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**Family-owned and non-family-owned business:
Stress and coping**

by

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**A dissertation submitted to the graduate faculty
in partial fulfillment of the requirements of the degree of
DOCTOR OF PHILOSOPHY**

Major: Psychology (Counseling Psychology)

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ABSTRACT

This study was conducted with a primary goal of exploring whether there are differences in stressors (i.e., aspects of business) and perceived stress related variables (i.e., subjective and psychological measures) between family-owned business owners/managers and non-family-owned business managers in the State of Iowa. The secondary goal was to ascertain if there are differences in the coping strategies used by these owners and managers. Statistically identified differences were then used as predictors of category membership in either the family-owned business or the non-family-owned business groups. A total of 140 usable surveys were collected, 71 from family-owned businesses and 69 from non-family-owned businesses, reflecting an overall return rate of 18.47 percent.

This study addressed two hypotheses. Hypothesis 1 predicted that no differences would be found in the areas of life seen as stressful by family-owned and non-family-owned business respondents, or in the mean levels of reported (i.e., perceived) stress in these areas. Hypothesis 2 predicted that the stressful situations of life faced by family-owned business and non-family-owned business respondents would be dealt with through similar methods. Neither hypothesis was rejected as a result of the study. However, a number of statistically significant findings did result from the study, although the significant findings did not relate directly to these hypotheses. Among the significant findings were the following.

Significant differences were found between family-owned and non-family-owned businesses in the areas of gross sales, number of business locations, number of people besides the respondent involved in management decisions, and number of full-time employees.

Significant differences were found in Coping Responses Inventory results between female and male respondents (i.e., seeking guidance and support, cognitive avoidance, and emotional discharge). Significant differences were found between the combined business sample and the CRI-adult standardization sample on all coping styles, other than cognitive avoidance.

There was a significant difference between the combined business sample and the non-patient standardization sample on all but two of the Brief Symptom Inventory indexes, and between the combined business sample and the adult psychiatric outpatient standardization sample on all but one of the indexes.

Significant differences were found between the Positive and Negative Affect Schedule adult non-patient standardization sample and the family-owned business sample.

CHAPTER 1. INTRODUCTION

Problem in Perspective

General statement of the problem

Stress has been viewed in the literature of psychology as being both a benefit (Haan, 1993) and a detriment to the lives of individuals (Holt, 1993; Katkin, Dermit, & Wine, 1993; Mandler, 1993; Shuval, 1993; Stoyva & Carlson, 1993). The number and variety of references available in the stress research literature make it clear that stress and our reactions to stress are areas of concern in many fields of study.

The field of occupational stress research investigates the aspects of work which threaten to have adverse effects on workers. "Put in commonsense terms, the basic proposition of the whole field of occupational stress might be expressed thus: some aspects of many kinds of work have bad effects on most people under certain circumstances" (Holt, 1993, p. 344). Thus, the field of occupational stress research can be seen as studying those aspects of work that either have or threaten to have perceived negative consequences for workers.

This area of research has identified a variety of types of stress faced by workers, a variety of undesirable consequences related to stress, and a variety of variables which moderate between stresses and undesirable consequences. The relationship described can be simplified into the following research paradigm: stress (independent variable) → undesirable consequences (dependent variable).

Over the years a large amount of psychological research has been directed toward improving the lives of individuals by reducing the effects of stressful events. The research

completed as part of this study used the general concept of the occupational stress research paradigm described above to assess and explore the perceived stresses and undesirable consequences reported by the owner/managers of family-owned businesses in the State of Iowa, in comparison to the perceived stresses and undesirable consequences described by the managers of non-family-owned businesses in the State of Iowa. This study is an exploratory correlational investigation, which has the overall goal of assessing if there are differences in stressors (i.e., aspects of business) and perceived stress related variables (i.e., subjective and psychological measures) between family-owned business respondents and non-family-owned business respondents. The secondary goal of this research is to ascertain if there are differences in the coping strategies used by family-owned business respondents and non-family-owned business respondents. A third, and more general, goal of this exploratory investigation is to increase the literature base in the field of occupational stress research. This study is significant because it increases the descriptive knowledge base pertinent to the business related and self-report psychological characteristics of persons involved with family-owned and non-family-owned businesses in a rural state. In addition, it delineates the types of stressors experienced and coping strategies used by these individuals.

Significance of stress research: Definitions of stress

The field of occupational stress research is important due to the effects stress has been shown to have on the lives of individuals. Specifically, the field brings into focus the stresses experienced at work-an activity that occupies at least one-quarter of our adult lives.

Over the years, stress has been defined in a wide variety of ways. Seyle (1993) defines stress as the nonspecific (or common) result of any demand upon the body, with the effect

being mental or somatic. Haan (1993) combines the definition offered by Paykel, Prusoff, and Uhlenhuth (1971)-whatever upsets people-with the definition offered by Holmes and Rahe (1967)-whatever requires people to adjust. This combination leads Haan to offer the following description concerning stress:

In sum, stress is either a bad event or a good event that did not come about; its meanings are commonly understood even though some people's histories may be especially vulnerable to certain kinds of stress. Contrasting values about the best way to live-invulnerability or reactivity-permeate stress research. Finally, stress does not invariably lead to deterioration. It may facilitate growth by tempering arrogance and by enhancing our tenderness toward ourselves and others. (p. 259)

Other definitions of stress direct more attention toward its effects on individuals. Mandler (1993) suggests that stress is concerned mainly with the relationship between automatic (sympathetic) arousal and performance. He believes it is the perceived experience of stress that determines its effects on processes such as thought and memory; that it is the perception of arousal, as well as the preoccupation with the stressing occasion, that interferes with continuous conscious processing. Shuval (1993) uses a description by House (1974) as the basis of her definition of stress: when an individual confronts a situation where his or her usual modes of behavior are insufficient and the consequences of not adapting are serious. This description leads Shuval to conclude the following:

In sum, stress is said to exist to the extent that an individual defines a salient situation as disturbing and is unable to recruit effective coping mechanisms to remove or reduce the disturbance. Two simultaneous conditions are necessary for stress to be present or to increase: a subjective definition of a situation as disturbing and an inability-for whatever reason-to cope with the condition.

(p. 647)

Finally, Stoyva and Carlson (1993) combine the definitions of Fisher (1984), Frankenhaeuser (1983), and Goldstein (1990) to define stress as “a situation in which the challenges or threats facing the individual exceed his or her estimated coping resources. The individual perceives a gap between the challenge and the physical and psychological resources he or she judges to be available. The perception of this discrepancy sets off a coordinated pattern of psychological, behavioral, and physiological reactions” (p. 729).

Effects of work stress

The effects of the individual's reaction to stress are the undesirable consequences (dependent variable) described in the occupational stress research paradigm previously discussed. These undesirable consequences have been found to include the following (Holt, 1993):

Strains

(Relatively Minor Side Effects of Working at an Occupation)

Tension and headaches	Boredom, anxiety, depression, irritation
Disrupted sleep, bowel functions, or eating habits	Changes in self-esteem
Somatic complaints	Alienation from, or a lowering of confidence in, the employing organization
Fatigue	
Changes in life satisfaction	Job dissatisfaction and absenteeism
Sexual maladjustment	Disrupted performance of social roles as spouse, parent, and citizen
Work stoppages/strikes	Interference with friendships and dating
Early retirement and job changes	Increased smoking and caffeine intake

Illness and Mortality

(Major or Life-Changing Effects of Working at an Occupation)

Depression	Arthritis
Alcoholism and drug abuse	Bronchitis and asthma
Neurosis	Dermatitis
Heart disease	Violence
Hypertension	White-collar crime
Stroke	Accidents
Peptic ulcer	Suicide

Specific examples of these effects can be found in research showing that 60-80 percent of accidents and more than half of the 555 million annual days of absenteeism are due to

employee stress, while 75-90 percent of all visits to primary care physicians are job-related (Crampton, Hodge, Mishra, & Price, 1995). These statistics combine to show companies in the United States accumulating stress-related expenses of between \$100 and \$300 billion per year (Crampton et al., 1995).

In Australia, cost estimates related to stress-induced illness equal approximately two percent of the country's Gross National Product, or approximately \$3 billion per year (Savey, 1986). Savey (1986) goes on to point out that Australian executives between 40 and 50 years of age are twice as likely to die from stress-related illness than are non-executives in the same group.

Specific studies have found stress overload to result in increases in blood pressure, anxiety, peptic ulcers, loss of appetite, insomnia, irritability, and depression (Manning & Curtis, 1988). Lower job satisfaction and higher job-related tension have been found to be related to job-role conflict and job-role ambiguity (Glowinkowski & Cooper, 1986).

Finally, stress has been found to play a role in the development of burnout. Burnout is a condition that develops over time and is characterized by emotional exhaustion and negative attitudes (Kreitner & Kinick, 1992). These negative attitudes can include boredom, discontent, cynicism, inadequacy, and failure. Burnout usually occurs when a person experiences physical, psychological, or spiritual fatigue and is no longer able to cope with stress faced on a regular basis (Manning & Curtis, 1988). While definitions of burnout may vary, and its manifestation within the individual may also vary, burnout is seen most often in the individual who was originally highly motivated and committed to his/her job or career. "Individuals who enter a profession (e.g., nursing or counseling) with a cynical attitude are

unlikely to burnout; but those with a strong desire to give of themselves and who feel helpful, excited, and idealistic are susceptible to the most severe burnout” (Pines, 1993, p. 386).

Significance of family-owned business research

Research in the area of the family-owned business is important for a variety of reasons. Before discussing these reasons, it is important to define what is meant by a family-owned business. A survey of 226 articles, in 32 major journals, in the family business literature (Chrisman, Chua, & Sharma, 1996) found thirty-four different definitions of a family-owned business. These definitions all used one of four dimensions as a basis of defining a family-owned business: degree of ownership and management by family members, multiple conditions of ownership (e.g., family ownership, family employment, expectations of family succession), interdependent subsystems (e.g., business, family, founder, outside interests), and generational transfer. Two exemplary definitions from each dimension are listed below.

Degree of ownership and management. According to Fiegenger, Brown, Price, and File (1994), the family-owned business is a firm that is both family-owned and -managed. Continuing with this view on ownership, Pratt and Davis (1986) define the family-owned business as a business in which two or more extended family members influence the direction of the business through the exercise of kinship ties, management roles, or ownership rights.

Multiple conditions of ownership. As defined by Astvachan and Kolenko (1994), the family-owned business is one in which there is family ownership of more than 50 percent of the business in private firms or more than 10 percent of the stock in public companies. One or more of the following is also true: more than one family member works in the business, the owner anticipates passing the business along to the next generation of family members, or the

owner identifies the firm as a family business. Also using the multiple conditions dimension as a basis of definition, Rosenblatt, de Mik, Anderson, and Johnson (1985) define the family-owned business as any business in which majority ownership lies within a single family and in which two or more family members are, or at some time were, directly involved in the business.

Interdependent subsystems. Beckhard and Dyer (1983) use the dimension of interdependent subsystems to define the family-owned business as a business in which the subsystems include: the business as an entity, the family as an entity, the founder as an entity, and such linking organizations as a board of directors. Davis (1983) also uses the interdependent subsystems dimension in defining the family-owned business as the interaction between two sets of organizations, family and business, with this interaction establishing the basic character and defining the uniqueness of the family-owned business.

Generational transfer. According to Churchill and Hatten (1987), a family-owned business is a business in which a younger family member has taken over control of the business from a senior family member or it is anticipated that a younger family member will assume control of the business in the future. Ward (1987) also uses the generational transfer dimension to define the family-owned business as a business that will be passed on for the family's next generation to manage and control.

Summary. In reviewing the sample definitions provided for each of the four major dimensions used in defining a family-owned business, one common element can be found running through all of these definitions. This common element is that the business is owned or controlled by a family. While various definitions go on to add other elements, the family

ownership dimension is the one commonality which cuts across all of these definitions. With this fact in mind, the definition used as the basis of this study is the above definition attributed to Rosenblatt et al. (1985). This study defines a family-owned business as any business in which majority ownership or control of the business lies within a single family and in which two or more family members are, or at some time were, directly involved in the business. This definition was selected as a basis for this study because it includes the major defining element of the family-owned business, the ownership dimension, and it helps to differentiate between businesses which are in the entrepreneurial stage of business growth and those that are actually owned or controlled by a family (i.e., a one-person startup versus an established businesses).

Family-Owned Business: The Historical Perspective

In his book, *Family-Owned Business, Risky Business* (1986), David Bork offers a historical perspective on the place of the family-owned business in our world. Bork tells us that while family-owned businesses were common in Europe, it was America's struggle for freedom and the opportunity for our founders to do business as they wanted and to keep their profits, that led to the growth and prominence of the family-owned business in this country.

As the United States began, examples of family-owned business can be seen amongst the country's emerging leaders. John Hancock was part of a successful family business in whalebones. Paul Revere founded a business in copper and metals which lasted as a family business through five generations and is still with us today as part of a major corporation.

As the country grew, so did many family-owned businesses that are still recognizable by their family names today. Individuals founding family owned businesses between 1830 and

1900 include: Andrew Carnegie (steel); Marshall Field (retailing); Samuel Cunard (shipping); Charles Goodyear (vulcanized rubber); John Deere (farm machinery); I. M. Singer (sewing machine); Thomas Edison (light bulb, phonograph); George Eastman (camera); Henry Ford (automobile); P. D. Armour (meat packer); and Alexander Graham Bell (telephone).

The twentieth century has brought about a variety of changes and challenges to the world of the family-owned business. The stock market crash of 1929 and the Cold War provided two reasons for a growth in the number of family-owned businesses. The stock market crash led to the creation of many small firms, as families tried whatever they could to make a living. The Cold War led to a surge of entrepreneurship, as sons who had been away at war became impatient with waiting to take over a family business or to move up the corporate ladder. The 1960s saw a growth in craft-based companies, as the 1960s' counterculture influenced the world of family business. The 1970s brought the return of a more traditional form of family business, but with one big difference: wives and daughters now played a larger and growing role in the family business.

