

ABSTRACT

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A demographic and marital stability (Booth et al., 1983) questionnaire was administered to 242 married adults who ran, or whose spouse ran, 20 miles per wk or more, to determine whether there was a diff in marital stability among couples in which both spouses run, couples in which only the male runs, and couples in which only the female runs. A Kruskal-Wallis One-Way ANOVA was conducted to determine any diff in marital stability among the 3 running groups. Although sig was approached ($p=0.0512$), the null hypothesis was accepted, thus marital stability was not different among running groups. Since the researcher who developed the Marital Instability Index conducted statistical analysis on each of the 28 questions, a χ^2 test on each question was also employed. Only 3 questions showed sig ($p<0.05$), and all involved discussing marital problems with friends, relatives, or counselors. These questions showed sig because the male runner group tended to answer them with more stability, and the runner-couple was less stability. It was concluded that there was no sig diff in marital stability among the runner-couple, the male runner, and the female runner groups.

THE EFFECTS OF LONG-DISTANCE RUNNING
ON THE MARITAL RELATIONSHIP

A Thesis Presented
to
The Graduate Faculty
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Master of Science Degree

by
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CHAPTER I

INTRODUCTION

Background

Running was once thought to be a fad, but is now a way of life for over 30,000,000 Americans (Brant, 1984). Why do so many people devote so much of their time to running? One of the advantages is that running can be beneficial to an individual's physical and mental health (Castleman, 1985; Mirkin & Hoffman, 1978; Sheehan, 1975). Although this form of exercise has many benefits, it has been accused of disrupting marital relationships (Castleman, 1985; O'Hara, 1981; Shipman, 1980). According to Hathaway (1984), many of these marital problems involve the 10% of the joggers in the United States who fall under the "obligatory" category. These people tend to run for reasons other than their physical health. The "marathon effect" represents the chronic fatigue, self-absorption, and problems with relationships that often haunt high-mileage runners (Castleman, 1985). In addition, studies have found that runners are more likely than the general population to be unmarried (Brown & Curtis, 1982; O'Hara, 1981). The results of these studies may support the marathon effect concept in that the person's addiction to running may interfere with a marital relationship.

Case studies and general surveys concerning the habits and lifestyles of married and single runners have been reported. Many sports psychologists have indicated that couples in which both spouses

tend to have a better marital relationship than do couples in which only one spouse runs (Castleman, 1985; O'Hara, 1981; Shipman, 1980). Although there are numerous speculations about the influence of running on marriages in the general literature, scientific studies which evaluate the relationship between marriage and running are limited.

Statement of the Problem

The purpose of this study was to compare the marital stability of couples in which both spouses run to couples in which only one spouse runs.

Need for Study

This study was conducted because of the great interest in running among many modern married couples. This research expands Brown and Curtis' (1982) study which indicated that runners are more likely than the general population to be single. This has been observed several times (Brown & Burtis, 1982; O'Hara, 1981), but there is a lack of research data to support this theory. Speculation seems to be the most common method for drawing conclusions about the relationship of running and marriage. Using a standard test of marital stability will provide reliable and valid data on this topic.

Hypothesis

There will be no difference in the Marital Instability Index among couples in which both spouses participate in long-distance running (either independently or together), those couples in which

only the husband runs, and those couples in which only the wife runs.

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There will be no difference in the Marital Instability Index among couples in which both spouses participate in long-distance running (either independently or together), those couples in which only the husband runs, and those couples in which only the wife runs.

Assumptions

The assumptions made in this study include the following:

- 1) The Marital Instability Index is a valid and reliable indicator of marital instability.
- 2) The subjects understood each question and responded truthfully.
- 3) Each subject was involved in an intact marital relationship at the time of completing the questionnaire.

Delimitations

The following were delimitations set for the study:

- 1) The Marital Instability Index was the sole indicator used to assess marital relationships.
- 2) The La Crosse Oktoberfest Half-Marathon and Five-Mile participants adequately represent long-distance runners who run 20 or more miles per week.
- 3) An individual had to be 18 years old or older to be considered as a subject.

4) Either the subject, or spouse, or both, were allowed to complete the questionnaire, as long as no communication took place between them (Booth, personal communication, September 11, 1985).

Limitations

Certain limitations were identified in this research and included:

1) The mood of the subjects may have affected the responses on the questionnaires, which were handed out on Friday afternoon and evening, and on Saturday morning just before the race began.

2) The topic being studied may have attracted those with more stable relationships, as it seems they would be more willing to disclose personal information than unstable couples. The individuals involved in a stable relationship seem less likely to throw the questionnaire away or to avoid the questionnaire area.

3) Subjects were obtained by either having a researcher approach the runner, or having the runner approach the researcher at the questionnaire table.

Definition of Terms

Long Distance Running - a form of exercise in which one runs at least 20 miles per week.

Runner - a person who runs 20 or more miles per week.

Non-runner- a person who does not average 20 or more miles per week.

Running Couple - a married couple in which both spouses are classified as runners. They may run either independently or together.

Single-runner Couple - a married couple in which either the husband or the wife runs, but not both.

Half-Marathon - a running race that is 13 miles, 193 yards in length.

Marital Instability, as measured by the Marital Instability Index - denotes a couple's propensity to dissolve an existing marriage, even though dissolution may not be the final outcome (Booth, Johnson, & Edwards, 1983, p. 387-388).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

In 1982, a Gallup pole had adults (N<1500) rank 20 social values in order of importance. The top two were having a good family life and being in good physical shape. It appears that Americans want to exercise and have a happy marriage. These values may not be compatible, particularly when running is used as the major form of exercise. This is indicated by the high percentage of divorces in the running population as compared to the general population (Castleman, 1985). The possibility of marital instability among the running population involves many factors. This chapter will review literature concerning Runners, Marital Relationships, and Married Runners.

Runners

The results of a survey conducted in 1984 (Runner's World, August) indicate that approximately seven out of ten runners are male, and the majority of all runners, male and female, are between the ages of 25 and 34. The majority of all runners run between 2 and 4 times per week and almost 30% of them compete in races, 10% of them competing in more than 5 races per year. The Runner's World survey found that over 70% of their subjects had annual household incomes of over \$25,000 per year. One-third of their respondents were college graduates.

Reasons for Participation

There are several reasons why people are motivated to run, but the majority, 78.4% of all American runners, run for health reasons (i.e., to stay in shape, aerobic conditioning, etc.). Furthermore, 42.5% said it made them feel good, and 34.7% run for weight control. One of the main psychological reasons why people run is to seek achievement and personal goals. Running allows the individual to develop both physically and psychologically. It offers a powerful feeling of growth and improvement, which satisfy the fundamental human need of learning (Brant, 1984).

Numerous theories of why people participate in physical activity also exist. Harris (1973) discussed five common theories.

The Excess-Energy Theory (Harris, 1973) suggests that a person has more energy than is needed for work and existence, therefore, exercise relieves this overload. As the technological lifestyle advances, life becomes easier physically. Thus, more energy is built up in a person and more energy needs to be discharged through physical exercise. Whether a certain degree of energy must be expended to insure the well-being of a person remains unanswered.

The Catharsis or Restraint Theory claims that participation in physical activity provides a release of aggressive behavior, as well as educating a person on how to consciously control these behaviors. The psycho-physiological changes and adjustments that may occur with physical activity may explain the cathartic effect (Harris, 1973).

While the feeling of frustration is not usually allowed to be expressed in society, the Sublimation Theory states that physical

activity is an acceptable behavior pattern that provides an avenue for the release of these pressures and frustrations (Harris, 1973). Running is one possible method of releasing the tensions and frustrations which can be built up in an unstable relationship.

