 1985). Gauvin (1990) used a qualitative approach to study components of exercise. Gauvin, along with other researchers in the field of sport and exercise psychology, conducted research studies to try to identify the motivational processes underlying participation in physical activity. She focused on direction, intensity, and persistence. Her subjects were autonomous exercisers, fitness program enrollees, fitness program dropouts, or sedentary individuals. Gauvin learned that autonomous exercisers differed from fitness program enrollees, dropouts, and sedentary individuals in their motives for exercising, enjoyment of exercising, effort, and intensity at which they approached exercise, and in planning

and persisting at their exercise activity. Gauvin defined an autonomous exerciser motivationally as one who met the following criteria:

Direction: 1 - has strong fitness/health motives; 2 - strong liking for the physical activity per se; 3 - a dislike for unpleasant surrounding factors; 4 - has a self-regulated mode of mobilizing energies towards exercise involvement; 5 - successfully engages in a specific activity.

Intensity: 1 - expends a high, yet reasonable, amount of effort to physical activity; 2 - when involved in exercise demonstrates high, yet realistic, levels of intensity (. . . concentration, facial expression); 3 - streamlined thoughts during exercise.

Persistence: 1 - has relapse prevention skills; 2 - feels guilt and emptiness as a result of a missed workout; 3 - feels energized following a workout; 4 - persists in exercise. (p. 57)

Gauvin credited Dishman (1985, 1988) with providing a wealth of descriptive information related to continued exercise involvement. Gauvin concluded there is a limited amount of explanatory information available to clarify how and why personal, situational, and program factors relate to continued exercise involvement in a positive or negative way. This was partially attributed to "the absence of a consensus in conceptually defining motivation in exercise settings (Perkins & Epstein, 1988), to the use of varied measurement instruments (Dishman, 1982, 1988; Martin & Dubbert, 1984) and to the over-reliance on specific samples of adherers (persisters vs. dropouts) in studying motivation in exercise settings" (Dishman, 1988, p. 52).

Fishbein and Ajzen (1975) introduced a model of attitudes, intentions and behaviors. This was further developed into the "theory of reasoned action" (Fishbein & Ajzen, 1980) and was refined by Ajzen (1985) as the "theory of

planned behavior." Gatch and Kendzierski (1990) examined the "utility of the theory of planned behavior (Ajzen, 1985) for predicting exercise intentions" (p. 100). The researchers concluded the theory of planned behavior could predict exercise intentions better than the theory of reasoned action.

Fleury (1991) developed a theory of wellness motivation called "empowering potential" to explain ". . . individual motivation to initiate and sustain cardiovascular health behavior" (p. 286). Empowering potential as a process was defined as having three stages; appraising readiness, changing, and integrating change. Appraising readiness included re-evaluating the worth of the behavior, identifying barriers to achieving the behavior, and owning the change if the choice to change was made. Changing included enacting strategies to achieve the behavior, creating loopholes which enabled flexibility, identifying how to overcome lapse, self-monitoring to assure achievement of the behavior, and affirming change which acknowledged information supporting the intention to change. Integrating change involved creating rituals, achieving harmony, and transforming change which meant the change became a part of their daily routine. Imaging and social support systems were categories occurring throughout this process to facilitate a persons "empowering potential."

Lewthwaite (1990) presented a conceptual model that organized the motivational variables of personal and social-environmental factors affecting meaning and behavior in contexts of physical activity. She used factors identified by several recent motivational theorists to develop her conceptual model. Personal



factors included were goal orientations, self-perceptions of capabilities, and perceptual-affective experiences. Social-environmental factors included staff, patient, and group interactions inside the program, support of family/friends, socialization history in physical activity/health, and socio-cultural influences. Behavior was described as directed in the forms of choice, effort, persistence, and performance.