Trends in entrepreneurship

The trend toward entrepreneurship which began during the Cold War continues today, and this, in turn, leads to a growth in the number of family-owned businesses-as every entrepreneurial attempt has the chance of becoming a family-owned business. It is estimated that there is a new business startup in the United States every 45 seconds, and there are a variety of reasons why we can expect to see a continued growth in entrepreneurship and family-owned businesses in the years ahead (Buchholz & Crane, 1989).

The first reason we can expect to see this continued growth is that the corporate world has become swollen with middle managers. This makes it harder for middle managers to move to the top of their field and many turn to starting their own business as an outlet for their talents. A second reason for this expected growth is the fact that many new businesses are started by women who find themselves stuck in careers at the lower or middle corporate levels and see no chance of breaking through the barriers blocking their movement to the upper levels of the corporate world. A third cause of growth may be the large numbers of mergers and the large amount of down-sizing which has taken place over the past few years and which has eliminated thousands of jobs. This has forced some people into a choice between unemployment, underemployment, or starting a business of their own. A final reason for the anticipated growth in entrepreneurship and family-owned businesses in the future is the growing knowledge and technology base available to help would-be business owners. These include college courses, extension courses, magazines and books, personal computers, cellular phones, family business consultants, and increased help from the federal government.

The Economic Importance of the Family-Owned Business

The importance of studying the family-owned business is highlighted by the fact that most businesses in America are family-owned businesses and that millions of American families are involved in the ownership and management of these businesses. Approximately 90% of all American businesses are owned outright or controlled by families. These businesses generate more than 50 percent of the country's gross national product and 50 percent of all private (non-farm) sector jobs. In addition, nearly 40 percent of Fortune 500 companies are family-owned or family-controlled (Lea, 1991).

These examples demonstrate the economic importance of the family-owned business in our society. When this economic importance is contrasted with the realization that many family-owned businesses have difficulty succeeding over time (e.g., many go out of business after ten years and only 30 percent survive into the second generation), additional reasons appear for the study of the family-owned business (Beckhard & Dyer, 1983). The major reason for continued study is to help family-owned businesses weather the unique situations and transitions they face, so the people they employ and our economy do not suffer.

Rosenblatt and Albert (1990) suggest that family-owned businesses can act as a metaphoric base for understanding businesses that are not family-owned. Metaphors relating to family-owned businesses can highlight problems faced by non-family-owned businesses and measures used to solve problems in the family-owned business may be of use in solving similar problems in the non-family-owned business.

Finally, Shanker and Astrachan (1995) use three different definitions of the family-owned business to estimate their economic importance to the country's gross national product and employment. The first and most broad definition requires that the family have some degree of effective control over the direction of the business and that it is intended that the business will remain in the family. This definition includes businesses in which no family member is in direct daily contact with the business, but the family still has influence over business decisions either by sitting on the board of directors or by owning a significant percentage of stock. The second, midrange, definition includes all of the above criteria and also requires the founder or a descendant of the founder to run the business. The third, and narrowest, definition requires multiple generations to be involved in the business, more than

one family member to have significant management responsibility, and direct family involvement in daily operations.

When the family-owned business is considered according to these three definitions, the number of family-owned businesses in the United States ranges from 4.1 to 20.3 million, employment ranges from 19.8 to 77.2 million, and between 15 and 59 percent of the work force are employed by a family-owned business. In addition, family-owned businesses account for between 19 and 78 percent of the new jobs created between 1976 and 1990, as well as 12 to 49 percent of the country's gross national product.

CHAPTER 2. LITERATURE REVIEW

Critical Review of Previous Research

In recent years there has been a substantial increase in the literature base concerning family-owned businesses. According to the American Business Index - Global, the number of articles related to family-owned businesses rose from 188 for the years 1972-1985, to 680 for the years 1986-1995 (Chrisman, Chua, & Sharma, 1996). A wide-variety of books (e.g., Alcorn, 1982; Bork, 1986; Gersic, Davis, Hampton, & Lansberg, 1977; Lea, 1991) and literature reviews (e.g., Chrisman et al., 1996) have also added to the literature base concerning family-owned businesses.

When a family-owned business is created, those involved with the business face a variety of stresses and rewards. The manner in which these stresses and rewards are dealt with is a key to whether a family-owned business is a successful and enjoyable place in which to work. This critical review of research in the area of family-owned business focuses on the stresses and rewards of being a part of a family-owned business and how those involved in the family-owned business deal with these stresses and rewards.

Before turning to focus on the stresses and rewards of the family-owned businesses, an article representing an overview of the family-owned business will set the stage for a more in-depth investigation. Donckels and Frohlick (1991) studied 1,132 small and medium-size (i.e., less than 500 employees) family-owned European businesses and offer a general overview that can be related to family-owned businesses in the United States. This study found that family-owned businesses differ from non-family-owned businesses in a variety of ways. These differences include the fact that most family-owned businesses are closely related

systems that are inwardly directed, family-owned business managers are more likely to be do-everything type managers, most family-owned businesses are risk-averse, and creativity and innovation are less important in family-owned businesses. In addition, the family-owned business is more inclined to pay above-average wages, to care more about employee satisfaction, and, at the same time, to care less about employee participation in decision making. Finally, a conservative attitude toward business is the usual rule, with the family-owned business being less likely to internationalize their business.

Overall, family-owned businesses can be described as stable rather than progressive or dynamic. This is true because their owner/managers are significantly less profit-oriented and less growth-oriented than managers of non-family-owned businesses.

Sources of Stress

Defining roles

The defining of roles within a business can also be seen as the development of task structures and processes adapted to the needs of the particular business. Developing task structures and processes which are not adversely affected by spill-over from family relationships outside the business are important to reducing the stress felt by those involved in the business (Davis & Stern, 1980). These spill-overs and other work-family relationship conflicts are discussed in an upcoming section; in this section we are looking specifically at how a business defines who does what and who answers to whom in the day-to-day life of the business.

In defining the perils of the family business, Burack and Calero (1981) describe several perils which fall under the category of defining roles: the owner of the business attempting to

do it all by himself or herself and not learning to delegate authority and responsibility, having too informal an operation (e.g., an operation without policy and procedures manuals which help to formalize operations), and the failure to separate the roles of owner and manager within the business.

In citing reasons for the high level of conflict in family-owned businesses, Harvey and Evans (1994) include the fact that many family-owned businesses have unclear definitions of roles and obligations for those working in the business. Often there are no organizational mechanisms in place to deal with questions which arise in this area.

A study which interviewed over 700 family-owned businesses (Winter & Fitzgerald, 1993) found the number one reason for going out of business to be employment-related issues. This accounted for 33 percent of those businesses ceasing to do business in the survey. Within the area of employment-related issues is the problem of defining roles to the extent that both family and non-family employees can be happy and successful.

In a discussion on how best to prepare an heir to assume control of a family-owned business, Buchholz and Crane (1989) found that it is important to define responsibilities and to assign jobs for which the heir is qualified. Buchholz and Crane go on to say that when several heirs work together, their jobs should not overlap. Jobs should be differentiated with titles and written job descriptions. There should be only one boss and this person should be designated through an organizational chart showing a clear chain of command. DeVries (1996) lists authority and responsibility not being clearly defined, overlapping jobs, and the decision hierarchy being frequently bypassed as a few of the challenges and hazards of running a family-owned business.

“It’s pretty hard to define roles within a family business. Some members see what other members are doing, and they tend to want to do that rather than what they are supposed to do” (Rosenblatt et al., 1985, p. 21). This quote is offered by the authors as an example of the tensions created in defining roles in the family-owned business. The authors go on to describe a number of areas in which defining roles can lead to high levels of stress and tension: the role confusion created when the leader of a family-owned business wants family members to know how to do a variety of jobs, parent-offspring tensions (e.g., especially over issues of self-control on the part of the offspring), spouse tensions (e.g., concerns over unequal legitimacy to act, unequal knowledge, entitlement to equal status with one’s partner, and the need to be respected as an equal), invasion into someone else’s territory, and the tension caused by attempting to develop a division of labor in an effort to solve these problems. The authors conclude that “a clear-cut division of labor seems a valuable tool in heading off interpersonal battles, heading off the problems that employees, customers, and suppliers have over mixed signals when it is unclear who does what in a business, and heading off personal confusion and ambivalence over business tasks and decisions when there is unclarity over who does what” (p. 38).

Finally, a study by Wicker and Burley (1991) looked at how married couples dealt with defining roles at home and in business for new family businesses in which husbands and wives worked together. The authors reported that while the average number of hours spent working in the business varied little between husbands and wives (i.e., 46 versus 44), the division of labor at home fell into what has been considered the traditional American home (e.g., the wife assuming all or most of the duties and the husband assisting when asked).

While this may appear an inequitable division of labor, 50 percent of the wives reported no conflicts or tensions in this area. The couples interviewed ($n = 40$) reported that the defining of roles at home was accomplished without ever openly addressing the topic and that this pattern carried over into the defining of roles within the business. In the case of the business, spouses typically adopted the duties at which each recognized themselves to be better suited. Spouses reported more conflict and tension related to defining roles in the business, with 75 percent of the couples describing such conflicts.

Work-family conflicts and spill-overs

Outside of the need to plan for succession within the business, the interrelation of the family and the business appears to cause the greatest amount of stress for those involved in a family-owned business. The largest amount of literature concerning family-owned businesses can be found in these two subject areas.

Throughout the literature, a variety of theories have been developed to explain how the family and the business should interact within a family-owned business, so that both the family and the business are successful. Hollander and Elman (1998) describe three categories of theories which have evolved into a systems approach to dealing with family-owned businesses. These categories include the rational approach, which advocates excising the family from the business; the focus on the founder approach, which sees the examination of the personality and style of the founder as the key to helping to predict business and family difficulties; and phase and stage theories, which look at the alternating periods of stability and transition which take place as the needs of the business, the family, and individuals inside and outside the family change over time. According to Hollander and Elmann, these three

categories can be considered micro-aspects of the systems approach, while the systems approach can be seen to provide the macro-model of dealing with family-owned businesses. Common threads are found between the various micro-aspects and the macro-model: the notions of interdependency, inter-activity, and the belief that family processes and business processes exist in a continuous relationship with each other.

A review of the evolution of the systems approach to understanding the family-owned business begins with models using open-systems theories as a base of conceptualization. These theories emphasize the interrelationship between the organization and its environment, with the main focus being understanding the context within which the organization functions (Lawrence & Lorsch, 1969; Thompson, 1967).

The next step in the evolution of family-owned business systems theory was the identification of various systems' requirements for the adaptive family business (Davis & Stern, 1980). These requirements include clear and consistent boundaries (e.g., boundaries which locate problems and issues in the appropriate context for resolution) and internal processes and social structures within the family that can contain and solve family problems. These requirements are seen to exist within the interrelationship of the business system, the marketplace, and the family.

A view of the family-owned business taking into account the business, the family, the founder, and linking mechanisms (e.g., board of directors) was offered by Beckhard and Dyer (1983). In this view, each component is seen as having an identity and culture of its own and decisions made in one component can conflict with the needs and values of another component.

Hollander model. Finally, a number of authors (Kepner, 1983; Hollander, 1984; Ward, 1987) can be grouped together as following the view that the family is of equal power and importance with the business and that there are permeable boundaries between the family and the business. In this case, the family and its processes are seen as integral to the business.

Hollander's (1984) approach offers an integrated model, incorporating both systems and developmental phases concepts, and is a good reference for understanding the work-family conflicts and spill-overs included in this section. This model involves three major interactive components: the business, the family, and the environment. These components are seen to have relatively permeable boundaries between them and the interactions between the three can be seen to be caused by five elements. These elements are the family culture, the organizational culture, and the intersecting life cycles of the individual, family, and business. Hollander's theory emphasizes the interaction and interdependency of the family, the business, and the individual life cycles. Figure 1 graphically displays Hollander's model.

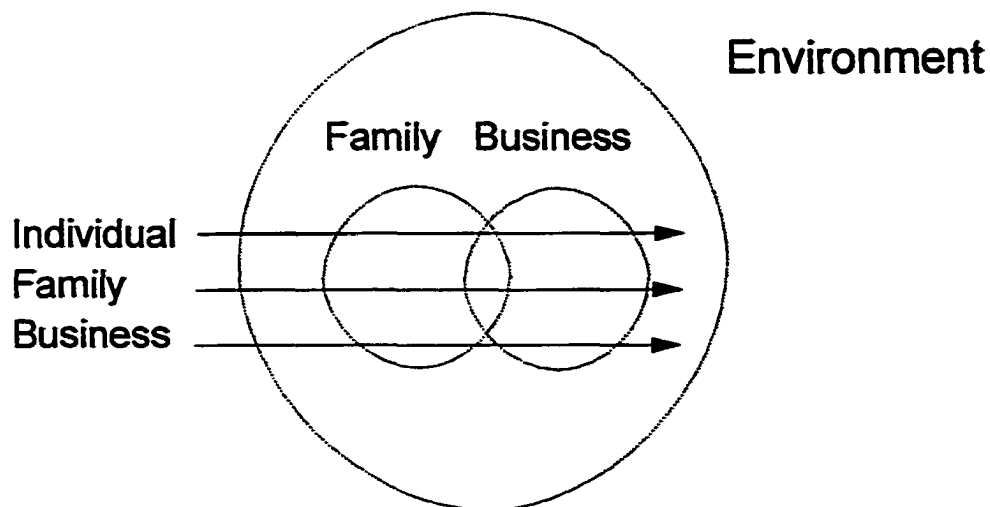


Figure 1. Hollander (1984) Model

Hollander's approach emphasizes the interdependency and interaction of the individual, family, and business life cycles. In this manner he displays the complexity of the family business system by showing how individuals, families, and businesses develop over time within the context of the family culture and the business culture. According to this model, components of the family culture include the historical emotional processes transmitted from generation to generation (e.g., myths, roles, rules, the ability to support individuation, and patterns of power and control). Components of the business culture include core beliefs, rituals, artifacts, and values.