The Self-Actualization Theory claims that man constantly seeks self-expression and satisfaction. According to this theory, a person participates in physical activity to experience the "thrill of accomplishment, to win approval, to achieve, to dominate, to express many needs and desires" (Harris, 1973, p. 16). Specific activities are selected for specific reasons, and this will reveal the innermost needs and desires of an individual.

The fifth theory discussed by Harris (1973) is the Enrichment-of-Life Theory. This theory states that life is not all it is supposed to be, so physical activity enhances and provides a new dimension to it. Exercise gives new dimensions to life and may provide an avenue for the pursuit of the ideal self, thus positively reinforcing personal worth and value. Participation may also fill a void in life and enrich the well-being of the participant.

These theories provide only a few of the many possible reasons why a person may participate in a physical activity such as running. In addition, an unstable relationship may be another reason for beginning a running program. However, just because a person runs does not mean he or she is involved in a problem relationship. Many other reasons for running exist, for example, the need to release extra energy.

Addiction to Running

The frequency and duration a person runs may also contribute to a runner's personal problems. According to Cockrill (1978) Scaff believes a commitment of 8 to 12 weeks, consisting of three to four one-hour runs per week, is typically adequate to transform the dilettante jogger into a committed runner. Likewise, Kostrubala (1976) suggested that this frequency and duration of training produces a serious runner. Cockrill (1978) claimed that serious running is when you realize you have voluntarily set aside other activities you used to enjoy and now use this time for running.

According to Kostrubala (1976) slow long-distance running is addictive. The more one runs, the faster the addiction. The term "addictive" is used by Kostrubala in the sense that it produces a desire or need in the user to increase dosage, and deprivation produces an adverse physical effect known as withdrawal symptoms. Addiction to running is similar to addiction to hallucinogens, such as LSD, mescaline, and hashish. Anxiety and insomnia are the withdrawal symptoms which occur when an individual is forced from an injury or illness to stop running. Kostrubala noted that the most striking social aspect of addiction is that it seems to promote individuality.

Psychological Characteristics of Runners

Many researchers have explored the psychological characteristics of runners. For example, runners tend to be highly imaginative, achievement-oriented, and self-sufficient (O'Hara, 1981; Ismail &

Trautman, 1973). Burdick and Zloty (1973) found long-distance runners to be significantly brighter and more imaginative than the general population.

Ismail and Trautman (1973) conducted a study to compare the personalities of 60 middle-aged men of various fitness levels. Using the Cattell 16 Personality Factor Questionnaire to assess the common personality traits among a high fitness group, they found the subjects to be imaginative, self-sufficient, emotionally stable, and self-assured. Ismail and Trautman believed that high levels of self-sufficiency and imaginativeness in people who run or jog may be a result of running rather than a cause, since increases in these traits were found with improvements in general fitness.

It should be noted that due to a lack of scientific research in the area of marriage and running, many of the resources used here may not be purely factual. These references do, however, offer a variety of thoughts and opinions.

As indicated by O'Hara (1981), Terry Orlick stated that serious runners are usually well-educated, self-directed, achievement-oriented people. Merriman (1960) found similar results in a study of 808 male high school students. Using the California Psychological Inventory, he concluded that motor ability is related to the personality traits of poise, ascendancy, self-assurance, and intellectual and interest modes.

The relationship between motor ability and specific personality traits allows the runner to develop as an individual. The characteristics which develop with running help the runner to distinguish him- or

herself from non-runners. Brant (1984) suggested that running allows the runner to give to him- or herself physically and psychologically. An intense feeling of growing and improving are the result. This improvement and growth are enhanced as the runner sees increases in his or her self-esteem, self-confidence, and self-trust (Andrews, 1980; O'Hara, 1981; Shipman, 1985). The tendency for runners to grow and promote individuality may help explain why runners seem to be more introverted and reserved than athletes in other disciplines (Morgan, 1974), since they often focus on the growing from within.

Merriman (1960) stated that researchers tend to agree that there is a correlation between personality and physical traits, and that an individual's personality changes as his or her physical stature changes. The personality changes which seem to develop from running can either appear gradually or almost overnight (Andrews, 1980). These personality changes seem to affect a runner's social life. Most runners eventually replace their old non-runner friends with new, stronger friendships with other runners (Andrews, 1980).

Changes other than friendships can also occur as a result of running. Zane (1971) reported that negative attitudes propagated in life are often overcome by constructive attitudes produced during and after physical activity.

People who had felt tense, irritable, ineffectual, awkward, inadequate, tired, unconfident, sick or isolated often felt more relaxed, pleasant, capable, graceful, confident, energetic, hopeful, healthy, and related after beginning an exercise program (Zane, 1971, p. 1449).

Regular exercise also seems to aid in keeping life's more complex problems in perspective. Zane (1971) found that regular

physical activity can help control the feelings of disorganization and increase a person's ability to struggle with the problems of life. Greenwood (1976) stated that for the modern adult, appropriate exercise with realistic performance expectations offers emotional well-being "by providing acceptable means for resolving frustrations, relieving boredom, strengthening the ego and sublimating aggressive drives" (p. 130).

Frustrations, boredom, weak egos, and aggressive drives occur in both men and women. However, some researchers believe that females may run for different reasons than men. It has been suggested that many women use running to discover new identities (O'Hara, 1981). Possibly running can promote the strength needed to change their lives. Shipman (1985) reported that as a result of running, females become more assertive and independent than males.

Many mental and emotional characteristics have been associated with trained individuals. The runner tends to develop more energy to invest in work and creative projects (Andrews, 1981; Castleman, 1985). At the other extreme, a lack of physical fitness, in both males and females, tends to be associated with chronic fatigue and impaired learning and problem-solving (Krug, 1971).

Therapeutic Running

As previously indicated, running can change and develop an individual's character. Running is quickly becoming a popular therapy for helping people with emotional problems since it tends to relieve tension and anger, and has antidotal effects on anxiety

and depression (Castleman, 1985; Davis, 1974; Hathaway, 1984; Morgan, 1974; Kostrubala, 1976). deVries (1982) has stated that running is more relaxing than a tranquillizer. Castleman (1985) indicated that psychiatrist John Griest uses running to relieve anxiety and depression in his patients. Three 45-minute runs per week were prescribed for people who suffered mild-to-moderate depression and resulted in providing great relief in these patients. Rathbone (1971) also recognized the beneficial effects which physical activity can have on an anxious individual. Layman (1971) stated that with studies on physical exercise, psychotic patients have increased confidence, an improved level of emotional control, and a greater range of interests.

In contrast, Morgan and associates (1970) found different results in a study with depressed and non-depressed subjects. They found that six weeks of physical activity did not produce significant changes in depression, except among those subjects who were depressed to begin with. Most of the subjects claimed they "felt better" as a result of participating in the exercise program. Unfortunately, subjective statements are difficult to assess with psychometric tools.

Marital Relationships

Although each marital relationship is unique, there are many common factors which supply satisfaction or conflict to a marriage. The conflicts may lead to a marital instability, which may or may not eventually lead to divorce.

Sources of Satisfaction and Conflict

In a study conducted by Argyle and Furnham (1983), three major sources of conflict were found within long-term relationships. The

first category of satisfaction is termed "Instrumental Reward" and is based on advice, property, money, and joint work. "Emotional Support" is the second source of satisfaction and refers to the providing and receiving of emotional support to and from each other. The third and most significant area of satisfaction is "Shared Interests" which is described as doing activities together, joint leisures, and talking about topics of mutual concern. White (1983) found similar results and reported that the amount of husband-wife interaction is an important determinant of marital evaluation. Similarly, Levinger and Raush (1977) described a close relationship as: "a) frequent interaction, b) between spatially near partners, c) who share significant common goals, d) exchange personal disclosures, and e) care deeply about one another (p. 138).