Dishman (1988) compiled information on exercise adherence. His book, Exercise Adherence: Its Effect on Public Health, developed from his interest in the relationship of physical activity to health. Although many studies have been done to explain adherence to physical activity, Dishman, along with a panel of 33 experts, made nineteen recommendations for future study. Four of his recommendations for further study could be explored in an ethnographic qualitative study of regular mall walking:

[a] determine factors that lead to the decision or intention to begin a physical activity program, [b] identify and put in priority the critical interactions, within and among personal and environmental factors, that determine a person's willingness and ability to be active, [c] determine the behavioral significance of perceived barriers to activity . . . and [d] determine the degree to which influences on participation may vary for different activity behaviors (p. 423).

### Summary

An extensive body of literature reflects that walking, which includes mall walking, is an exercise that can be done by all age groups. A large body of literature specific to exercise and exercise behavior was found. Studies conducted

to examine exercise behaviors were most often carried out within a structured exercise program environment (Dishman, 1988; Gauvin, 1990) and compared to a group of non-exercisers. It was not surprising to learn that the participants who continued with the programs over a longer time period were those who were supervised and rewarded (Dishman, 1988; Gauvin, 1990). Factors that contribute to participation and persistence in unsupervised physical activity have not been so extensively studied.

### Conceptual/Theoretical Framework

There are a number of theories that may explain the behavior of regular mall walking (Bandura, 1986; Dishman, 1988; Fleury, 1991; Prochaska & DiClemente, 1983). Gauvin (1990) used a qualitative approach to describe the cognitive, emotional, and behavioral concomitants of E. Duffy's (1949) motivational factors. Gauvin further explored these factors of direction, intensity, and persistence for exercise in individuals displaying different levels of exercise involvement. She noted there was a problem of defining and operationalizing motivation in each of the motivational models used to describe adherence to regular exercise. Until further data were obtained, identification of an explicit theoretical framework was delayed. Development of a theoretical framework was an aim of this study.

## CHAPTER 3

## RESEARCH METHODOLOGY

Design

The focus of this study was to identify the factors influencing participation in and adherence to regular mall walking. Ethnography (Spradley, 1979), a type of qualitative discovery approach, was used to obtain data from the mall walking culture. Components of the ethnonursing (Leininger, 1985) approach were integrated. "Ethnography is an excellent means to capture and understand human lifeways within specific environmental and cultural contexts" (Leininger, 1985, p. 40). The ethnonursing approach augmented ethnography through the use of Leininger's "sequenced phases of observation-participation field method" (p. 52). The four phases are: (a) primarily observation, (b) primarily observation with some participation, (c) primarily participation with some observation, and (d) reflective observations of impact. This approach facilitated the development of the rapport process (Spradley, 1979). Ideas from Schatzman and Strauss's (1973) field research strategies for watching, listening, and recording were also employed and allowed the researcher to recognize the role of "observer as a participant" (p. 61).

### Population and Sample

The population studied was people who regularly participate in early morning mall walking at a small indoor shopping mall within an urban community located in the northwestern part of the United States. The number and ages of the mall walker population varied at any given time. However, anywhere from 5 to 55 different walkers of varying adult ages were observed between the hours of 6:00 a.m. to 8:00 a.m. at the mall. Fourteen key informants and 14 general informants were identified for participation in this study. Key informants had a history of regular mall walking for a period of 2 to 10 years. Informants who only walked in the mall during inclement weather and who otherwise walked regularly at another location were also included in this study. Each key informant had a history of walking regularly for at least 20 minutes, 3 times or more a week. Key informants and general informants were selected after the researcher spent time observing, participating, and becoming a part of the mall walking culture. Key informants included 6 females and 8 males between the ages of 62 and 77. General informants included 7 males and 7 females, all older than 50. Demographic characteristics of the key informants are provided in Appendix A.

### Procedure

Two pre-visits were used to "get general information and a feel for the community" (Leininger, 1985, p. 47) to be studied. Using Leininger's sequenced

phases, three days were spent at different locations in the mall observing and determining which walkers might be selected for key informants. It was noted during this initial observation phase that certain walkers acknowledged each other with a nod, wave, smile, or a verbal greeting, whereas others did not. Spradley (1979) suggested documenting the findings from listening and observing in field notes. It was from these findings that the researcher learned about the mall walking culture. Five potential key informants were identified by the end of this time frame.