A ground work of theoretical views has now been laid to help in understanding how work-family conflicts and spill-overs are created in the family-owned business. These conflicts and spill-overs are numerous and can take place on multiple levels. Greenhaus and Beutell (1985) offer three sources of conflict between work and family roles. The first source of conflict is that devoting the time needed to be successful in one role makes it difficult to devote the time needed to be successful in the other role. The second source of conflict between work and family roles is when the strain created from participating in one role makes it difficult to be successful in the other role. The third source of conflict is that the specific behavior required by one role can make it difficult to be successful in the other role.

The authors conclude that work-family conflict is related to one's career success and role demands, and that these demands depend on the support of the spouse. Also, women are exposed to stronger sanctions for noncompliance with family-related demands, while men are exposed to stronger sanctions for noncompliance with work-related demands.

Harvey and Evans model. Harvey and Evans (1994) describe three levels of conflict which can take place within the interaction of the family, the business, and external stakeholders in the business (e.g., bankers, investors, suppliers, members of the board of directors). Level 1 conflict is when there is no interaction between the components of family, business, and external stakeholders and this conflict does not spill-over into the other components. An example of Level 1 conflict would be when a family problem does not adversely affect the business. Level 2 conflict is conflict occurring in two of the components as they overlap; this leads to a conflict which is intense and more difficult to address. A complex web of business issues and family relationships can be created, as described by the authors in the following example: the managing family member experiences problems with succession in the business because the sibling being counted on to take over the business is not respected by others within the business. At the same time, family conflict occurs because another sibling feels alienated because he or she was not chosen to take over the management of the business. Finally, Level 3 conflict occurs when all three components described above are involved with the conflict situation. An example of this would be when outside stakeholders become concerned about the qualifications of the sibling selected to take over the business, as described in the Level 2 example. To solve this conflict, the leaders of the family-owned business must now address constituents within the family, the business, and the external stakeholders. Since the complexity of the conflict has increased, the method of conflict resolution also will need to be more sophisticated to deal with the conflict successfully. Figure 2 depicts the interactions leading to these three levels of conflict (Harvey & Evans, 1994, p. 235).

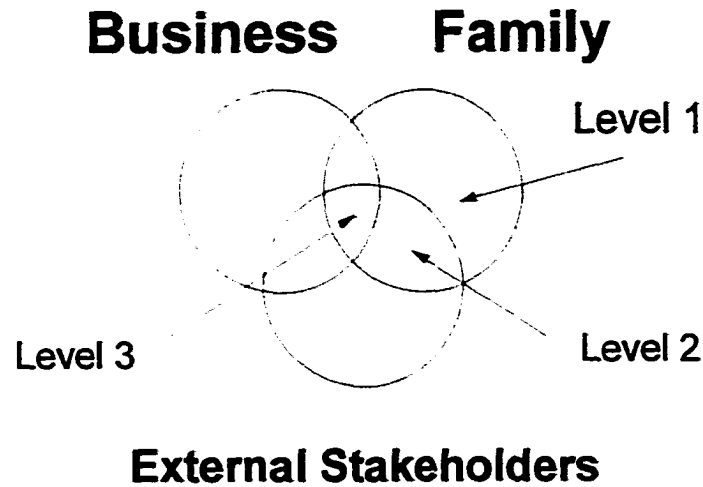


Figure 2. Harvey and Evans (1994, p. 235) Model

A quote from the authors describes both the likelihood and the importance of recognizing conflict within the family-owned business. “There is no reason to assume conflict will not occur in the family business. In fact, within most family organizations, conflict will be a continuing dysfunctional occurrence. Knowing this, and predicting when conflict is going to occur, may assist families in effectively managing conflict situations” (p. 345). The conflicts described in the above models often lead to a variety of problems having to do with work-family conflicts, and theories concerning these problems are our next topic of concern.

Liebowitz’s principles for consulting with family-owned businesses. Liebowitz (1986) explains that while family-owned businesses usually are seen as appealing, their nature can bring about a variety of problems having to do with work-family conflicts. According to Liebowitz, these problems include the family-owned business becoming the source of employment and financial security for otherwise unemployable offspring and relatives,

constant conflict between founder(s) and their relatives in the business, and unsolvable family disputes. The author goes on to describe eight principles for consultants dealing with family-owned businesses. These principles illustrate some sources of stress unique to family-owned businesses and describe the work-family conflicts faced by those involved in a family-owned business. Principle 1: The person (or persons) in the family who wants to initiate the process of resolution is the one who stands to lose the most, if something is not done or a decision is not made, and also to gain the most if something is done. It is crucial that both gain and loss be explored. Principle 2: The most significant influence on family problems and their successful resolution is the marriage relationship of founder and spouse. Principle 3: Parent-son conflicts often suggest a theme of exiting from under the parent's authority and becoming one's own independent person. Principle 4: Not retiring leaves open, often painfully, the non discussable wound of unfilled ambitions among offspring. Principle 5: Parents often avoid honest appraisals of offspring for fear of hurting them or causing them problems. Principle 6: Sibling relationship patterns are likely to continue and even become intensified in a highly interdependent working relationship. Principle 7: Relative-partners are often asked to assume incompatible roles, thereby creating personal role conflicts. Resolution of these conflicts may alienate one of the partners. Principle 8: A son-in-law is usually a pawn in the struggle between owner and daughter, and may feel like he is always needing to prove himself.

A slide projector analogy. Brill (1995), in discussing organizational psychiatry, offers his view of the family-owned business and the work-family conflicts which arise in such businesses. Brill compares a slide projector, which takes a small image and enlarges it so it is

clear and visible, to viewing the family-owned business in order to see family dynamics enlarged into a structure that makes them visible in new ways. He concludes that family dynamics dominate the family-owned business and that these dynamics are played out through the business.

Providing for one's family. Kaslow (1993) describes family-owned businesses as emerging when individuals attempt to provide for one's family, while being closely connected to them financially and emotionally. This connection leads to an attempt to achieve the personal goals of stature, accomplishment, and earning a living, all while intertwining one's career goals with seemingly like-minded relatives. When all of these variables are taken into account, the occurrence of work-family conflict seems inevitable.

Work-family conflicts and comprehensive family therapy. Kirshner (1992) hypothesizes about work-family conflict within family-owned businesses in relation to comprehensive family therapy. Comprehensive family therapy looks at using individual, marital, and family therapy principles and techniques in a synergistic manner. Kirshner's hypotheses point out a variety of work-family conflicts which can take place in the family-owned business. According to the author, the family structure exhibits certain patriarchal characteristics; the culture is phallic so that males are valued, prized, and empowered. At the same time, females are devalued, disenfranchised, and used primarily for service to and care-taking of others. The marital relationship of the founder or current controller of the business is often distant and conflicted, with the male partner in the marriage being driven by a lust for power. There is a strong repetition compulsion in the story of the family across the generations. Finally, there is a tendency toward gender-based alliances,

coalitions based not only on common interests but also on a dislike or distrust of the opposite sex.

Business as an extension of the family system. According to Kepner (1983), “in a family firm, the strands of the family system are so tightly interwoven with those of the business system that they cannot be disentangled without seriously disrupting one or both systems” (p. 57). Kepner goes on to describe a variety of work-family conflicts which are based on the fact that the family-owned business is always a part of the day-to-day thoughts and actions of those involved with and dependent on the business for their livelihood. The fact that the family system derives some of its sense of belonging and social identity from being a part of a successful business also can prove problematic when the needs of the business put a strain on the intimate relationships of the family. The author offers the example of a heavy social and travel schedule in service of the business taking away from relationships within the family.

A second example concerns how the social demands of the business can interfere with the energy and time available for married couples to spend time together or for parents to spend time with their children. This lack of time can lead to marriage problems and to greater levels of sibling rivalries, as siblings strive for attention from parents and, as they get older, greater levels of influence within the business. Overall, the family-owned business spill-over into the family complicates even more the development of the already complicated father-son and father-daughter relationships.

In concluding her treatment of the effects of work-family conflicts within the family-owned business, Kepner offers five family dimensions which are most likely to be

influenced by the family's relationship with the business. The first dimension relates to how families manage conflict. Kepner believes that the pressure on the family involved in a family-owned business to maintain an image of cohesiveness can suppress family conflicts. When this is combined with the economic interdependence of the family, making it difficult for family members to tell each other when their needs for belonging, intimacy, and influence are not being met, the family may not learn healthy conflict management skills or develop healing rituals or mechanisms. This can lead to conflict which festers beneath the surface of everyday activities within both the family and the business.

The second dimension discussed is that of individuation. While this is often a difficult process for sons and daughters in any type of family, the process for those involved in a family-owned business may be even more difficult, and at the minimum will be different. The main difference in this process will be that in most cases the son's or daughter's psychological dependence on the family lessens as he or she establishes a career outside the family and becomes independent economically. In the family-owned business family this is not the norm, and working closely with parents on a day-to-day basis can make it even more difficult for sons and daughters to test themselves and to gain a sense of their own competency.

Kepner's third dimension has to do with the family's perception of reality. While family members' views of the world outside the business will be expanded through their contact with persons outside the family and the business, their perception of reality will be influenced to the greatest extent by their identification with the business as a source of social power and prestige. This can lead to a bloated sense of importance, which can lead to conflicts both inside and outside the family.

The final two dimensions discussed by Kepner have to do with the process of change; these dimensions are information and awareness. Changes within the family-owned business often produce high levels of tension and upheaval, and in this context it is important that the founder, or whichever family member is leading the business at the time, prevent conflict from becoming debilitating by communicating his or her thoughts as early as possible to both the family and the business. The information gained in this manner can help lead to an awareness within family members of the different layers of complexity they deal with as part of a family-owned business, as compared to families not involved in such a business. Kepner believes that this awareness itself can be of great benefit to the family. "They can pay more attention to the satisfactions for belonging, identity, and intimacy in the family system and build protective boundaries to prevent encroachment by the firm. If the family can develop an appreciation for difference, divergence, and conflict and understand its members' needs for influence or participation, they will be able to create processes and mechanisms to inform, influence, negotiate, and heal" (p. 70).

Interactive or reciprocal effects. While Kepner focuses on how the business affects relationships within the family, Ward and Aronof (1994) comment on how the business shapes the family as the family is shaping the business. In their article, "How Family Affects Strategy," the authors concentrate on how family variables can affect business strategies and how the formulation of these strategies can lead to or alleviate work-family conflicts. Variables of importance include family size and structure, family values, family decision-making patterns, family dynamics, family participation in leadership, family member competencies and qualifications, family financial security, and parent retirement plans.

Additional views. Finally, Chrisman, Chua, and Sharma (1996) offer an overview of work-family conflicts and spill-overs in their review of family business studies. The authors offer synopses of eight articles in relation to this topic. The first synopsis concludes that higher occupational demands lead to lower marital satisfaction, decreased social participation, and increased psychosomatic symptoms among the wives of senior administrators (Burke, Weir, & DuWors, 1980).

Crouter (1984) saw family life influencing the morale, stability, and productivity of the work force. The author also reported that women with young children report high family to work spill-over. Work-family conflicts are higher when demands on time, energy, and behavior requirements of one role conflict with those of another role. Conflict is strongest when there are negative sanctions for noncompliance with role demands (Greenhaus & Beutell, 1985).

Kaye (1991) found that conflicts among family members are fundamentally different from those between unrelated parties because the issues are deeper than what appear on the surface. If the course of chronic disagreements are charted, an observer can encourage communication between members and help in conflict resolution.

In the family business, family members communicate both as business colleagues and as family members. They may play four different roles: the role of a family member, an active role in the family firm, the role of a part owner, and their personal role as an individual. Miscommunication occurs when the role adopted by a person is misunderstood and when situation cues reflect role conflict and ambiguity (Lundberg, 1994).

Prince (1990) found three mechanisms for resolving interpersonal conflicts within the family business to be litigation, arbitration, and mediation. Mediation was found to be the only effective method for conflict resolution.

Walker (1976) contended that it is in everyone's interest for the executive's wife to understand her husband's career goals, for the husband to learn how to share his feelings, and for the company to understand that if the needs of the family are not met, the company may lose the executive. The final synopsis from this review concluded that work affects family life as a result of the hours spent at work and the employee bringing work, stress, and worries home (Wilmott, 1971).

Financial stress

The third source of stress highlighted as part of this literature review is related to the financial aspects of the family-owned business. The financial aspects of the family-owned business can be seen as both a stress and a reward of being part of such a business. The financial stresses faced by those involved in family-owned businesses are felt on the individual level, the family level, and the business level.

DeVries (1996) describes a variety of financial stresses connected with the family-owned business. These include a limited access to capital markets (which can seriously impede the growth of the business), family members milking the business for cash, and a disequilibrium between contributions to the business and money taken out of the business.

In passing on the strategies they see as most important to the success of family-owned businesses, Buchholz and Crane (1989) touch on a number of problems in the financial realm that need to be dealt with for a business to be successful. These include the need to set

financial budgets, hours, salaries, salary increases, and vacations in advance. Problems occur when pay does not reflect market-level salaries within the businesses' market and when pay and benefits do not reflect proportionately the amount and quality of work done within the business.