The major source of conflict Argyle and Furnham (1983) found was "Emotional Conflict" which includes conflict over demands on each other's time, conflict over independence from each other, and conflict over each other's friends and social group. Another conflicting category was "Criticism" which is conflict over each other's habits and lifestyle. Argyle and Furnham stated that the most satisfactory relationships also had the most conflict.

The results of Argyle and Furnham's (1983) study are similar to the conclusion drawn by earlier researchers. Berman and Lief (1975) researched two critical dimensions of the marital relationship. They found these to be the level of intimacy and the degree of inclusion or exclusion of others. If the habits of one spouse, such as excessive running, interfere with the couple's level of intimacy, this could disrupt their marital relationship.

Less controllable factors have also been shown to be strongly associated with marital dissolution. Many studies have found that the younger the couple at the time of marriage (Booth & White, 1980; Glenn & Supancic, 1984; Lee, 1977), the less they attend religious services (Booth & White, 1985; Glenn & Supancic, 1984), and certain ethnic minorities (Booth & White, 1985; Glenn and Supancic, 1984) are all associated with a higher degree of marital dissolution.

Marital Instability

According to Booth and Edwards (1985), an individual shows signs of marital instability when he or she is thinking about divorce, separation, or engaging in acts intended to bring an end to the marriage. Marital instability involves three areas of concern: an affective state, a cognitive state, and certain actions. The affective state is how a person feels about his or her marriage. The cognitive state is what a person has thought about as a result of how he or she feels. The actions taken are what the individual has done as a result of how he or she feels. Mere actions may include talking with the spouse, friends, or relatives about divorce, meeting with clergy or counselors about possible termination of the marriage, consulting an attorney, separating from the spouse, filing a petition, or going to court. Instability refers to a situation in an intact dyad, not to ones that have already been disrupted (Booth et al., 1980).

In addition to marital instability, two other types of marital qualities are discussed by Booth and his colleagues. Marital

dissolution denotes the legal act of dissolving a marriage by divorce or permanent separation. Disruption suggests either voluntary dissolution (through divorce or separation), or involuntary dissolution (through death or desertion).

Measuring Marital Instability

Most statistics of marital instability in the United States have dealt with divorce and separation (Booth et al., 1983; Bumpass & Sweet, 1972; Crane, Newfield, Neal, & Armstrong, 1984). These focus on the consequences of instability - not with instability itself. Booth and associates (1983) developed the Marital Instability Index, which measures a couple's marital stability according to their responses to various questions. A national sample of 2,034 married men and women were interviewed by telephone in the fall of 1980. Scale scores were found to vary with the known incidence of divorce among subgroups of the population.

Many researchers have tested marital instability by implementing the concept of personal space (Crane & Griffin, 1983; Hill et al., 1982; Pederson, 1973). Hill and his associates claim that it is likely that personal space needs among married couples would be relatively small since a high degree of intimacy is expected to occur within the marital relationship. Testing personal space is not always convenient. For example, various tools such as chairs, drawings, or tape recorders are usually required. Also, tests such as The Locke-Wallace Marital Adjustment Test (Crane et al., 1984) and the Areas of Change Questionnaire (Crane & Griffin, 1983) distinguish distressed from non-distressed couples, but these are

very lengthy tests, in which both spouses are needed to complete the test. In contrast, the Marital Instability Index, which also distinguishes distressed from non-distressed couples, is short and only one spouse is needed to complete the test.

Married Runners

Runners may be particularly susceptible to marital instability. Their unique personalities and lifestyles can contribute to sources of conflict within a relationship, unless both spouses share these particular characteristics. Naturally, the couple in which neither spouse runs experience stages of conflict and/or satisfaction, which cannot be attributed to running.

Non-Married Runners

A study conducted by Runner's World (August, 1984) found that runners, especially female runners, are more likely to be single than are individuals in the general population. Earlier studies (Brown & Curtis, 1982; McTeer & Curtis, 1982) also showed that there was an impropotional number of non-married female runners as compared to male runners. It should be noted that these studies were conducted at a marathon in Canada so the results do not necessarily represent the United States population.

The high separation and divorce rates in runners partly reflect life changes that these individuals would have undergone, with or without running (Andrews, 1980). According to the President's Commission for a National Agenda for the Eighties (1980), the divorce rates of the entire American population is increasing. In a survey

conducted by Shipman (1980), marathoning appeared to crystalize what was already happening in the marriage before serious running began. Running seemed to expose and accentuate personality differences within the couple. This could be therapeutic to the couples if they responded to the differences in a proper manner, otherwise, the differences usually meant trouble for the relationship.

In The Complete Runner (editors of Runner's World, 1974), the high divorce rate of Olympic runners was discussed. Three women runners from the 1972 Olympic team, all middle distance runners who had been married, were separated from their husbands. Two Olympic distance men from 1968 have seen their marriages disintegrate. The stresses of high-level competition (editors of Runner's World, 1974), and the intense time commitment demanded by running, may have been contributing factors to these divorces. It should be emphasized that these were elite athletes; not from the same running population as the subjects in the present study.

Running's Influence on the Family

Running demands a great amount of time and emotional commitment, especially when running frequency or intensity increases. For women especially, it is hard to balance time and emotional commitments between running and the spouse, children, and career (McTeer & Curtis, 1982). McTeer and Curtis found fewer married female and more married male Canadian marathon runners than expected ($p < .001$) at the race they surveyed. Therefore, they suggested that the married female runner tends to give priority to her family rather than to running, as suggested by the low ratio of female to male married runners.

The woman who chooses running rather than her family may have hidden motives. Schreiber and Stang (1980) emphasized that a woman who doubles or triples her running time and chooses to work out during prime family time, such as on the weekends, may be trying to avoid her marital or other family conflicts. She may be using running as an antidote for depression, or she may be using her time in order to abdicate her responsibilities. It is healthy to use running as a constructive tension reliever, but actual "distancing" and pushing aside serious underlying problems can be dangerous to a relationship.

Commitment, Negotiation, and Tolerance

Brant (1984) claimed that the most important factor involved in a running couple's relationship is having the same degree of commitment. If there is mutual involvement in each other's interests, there should not be any serious trouble in the relationship. Recall that "Shared Interests" was found to be a major source of satisfaction in a marital relationship (Argyle & Furnham, 1983). The editors of Runner's World (1983) have indicated that if a family runs together, they will understand each other better. Running does not always destroy families, it can bring them together.

Whether applied to a family or a marital relationship, negotiation is essential. Brant (1984) stated that negotiation is the foundation of marriage. Trouble arises whenever running or any other aspect of the relationship becomes non-negotiable. A runner must try to balance negotiation (responsibility to another) and growth (responsibility to oneself) in order to expand him- or herself. A healthy person grows in many ways at once, so a person growing through running would also be

trying to develop new stages in his or her relationship. When one side of a person starts to overdevelop, it may indicate that something is being avoided (Brant, 1984). According to Brant (1984), serious runners have to be selfish and demand that their needs come first, before relationships or family commitments. These athletes seem to be satisfying the need within the individual through running, but there is no growth taking place in the relationship.