The next three days were spent in Leininger's second phase of observation and minimal participation. During this phase the researcher determined the group had accepted her presence. Key informants were selected after observing which walkers appeared to recognize each other and sit in formed groups talking after they walked. Each of these potential key informants was timed to make sure they walked at least 20 minutes, a criterion defined by the researcher for this study. During this second phase of the study, if the researcher was approached by a mall walker to inquire as to the researcher's reasons for being there, the researcher answered, "I am interested in finding out from people who regularly come here why they come and what keeps them coming back." The first two phases spanned a two week time frame.

The next several weeks were spent in Leininger's third phase of primarily participation, to facilitate information gathering from informants, to identify additional key informants, and to continue observation and recording of field notes

until all contacts were made. It was during this phase that rapport became firmly established. This was apparent when, on the fifth day of participating in mall walking, one of the male key informants asked the researcher to "stop and join us for coffee."

Key informants were approached during walking activity, and after hearing the purpose of the study were asked if they would be willing to participate in the study. A date, time, and mutually agreed upon location was established for face-to-face interviews. The introduction to the interview schedule (Appendix B) was read or given to the informant to read at the time of the appointment. Upon agreement to be a part of the study, they were asked to read and sign the informed consent (Appendix C). The time frame for each interview was between 40 minutes to 1 hour and 15 minutes. If additional information was needed, informal discussions took place to clarify meaning during walking time or during "coffee and chat" time. These encounters were recorded in field notes and later condensed or supplemented with observational notes (Schatzman & Strauss, 1973; Spradley, 1979). Data collection took place over a five month period during which 40 one to two and a half hour site visits were made. Permission was obtained from 12 of the key informants to tape record their interviews. All key informants agreed to note taking during the interview. General informants were also told the purpose of the study, and information was gleaned from these informants about the mall walking culture. The information was recorded in field notes after participating with them

in mall walking activity. Later observational or expanded notes were used to supplement the field notes.

### Instrumentation

A semi-structured interview schedule (Appendix D) was used to collect data from the key informants. Interview questions were developed after initial observation of the mall walking culture and using Spradley's (1979) suggestions for asking descriptive, structural, and contrast questions and Gauvin's (1990) motivation questions as guidelines. The interview schedule was checked by colleagues for clarity and understanding. Questions were modified as suggested by these colleagues.

Spradley (1979), Catanzaro (1988), and Leininger (1985) noted that in a naturalistic-inductive study such as ethnography, a hypothesis is generated from the data at a set time and in a set place therefore, external validity cannot be demonstrated. Leininger suggested "concurrent validity should refer . . . to the ability to show congruency, meanings, and syntactical relationships of findings with respect to subjective, inferential, intuitive, symbolic, objective (empirical), and other quality factors under consideration. Thus, qualitative validity should rest upon knowing and understanding the phenomena as fully as possible" (p. 69). To assure reliability, verbatim transcriptions of tape recorded interviews were made. A colleague was asked to code some of the data as a further check for reliability.

### Procedures for Recording Data

Field notes were recorded immediately after observation. Field notes were also made in conjunction with the tape recording at the time of the interview. Field notes consisted of data obtained through the listening technique of eavesdropping while participating in walking, listening to situational conversations that occurred during post-walking activities of "coffee" and "chatting," and listening during the formal interview process (Schatzman & Strauss, 1973). Field notes were used to describe non-verbal cues, observations, mall walking activity occurrences, and discussions with general informants after these encounters. These field notes were later supplemented with additional observational notes. Observational notes were added to supplement the field notes with ideas, feelings, or observations not already documented in the field notes. They provided an expanded account of interactions.