Rosenblatt et al. (1985) believe that because money is such a symbol of power, success, importance, and worth, a shortage of money makes it appear that a business is struggling. Tensions over money are directed toward concern over making ends meet, paying the business bills, financing needed changes in the business, and meeting family expenses, as well as fulfilling the self-esteem need of showing one's success through the accumulation of money. The authors also highlight the need for fairness in compensation. They point out that siblings or siblings-in-law are very likely to use each other for comparison and that when people feel unfairly compensated in a family-owned business, these feelings can cause the spill-over effects previously discussed.

Developmental stage models and financial stress. Gersick, Davis, Hampton, and Lansberg (1997) offer a three-dimensional developmental model of the family-owned business. These dimensions are the ownership developmental dimension, the family developmental dimension, and the business developmental dimension. According to the authors, different financial strains occur at each stage of development. These hypothesized dimensions, stages, and financial concerns are described below.

The ownership developmental dimension is made up of the controlling owner stage, the sibling partnership stage, and the cousin consortium stage. In the controlling owner stage ownership is controlled by one individual or couple and financial strain is due mainly to

concerns over capitalization of the business. The sibling partnership stage finds two or more siblings having ownership control and financial strain related to retaining capital. This strain results from the fact that there are now two or more family units in control and because more money is being taken out of the business to support these units. This can impede the growth of the business and decrease the likelihood banks will loan money to the business. The cousin consortium stage is the stage at which there are many cousin shareholders, both those employed by the business and those not employed by the business. At this stage financial strain is related to creating a family business capital market which allows family members to cash out of the business as needed, without having negative consequences on the business.

The family developmental dimension is made up of the young business family stage, the entering the business family stage, the working together family, and the passing the baton family. The authors do not list financial strains under this dimension. All are listed under the ownership and the business dimension, but because of the nature of family business spill-overs, they are connected to the family developmental dimension. In the young business family stage, the adult generation is under 40 years of age and children, if there are any, are under 18 years of age. The entering the business family stage sees the senior generation in the business as being between 35 and 55 years of age, while the junior generation is in its teens and twenties. When the senior generation is between 50 and 65 years of age and the junior generation is between 20 and 45 years of age, the business is seen to be in the working together family stage. Finally, in the passing the baton family the senior generation is above the age of 60 and looking to retire from the business.

The business developmental dimension includes the startup stage, the expansion/formalization stage, and the maturity stage. In the startup stage business there is an informal organizational structure, with the owner-manager at the center of the structure. At this time financial concerns are focused on financing the business startup through personal assets, loan proceeds, or a combination of the two. During the expansion/formalization stage there is an increasingly functional business structure with multiple products or lines of business. Financial concerns relate to the area of cash management: how to use the cash being generated by the business to help the business grow and provide a cushion for any down times in the future. Finally, during the maturity stage there is a stabilizing organizational structure with well-established routines, a stable or declining customer base, and modest income growth. Financial concerns are directed toward the reinvestment of funds in new products, new people, and new equipment. This is the stage at which change is needed to revitalize the business with current ownership/management or through a change in ownership/management. If management changes, how the business finds the cash needed to reimburse retired business members can become a concern.

Ward model. Ward (1987) offers a three-stage model of family-owned business evolution, with differing financial concerns being found at each stage. In this model financial concerns are focused on providing the money needed for business growth and for supplying basic family needs when the business is between zero and five years of age. Between 10 and 20 years of age, or during stage two, concerns turn to financial maintenance of the business and providing for greater levels of family needs (e.g., comfort and education). In the third

stage, between 20 and 30 years of age, the financial concerns focus on reinvestment in the business and toward providing for ever larger family needs (e.g., security and generosity).

Finally, Ward and Aronoff (1994), in describing how family affects business strategy, tell us that financial conflicts often arise between generations within the business as to whether the business should expand and, if it does, how to finance such expansions. The decision to expand leads to the need to decide how the expansion will be financed, whether through profits from the business or through borrowing. "The strategic dispute we see most frequently in family firms is between the older and younger generations regarding a risky, financially demanding opportunity. The story usually ends with the older generation's more conservative stance prevailing with the explanation that the new opportunity isn't fully thought through; or the next generation is too optimistic in the projections; or None of these reasons is the real issue. Usually the parents' real concern-though unstated-is for personal and family financial security" (pp. 87-88).

Nepotism

This fourth major source of stress is defined by *Webster's New World Dictionary* (1986) as favoritism shown to relatives, especially in appointment to desirable positions. As with many of the stresses facing the family-owned business, nepotism at times can also be seen as a reward of being involved in the business. As a stressor, the problems with nepotism come about when family logic creates favoritism which overrules good business reasoning. When family loyalty causes relatives to be hired who are incapable of doing the job or who do not do the job as well as a non-family member would, non-family employees are placed in undesirable positions. According to DeVries (1996), "This absence of fair play undermines one of the

pillars of corporate culture: trust. Lack of trust in-turn influences job satisfaction, motivation, and performance. This situation is particularly ironic if, as is often the case in family firms, family members demand a high level of commitment from non-family members. Such demands are acceptable if management gives non-family members due credit for work well done, they are unacceptable, however, if the existing incentive system is heavily biased toward noncontributing family members. In such a case, it becomes difficult to attract capable managers, endangering the company's future. The people who are willing to stick around under such circumstances may not be the ones the company needs most" (p. 19).

Bensahel (1975) concurs with the problems which can be brought about by nepotism within the family-owned business and offers suggestions as to how these problems can be avoided. These suggestions include placing incompetent family members in positions where they can do a minimum amount of harm, while placing competent family members in positions which allow them to grow without interference from the owner/manager of the business. Bensahel also suggests that it is important to inform non-family employees about their chances of success and advancement when they are qualified and competent. If these suggestions are followed, the chance of problematic favoritism occurring is reduced.

Cambreleng (1969) reiterates many of the points already made concerning nepotism, but adds several interesting additions. The first addition is that family-owned businesses should distribute printed guidelines as to how evaluations will take place. If this is done, the business demonstrates an objectivity as to the evaluation process and this can help lessen feelings of favoritism. Cambreleng's second addition is that nepotism can give union organizers ammunition for approaching employees of the business about unionizing.

Burack and Calero (1981) identify seven perils faced by the family-owned business. One of these seven is what they call “family only obsession,” or the restricting of key jobs to family members. This description is another way of looking at nepotism and can be avoided by focusing on finding the best person available to fill each position within the business, family member or non-family member.

Alcorn (1982) summarizes the pros and cons of hiring relatives to work in the family-owned business. The cons include jealousies created among other employees, discouragement of outside professionals from entering the business, difficulty in firing relatives, and pressure to hire incompetent or destitute relatives.

Finally, Ewing (1965) reviews the results of a survey of 2700 *Harvard Business Review* subscribers concerning nepotism. This survey found that while only 15 percent of respondents had witnessed nepotism, there were clear feelings concerning its positive and negative aspects. The negative aspects of nepotism were seen to be how it discourages outsiders from seeking employment with the business, how it stirs up jealousy and resentment among employees, how it is often hard to fire incapable family members, family interests being put before the interests of the business, and how it can create doubt about the integrity and objectivity of top management.

Succession

Within the family-owned business literature concerns over the succession process provide the largest number of references. In their review of this literature, Chrisman, Chua, and Sharma (1996) found 36 articles concerning succession, compared to the next two largest topic areas, family involvement in the business (33 articles) and how the family-owned

business should seek professional advice (28 articles). A selection of these 36 articles are reviewed in the following section.

Ayers (1990) believes that successfully dealing with the succession process is the most lasting gift one generation can give to the next in relation to the family-owned business. The author highlights a variety of issues concerning succession which are stressful to those involved. These include how the needs of the business will be provided for, how the needs of the owner/manager will be provided for, and how the needs of the next generation will be provided for through the succession process. Outside of these needs, minimizing taxes during the transfer of the business, the creation of policies for redeeming stock and dispensing dividends as the roles of family members change, and who takes on the role of successor and how this decision is made, are all important areas of concern.

Rosenblatt and Albert (1990) discuss difficulties in the intergenerational transfer of a family-owned business. Intergenerational transfer is seen as a legacy to the next generation and as a method of perpetuating the achievements of the parent. Stresses found in this process include identifying and attracting a successor, deciding when and how the business will change hands, and adjusting to the changing hierarchy within the business and often within the family.

Kaslow (1993) comments that the issue of choosing a successor is often the most vexing issue confronted by the family-owned business. "Sometimes the thought of turning over the reins to anyone and relinquishing control is a devastating and ego alien idea; it brings in its wake fears of impotence and mortality. Thus, all too many family businesses fail to make and/or to communicate a succession plan. When the firm's president/CEO/director dies,

devastating squabbles between siblings and/or other relatives may ensue as the battle for leadership and supremacy erupts, and someone must quickly move in to fill the vacancy and vacuum. If no one has been groomed and no one is capable of quickly assuming the role of running the business, it falters and may fall apart” (p. 8).

In listing his eight principles for consultants working with family-owned businesses, Liebowitz (1986) offers a view of the stress created when an owner does not retire from the business with appropriate timing. According to the author, this scenario often leads to unfulfilled ambitions among the offspring involved in the business. As highlighted earlier, this unfulfilled ambition can lead to a variety of problems both within the business and within the family (e.g., see previous sections on work-family conflicts and “spill-overs” and “defining roles”).

Planning for succession. Ward and Aronoff (1994) offer suggestions on how those taking over the leadership of a family-owned business can make the transition as smooth and successful as possible. Their suggestions, and the questions they would pose in planning such a transition, give us a good idea of the stresses faced by a business contemplating such changes. The authors suggest that successors in a family-owned business have two responsibilities which are especially important and difficult. These are leading change within the business by reinterpreting the cultural practices and traditions of the business to be consistent with the strategic plans of the new leadership and to generate a consensus among family members around a common vision for the business and those involved in the business. The authors go on to suggest a series of questions which, when answered, will help the business through as smooth a transition as possible. This series of questions includes the

following: “Which family members might be part of business management or ownership in the next generation? What is the age, education, career preference, leadership potential, and personality of each family member in the current and next generation? Who holds the power and influence in the family? How important is it to influential family members that the business be a family business? What does family leadership think are the keys to past and future business success? How intense are family relationships? How skillful is the family at developing consensus and resolving conflict? How does the family perceive the various family members (e.g., favorites, scapegoats, rebels, dependents, etc.)? Does the senior generation believe itself to be financially secure? What are the senior generation’s retirement interests and inclinations” (p. 90)? While the answers to these questions will help a business plan a smooth transition to the next generation of management, they are also a clear indication of the wide variety of variables to be taken into account during the succession process and of the numerous stresses which can affect those involved in the business during this process.

As a point of clarification, when we talk of succession in the family-owned business we are talking about a change in the top leadership of the organization. “In other words, when succession occurs, an old boss is out and a new boss is in” (Alcorn, 1982, p. 147). Beyond the stresses caused within those responsible for the changes taking place during succession at the upper management levels of the business, changes and stresses are also occurring at the lower levels of the organization. These changes can lead to a loss of continuity among workers, as well as to feelings of resentment and hostility, all of which can add to the stress being felt by the family members involved with the succession process.

Succession and business success. Lea (1991) points out that only 30 percent of family-owned businesses survive the transfer from the founder to the second generation of family management. The author goes on to describe a number of characteristics held by those businesses which do not make it successfully to the second generation of family management. The first characteristic is the business not being viewed by family members as financially and organizationally sound, profitable, positioned well for the future, or as a satisfying and fun place to spend one's time. The second characteristic is family members having not been kept informed and up-to-date about the workings of the business over the years, which leads to family members not understanding the business or the stresses and rewards involved with the business. Family members coming into the business having not received the prior training and experience needed to handle the responsibilities management of the business entails is the fourth characteristic described by Lea. Another characteristic is when the current owner/manager has not carried out a complete process of analysis and long range planning in preparation for choosing a successor and completing the succession process. The business being viewed as marginal by family members as to profits, efficiency of the business management and operations, and the position of the business within the community and the market place is the fifth characteristic described. Sixth is when there is overt pressure on the next generation to take over the business, which can lead to uninterested or unqualified management by the next generation. The seventh characteristic is when there is pressure by the founding generation to continue business as usual, suggesting that the second generation of family management is supposed to show complete dedication to the business and spend little time on interests outside the business, which can seriously reduce the number of qualified

family members interested in taking over the business. The opposite can also be true, when talented family members see running the business as too easy and unchallenging they are likely to look for opportunities that will make better use of their skills. Many family-owned businesses which make it through the above concerns are brought down by a founder who is unable to step back and let the next generation take over the business completely. Finally, the ninth characteristic described by Lea is that it is almost always true that the family-owned business which does not plan for succession will not survive as a family-owned business into the second or third generation of family management.

“Handing over control of a business has financial and power implications for everyone involved. Like the parceling out of a fat estate, it can bring old rivalries and resentments to the surface and give new focus to long-simmering disputes. When succession within the family fails and takes a solid and profitable business down with it, the real cause can most often be traced to underlying difficulties in family relationships and a failure to take those difficulties into account when analyzing and planning for the transfer of power.” (Lea, 1991, pp. 12-13)

DeVries (1996) sees much of the stress brought about by the succession process as coming about because letting go of the business feels to many owner/managers like signing their own death warrant. This feeling can lead to an owner/manager not planning for succession and then forcing the business to deal with the succession process after his or her untimely death. These feelings can also lead to the owner/manager refusing to relinquish control, being unwilling to delegate responsibility, and being unwilling to share vital

information with key members of the business. In this case, an untimely death will keep those who take over the business from having the tools needed for success (Bork, 1986).

The succession process can also be sabotaged by the owner/manager who has second thoughts and returns to meddle in the business, often causing unhealthy economic and psychological disruption for both those involved in the business and the family members. An owner/manager might also decide to take time off from the business, but may be unable to relinquish full control of the business. This can lead to economic problems as business decisions are postponed through waiting to discuss what to do or because of differing viewpoints on what is to be done (Bork, 1986).