When a running couple grows and develops together, it seems likely that they would understand each other better than a couple in which each spouse grows individually. Shipman (1980) felt that the quality of marriage improves the most in running couples. They have the most tolerance and best communication, as opposed to single-runner couples. Tolerance appears to be a major factor in relationships which involve runners. Shipman states that the couple in which only the wife runs experiences the least tolerance. In the case of an instable marriage, the female runner seems to be less tolerant of the relationship than the male (Ullyot, 1980).

The Single-Runner Couple

Females may be intolerant of their relationships because almost half of all American female runners feel that their running is interfered with by their boyfriends or husbands (O'Hara, 1981). The female runner may try to overcome this interference by recruiting her partner into running. In Shipman's study (1980), whether the runner was the husband or the wife, there appeared to be overt and covert pressure on the non-runner to take up running.

In addition to the recruiting pressure, there are many other factors which may build tension in a single-runner couple. Brown and Curtis (1982) reported that husband non-runners find it difficult to accept a fit, more accomplished, and often absent wife. In a couple in which only the husband runs, Shipman (1980) revealed that the non-running wife had to rearrange her daily schedule the most, which may cause an added stress to the couple's relationship.

A couple in which only the husband runs may face additional emotional stress. Running may especially change a male's attitude toward a relationship, causing further stress to the marriage. Levinson and associates (1978) found that a male in his mid-30's tends to revert to his "boyish self". This is characterized by a new sense of adventure, imagination, and energy. The male becomes rebellious, causing conflicts in various relationships. Levinson et al. claimed that running can become a means of avoiding conflicts and responsibilities altogether. The male turns inward to withdraw from the tension of a relationship. He finds pure satisfaction in his body, which is often labelled as "infantile". Since runners tend to be introspective, workouts provide a time for this solitary thinking.

The male athlete who is going through the "infantile" stage may notice a rebellious attitude in his wife. Ogilvie and Tutko (1971) stated that an athlete's wife may withhold love and support from him if she feels threatened by his new acclaim. They believe that a married man rarely succeeds in sport without his wife's support. However, these researchers mentioned nothing about the male athlete who is single or the female athlete, whether married or single.

Summary

Sheehan (1975) summarized the positive results running has on the body and mind. Running has been shown to increase cardiopulmonary fitness, reduce body weight, lower the blood pressure, decrease cholesterol and tryglycerides associated with coronary disease, and help psychological stability (Sheehan, 1975). Running also has its negative aspects. Running can be very addictive and time-consuming, which could lead to various social problems. Some of the characteristics of runners may be major sources of conflict in a relationship (Andrews, 1980; Clark, 1978; Schreiber & Stang, 1980).

It appears that a running couple may experience better communication than a single-runner couple. Castleman (1985) stated that "problems with relationships tend to emerge primarily when one spouse runs and the other does not" (p. 54). However, there will always be exceptions, and there are many factors, both positive and negative, which may contribute to a couple's marital stability.

Running may be one method of escaping a problem relationship, thus, it could be more of a symptom of marital trouble rather than a cause. An advantage of running is that it can be a therapeutic device for enhancing one's emotional stage. It is commonly used by doctors as a treatment for depressed patients. It seems that running can have many advantages and disadvantages. The reasons for running differ among individuals.

CHAPTER III

METHODS

A questionnaire was used to collect data from runners at the La Crosse, Wisconsin Oktoberfest Five-Mile and Half-Marathon races. The survey questioned the subjects about the quality of their marital relationships and their daily running habits. This chapter explains the subject selection and questionnaire in detail. Sections included in this chapter are Development of the Questionnaire, Pilot Study, Subject Selection, Administration of the Questionnaire, and Statistical Analysis.

Development of the Questionnaire

The Marital Instability Index (Booth et al., 1983) consists of 25 questions. Although there is a shorter, five-question version of the test, the coefficient alpha reliability is much lower than that of the 25-question test. The long form has an alpha reliability of 0.93, compared to 0.75 for the short version. Ratings made by 36 judges were compared, and indicated that the scale is valid. Booth and his colleagues used the individual rather than the couple as the unit of analysis. They realize that while there may be many differences between "her" marriage and "his" marriage there would be significant reliability problems if both spouses were used. However, in personal communication with Booth, he did not speculate any difficulty with both spouses completing the questionnaire,

provided they did not have any communication while testing (September 11, 1985). A technique has yet to be developed that effectively sorts out the accuracy of husbands' and wives' reports into a valid measure of the central concept (Booth et al., 1983). However, Booth's survey attempts to use the couple as the unit of analysis, on the basis of only one of the spouse's responses. The rest of the running questionnaire involved demographic questions such as education level, income, and years married, which were used for descriptive purposes. See Appendix A for the cover letter and questionnaire.

Pilot Study

A pilot study was conducted to check the clarity of the demographic questions in the questionnaire. This pilot study questionnaire was administered to participants and graduate students in the Adult Fitness Unit of the La Crosse Exercise Program who were not going to be running in either of the Oktoberfest races. Feedback was encouraged, accepted, and constructively implemented into the final draft of the questionnaire. The researcher handed each volunteer participant a copy of the questionnaire with instructions to complete the survey and to make suggestions as to the format and working. The more common suggestions were utilized in the questionnaire.

Subject Selection

The subjects were volunteers who were selected in one of two ways: either they were approached by a researcher as they went to

pick up their race packets, or the subject him- or herself approached the questionnaire table, possibly attracted by the large signs and crowds of people.

It was required that the subjects be adults, married at the time they completed the survey, and run, or have a spouse who runs, at least 20 miles per week. The questionnaire checked these requirements, which also had been verbally agreed upon by each subject. All subjects were recruited at the race packet pick-up sites for the La Crosse Oktoberfest Five-Mile and Half-Marathon races, which took place on September 28, 1985.

Administration of the Questionnaire

The questionnaires were handed out by the researcher and her colleagues at the two race packet pick-up sites: one at Heileman's Brewery the day before the Oktoberfest races, and the other at the race site on the morning of the races. A table with the sign "Do Marriage and Mileage Mix?" was set up in an optimal location on each day. The subjects would either approach the researcher's questionnaire table or the researcher or one of her colleagues would approach the subjects. The subjects who verbally confirmed that they were married adults, and run, or have a spouse who runs, an average of at least 20 miles per week then were asked to complete the questionnaire on-the-spot, assuring their anonymity. In addition they were given the option of addressing a postcard if they desired the results of the study. The willing runners then were handed a clipboard, pencil, and questionnaire, which was to be completed in the immediate location. The completed surveys were randomly stacked in a basket on the researcher's table.

Statistical Analysis

The majority of the questions in this survey had nominal or ordinal responses. Descriptive statistics were used for questions A through I, which inquired about the subject's and his or her spouse's age, sex, marital history, and running habits. Frequencies, means, medians, and modes were calculated for each question response. Each Marital Instability Index question was assigned a low number for a more "stable" response, and a high number for a more "instable" response. These values ranged from 0 to 4, depending on the number of possible responses for each question. See Appendix B for the frequency of each response.

Booth and his associates (1983) examined each question individually, thus, a Chi-Square (χ^2) test was conducted on each marital instability question to determine whether each response's observed frequency was significantly different from that response's expected frequency. Although a χ^2 test could be based on the discrepancies between observed and expected proportions, it was more practical and efficient to use observed and expected frequencies (Witte, 1980). Since this statistical treatment found certain questions to be significant, another χ^2 test was needed to determine between which running groups the significance occurred.