### Methods of Analysis

Data collected from all but two of the interviews were tape recorded and transcribed verbatim by a professional transcriptionist or the researcher. Data collected from two key informants who refused tape recording were taken mostly in shorthand then transcribed verbatim to facilitate the coding process. These data were used to support the data transcribed verbatim from the formal interviews with key informants. All data were analyzed and coded for recurrent themes or terms



which would allow for identification of patterns or cultural meanings (Catanzaro, 1988; Marshall & Rossman, 1989; Spradley, 1979). Inferences about the meaning of the data were guided through the use of Spradley's ethnographic techniques of domain analysis, taxonomic analysis, componential analysis, and theme analysis to "uncover the system of cultural meanings that people use" (p. 94). Ongoing content analysis occurred using Spradley's (1979) analysis techniques. A generic coding system was chosen to sort symbols, "objects or events that refer to something" (Spradley, 1979, p. 95), into concept-indicator model categories until an intricately patterned system of symbols was obtained that demonstrated meaning for the mall walking culture. Cultural symbols were used to identify domains using domain analysis. Taxonomic analysis was used to discover relationships among domains. Componential analysis was done to identify attributes associated with the cultural symbols. A theme analysis was then done to identify principles or laws specific to this culture and provide a better understanding of the mall walking culture. All data had identifying information removed.

Prior to beginning the study, a courtesy letter (Appendix E) was sent to the manager of the mall. This was done to make certain mall staff knew of the presence of the researcher, what the researcher was doing, and that the rights of the mall walkers were respected.

### Rights of Human Subjects and Consent Process

The study commenced after approval was obtained from the Montana State University College of Nursing Human Subjects Review Committee and the Director of the Billings, Montana campus (Appendix F).

There were no physical risks identified from participating in this study. Slight psychological discomfort from answering questions or being recorded during the interview could have been experienced by the key informants. Informants were told before and during the time of the interview that they could omit any questions they chose not to answer or terminate the interview at any time. Each informant was given a code letter which was used when documenting any information related to this study. All identifying information was removed. No name list with corresponding codes was kept.

Each key informant was approached by the researcher and asked if he/she would be willing to participate in a study to discover what factors influenced their participation in and adherence to regular mall walking activity. If they agreed to participate they were asked to read and sign an informed consent (Appendix C).

Each informant was told that the information obtained, either during a formal interview or when recorded as field notes, would be kept anonymous. It was explained that each person for whom information was recorded would be given a number or a letter and all personal identifying information on all data recorded would be removed. Numbers were used to identify general informants, and letters

were used to identify key informants. This was done to assure anonymity of the informant. Until the study was completed, all tapes and written materials were kept in a file locked in the home of the researcher. The tapes were destroyed after they were transcribed and verified.

There were no direct benefits to the informant except for coffee or a small gift which was given to each key informant in appreciation for the time spent on the interview process. There may have been an indirect benefit from being able to talk about the feelings, behaviors, and experiences associated with regular mall walking activity. There may also have been some indirect benefit in the realization that factors that contribute to regular mall walking may help someone else successfully engage in mall walking activity. Informants were reminded of the importance of their input to this study. The risks were minimal in relationship to the contribution of information to the body of knowledge of factors that contribute to adherence to mall walking as regular physical activity.

## CHAPTER 4

### FINDINGS

The focus of this study was to identify the factors influencing participation in and adherence to regular mall walking. Specific aims of this research study were to: (a) describe the walking habits of regular mall walkers, (b) describe the self-perceived purposes of mall walking, (c) identify if mall walking was a self-determined or a prescribed activity, (d) identify the factors that promote adherence to participation in regular mall walking, (e) determine if any self-reported factors could be used to help inactive people choose mall walking as a regular activity, and (f) determine which theoretical framework, if any, would guide the practice of the resultant behavioral findings and this study.