Sources of stress summary

The succession process offers the perfect mechanism for summarizing the sources of stress involved in the family owned business. This is true because the succession process often brings to the surface many of these stresses, such as defining roles, work-family conflicts and spill-overs, money and power, and nepotism. When all of these issues become combined during the succession process, it is clear why this process is of so much concern to those involved with family-owned businesses.

The previous section of this review highlighted the wide-variety of stresses faced by the family-owned business. While these stresses can make owning and managing a family-owned business a difficult task, there are also a wide-variety of rewards gained by those involved in such a business. It would appear by the popularity and economic importance of the family-owned business in this country and around the world, that the sources of rewards offered by the family-owned business make experiencing these sources of

stress all worthwhile. The sources of rewards found in the family-owned business are discussed in the following section.

Sources of Rewards

Intimacy

The first source of rewards found in the family-owned business is the higher level of intimacy found in such firms (Gersick et al., 1977). Previously, we have seen how this intimacy can lead to problems with defining roles, work-family conflicts and spill-overs, and nepotism. From a positive point of view, this higher level of intimacy can lead to a stronger business environment based on the shared history, identity, and common language of the family. The communication process, both verbal and nonverbal, can be much faster in a family-owned business. Family members are more likely to understand each other's spoken and unspoken preferences, as well as strengths and weaknesses. "Most important, commitment, even to the point of self-sacrifice, can be asked for in the name of general family welfare" (p. 3).

Alcorn (1982) concludes that one of the biggest advantages held by the family-owned business, large or small, is the ability it has to make and implement quick management decisions without the need for endless committee, board, or stockholders' meetings.

In their interviews with individuals involved with family-owned businesses, Rosenblat et al. (1985) found that one of the rewards often mentioned by those interviewed was the opportunity offered to improve family relationships by working together. This improving of relationships was seen to be brought about by a number of factors, including knowing more about what is going on in each other's lives, having business concerns to talk about, sharing

the satisfaction of building something together, sharing the nest-like quality of a family-owned business, coming to a more respectful or understanding relationship with family members, and by providing both an arena to work out interpersonal problems and a cushion when relationship difficulties do occur.

Within the area of intimacy, DeVries (1996) offers a variety of rewards found within the family-owned business. Family intimacy can help lead to a sense of common purpose for all employees. Employees often feel like a part of the family, and this can lead to less bureaucracy within the business. Having less bureaucracy can lead to quicker and more effective decision making, as well as easier access to senior management by all levels of employees. The author also relates how this intimacy can lead to higher levels of business expertise within family members involved in the business. "After all, these people have been in contact with the business from early childhood onward. Breakfasts, dinners, outings, family gatherings, after-school work, and summer jobs have all created opportunities to learn more about the business" (p. 18).

According to Liebowitz (1986), the intimacy level found in a family-owned business can lead to such benefits as quick responsiveness to the marketplace, a close identification by employees with the company and its products, and a lack of bureaucracy. The author goes on to point out that often "forming or entering an already established family owned business is intended as a positive attempt by family members to resolve long-standing family emotional issues seen by relatives as not otherwise resolvable, that the surge of subterranean emotions and conflict surrounding these issues is most apparent when succession is being considered and implemented, and that how succession progresses, as well as the business progresses, is

one of the best measures of how well family issues are being resolved” (p. 192). Donnelley (1964) and Hayes (1981) also offer qualitative research evidence (e.g., interview and questionnaire data) to support the rewards of intimacy discussed above.

Financial rewards

In a delineation of the strengths of the family-owned business, Donnelley (1964) offers several strengths which help the family-owned business provide financial rewards to its members. Of these strengths, three stand out: the fact that resources are more readily accumulated through family sacrifices, that dedicated and loyal business members help avoid expensive executive turnover, and that an interested and unified management stockholder group is most likely less sensitive to short-term performance. These strengths combine to make the creation of financial rewards more likely for those involved in the business.

Dreux (1990) believes that family-owned businesses are generally overcapitalized (i.e., with little or no debt), maintain substantial liquidity, and have operating margins and return on investment rates that often exceed those of non-family-owned businesses. These characterizations can result in financial rewards for members of family-owned businesses, rewards such as not having to go public to generate expansion funds (e.g., due to accumulated cash or because private investors appreciate the strengths of the family-owned business), the chance for high levels of income as the family-owned business grows, and the chance for the realization of long-term investment gains if the business is ever sold.

A survey of 624 successful family-owned businesses conducted by Tagiuri and Davis (1992) found six goals held by owner/managers in these companies considered the most important to success. Two of these goals reflect how family-owned businesses are used to

provide financial rewards: to provide owners with financial security and benefits, and to have a company that offers job security. When a business is able to fulfill these goals, financial rewards are created for the family members involved in the business.

Rosenblatt et. al. (1985) explain how financial rewards can be seen to encompass a wide-range of areas in relation to the family-owned business. "Not only may financial advantage be a symbol of success and prestige, it may also be a gloss for other gains of having a family business, gains which are hard to admit to oneself or to others or which are not universally recognized as signs of success. In some cases, these other gains may not even be in the awareness of the person who is claiming financial gain. At least for a few people, the gains glossed over by the claim of financial advantage probably include power over others, creative satisfaction, privacy, freedom from criticism, incompetence, idiosyncrasies, or whims of a supervisor, and freedom to do things that some others might criticize" (p. 210).

The authors go on to describe three specific financial rewards offered by the family-owned business. One, family members working for little or no wages, is an especially important benefit in times when the business is strapped for cash. Two, paying family members, rather than non-relatives, keeps the money in the family and can be written-off as a business expense. Three, owning a family business allows an accumulation of wealth (e.g., through the accumulation of equity) that would be unlikely if working for a salary.

Nepotism

As defined earlier, nepotism is favoritism shown to relatives, especially in appointment to desirable positions. The stresses faced when nepotism is found in a family-owned business

were previously reviewed, but nepotism can also result in rewards for the business and those involved in the business.

Ewing (1965) questioned 2,700 subscribers to the *Harvard Business Review* and found respondents believing in a variety of benefits related to nepotism within a business. These included the fact that relatives often feel added responsibility toward the business because of family connections, relatives are often more loyal and dependable, capable relatives can cause the morale of the management team to increase, a salesperson with the same surname as the owner has a better chance of making a sale, bankers and stockholders attach greater importance to the words and actions of relatives, relatives can be more outspoken because they have less fear of termination, and continuity and the effective use of policies is more likely with relatives employed in the business.

Alcorn (1982) offers a summary of the benefits found in employing relatives in the family-owned business. These benefits are similar to those discussed by Ewing (1965) and center around the ease of adaptability and acceptance of the relative into the business, higher levels of interest and participation by relatives as employees, and higher levels of continuity and implementation of company policy.

Rosenblatt et al. (1985) offer the ability to nurture young family members as one of the benefits of being involved in a family-owned business. This nurturance can result in character-building within young family members, in the creation of good work habits, in the young family member experiencing the business at a deeper level than would be possible working for someone else, and in being trusted with responsibility and feeling more responsible at a younger age.

Opportunity to solve family conflicts

Liebowitz (1986) offers a unique view of a reward found in being a member of a family-owned business (FOB), the opportunity for family members to resolve long-standing family conflicts which may not otherwise be resolvable. He states, "an uncommon interpretation of the attraction FOBs hold for relatives is that forming or entering an already-established FOB is intended as a positive attempt by them to resolve long-standing family emotional issues seen by relatives as not otherwise resolvable, that the surge of subterranean emotions and conflict surrounding these issues is most apparent when succession is being considered and implemented, and that how the succession process as well as the business progresses is one of the best measures of how well family issues are being resolved. This is not to say that other motives for entering the FOB do not exist. However, alongside and prompting these other motives lies the desire of offspring, siblings, in-laws, and parents, in varying combinations, to resolve long-standing family conflicts" (p. 192).

Pride and prestige

According to Kepner (1983), families involved with family-owned businesses derive some of their sense of belonging, influence, and social identity from their relationships with the business. Rosenblatt et al. (1985) also found this area to be an important reward for those involved with family-owned businesses. Their research revealed that being an entrepreneur and having family members involved in one's business was a source of pride and prestige, as was the knowledge of having built a business from the ground up or having strengthened an already ongoing business. Other areas of pride and prestige related to involvement in a family-owned business include pride in being able to pass along the business to younger family

members and the pride and prestige which come from having power over other people and over financial assets.

Coping

Individuals find a variety of ways to adapt to or cope with the stresses and rewards faced in their lives. Coping has been described as the efforts an individual makes to master situations of threat, harm, or challenge when the usual strategies employed in these situations are found to be insufficient (Lazarus, Averill, & Option, 1974).

The ability to cope with stress varies between individuals. Mechanic (1974) discussed three components which make up successful coping. First, the individual must have the capabilities and the skills to deal with the demands that are placed upon him or her. Demands are placed on the individual from environmental and/or social influences. Second, the individual must have adequate motivation to deal with these demands. Such demands can be associated with intense discomfort and anxiety, and it is important that the individual not be overwhelmed by these associations. Third, the individual must have the capabilities to remain psychologically balanced. The individual must be able to meet his or her basic physical needs, rather than having to focus primarily on his or her emotional needs. Mechanic believes that if these three components are available, the individual is more likely to adapt successfully to stress.

Lazarus and Folkman (1984) point out the importance of how a stressful situation is appraised cognitively in relation to how and to what extent an individual copes with the situation. In other words, it is the appraisal of the situation as threatening or harmful (i.e., perceived stress) that determines to what extent coping strategies are implemented.

How an individual appraises a situation is determined by the individual's personality and the environmental circumstances in which he or she lives. The authors go on to discuss three cognitive appraisal processes. This first process is primary appraisal; in this process the individual judges whether a situational outcome is threatening, beneficial, or irrelevant. If the individual determines the situation is threatening, secondary appraisal takes place. Secondary appraisal involves developing a response to the threat or taking inventory of the coping options available. The third process is reappraisal, which involves a change in the perception of the situation based on incoming information. This incoming information may come from changes in the environmental situation or changes in internal conditions, such as what the individual thinks about the situation or his/her ability to deal with the situation. As long as a stress continues, appraisal may be a continuous and ongoing process. This means that the way a situational demand is appraised determines the extent to which coping strategies are implemented.

Several studies have shown that the perception that one has control over a stressful situation can decrease the adverse effect the situation may have on an individual's health. In a review of related literature, Thompson (1981) describes the benefits of behavioral and cognitive control in relation to health changes brought about by stress. Behavioral control is the belief that one can do something behaviorally to lessen the aversiveness of a stressor, while cognitive control is the belief that one can implement a cognitive strategy to reduce the aversiveness of a stressor. This literature review points out that behavioral control has no effect on the amount of distress or arousal a stressor produces. On the other hand, cognitive control was found to reduce the negative impact of stressors on one's physical and

psychological well-being. The author concluded that being able to implement a cognitive strategy to reduce the aversiveness of a stressful situation is an effective method of reducing the impact the situation has on one's well-being.

Wrubel, Benner, and Lazarus (1981) discuss how even individuals who generally cope well may find themselves in situations where demands can be overwhelming. The authors describe four characteristics of situations or demands which can compromise coping or adaptational capabilities. One characteristic is the uniqueness of the demand being faced. If an individual has no experience from which to draw knowledge and skills and/or if the individual's culture provides no guidelines to follow in coping with the situation, coping will be affected adversely. A second characteristic concerns the duration and frequency of the demand. Longer and more frequent situational demands can influence the amount of distress a person experiences. If demands are very long-lasting, burnout can occur; while hopelessness may occur if the duration of the demand seems to be indefinite. The third characteristic has to do with the pervasiveness of the demand. When the demand encompasses a large percentage of an individual's life, the individual may feel there is no place in his or her life that is not affected by the demand. Finally, the fourth characteristic is ambiguity. The extent to which there is confusion or ambiguity regarding what is happening or what the individual's role is in the situation can affect the coping ability of the individual.

Individuals have been found to cope with stressful situations in a variety of ways. Coping strategies have been divided into three categories (Carver, Scheier, & Weintraub, 1989; Lazarus & Folkman, 1984): problem-focused coping, emotion-focused coping, and less-useful coping. Problem-focussed coping involves implementing strategies to solve the problem or

eliminate the source of the stress. Emotion-focused coping involves reducing or managing the emotional distress that occurs as a result of a stressful situation. Less-useful coping involves strategies that avoid acknowledging or dealing with the stress; thus, they are usually not effective strategies. Most individuals will implement some aspects of both problem-focused and emotion-focused coping in order to deal with stressful situations. However, research has shown (Folkman & Lazarus, 1980) that there are circumstances when selecting one strategy over the other will prove more beneficial for the individual. When individuals believe that something can be done to solve the problem or alleviate the stress, problem-focused coping is more effective. On the other hand, emotion-focused coping is more effective when it is felt that the stress is uncontrollable and must be endured.

Interpretive summary of the current state of knowledge

As noted in the prior literature review, individuals involved with family-owned businesses face a variety of unique stresses and rewards not faced by those involved in non-family-owned businesses (e.g., Donckels & Frohlick, 1991; Harvey & Evans, 1994; Hollander & Elman, 1998; Liebowitz, 1986; Kepner, 1983; Rosenblatt et al., 1985). Because the family-owned business has been, and as we have seen from this literature review, still is an important part of the American economy (e.g., Bork, 1986; Buchholz & Crane, 1989; Lea, 1991; Shanker & Astrachan, 1995), it would seem imperative that continued research be completed in this area in the hope of helping the family-owned business and its constituents find increasing levels of success (both within the business and within the family). This success is dependent upon the family-owned business dealing with the stresses and

rewards previously described and the results of these stresses and rewards on the life of each individual involved in the business.