The χ^2 test examined each individual question rather than looking at the questions as an entire unit. The Kruskal-Wallis One-Way Analysis of Variance test was conducted to see if there were any significant differences between groups after all questions were combined. For each subject the scores from each question were added

and divided by the number of questions answered to obtain an average score. This procedure was conducted because the number of questions answered by each individual varied. The average scores were added within each running group and ranked into a single series. The Kruskal-Wallis One-Way Analysis of Variance test determined whether each group's sum of ranks was so different from the other groups' sums that they were unlikely to have come from the same population. The level of significance for accepting or rejecting the null hypothesis was set at 0.05.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

The purpose of this study was to determine if there was a relationship between marital stability and participation in long-distance running. Marital stability scores were determined by administering questionnaires to male runners whose wives did not run (N=166), female runners whose husbands did not run (N=28), and runners whose spouses also ran (N=48). This chapter presents the results and discussion of the demographic data, the statistical analysis of each marital instability question using the Chi-Square (X^2) test, an additional X^2 test by runner group for each of the questions found to be significant, and a Kruskal-Wallis One-Way Analysis of Variance test by runner group. The confidence level for accepting or rejecting the null hypothesis was set at 0.05.

Subjects

The subjects were recruited at the race packet pick-up sites for the Oktoberfest Five-Mile and Half-Marathon races in La Crosse, Wisconsin in the fall of 1985. All subjects were married adults who ran, or whose spouse ran, 20 miles per week or more. See Appendix A for the questionnaire and Appendix B for the summary of subjects' responses to each individual question in the marital instability index. Descriptive data for the 184 male subjects and 58 female subjects and their running groups are presented in Tables

1 and 2. Table 1 shows the general demographic data and Table 2 describes the running habits of the subjects.

TABLE 1
Means and Standard Deviations for General Demographic Data

Variable	Entire Population	Males Run	Females Run	Both Run
SEX: Males (N)	184	156	1	27
Females (N)	58	10	27	21
AGE (Years)				
Respondent	35.48a 6.76b	35.83 7.06	33.54 6.46	35.42 5.74
Spouse	34.47 6.54	34.11 6.65	34.96 6.34	35.44 6.29
YEARS MARRIED	10.78 7.30	11.31 7.49	9.54 6.78	9.71 6.84
PREVIOUSLY MARRIED (A)				
Respondent	1.88 .325	1.90 .304	1.89 .315	1.81 .394
Spouse	1.89 .316	1.91 .279	1.86 .356	1.81 .394
ANNUAL HOUSEHOLD INCOME (B)	4.43 1.36	4.39 1.36	4.64 1.08	4.47 1.52
EDUCATION (C)				
Respondent	3.25 .746	3.27 .750	3.00 .770	3.35 .699
Spouse	3.00 .744	2.86 .729	3.26 .764	3.31 .657

a = Mean

b = Standard Deviation

(A) = (1=Yes; 2=No)

(B) = (1=Under \$10,000; 2=\$10,000-19,999;
3=\$20,000-29,999; 4=\$30,000-39,999;
5=\$40,000-49,999; 6=\$50,000-99,999;
7=Over \$100,000)

(C) = 1=Primary School; 2=High School; 3=College; 4=Graduate

TABLE 2
Means and Standard Deviations for Running Habits

Variable	Entire Population	Males Run	Females Run	Both Run
MILES RUN/WEEK				
Respondent	29.50a 12.03b	28.73 11.55	24.96 8.61	34.83 13.69
Spouse	9.71 13.56	4.39 7.99	5.89 6.71	30.31 12.31
DAYS RUN/WEEK				
Respondent	4.83 1.13	4.71 1.13	5.03 1.04	5.13 1.15
Spouse	1.99 2.27	1.15 1.78	1.89 2.01	5.02 1.13
HOURS RUN/WEEK				
Respondent	5.42 3.00	5.37 3.11	4.36 1.50	6.19 3.11
Spouse	1.96 2.85	.952 1.70	1.21 1.42	5.88 3.35
# RACES SINCE 1/85				
Respondent	4.13 4.37	4.04 3.96	3.18 1.50	5.00 5.99
Spouse	1.59 3.56	.880 2.64	1.14 2.53	4.29 5.24
# YEARS RUNNING				
Respondent	6.64 4.46	6.87 4.72	5.93 3.75	6.25 3.86
Spouse	2.24 3.39	1.41 3.13	2.75 3.58	4.77 2.83
HOW OFTEN RUN TOGETHER (A)	3.39 1.51	3.13 1.00	3.58 1.43	2.83 1.75
SPOUSE IN OKTOBERFEST HALF-MARATHON (B)	1.79 .406	1.90 .298	1.78 .423	1.41 .498

a = Mean

b = Standard Deviation

(A) = (1=Never; 2=1 per month; 3=2-3 per month; 4=1 per week; 5=2-3 per week; 6=4-5 per week; 7=6-7 per week)

(B) = (1=Yes; 2=No)

General Description

Age. Table 1 shows that the mean age of all subjects (T) was approximately 35.5 years, but the females whose husbands did not run tended to be somewhat younger (33.5 years). This corresponds to the Runner's World (1984) survey, which found that the majority of female and male runners were between the ages of 25 and 34. The mean age of the subjects' spouse (34.5 years) was approximately one year younger than the mean age of all subjects.

Marital History. The subjects had been married an average of 10.8 years (see Table 1). Subjects in the male runner group had a higher average and subjects in the two other runner groups had a lower average. Most of the subjects and their spouses had not been previously married.

Income. Table 1 shows that the average annual household income for all groups was between \$30,000 and \$50,000 per year. The survey conducted by Runner's World (1984) found over 70% of their respondents had annual household incomes of over \$25,000 per year. It was interesting to note that the group with the highest average income was the group in which only the female runs.

Education. The highest education level completed for all subjects was somewhat higher than college level work (see Table 1). This compares to 38.4% of the typical American male runners, and 33.8% of the female runners who are college graduates (Runner's World, 1984). Interestingly, the group with the lowest average education level was the female runner group, the same group which had the highest average annual household income. The group in which both spouses run had the highest education level.

The education level of the subjects' spouses averaged to be college level work. The lowest average was obtained by the spouses of the male runners, whereas the spouses of the other two groups had similar education levels.

Running Habits

Mileage. Table 2 shows that the subjects as an entire population ran an average of 29.5 miles per week. Couples with only the wife as the runner averaged the least miles per week, and couples in which both spouses ran averaged the most. The Runner's World survey (1984) found only 7% of the American population to average over 20 miles per week. However, they surveyed runners who averaged over 10 miles per week, whereas this study surveyed those who ran 20 miles per week or more. Demographic data were also collected for the spouses of the respondents, ~~11~~ whom were runners, since it was their non-running spouses who completed the questionnaire. The spouses of the entire population ran an average of 9.7 miles per week. Spouses of single-runner couples ran less, which is why they were not eligible to be in the running-couple group, in which both spouses must run at least 20 miles per week. The spouses of the running-couple averaged more than 20 miles per week.

Frequency. The subjects as an entire population ran almost 5 days per week. The groups in which only the female runs and the running-couple group tended to run more often than 5 days per week, as indicated in Table 2. The Runner's World survey (1984) found that almost 70% of the runners surveyed ran less than 5 days per week. However, their runners also had a lower average mileage per

week. The subjects' spouses ran an average of almost two days per week. Obviously, the spouses of single-runner groups ran the least days per week, and the spouses of the running-couple group ran the most.