A qualitative discovery approach, ethnography, was augmented by the sequenced phases of observation-participation field method, an ethnosing framework, which enabled the researcher to understand why mall walkers participate in this physical activity regularly. Domain analysis allowed the researcher to identify cover terms associated with mall walking behaviors. Taxonomic analysis revealed processes and stages mall walkers went through to start and persist in this activity. Using theme analysis, the researcher further identified why walkers maintained or persisted in walking activity.

### Demographic Characteristics of the Sample

Fourteen key informants and 14 general informants were selected for participation in this study. There were 6 female and 8 male key informants between the ages of 62 and 77. General informants, who provided supplemental data, included 7 males and 7 females, all older than 50. Eight key informants were retired. Of the 5 who were semi-retired, 2 were females who proposed that "a housewife never retires," and the other 3 did "small odd jobs" for extra money. One female said "No" when asked if she was retired. Further questioning revealed she did not "qualify for retirement because I've mostly been a housewife all my life." Through further questioning it was learned that her husband was receiving money from his job after his retirement, and she did not yet qualify for social security. Demographic characteristics of the key informants are provided in Appendix A.

### Location of the Study

This study took place at a small indoor shopping mall within an urban community located in northwestern United States. The design of the mall included a center court from which four major spoke-like corridors or passageways extended. At one end of the north-south corridor was a play arena for children and several small fast-food eating centers. At the opposite end of this corridor was a mall directory, a gazebo-type seating area, and an entrance area.

The two major spokes running east-west were the longest spokes. At one end was a major grocery/drug store, and at the other end was a national department store. The grocery store opened at 7:00 a.m. The mall management had placed benches on which customers could sit along the entire east-west corridor. They had also placed coat racks near the benches at the west end of the corridor near the grocery store for the mall walkers to use.

The mall had a restaurant at the west end near the grocery store and a delicatessen and eating area at the east end. The delicatessen was advertised to open at 7:30 a.m., but it gradually, over a three week time period, began opening earlier during the summer to accommodate the mall walkers. By September, it was opening at 7:00 a.m.

The total number of stores in the mall was 35, including the eating areas. The advertised opening time of the mall was 10:00 a.m. Mall walkers learned from each other, the mall management, the staff at the grocery store, and the staff at the delicatessen that the mall doors opened at 6:00 a.m. There were six main entry/exit doors which allowed entrance to the mall corridors. These were the doors used by the walkers who walked the mall regularly. The mall was spacious and well lit. Three to four maintenance staff could be seen or easily located every morning. The temperature was always comfortable. The walking surface was smooth with no inclines. The environment was conducive to walking.

Several years ago one of the local hospitals mapped out the area to be walked. A sign and picture on the wall by the grocery store explaining the areas to

walk and describing the distance as equal to 0.5 mile was prominent. Tenth mile markers were placed regularly throughout the mall, but were noticed only when pointed out by the regular walkers.

The mall is centrally located within the urban community. Three key informants walked to the mall "when it's not too cold or icy" outside. Two of these key informants were a husband and wife who lived "11 to 12 blocks" from the mall, but had walked up to 30 blocks to get to the mall during the summer. They would then walk one or two rounds in the mall. The third key informant was a 77 year old female who had been walking for six years. She liked to walk to the mall during the summer so she could "get out and enjoy the mornings, hear the birds, smell the flowers." Two males, one living a block from the mall and the other living 2 1/2 blocks from the mall, walked to the mall year round.

Nine key informants drove 2 1/2 blocks to 2 miles to the mall to walk. A female key informant drove the 2 1/2 blocks to the mall because depth perception differentiation after cataract surgery prohibited walking outdoors. A male key informant drove 8 blocks to the mall to walk because he had emphysema and could not breathe well when exposed to exhaust fumes.

#### Selection of Key Informants

Data collection from informants took place over a five month period between the hours of 6:00 a.m. and 9:30 a.m. and during agreed-upon, scheduled interview times. Although walkers could be seen walking during all hours of the

day, the early morning hours were chosen for the study because it was noted that this time frame had the greater total number of walkers participating in walking activity. During this initial observation phase it was noted that certain walkers acknowledged each other with a nod and a smile, a wave, or a verbal greeting, whereas others did not. It was discovered that these walkers referred to each other as "a regular." The term "regular" was used to identify a mall walker who was observed walking several times a week and who had continued this activity long enough to be recognized by the other "regulars" with a wave, smile, nod, or a verbal greeting.