In particular, this study increases the knowledge base related to the business and self-reported psychological characteristics of persons involved in family-owned and non-family-owned businesses in a rural state. The study also provides data related to differences between Iowa business managers as a group and the standardization data relevant to the assessment instruments used in the study.

The general occupational stress research paradigm, as displayed in Figure 3, assumes that external business demands and pressures (i.e., stressors) lead to subjective distress (i.e., stress) and produce undesirable consequences, such as depression and somatic symptoms. This study explores the stresses and undesirable consequences experienced by the owners/managers of family-owned businesses in the State of Iowa; in comparison to the stresses and undesirable consequences experienced by managers of non-family-owned businesses. The self-reported stressors and undesirable consequences described by the family-owned and non-family-owned business respondents in this study, as well as characteristics of their coping strategies and businesses, are used to predict membership within either the family-owned business group or the non-family-owned business group.

Business Stressors → Subjective Distress → Undesirable Psychological Consequences
 (i.e., stress) (e.g., depression, somatic symptoms)

Figure 3. General Occupational Stress Research Paradigm

The overall goal of this research was to explore whether there are differences in stressors (i.e., aspects of business) and perceived stress related variables (i.e., subjective and psychological measures) between family-owned business respondents and non-family-owned business respondents. The secondary goal of this research was to see if there are differences in the coping strategies used by family-owned business respondents and non-family-owned business respondents. A third goal was to increase the literature base in the field of occupational stress research.

Table 1, as offered by DeVries (1996, p. 23), provides a summary of the advantages and disadvantages of being involved in a family owned business, an overview of what has been discussed as part of this literature review.

Table 1. Summary of Advantages and Disadvantages

Advantages	Disadvantages
Long-term orientations	Limited access to capital markets
Independence of action Little (or no) pressure from stock market Little (or no) takeover risk	Confusing organizations Messy structure Lack of clear division of tasks
Family culture as a source of pride Stability Strong identification/commitment/motivation Continuity of leadership	Nepotism Dominance of family reasons over business logic Tolerance of inept family members Inequitable reward systems Difficulties in attracting professional management Spoiled kid syndrome
Resilience in hard times Willingness to plow back profits	Interneine strife Quick decision making Family disputes that overflow into the business
Limited bureaucracy Flexibility	Paternalistic/autocratic rule Secrecy and resistance to change Attraction of dependent personalities
Financial benefits Possibility of great success	Financial strain Family members milking the business Desequilibrium between contributions and compensation
Knowledge of the business Early training for family members	Succession dramas

Source: DeVries, (1996, p.23).

CHAPTER 3. MATERIALS AND METHODS

Research Design

Cook and Campbell (1979) refer to correlational designs as a “passive-observational method.” According to Cook and Campbell, correlational designs measure the differential levels of both effects and exposures to presumed causes (i.e., in this study, business-related stressors), as they occur naturally (i.e., without any experimental intervention), and with measures taken at one time.

This study was an exploratory investigation, which used self-report measures. With the intent of assessing the reactions and perceptions of business owners to the stressors of their daily business lives, the primary goal of this study was to ascertain if there are differences in stressors (i.e., aspects of business), as well as perceived stress related variables (i.e., subjective and psychological measures) and consequences of stress, between family-owned business owners/managers and non-family-owned business managers in the State of Iowa. The secondary goal was to assess if there are differences in the coping strategies used by family-owned business owners/managers and non-family-owned business managers. Variables that might differentiate family-owned and non-family-owned business respondents were explored as potential predictors of categorical membership in either the family-owned business or the non-family-owned business groups.

This exploratory and correlational design study was used to address questions and hypotheses relevant to potential differences between managers of family-owned businesses and managers of non-family-owned businesses on levels of perceived stress and methods of coping with such stress, as well as the managers’ views on the types of stresses and rewards

brought about from working in either a family-owned business or a non-family-owned business. As described in the previous chapter, research to date has indicated the presence of differences in the stresses and rewards experienced between individuals working in a family-owned business and those working in a non-family-owned business. By definition in this study, family-owned business managers are all members of the family which has controlling interest in the businesses under investigation.

Research Hypotheses

Over the years a large body of psychological research has been evolved pertinent to improving the lives of individuals by reducing the effects of work-related stress. This study used a general occupational stress research paradigm to explore the perceived stresses and undesirable consequences experienced by the owners/managers of family-owned businesses in the State of Iowa, in comparison to the perceived stresses and undesirable consequences experienced by the managers of non-family-owned businesses in the State of Iowa. The primary goal of the study was to see if there are differences in stressors (i.e., aspects of business), perceived stress related variables (i.e., subjective and psychological measures), and the psychological consequences of perceived stress between family-owned business owners/managers and non-family-owned business managers.

Thus, the three major areas of focus in this study are perceived stress, the consequences of perceived stress, and the coping mechanisms used by individuals involved in family-owned and non-family-owned businesses. These areas of focus were examined through the following research questions and associated hypotheses:

Research Question 1: Is there a significant difference between owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of areas of life reported as stressful and mean levels of reported (i.e., perceived) stress in these areas? In addition, do the areas of life reported as stressful lead to significant differences between owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of perceived psychological consequences (e.g., depression, low levels work and life satisfaction)?

Hypothesis 1: It was hypothesized that no differences would be found in the mean levels of reported (i.e., perceived) stress when comparisons were made between the owners/managers of family-owned businesses and the managers of non-family-owned businesses.

Research Question 2: Are there significant differences between the owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of the methods used in coping with stress?

Hypothesis 2: It was hypothesized that the stressful life situations faced by family-owned business owners/managers and non-family-owned business managers would be reacted to with similar methods. It was predicted that there would be no differences between the two groups in coping styles, work commitment, situational characteristics (e.g., size of work unit), organizational characteristics (e.g., organization structure), and subjective reports of feelings of being overwhelmed at home.

Sampling Procedures

Participants for this study were obtained by surveying 758 businesses in the State of Iowa (379 family-owned businesses and 379 non-family-owned businesses). These businesses were selected randomly from within the state, with the following stipulations: (1) the state was first equally divided into four quadrants and (2) within each quadrant, businesses were surveyed in three categories of communities. These categories are communities with populations of between 5,000 and 9,999, communities with populations between 10,000 and 24,999, and communities over 25,000 in population. Once the state was divided into four quadrants, it was decided that all communities within each population category and within each quadrant would be sampled. This plan sampled businesses proportionate to the number of communities in each population category. The number of businesses sampled within each category of community size was four (i.e., two family-owned and two non-family-owned) for communities between 2,000 and 9,999 in population, 10 (i.e., five family-owned and five non-family-owned) for communities between 10,000 and 24,999 in population, and 10 (i.e., five family-owned and five non-family-owned) for communities over 25,000 in population. This sample pattern was chosen in order to obtain the most accurate representation of the business climate in the State of Iowa and to increase the odds that results from this study will be generalizable to businesses within the state not sampled in the study.

Table 2 lists the four quadrants of the state, the number of communities within each population category found within that quadrant, and the total numbers of communities within each population category found within the State of Iowa.

Table 2. Population Category Totals Per Quadrant

	2,000-9,999	10,000-24,999	25,000 & Over	Total
Northwest	31	3	3	37
Southwest	23	0	3	26
Northeast	33	0	6	39
Southeast	31	8	6	45
Totals	118	11	18	147

This researcher was assisted in the sample selection process by Dr. Ken Stone and associates of the Iowa State University, Department of Economics. Participating businesses were selected randomly from a complete list of businesses on record within the State of Iowa; a list which was divided into the community size categories mentioned above.

The information needed to complete this study was obtained by mailing a survey packet (see Appendixes A - K) to each of the businesses selected in the sample selection process described above. This survey packet contained a cover letter which introduced the study and provided information on informed consent for participation. The necessary survey forms (e.g., standardized measures of perceived stress and methods of coping with stress, and a form to measure aspects of the occupational stress paradigm and demographic variables created especially for this study), and a self-addressed, postage paid envelope for the return of the surveys, were provided in the survey packet. To increase the response rate to this survey, a precursor postcard was mailed to each business prior to the survey packet being mailed. This postcard informed the businesses of the survey packet to follow and asked for their cooperation in completing the survey.

An additional effort to increase the likelihood that the needed number of participants would complete the survey was implemented by a follow-up mailing two weeks after the original mailing. This second mailing consisted of a postcard format and was sent to remind individuals of the survey or to thank individuals for taking part in the study. Finally, two weeks after the first reminder postcard, a second survey packet was mailed to those individuals who had not yet responded by returning the survey packet or the postcard described below.

Each survey packet included a postcard to be returned under separate cover, at the same time the survey materials were returned. This card also gave the business respondent an opportunity to receive a copy of the results of the study, if interested. These postcard returns enabled this researcher to know whether or not to send the reminder mailing to the business, and whether the business had chosen to take part in the study.

An added element of the survey process aimed at achieving the highest response rate possible, was the offer accorded to all individuals returning the survey to be eligible to win one of two \$100.00 prizes (see survey cover letter in Appendix A and Appendix B). These prizes were awarded by drawing two winners from all postcards returned which stated plans to take part in the survey process (see postcard in Appendix D).

Measures

Each business taking part in this study was asked to complete a survey packet containing standardized measures to assess symptomatic psychological distress, perceived stress and methods of coping with such stress, as well as a measure created especially for this study concerning aspects of the occupational stress paradigm and various demographic

variables. In order to counterbalance for order effects, two different questionnaire sequences were used. Demographic questions appeared either at the beginning or the end of the survey, with the other three instruments appearing in the following order: Coping Responses Inventory, Positive and Negative Affect Schedule, and Brief Symptom Inventory.

Symptom Checklist-90-R (SCL-90-R)/Brief Symptom Inventory (BSI)

The SCL-90-R is a multidimensional self-report inventory designed to assess symptomatic psychological distress. The inventory was first developed in 1973 (Derogatis, Lipman, & Covi, 1973) and published in 1975 (Derogatis, 1975). The current edition of the inventory reflects psychological distress in terms of nine primary symptom dimensions and three global indices of distress. The primary symptom dimensions include somatization (SOM), obsessive-compulsive (O-C), interpersonal sensitivity (I-S), depression (DEP), anxiety (ANX), hostility (HOS), phobic anxiety (PHOB), paranoid ideation (PAR), and psychoticism (PSY). The three global indices are the global severity index (GSI), which measures the overall distress level; the positive symptom distress index (PSDI), which measures intensity of symptoms; and the positive symptom total (PST), which reports the number of self-reported symptoms. While these indexes are moderately correlated, they have been shown to display distinct aspects of psychopathology (Derogatis, Yevzeroff, & Wittelsberger, 1975).

The Brief Symptom Inventory is the brief form of the Symptom Checklist-90-Revised (SCL-90-R) and it was used as a part of this study in order to assess symptomatic psychological distress in less time than it takes to do so with the SCL-90-R. The BSI, like the SCL-90-R, reflects psychological distress in terms of nine primary symptom dimensions and

three global indices of distress. Each symptom dimension and the global indices are described below, as described by the BSI manual (Derogatis, 1993, pp. 7-9, 31).

The Somatization (SOM) dimension reflects distress arising from perceptions of bodily dysfunction. Items focus on cardiovascular, gastrointestinal, and respiratory complaints; other systems with strong autonomic mediation are included as well. Pain and discomfort of the gross musculature and additional somatic equivalents of anxiety are also components of somatization.

The Obsessive-Compulsive (O-C) dimension includes symptoms that are identified with the standard clinical syndrome of the same name. This measure focuses on thoughts, impulses, and actions that are experienced as unremitting and irresistible by the individual, but are of an ego-alien or unwanted nature. Behavior and experiences of a more general cognitive performance deficit are also included in this measure.

The Interpersonal Sensitivity (I-S) dimension centers on feelings of personal inadequacy and inferiority, particularly in comparison with others. Self-deprecation, self-doubt, and marked discomfort during interpersonal interactions are characteristic manifestations of this syndrome.

The symptoms of the Depression (DEP) dimension reflect a representative range of the indications of clinical depression. Symptoms of dysphoric mood and affect are represented, as are lack of motivation and loss of interest in life.

General signs such as nervousness and tension are included in the Anxiety (ANX) dimension, as are panic attacks and feelings of terror. Cognitive components involving

feelings of apprehension and some somatic correlates of anxiety are also included as dimensional components.

The Hostility (HOS) dimension includes thoughts, feelings, or actions that are characteristic of the negative affect state of anger.

Phobic Anxiety (PHOB) is defined as a persistent fear response-to a specific person, place, object, or situation-that is irrational and disproportionate to the stimulus and leads to avoidance or escape behavior. The items of this dimension focus on the more patho-gnomic and disruptive manifestations of phobic behavior. Phobic anxiety is very similar to “agoraphobia.”

The Paranoid Ideation (PAR) dimension represents paranoid behavior fundamentally as a disordered mode of thinking. The cardinal characteristics of projective thought, hostility, suspiciousness, grandiosity, centrality, fear of loss of autonomy, and delusions are viewed as primary aspects of this disorder.

The Psychoticism (PSY) scale was developed to represent the construct as a continuous dimension of human experience. Items indicative of a withdrawn, isolated, schizoid lifestyle were included, as were first-rank symptoms of schizophrenia, such as thought control. This scale provides a graduated continuum from mild interpersonal alienation to dramatic psychosis.

Among the global indices, the Global Severity Index (GSI) is the most sensitive single indicator of the respondent’s distress level, combining information about numbers of symptoms and intensity of distress. The Positive Symptom Distress Index (PSDI) is a pure intensity measure, “corrected” for numbers of symptoms; this indicator provides information

about the average level of distress the respondent experiences. The PSDI also provides information about the respondent's "style" of experiencing distress (that is, whether he/she tends to be a "repressor" or a "sensitizer," minimizing or exaggerating distress). The Positive Symptom Total (PST) reveals the number of symptoms the patient reports experiencing, and when used in conjunction with the other global indices, helps communicate the extent of the individual's emotional distress.