Duration. As seen in Table 2, the population as a whole ran between five and six hours per week. The hours each group ran corresponded with their miles ran per week. The group in which only the female runs averaged the least hours per week, and the running-couple group ran the most. Likewise, the hours ran per week for the spouses corresponded to their miles ran per week. The spouses of the group in which only the male runs had the least hours, and the spouses of the running-couple group had the most, possibly because the running-couple may understand each other's devotion to and need for the sport, thus being more understanding about each other's high mileage.

Races. The entire population ran just over an average of four races in the nine months prior to the completion of the questionnaire (see Table 2). The group in which only the females ran averaged the least number of races (3.2), and running-couples ran the most (5.0). Almost 10% of the runners surveyed by Runner's World (1984) ran more than five races per year. The spouses of the subjects ran an average of one to two races in the same nine months. Spouses of the male runner group ran the least, and spouses of the running-couples group ran the most.

Most of the subjects' spouses did not run in the 1985 Oktoberfest Half-Marathon race, especially those spouses of the group in which

only the male runs. The spouses of the running-couple group seemed to participate more than the other groups' spouses, which was expected because they were classified as long-distance runners.

Years Run. Table 2 shows that the subjects had been running for an average of almost seven years. The female running group had been running for the fewest years (5.9), and the male-runner group had been running for the most years (6.9). These results are similar to those found by Runner's World (1984), which showed that over 50% of the runners had been running for between three and 10 years. The spouses seemed to have began running more recently, with the spouses of the male-runner group being the least recent.

Running Together. The couples in which both spouses run tended to run together just over once per month (see Table 2). Couples in which only the female runs tended to run together the most often, followed by couples in which only the male runs. Couples in which both spouses run tended to run together the least often.

Statistical Methods

The null hypothesis stated that there would be no significant difference in the Marital Instability Index among couples in which both spouses run, couples in which only the female runs, and couples in which only the male runs. A Kruskal-Wallis One-Way Analysis of Variance test was conducted to determine whether there were any significant differences among running couples when all questions were combined. Each of the 28 marital instability questions was analyzed by conducting a χ^2 test. Another χ^2 test was performed on each question found to be significant to determine between which groups the significance occurred.

Combined Marital Instability Questions

As seen in Table 3, when all questions were combined for the Kruskal-Wallis test, the F ratio approached the 0.05 level of significance ($F=0.0512$), yet was not considered to be statistically significant ($p>0.05$). The group in which only the males run had the lowest mean rank of scores, and the running-couple had the highest mean rank. The large variance in the group sizes must be taken into account when these statistics are considered.

Table 3

Kruskal-Wallis Analysis of Variance by Group

Runner-Group	Cases	Mean Rank
Males Run	166	114.28
Females Run	28	132.38
Both Run	48	140.13

Corrected for Ties

Chi-Square = 5.9429 $p = 0.0512$

Although significance was approached, there were statistically no differences in the mean rank of scores among the running groups. It was concluded that there were no significant relationships between marital stability and running habits when all marital instability questions were combined.

Individual Marital Instability Questions

A χ^2 test by question showed that three of the 28 marital instability questions were found to be significant ($p > 0.05$), which indicates that these questions were answered differently than was statistically expected by one or more of the runner groups (see Appendix C). These significant ($p < 0.05$) questions were: "Have you ever talked with family members, friends, clergy, counselors, or social workers about problems in your marriage?"; "Who did you talk to?"; and, "As far as you know, has your spouse talked with relatives, friends, or a counselor about problems either of you are having with your marriage?" (see Appendix D).

Booth and his associates (1985) found that there was a developmental process of certain thoughts and actions which gradually increased the chance of divorce. Those who thought their marriages might be in trouble had the lowest probability of getting a divorce or separation. When they believed the spouse thought the marriage was in trouble or when the marital problems were discussed with friends, relatives, or counselors, the probability went up. When they actually thought of a divorce, the probability of marital dissolution went even higher. The chances increased further when discussion with the spouse about this topic occurred. Those who took specific actions such as leaving home or filing for divorce had the highest probability of divorce. Each of the 28 questions were assigned to an appropriate category: 1) Thinking Problems; 2) Discussion with Others; 3) Thinking Divorce; 4) Discussion with Spouse; and 5) Actions (see Appendix E). Any of these actions or thoughts which were recent increased the dissolution probability.

The results of the Oktoberfest survey indicated that there were no significant ($p > 0.05$) differences for any of the questions in four of the five categories. The only questions which showed significance ($p < 0.05$) were in the Discussion with Others category (see Appendix E). This significance does not necessarily mean these questions are reliable predictors of marital dissolution, as these questions did not fall into the Actions category, which Booth and his associates (1985) felt best predicted marital dissolution. This indicates that if there was any marital instability present among the runners, it was not very strong.

A second χ^2 test was conducted to determine between which groups each question's significance occurred. The couple in which only the males run answered with significantly ($p < 0.05$) more stability than the other two groups in all three questions (see Appendix F). In addition, the couple in which both spouses run answered Question 5 with significantly ($p < 0.05$) less stability than either of the other running groups. These results do not indicate that the male runner group had a greater degree of marital stability than the other groups; this group simply answered these three questions with more stability.

Implications

The results of this study imply that the personality differences which may occur as a result of running may not necessarily disrupt a marriage as previously suggested by Shipman (1980). It appears that runners who responded to the questionnaire could responsibly cope with the marital problems which may occur as a result of running.

As discussed previously, many factors help determine whether a marriage will be stable or instable. For example, the age of the spouse at marriage, their religious commitment, races, degree of tolerance, communications, and sharing of interests all may influence the stability of a marriage. The results of this study may be related to many of these factors.

Conflicts of a marriage are often overcome if the spouses can learn to share their interests (Argyle & Furnham, 1983; Brant, 1984). When this concept is applied to the study results, it appears that because no significant difference was found in marital stability between running groups, there would be no difference between groups in the amount of mutual involvement in each other's interests.

Negotiation is another factor contributing to marital stability. Brant (1984) stated that marital trouble occurs when some aspect of the relationship, such as running, becomes non-negotiable. The study results on running groups indicated that the amount of negotiation between running groups did appear to differ, since the marital stability scores were not statistically different.

Two final factors which may determine the stability of a marital relationship are tolerance and communication. Shipman (1980) found that couples in which both spouses run may have more tolerance and better communication than single-runner couples. However, these items must not relate directly to marital stability, otherwise the amount of tolerance and communication would be the same for all three running groups.

One possible reason for the different results between this study and Shipman's (1980) study is that her study was conducted at

a time when running was just beginning to gain popularity and acceptance. There may not have been as much support for the runner in the 1970's, both by the spouse and the community. Thus, the runners may have possessed less tolerance, communication, and negotiation than today's runners.

Summary

The statistical measures employed in this study indicate that there were no significant ($p > 0.05$) differences in the way of 25 of the 28 marital instability questions were answered by the three running groups. All of the questions which were found to have significance belonged to a category which was not a strong predictor of marital dissolution (Booth et al., 1985). The male runner groups answered the three significant questions with more stability than the other groups, and the running-couple group answered one of them with less stability than the other groups. The Kruskal-Wallis test indicated that there were statistically no significant differences between the three runner groups' rankings of mean scores when all 28 questions were combined.

From the results of this study, it can be concluded that the degree of marital stability did not appear to statistically vary between couples in which both spouses run, couples in which only the husband runs, and couples in which only the wife runs. Therefore, it appears that long-distance runners in this study have stable marriages, and running does not significantly interfere with these subjects' marital relationships.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to compare the marital stability of couples in which only the male runs, only the wife runs, or both spouses run. A survey was administered at the La Crosse, Wisconsin Oktoberfest Five-Mile and Half-Marathon races to 242 married adults who ran, or whose spouse ran, 20 miles or more per week. This study was different from other studies conducted on this topic in that it involved a standard test, the Marital Instability Index (Booth et al., 1983), as opposed to pure speculation and observation.