#### Decision to Start Walking

Discovery of reasons for deciding to walk occurred when a rationale type of domain analysis identifying semantic relationships was used. Statements made by the informants were analyzed for included terms. For example, "I'm walking because of problems with my circulation [Raynaud's disease]" was included under a grouping or term "problems with circulation." Using this same semantic relationship and taxonomic analysis, three factors emerged that guided the informants' decision to walk: physician suggestion [medical/surgical problems], friend or mate suggestion, and self-initiated.

Eight key informants had physicians who suggested they walk because of hip, knee, colon, heart, or arterial surgery; problems with circulation to the heart [heart



attack], legs, or limbs [Raynaud's]; and miscellaneous medical problems such as arthritis, emphysema or asthma, and hip or back pain.

A friend or mate suggested walking to eight of the key informants.

Informants made statements such as, "If it was good for [name of mate] I knew it would be good for me." "We just decided one day to do it together because our doctors had told both of us we should walk. So, we started the next day." "Four of us get together every day and walk. I started because my doctor told me to. The other three started because I talked them into it."

Two key informants decided to walk on their own. That decision was identified through statements such as, "I knew it was one of the best things you could do." And, "It gives me time to myself away from the house." Table 1 outlines factors that led to the decision to mall walk.

Utilizing domain and taxonomic analysis allowed the researcher to differentiate the process of becoming a regular mall walker, which included making entry, participating, and re-entry, from the stages of being a regular mall walker, which consisted of identifying a reason to start, deciding to start, maintaining and/or persisting, and coming back. These discoveries and other interview data allowed the researcher to identify two recurrent themes which exposed the roles environment and social support played in persisting in regular mall walking. The discussion provided in the following text will describe the entire discovery and examination process in greater detail.

Table 1. Factors that Led to the Decision to Mall Walk.

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 Physician (MD) suggestion (8):

1. Because of surgery
  - a. hip or knee
  - b. colon
  - c. iliac-femoral by-pass graft
  - d. femoral artery by-pass graft
2. Because of heart problems
  - a. angioplasty
  - b. coronary artery by-pass surgery (CAB)
  - c. heart attack in the past
3. Because of circulation problems
  - a. Raynaud's syndrome
  - b. legs
4. Other medical reasons
  - a. arthritis
  - b. asthma or emphysema
  - c. hip and back pain

## Friend or mate suggested (8):

1. "If it was good for [mate], I knew it would be good for me."
2. "We just decided one day to do it together because our doctors had told both of us we should walk. So, we started the next day."
3. "I originally started to walk with a friend because we decided it would be good for us. She's no longer here, but I still keep walking. If I don't, I feel guilty."
4. "A friend and I started walking together, now I walk by myself."
5. "I saw how much [mate] enjoyed it, so started walking with her to keep her company."
6. "I came to walk at this mall because of my wife and the friends she made here. She likes walking at this mall better than the other one."
7. "Four of us get together every day and walk. I started because my doctor told me to. The other three started because I talked them into it."

## Self initiated (2):

1. "I knew it was one of the best things you could do."
  2. "It gives me time to myself away from the house."
-

### Process of Becoming a Regular Mall Walker

As previously described, the researcher entered the culture of mall walkers and became a mall walker. Field notes written throughout the researcher's participation in mall walking enabled the researcher to identify the process of becoming a regular mall walker (Table 2). The walking habits of regular mall walkers, of which the researcher was one, are described as making entry, participating, and re-entry as follows.