The BSI converts raw scores into standardized T scores ($M=50$, $SD=10$) to enable comparisons of the status or performance of an individual with that of a relevant reference group. For the BSI, an area T score of 60 accurately places an individual in the 84th percentile of the normative population and an area T score of 70 places the same individual in the 98th percentile. As a multidimensional instrument, the BSI provides a broad brush profile of an individual's psychopathological status and communicates information about the pattern of an individual's symptomatology.

A variety of formal published norms are associated with the SCL-90-R. For the purpose of this study the norm associated with non-patient normal adults will be used. Separate gender-keyed norms are available for men and women and will also be used as a part of this study. The SCL-90-R norms represent the raw score distributions of the nine symptom dimensions, and the three global indices, in terms of area T-scores.

A number of researchers have shown the applicability of using the SCL-90-R in stress research. Carrington and associates (Carrington et al., 1980) have demonstrated the instrument's sensitivity to differences in the efficacies of various medication interventions in reducing stress. The instrument has been used in a number of life-events stress studies

(Dohrenwend, Dohrenwend, Dodson, & Shrout, 1984; Roth & Holmes, 1987), with elevated SCL-90-R scores being associated with the experience of life stress (e.g., parental death, job loss). The SCL-90-R also has proved beneficial in research related to post-traumatic stress disorder (Horowitz, Wilner, Kaltreider, & Alvarez, 1980), where it was used to distinguish PTSD from other anxiety-based disorders.

Over the years the SCL-90-R has become somewhat of a standard in the multidimensional measurement of psychological distress. The instrument has demonstrated both acceptable internal consistency and quite adequate test-retest reliability (Derogatis, 1975; Edwards, Yarvis, Mueller, Zingale, & Wagman, 1978). According to the test manual, internal consistency coefficients were developed for the nine symptom dimensions through two studies. The first is based on 209 “symptomatic volunteers” (Derogatis, Rickels, & Rock, 1976) and the second is based on 103 psychiatric outpatients (Horowitz, Rosenberger, Baer, Ureno, & Villasenor, 1988). The results of these studies, as well as those from test-retest studies, are presented below in tabular format. Table 3 below has been adapted from the SCL-90-R manual (Derogatis, 1993).

In relation to test-retest reliability, the test manual also presents two studies in support of this concept. The first study by Derogatis, Rickels, and Rock (1976) was based on 94 heterogeneous psychiatric outpatients assessed during an initial evaluation and, one week later, prior to their first therapy session. The second study (Horowitz et al., 1988) is the study discussed above, which included 103 psychiatric outpatients. The results of these studies are also presented in Table 3, adapted from the SCL-90-R manual (Derogatis, 1993).

Table 3. Internal Consistency and Test-Retest Reliability Coefficients

	Internal Consistency (coefficient alpha)		Test-Retest (<i>r_{tt}</i>)	
	Study 1	Study 2	Study 2	Study 3
Somatization	.86	.88	.68	.86
Obsessive-Compulsive	.86	.87	.70	.85
Interpersonal Sensitivity	.86	.84	.81	.83
Depression	.90	.90	.75	.82
Anxiety	.85	.88	.80	.80
Hostility	.84	.85	.73	.78
Phobic Anxiety	.82	.89	.77	.90
Paranoid Ideation	.80	.79	.83	.86
Psychoticism	.77	.80	.77	.84

Source: SCL-90-R Manual (Derogatis, 1993).

Study 1: N = 209 "symptomatic volunteers" (Derogatis, Rickels, & Rock, 1976).

Study 2: N = 103 psychiatric outpatients (Horowitz et al., 1988); elapsed time between tests = 10 weeks.

Study 3: N = 94 heterogeneous psychiatric outpatients; elapsed time between tests = 1 week (Derogatis, Rickels, & Rock, 1976).

High convergent and discriminant validity has also been demonstrated by the SCL-90-R. A variety of validity studies have been completed concerning the SCL-90-R. A study comparing the SCL-90-R with the MMPI in a sample of symptomatic volunteers (Derogatis, Rickels, & Rock, 1976) illustrates highly acceptable levels of convergent-discriminant validity, with the SCL-90-R dimensions correlating highest with similar MMPI constructs (e.g., Hypochondriasis, Schizophrenia, Psychopathic Deviate),

except in the case of the Obsessive-Compulsive dimension, which has no directly comparable scale on the MMPI. The results of this study are illustrated on the following page in Table 4, adapted from the SCL-90-R manual (Derogatis, 1993).

The manual also offers the example of a series of validation studies published by Peveler and Fairburn (1990) which reflect elements of concurrent, predictive, and construct validity. These studies correlated SCL-90-R scores with scores from the Present State Examination (PSE), a clinician-administered structured interview. Samples consisted of 102 diabetic patients and 71 patients suffering from bulimia. The first validation experiment involved in these studies assessed the case-finding power of the SCL-90-R via ROC analysis and logistic regression. The study evaluated the proficiency with which the SCL-90-R detected PSE-defined psychiatric caseness in two samples. Results demonstrated high efficiency for the SCL-90-R for both groups, with the area under the curve (AUC) being .90 + .03 in samples of both diabetic and bulimic patients. Logistic regression analysis related the GSI scores from the SCL-90-R to the probability of being a PSE-defined case, and these results also characterized the SCL-90-R favorably. Sensitivity (i.e., the percent of true positives) among diabetics was .72 and specificity (i.e., the percent of true negatives) was .87, while in the bulimic group these values were .77 and .91, respectively.

These authors also evaluated the validity of the global indices of the SCL-90-R as general measures of psychopathology via correlations with the global indices of the PSE. Across the two samples, all correlations were statistically significant and ranged from a low of approximately .60 to a high of .82. A further test of concurrent validity was conducted with the Depression dimension of the SCL-90-R by correlating its scores with two unidimensional

Table 4. Correlations Between SCL-90-R Primary Symptom Dimensions and MMPI Clinical (C), Wiggins (W), and Tryon (T) Scales

Symptom	Correlation	Symptom	Correlation
<u>Somatization</u>		<u>Hostility</u>	
Body Symptoms (T)	.66	Resentment & Aggression (T)	.68
Organic Symptoms (W)	.62	Manifest Hostility (W)	.57
Poor Health (W)	.58	Depression (W)	.52
Hypochondriasis (C)	.57	Anxiety (T)	.44
Conversion Hysteria (C)	.48	Suspicion & Mistrust (T)	.41
<u>Obsessive-Compulsive</u>		<u>Phobic Anxiety</u>	
Schizophrenia (C)	.57	Phobias (W)	.50
Organic Symptoms (W)	.55	Anxiety (T)	.44
Psychasthenia (C)	.54	Psychasthenia (C)	.43
Depression (W)	.51	Poor Morale (W)	.42
Autism (T)	.50	Depression (W)	.40
Resentment & Aggression (T)	.43		
Depression (T)	.41		
<u>Interpersonal Sensitivity</u>		<u>Paranoid Ideation</u>	
Poor Morale (W)	.64	Suspicion & Mistrust (T)	.56
Depression (W)	.63	Resentment & Aggression (T)	.50
Depression (T)	.57	Manifest Hostility (W)	.50
Schizophrenia (C)	.53	Family Problems (W)	.49
Introversion (T)	.52	Autism (T)	.48
Social Introversion (C)	.49	Paranoia (C)	.42
Anxiety (T)	.49		
Social Maladjustment (W)	.48		
<u>Depression</u>		<u>Psychoticism</u>	
Depression (W)	.75	Schizophrenia (C)	.64
Depression (T)	.68	Autism (T)	.55
Poor Morale (W)	.60	Psychoticism (W)	.52
Schizophrenia (C)	.55	Poor Morale (W)	.51
Resentment & Aggression (T)	.53	Psychopathic Deviate (C)	.51
Autism (T)	.48	Paranoia (C)	.48
Anxiety (T)	.48	Psychasthenia (C)	.48
Psychasthenia (C)	.48		
<u>Anxiety</u>			
Anxiety (T)	.57		
Schizophrenia (C)	.51		
Depression (W)	.50		
Psychasthenia (C)	.47		
Poor Morale (W)	.46		
Autism (T)	.44		
Resentment & Aggression (T)	.43		
Organic Symptoms (W)	.43		

Source: SCL-90-R Manual (Derogatis, 1993).

depression instruments, the Beck Depression Inventory and the Asberg Rating Scale.

Correlations were .80 and .81, respectively.

Finally, the test manual states that the broader and more integrated the network of evidence available for the validity of a test instrument, the greater its overall utility. To demonstrate the utility of the SCL-90-R, the manual offers additional information on the SCL-90-R Bibliography (National Computer Systems, 1993). This collection of research contains a variety of validity studies which convey the breadth of validation evidence for the SCL-90-R. Examples of the instruments' effectiveness in relation to measuring change, psychotherapy outcomes, psychopharmacology outcomes, general psychopathology and psychological distress, anxiety and depressive disorders, stress, and suicidal behavior are just a few of the examples provided in the manual and the SCL-90-R Bibliography.

The Brief Symptom Inventory (BSI) (Derogatis, 1993; Derogatis & Melisaratos, 1983) is the brief form of the SCL-90-R. Due to the length of the survey packet being assembled for this study, it was decided to use the BSI in place of the SCL-90-R in an effort to shorten the amount of time individuals being surveyed would need to spend completing the survey packet. The BSI takes approximately 10 minutes to complete, compared to an approximate completion time of 15 minutes for the SCL-90-R. The BSI has 53 items rated on the same five-point scale as the SCL-90-R items and measures psychopathology along the same nine primary symptom dimensions and three global indices as the SCL-90-R.

Table 5. Correlations Between like Symptom Dimensions On the SCL-90-R and the BSI

SOM	O-C	I-S	DEP	ANX	HOS	PHOB	PAR	PSY
.96	.96	.94	.95	.95	.99	.97	.98	.92

Source: SCL-90-R Manual (Derogatis, 1993).

Correlations between the BSI and the SCL-90-R are normally quite high, indicating that the BSI is a valid measure of these symptom constructs. Table 5 offers an example of these correlations, as based on a sample of 565 outpatients (Derogatis, 1994) and published in the SCL-90-R manual.

Coping Responses Inventory (CRI)

The CRI was developed to assess the coping processes of individuals. The inventory is composed of eight subscales that assess four types of coping processes: cognitive approach coping (e.g., logical analysis and positive reappraisal), behavioral approach coping (e.g., seeking guidance and support and taking concrete action to deal directly with a situation), cognitive avoidance coping (e.g., responses aimed at denying or minimizing the seriousness of a crisis or its consequences), and behavioral avoidance coping (e.g., the seeking of alternate rewards). The CRI has editions relevant to both adults (i.e., 18 years and older) (Moos, 1993; Moos, Brennan, Fondacaro, & Moos, 1990) and youth (i.e., 12-18 years). The CRI also has editions related to actual coping and ideal coping. The adult, actual edition was used as a part of this study. The adult, actual edition is composed of two parts. Part 1 asks the individual to describe the most important problem or stressful situation he or she has experienced in the last 12 months and to answer a series of ten questions about the specifics of the problem situation. These ten questions are answered either Definitely No, Mainly No, Mainly Yes, or Definitely Yes. Part 2 consists of 48 questions which focus on how the individual coped with the problem in question. These questions are answered either No, Not at All; Yes, Once or Twice; Yes, Sometimes; or Yes, Fairly Often.

The CRI is a brief self-report inventory, of 58 total items, which identifies cognitive and behavioral responses used by an individual to cope with a recent problem or stressful situation. Six questions from Part 2 of the inventory are used to obtain the total score for each of the inventory's eight scales. These scales include approach coping styles (Logical Analysis, Positive Reappraisal, Seeking Guidance and Support, and Problem Solving) and avoidant coping styles (Cognitive Avoidance, Acceptance or Resignation, Seeking Alternative Rewards, and Emotional Discharge). According to the CRI-Adult manual (Moos, 1993), the CRI-Adult is suitable for assessing the coping responses of healthy adults, psychiatric and substance-abuse patients, and medical patients, aged 18 and over. Table 6 provides a more in-depth description of each CRI sub-scale.

Table 6. CRI-Adult Scales and Descriptions

Scale	Description
<u>Approach responses</u>	
Logical Analysis	Cognitive attempts to understand and prepare mentally for a stressor and its consequences.
Positive Reappraisal	Cognitive attempts to construe and restructure a problem in a positive way while still accepting the reality of the situation.
Seeking Guidance and Support	Behavioral attempts to seek information, guidance, or support.
Problem Solving	Behavioral attempts to take action to deal directly with the problem.
<u>Avoidance responses</u>	
Cognitive Avoidance	Cognitive attempts to avoid thinking realistically about a problem.
Acceptance or Resignation	Cognitive attempts to react to the problem by accepting it.
Seeking Alternative Rewards	Behavioral attempts to get involved in substitute activities and create new sources of satisfaction.
Emotional Discharge	Behavioral attempts to reduce tension by expressing negative feelings.

Source: CRI-Adult Manual (Moos, 1993).

Table 7. Criteria For Interpreting CRI-Adult Standard Scores

T-score Range	Equivalent Percentage Range	Description
≤ 34	≤ 6	Considerably below average
35-40	7-16	Well below average
41-45	17-33	Somewhat below average
46-54	34-66	Average
55-59	67-83	Somewhat above average
60-65	84-93	Well above average
≥ 66	≥ 94	Considerably above average

Source: CRI-Adult Manual (Moos, 1993).