The subjects were asked to complete the questionnaire on-the-spot at the race packet pick-up sites, one of which was the evening before the race, and the other on the morning of the race. The subjects were then divided into appropriate categories: 1) couples in which only the male was a long-distance runner; 2) couples in which only the female was a long-distance runner; and, 3) couples in which both spouses were long-distance runners.

Descriptive statistics were used for both the general demographic questions and the running habits of all subjects. The statistical model used to determine significance of each marital instability question was the χ^2 test. This test showed that three questions were statistically significant at the 0.05 level. Another χ^2 test was used to determine whether there were any significant differences in the manner each group answered these three questions. It appears

that couples in which only the male runs tended to answer these questions with more stability, and couples in which both spouses run tended to answer with less stability (see Appendix C). In addition to the χ^2 tests, the Kruskal-Wallis One-Way Analysis of Variance test was employed to determine whether there were any significant differences between groups after combining the questions. Although the results of this test approached significance, it was not considered to be significant at the 0.05 level. Thus, there appeared to be no significant differences in marital stability between couples in which only the male runs, couples in which only the female runs, and couples in which both spouses run.

Conclusions

Based on the limitations of this study and the statistical interpretations, the following conclusions were made:

- 1) The null hypothesis, which stated that there would be no difference in the marital stability among couples in which both spouses run, only the husband runs, or only the wife runs, was accepted.
- 2) Three questions in the Discussion with Others category were found to be significant. The male runner group answered these questions with more stability, and the running-couple group with less stability.
- 3) Personality differences which may occur with long-distance running, and have been accused of disrupting marriages, do not appear to cause marital instability among any of the runner groups.

Recommendations

Based on the results of this study, the following recommendations are offered for future research:

1) Due to the variety of running skills in this study, a similar research study should be conducted at a full marathon race, where the runners may be more serious, experienced, and committed to the sport than the current subjects.

2) The demographic data, such as education level, income, and years run, should be compared between groups with low stability and groups with high stability.

3) Since this study was limited to only one measurement of marital stability (the Marital Instability Index), a similar study should be conducted using a different method of measuring marital stability.

4) Since the attitudes of the subjects may have been different at the two different race packet pick-up sites (one the evening before the race at the brewery, and the other the morning of the race near the starting line), a similar questionnaire should be administered at only one location.

5) The number of subjects in the running groups differed greatly. Therefore, a similar study should be conducted with relatively equal group sizes.

6) The time commitment and addiction to a sport such as running may be major factors contributing to marital problems. Other studies should be conducted to determine the marital quality of participants in other sports in which the potential for obsessive commitment exists, such as body-building, bicycling, and sailing.

7) A similar study should be conducted which uses a control group in which neither spouse runs long distances. Thus, the entire population of runners could be compared to this non-running group.

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APPENDIX A

MARRIED RUNNERS



Many articles have been written on the positive and negative effects running has on a person's personal life. Some feel running is beneficial to a person's needs, others believe running is the cause of many personal problems.

Would you please take 5 minutes to complete the attached questionnaire which explores the relationship between running and the marital relationship. All information will be kept strictly confidential. If you are interested in the results, please fill out your name and address on the card provided and leave it in the basket on the table.

Thank you for your interest and cooperation in this study. Your time is greatly appreciated.

Susan J. Glazko & N.K. Butts, Ph.D.
University of Wisconsin - LaCrosse

DIRECTIONS: Please complete the following general questions for yourself and those appropriate for your spouse.

A. Your sex M F Your age (yrs) _____ Spouse's age (yrs) _____

B. How many years have you been married? _____

C. Were you married previously? Yes _____ No _____

D. Was your spouse married previously? Yes _____ No _____

E. Estimate annual household income:

<input type="checkbox"/> Under \$10,000	<input type="checkbox"/> \$30,000 - 39,999	<input type="checkbox"/> Over \$100,000
<input type="checkbox"/> \$10,000 - 19,999	<input type="checkbox"/> \$40,000 - 49,999	
<input type="checkbox"/> \$20,000 - 29,999	<input type="checkbox"/> \$50,000 - 99,999	

F. Highest educational level completed:

<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	Primary School	<u> </u>	<u> </u>
<u> </u>	High School	<u> </u>	<u> </u>
<u> </u>	College	<u> </u>	<u> </u>
<u> </u>	Graduate	<u> </u>	<u> </u>

<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
G. Average miles run per week?	<u> </u>	<u> </u>	miles/week
Average days run per week?	<u> </u>	<u> </u>	days/week
Average hours run per week?	<u> </u>	<u> </u>	hours/week
Number of races entered since January, 1985?	<u> </u>	<u> </u>	
Have run for how many years?	<u> </u>	<u> </u>	years

H. If both you and your spouse are runners how often do you run together?

<input type="checkbox"/> Never	<input type="checkbox"/> 2-3 per month	<input type="checkbox"/> 2-3 per week	<input type="checkbox"/> 6-7 per week
<input type="checkbox"/> 1 per month	<input type="checkbox"/> 1 per week	<input type="checkbox"/> 4-5 per week	

I. Is your spouse running in the 1985 Oktoberfest Half-Marathon?

Yes _____ No _____

DIRECTIONS: Check the appropriate response for each question.

- Sometimes married people think they would enjoy living apart from their spouse. How often do you feel this way?
 - Very often
 - Often
 - Occasionally
 - Never
- Even people who get along quite well with their spouse sometimes wonder whether their marriage is working out. Have you ever thought your marriage might be in trouble?
 - Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, presently
 - No
- Have you ever talked with family members, friends, clergy, counselors, or social workers about problems in your marriage?
 - Yes, more than 3 years ago
 - Yes, within the last 3 years
 - No (Go To Question 5)

4. Who did you talk to? (Check all that apply)
- Family
 - Friends
 - Clergy, Doctor, or Counselor
 - Other
5. As far as you know, has your spouse talked with relatives, friends, or a counselor about problems either of you were having with your marriage?
- Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, recently
 - No
6. As far as you know, has your spouse ever thought your marriage was in trouble?
- Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, presently
 - No
7. Has the thought of getting a divorce or separation crossed your mind?
- Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, presently
 - No
8. As far as you know, has the thought of divorce or a separation crossed your spouse's mind?
- Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, presently
 - No
9. Have you or your spouse ever seriously suggested the idea of divorce?
- Yes, more than 3 years ago
 - Yes, within the last 3 years
 - Yes, presently
 - No (Go To Question 20)
10. Who started the conversation?
- Self
 - Spouse
 - Both
11. During the conversation did you generally
- Speak in favor of the idea
 - Suggest it was not a good idea
 - Express uncertainty
12. During the conversation did your spouse generally
- Speak in favor of the idea
 - Suggest it was not a good idea
 - Express uncertainty
13. Does your spouse feel
- More strongly
 - Less strongly
 - The same
- as you do about it?
14. Did you talk about consulting an attorney?
- Yes
 - No

15. Did you discuss division of property?
 Yes
 No
16. Have you talked about the problems of living apart?
 Yes
 No
17. Have you talked about filing a petition?
 Yes
 No
18. Have you or your spouse consulted an attorney about a divorce or separation?
 Yes
 No
19. Have you or your spouse filed a divorce or separation petition?
 Yes
 No
20. Have you discussed a divorce or separation with members of your family?
 Yes
 No (Go To Question 22)
21. Do they approve of the idea?
 Yes
 No
 Mixed feelings
22. Have you discussed a divorce or separation with a close friend?
 Yes
 No (Go To Question 24)
23. Does your friend generally approve or disapprove of the idea?
 Approve
 Disapprove
 Mixed feelings
24. Because of problems people are having with their marriage they sometimes leave home either for a short time or as a trial separation. Has this ever happened in your marriage?
 Yes
 No (Go To Question 28)
25. Did this happen within the last 3 years?
 Yes
 No
26. How long were you separated?
 Few hours
 Overnight
 2 or more days
 A month or more
 Still have not come back
27. Who left the last time?
 Self
 Spouse
28. Comparing your marriage to three years ago, is your marriage
 Getting better
 Staying the same
 Getting worse

APPENDIX B

RESPONSE FREQUENCIES FOR MARITAL INSTABILITY QUESTIONS

For all subjects combined, the lowest values given represent the response which indicates the most stability; the highest values given represent the response which indicates the least stability.