#### Making Entry

##### Accessing the Mall

During the first three days of observation, several preparatory phases of mall walking were discovered. First, and most important, was learning which doors were open by 6:00 a.m. so one could enter the building through the door of choice. Most entrance doors were accessible for entry. It was learned that an exit could only be made through the main exit door at the front of the mall near the grocery store or through the entrance doors of the mall until the official opening hour for the mall stores.

##### Cultural Norms

The second phase of making entry consisted of identifying cultural norms. Four specific cultural norms were identified: (a) walking speed, (b) walking time, (c) walking direction, and (d) attire worn. Anywhere from 5 to 55 walkers of

Table 2. The Process of Becoming a Regular Mall Walker.

Making Entry (Phase 1)	Participating (Phase 2)	Re-Entry (Phase 3)
<ol style="list-style-type: none"> <li>1. Learn which doors are open to enter mall (6:00 a.m.)</li> <li>2. Observe walkers for cultural norms               <ol style="list-style-type: none"> <li>a. Direction walking</li> <li>b. Speed walking</li> <li>c. Attire</li> </ol> </li> <li>3. Establish acceptance               <ol style="list-style-type: none"> <li>a. Participate</li> <li>b. Nod or say "Hello," "Hi"</li> <li>c. Watch for acknowledgement by other walkers</li> <li>d. Accept if other walkers ask you to join them</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Enter the mall at your self-determined time.</li> <li>2. Remove coat (if needed)               <ol style="list-style-type: none"> <li>a. Hang it up on coat rack provided</li> <li>b. Toss on a bench of your choice</li> </ol> </li> <li>3. Walk at your chosen speed               <ol style="list-style-type: none"> <li>a. Can start slow then speed up</li> <li>b. Slow down to visit if you choose</li> </ol> </li> <li>4. Walk for set time or number of rounds (miles). Greet the other walkers with a nod, smile, wave, or verbally.</li> <li>5. Conclude walk with post-walking activities               <ol style="list-style-type: none"> <li>a. Coffee at deli or store</li> <li>b. Coffee and "chat" at deli or bench in front of the store</li> <li>c. Get coat</li> <li>d. Exit through usual doors</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Enter the mall at your usual time.</li> <li>2. Remove coat (if needed)               <ol style="list-style-type: none"> <li>a. Hang it up</li> <li>b. Toss it on a bench</li> </ol> </li> <li>3. Start walking slower than usual at first               <ol style="list-style-type: none"> <li>a. So as not to tire quickly</li> <li>b. To warm up for speed increase</li> </ol> </li> <li>4. Establish walking speed</li> <li>5. Greet the regulars               <ol style="list-style-type: none"> <li>a. Explain absence</li> <li>b. Ask how they are doing</li> <li>c. Spend more time than usual talking with the other walkers while walking</li> </ol> </li> <li>6. Conclude walk as usual</li> </ol>

varying adult ages were observed over a five month period between the hours of 6:10 a.m. to 8:00 a.m. Numbers, it was discovered, changed based on the weather and individual factors such as appointments, vacations, or illness. Walkers walked alone or in groups of two, three, or four. Three groups of females appeared in dresses with walking shoes, walked for 1/2 hour, then left. Two to three young females walked with the mother of one of the females. The mother appeared to be in her early fifties. A pregnant female walked with her husband and her sister-in-law. She said she was walking because her doctor suggested it, and her husband and his sister were there to keep her company. A male walker who appeared to be in his early sixties came in, walked a unique path, then left in about 15 minutes. He always wore a cap and a heavy coat which he clenched tightly about him. Some of the walkers tapped the metal columns as they turned the corners. Other walkers cut corners. Each individual or group seemed to have a set way in which they walked. A 70 year old key informant who had mall walked for seven years said, "Most of us are really grateful they allow us to walk here."

#### Speeds Walked

Speeds walked varied with each individual. Most walkers could be observed walking somewhat slower their first and last round "to get started" or "to slow down." Four male key informants, two male general informants, and two female key informants related that they "take the first round or two a bit slower to warm up." Two of these males said they "cool down during coffee." Two females





























































































