Question #	0	1	2	3	4
1	124	102	9	8	0
2	126	40	60	17	0
3	176	21	46	0	0
4*	170	46	18	4	4
5	179	16	36	12	0
6	133	35	55	20	0
7	133	35	55	20	0
8	171	20	39	12	0
9	199	17	17	10	0
10	22	24	0	0	0
11	10	27	9	0	0
12	15	25	6	0	0
13	23	23	0	0	0
14	31	15	0	0	0
15	31	15	0	0	0
16	24	22	0	0	0
17	41	5	0	0	0
18	38	8	0	0	0
19	43	3	0	0	0
20	222	21	0	0	0
21	7	15	3	0	0
22	204	39	0	0	0
23	6	22	8	0	0
24	221	22	0	0	0
25	7	15	0	0	0
26	3	2	8	7	2
27	0	22	0	0	0
28	173	56	12	0	0

* = Value represents the total number of boxes checked

APPENDIX C

CHI-SQUARE BY QUESTION

Question #	Chi-Square Observed	Chi-Square Needed For Significance
1	2.034	12.59
2	5.571	12.59
3	13.207*	9.49
4	21.917*	15.51
5	22.149*	12.59
6	8.101	12.59
7	5.202	12.59
8	13.337	15.51
9	7.168	12.59
10	4.931	5.99
11	3.465	9.49
12	2.521	9.49
13	2.671	9.49
14	3.455	5.99
15	3.007	5.99
16	5.572	5.99
17	0.884	5.99
18	3.032	5.99
19	2.063	5.99
20	5.487	5.99
21	3.228	9.49
22	5.808	5.99
23	7.862	9.49
24	1.708	5.99
25	0.489	5.99
26	9.411	15.51
27**	-----	-----
28	6.924	9.49

* = Significant at p 0.05

** = Statistics impossible to compute when only one response

APPENDIX D

CHI-SQUARE BY RUNNER FOR QUESTIONS 3, 4, 5

QUESTION 3: "Have you ever talked with family members, friends, clergy, counselors, or social workers about problems in your marriage?" (0=No; 1=Yes; more than 3 years ago; 2=Yes, within the last 3 years).

ANSWER	RUNNER 1	RUNNER 2	RUNNER 3	ROW TOTAL
0	131a	15	39	
	120b	20.3	34.65	175
	74.9c	8.6	16.6	72.3
	78.9d	53.6	60.4	
1	9	5	7	
	14.4	2.44	4.16	21
	42.9	23.8	33.3	8.7
	5.4	17.9	14.6	
2	26	8	12	
	31.6	5.34	9.11	46
	56.5	17.4	26.1	19.0
	15.7	28.6	25.0	
COLUMN TOTAL	166	28	48	242
	68.6	11.6	19.8	100

a = Observed Frequency

b = Expected Frequency

c = Row Percentage

d = Column Percentage

QUESTION 4: "Who did you talk to?" (about problems in your marriage).
 (Scored one point for each of the following: a) Family,
 b) Friends, c) Clergy, Doctor, Counselor, d) Other).

ANSWER	RUNNER	RUNNER	RUNNER	ROW TOTAL
	1	2	3	
0	127a	15	28	
	116.62b	19.72	33.66	170
	74.7c	8.8	16.5	70.2
	76.5d	53.6	58.5	
1	27	9	10	
	31.56	5.34	9.11	46
	58.7	19.6	21.7	19.0
	16.3	32.1	20.8	
2	8	2	8	
	12.35	2.09	0.79	18
	44.4	11.1	44.4	7.4
	4.8	7.1	16.7	
3	2	2	0	
	2.74	0.46	0.79	4
	50.0	50.0		1.7
	1.2	7.1		
4	2	0	2	
	2.74	0.46	0.79	4
	50.0		50.0	1.7
	1.2		4.2	
COLUMN TOTAL	166	28	48	242
	68.6	11.6	19.8	100

a = Observed Frequency

b = Expected Frequency

c = Row Percentage

d = Column Percentage

QUESTION 5: "As far as you know, has your spouse talked with relatives, friends, or a counselor about problems either of you are having with your marriage? (0=No; 1=Yes, more than 3 years ago; 2=Yes, within the last 3 years; 3=Yes, recently).

ANSWER	RUNNER 1	RUNNER 2	RUNNER 3	ROW TOTAL
0	130a	19	29	
	122.1b	20.6	35.2	178
	73.0c	10.7	16.3	73.6
	78.3d	67.9	60.4	
1	8	6	2	
	11.0	1.9	3.2	16
	50.0	37.5	12.5	6.6
	4.8	21.4	4.2	
2	19	3	14	
	24.7	4.2	7.1	26
	52.8	8.3	38.9	14.9
	11.4	10.7	29.2	
3	9	0	3	
	8.2	1.4	2.4	12
	75.0		25.0	5
	5.4		6.3	
COLUMN TOTAL	166	28	48	242
	68.6	11.6	19.6	100

a = Observed Frequency

b = Expected Frequency

c = Row Percentage

d = Column Percentage

APPENDIX E

DIVORCE WAS DISCUSSED WITH SPOUSE ("DISCUSSION WITH SPOUSE")

- Question 9: Have you or your spouse ever seriously suggested the idea of divorce?
- Question 10: Who started the conversation?
- Question 11: During the conversation did you generally speak in favor of the idea, suggest it was not a good idea, or express uncertainty?
- Question 12: During the conversation did your spouse generally speak in favor of the idea, suggest it was not a good idea, or express uncertainty?
- Question 13: Does your spouse feel more strongly, less strongly, or the same as you do about it?
- Question 14: Did you talk about consulting an attorney?
- Question 15: Did you discuss division of property?
- Question 16: Have you talked about the problems of living apart?
- Question 17: Have you talked about filing a petition?

TOOK SPECIFIC ACTIONS TOWARD DIVORCE ("ACTIONS")

- Question 18: Have you or your spouse consulted an attorney about a divorce or separation?
- Question 19: Have you or your spouse filed a divorce or separation petition?
- Question 24: Because of problems people are having with their marriage, they sometimes leave home either for a short time or as a trial separation. Has this every happened in your marriage?
- Question 25: Did this happen within the last 3 years?
- Question 26: How long were you separated?
- Question 27: Who left the last time?

APPENDIX F

CHI-SQUARE BY GROUP

Question	χ^2 Needed For Sig.	Groups 1 vs 2	Groups 1 vs 3	Groups 2 vs 3
#3	5.99	9.46*	7.71*	0.35
#4	9.49	9.66*	11.46*	6.79
#5	7.81	11.03*	9.27*	9.60*

* = Significant at p 0.05