The CRI converts raw scores into T scores ($M=50$, $SD=10$) for the sake of facilitating comparisons between scales. Criteria for interpreting CRI-Adult standard scores is presented in Table 7. Table 8, adapted from the CRI-Adult manual, presents the means, standard deviations, and internal consistencies (Cronbach's alpha) of the instrument's eight scales. This information was gathered through the completion of two field trials of the instrument.

Table 8. Means, Standard Deviations, and Internal Consistencies of CRI-Adult Scales For Men and Women

	Men (N = 1,194)			Women (N = 722)		
	Mean	SD	Alpha	Mean	SD	Alpha
<u>Approach responses</u>						
Logical Analysis	11.00	3.97	.67	11.48	3.87	.64
Positive Reappraisal	10.29	4.61	.74	10.67	4.40	.71
Seeking Guidance and Support	8.84	4.01	.61	10.15	3.94	.60
Problem Solving	10.82	4.32	.68	11.19	4.14	.63
<u>Avoidance responses</u>						
Cognitive Avoidance	6.66	4.34	.72	6.80	4.18	.70
Acceptance or Resignation	7.24	4.28	.64	7.56	4.18	.60
Seeking Alternative Rewards	5.16	4.22	.68	6.57	4.51	.71
Emotional Discharge	3.37	3.27	.62	4.08	3.24	.58

Source: CRI-Adult Manual (Moos, 1993).

Correlations between the eight scales appear to be moderate, indicating that individuals who rely on one type of approach coping also employ other types of approach coping responses, as well as the use of various avoidance coping responses. The CRI-Adult manual tells us that “these findings occur because people who experience more pervasive and severe stressors tend to employ more coping of all types. The findings also reflect the dynamic, reciprocal nature of the relationships between approach and avoidance, and between cognition, and behavior in the stress and coping process” (p. 16). Table 9 presents the correlations among the eight scales, separately for men and women.

Table 9. Intercorrelations Among the CRI-Adult Scales For Men and Women

	<u>Approach responses</u>				<u>Avoidance Responses</u>			
	LA	PR	SG	PS	CA	AR	SR	ED
Logical Analysis	--	.51	.41	.57	.15	.12	.33	.26
Positive Reappraisal	.42	--	.37	.48	.28	.12	.47	.20
Seeking Guidance and Support	.35	.35	--	.46	.10	.07	.36	.29
Problem Solving	.49	.44	.48	--	.03	-.09	.45	.21
Cognitive Avoidance	.13	.23	.08	.04	--	.44	.27	.41
Acceptance or Resignation	.03	.07	.10	-.11	.42	--	.09	.27
Seeking Alternative Rewards	.26	.39	.29	.42	.19	.07	--	.25
Emotional Discharge	.24	.15	.35	.26	.31	.19	.27	--

Source: CRI-Adult Manual (Moos, 1993).

Note: Correlations for men (minimum N = 1,172) are above the diagonal and those for women (minimum N = 701) are below the diagonal.

In the final field development trial of the CRI, the coping indices were found to be moderately stable over time. This was found for both men and women (average $r_s = .45$ and $.43$, respectively, for the eight indices). Indices such as Positive Reappraisal, Seeking Guidance and Support, Cognitive Avoidance, and Emotional Discharge were somewhat more

stable (average $r_s = .49$ and $.47$ for men and women, respectively). Logical Analysis and Problem Solving were found to be somewhat less stable (average $r_s = .41$ and $.39$ for men and women, respectively).

The manual offers a wide variety of examples of research which support the validity of the CRI-Adult classification system for organizing coping responses. This classification system is made up of the four types of coping processes measured by the eight subscales (i.e., cognitive approach coping, behavioral coping, cognitive avoidance coping, and behavioral avoidance coping). The author concludes from these examples that while the classification system is generally supported as being valid, it is still in need of further development. This conclusion is reached because Logical Analysis is classified as an approach response, but over-reliance on thinking about a problem may preclude actions toward solving the problem. When this happens, Logical Analysis can be seen as an avoidance strategy. In a similar manner, while Seeking Alternative Rewards is classified as an avoidance strategy, such responses involve elements of an approach strategy (e.g., recognition that a problem exists, active efforts to change one's behavior). The author concludes that while more conceptual and empirical work is needed, the eight dimensions measured by the instrument represent common types of coping and are organized so that prior approaches reflecting either the focus or method of coping have been integrated within the instrument.

Examples of research which support the validity of the CRI-Adult include comparisons of group differences in coping responses. The final field trial in the creation of the instrument compared 501 individuals (387 men and 114 women) with drinking problems to 609 non-problem drinkers (299 men and 310 women). Results of this comparison found that

individuals who had drinking problems were more likely to rely on Cognitive Avoidance, Acceptance or Resignation, and Emotional Discharge strategies. It was also found that women with drinking problems were more likely also to rely on Positive Reappraisal and Seeking Alternative Rewards.

Studies focused on the determinants of coping responses found that the type of stressor faced by the individual influenced coping responses. Examples from the field study on problem drinking indicated that personal illness stressors tended to elicit more reliance on both approach coping (especially Positive Reappraisal and Seeking Guidance and Support) and avoidance coping (especially Cognitive Avoidance and Seeking Alternative Rewards), than work and financial stressors, which elicited more reliance on Logical Analysis and Problem Solving and less on Cognitive Avoidance and Acceptance or Resignation.

The manual discusses a study by Rosenthal, Schmid, and Black (1989) in relation to coping with work-related stressors. This study found that a group of nurses in a neonatal intensive care unit coped best with the stress of their jobs mostly through the use of Logical Analysis, Seeking Guidance and Support, and Problem Solving strategies. In contrast, they found Emotional Discharge strategies the least helpful and were less likely to rely on these strategies.

Studies of community samples have also examined coping with economic stress. One such study looked at the degree and type of life stressors experienced by young adults in economically distressed rural counties and the coping strategies used in this situation (Price & Dunlap, 1988). In general, young adults (ages 17-20) and adults (ages 35-50) reported similar types of stressful events, but these same groups differed in how they coped with such

events. Adults relied more on active-cognitive and active-behavioral coping, while young adults relied more on avoidance coping. Adults were also found to make more use of Logical Analysis, Seeking Guidance and Support, and Problem Solving.

Cooper, Russell, and Frone (1990), in a study of employed adults, found that avoidance coping interacted with work distress to predict drinking problems. The study found that individuals who relied more on avoidance coping seemed to be more vulnerable to developing drinking problems when experiencing high levels of work stress than individuals who did not rely on avoidance coping strategies.

Finally, Cronkite and Moos (1984) followed over 260 married couples for a 12-month period in an attempt to identify family-based models of stress and coping. This study identified some gender differences in the use and efficacy of coping responses. Women were more likely to use avoidance coping, and this was associated with a higher level of impairment of functioning in women than men. Reliance on avoidance coping in men was associated with their prior adaptation rather than with their experience of recent life stressors, while women's reliance on avoidance coping was affected more strongly by recent life stressors. The authors concluded that the results of this study point to avoidance coping being more situationally determined among women, while it may reflect poor functioning among men.

Positive and Negative Affect Schedule (PANAS)

The PANAS (Watson, Clark, & Tellegen, 1988) was designed to assess positive and negative affect by asking participants to indicate how often they generally experience 10 positive and 10 negative emotions. The designers of the instrument believe that persons with high Positive Affect (PA) display states such as high energy, full concentration, and

pleasurable engagement, while persons with low PA display states such as sadness and lethargy. Thus, Positive Affect is the extent to which a person feels enthusiastic, active, and alert. In contrast, Negative Affect (NA) is the extent to which a person feels subjective distress and unpleasurable engagement. Persons with high NA display states such as anger, contempt, disgust, guilt, fear, and nervousness. Persons with low NA display a state of calmness and serenity.

The standardization sample used in the development of the PANAS included undergraduate students enrolled in psychology courses at Southern Methodist University (SMU), a private southwestern university; groups of SMU employees; and a group of adults not affiliated with SMU. Preliminary analyses revealed no systematic differences between student and non-student responses. Also, no sex differences were found within the standardization sample. For this reason, all responses were combined in analyses of PANAS results. As part of the testing of the instrument, respondents were asked to rate how they felt over various periods of time, from the current moment, up to over the past year. Table 10 presents descriptive data for the PANAS related to these time periods.

Table 10. PANAS Scale Means and Standard Deviations For Each Rated Time Frame

Time Instructions	n	PANAS PA Scale		PANAS NA Scale	
		M	SD	M	SD
Moment	660	29.7	7.9	14.8	5.4
Today	657	29.1	8.3	16.3	6.4
Past few days	1,002	33.3	7.2	17.4	6.2
Past few weeks	586	32.0	7.0	19.5	7.0
Year	649	36.2	6.3	22.1	6.4
General	663	35.0	6.4	18.1	5.9

Source: Watson, Clark, & Tellegen, 1988.

Table 10 points out that subjects reported more PA than NA, regardless of the time frame being considered. Mean scores on both scales also tend to increase as the time frame in question becomes longer. The authors believe this is to be expected because as the time period being rated increases, the probability that a respondent will have experienced a significant amount of a given affect also increases.

Table 11 displays PANAS scale intercorrelations and internal consistency reliabilities (Cronbach's alpha). The alpha reliabilities were found to be at an acceptable level, ranging from .86 to .90 for PA and from .84 to .87 for NA. Measuring PA and NA over the various time frames in question seems to have no effect on the reliability of the scale. Correlations between PA and NA are appropriately low, ranging from -.12 to -.23, indicating a quasi-independence which is an attractive feature for this type of scale.

Table 11. Internal Consistency Reliabilities (Cronbach Alpha) and Intercorrelations

Time Instructions	n	Alpha reliabilities		
		PANAS PA scale	PANAS NA scale	PA-NA Intercorrelation
Moment	660	.89	.85	-.15
Today	657	.90	.87	-.12
Past few days	1,002	.88	.85	-.22
Past few weeks	586	.87	.87	-.22
Year	649	.86	.84	-.23
General	663	.88	.87	-.17

Source: Watson, Clark, & Tellegen, 1988.

Table 12 displays test-retest reliability data for the PANAS. The authors believe this data replicates the frequent finding that stability rises with increasing temporal aggregation and that the stability coefficients of the general ratings are high enough to suggest that general ratings could be used as a trait measure. The PANAS scales also exhibit a significant level of

stability in every time frame observed; for the authors, this suggests that even momentary moods are a reflection of one's general affective level.

The developers of the PANAS conclude that "the PANAS scales provide reliable, precise, and largely independent measures of Positive Affect and Negative Affect, regardless

Table 12. PANAS Test-Retest Reliabilities (8-Week Retest Interval)

Time instructions	PANAS PA Scale	PANAS NA Scale
Moment	.54	.45
Today	.47	.39
Past few days	.48	.42
Past few weeks	.58	.48
Year	.63	.60
General	.68	.71

Source: Watson, Clark, & Tellegen, 1988.

of the subject population studied or the time frame and response format used (p. 1067)."

They base this conclusion on data showing that the PANAS scales are internally consistent, have excellent convergent and discriminant correlations with lengthier measures of the underlying mood factors, and demonstrate appropriate stability over a two-month time period.

Demographic information

The three instruments described above were combined with an instrument entitled **Demographic Information**. Separate instruments were prepared for family-owned businesses and non-family-owned businesses. These instruments can be found in Appendix G and Appendix H. This instrument was created specifically for this study to collect information concerning the individual taking part in the study and the business in which the individual is

employed. For individuals working in non-family-owned businesses this instrument was made up of 25 items and for individuals working in family-owned businesses the instrument was made up of 37 items. This information was collected in order to compare managers of family-owned businesses with managers of non-family-owned businesses, as well as to compare the businesses themselves. Certain specific demographic information was collected only on family-owned businesses (e.g., succession plans, family involvement, level of family ownership), and this information was collected in order to facilitate further comparisons between family-owned businesses.

Table 13 presents an outline of the domains of the demographic instrument and the item numbers related to each domain.

Variables and measures

The measures presented above were used to delineate the variables of interest in this study as presented below in Table 14.

Table 13. Demographic Information

Domains	Item Numbers
<i>Items included for both family and non-family owned businesses:</i>	
Demographic Information	1 - 6
Job Description	7 - 9
Career Commitment	10
Job & Life Satisfaction	11
Perception of Responsibilities	12-13
Salary Level	14
Work Experience	15 - 16
Business Characteristics	17 - 25
<i>Items included only for family owned businesses:</i>	
Family Involvement in the Business	26 - 36
Use of a Consultant	37

Table 14. Variables and Measures

Variables	Measures
Perceived Stress	Demographic Information Overwhelmed at Work Overwhelmed at Home Coping Responses Inventory (CRI) Problems Described in Part I Positive and Negative Affect Schedule (PANAS)
Undesirable Consequences	Brief Symptom Inventory (BSI) Demographic Information Career Commitment Work Satisfaction Life Satisfaction Positive and Negative Affect Schedule (PANAS)

Overview of statistical procedures

The three major areas of focus in this study are the assessment of self-reported perceived stress, respondent's reports of the consequences of perceived stress, and self-reports of the coping mechanisms used by individuals involved in family-owned and non-family-owned businesses. These areas of focus were examined with respect to two general research questions and associated hypotheses. Each of the two general hypotheses was tested by the statistical procedures described as follows.

Hypothesis 1: It was hypothesized that no differences would be found in the mean levels of reported (i.e., perceived) stress when comparisons were made between the owners/managers of family-owned businesses and the managers of non-family-owned businesses. Listed below are the assessment instruments used and statistical analyses completed in testing Hypothesis 1.

Coping Responses Inventory (CRI)

Explorations of differences between respondents in the two types of business was done in the following manner.

- Chi-square tests for disproportionate frequency of stress related problem categories were conducted.
- A sequential analytic strategy consisting of a MANOVA, followed by ANOVAs and post hoc analyses was completed as follows.
 - A 3 (problem category) by 2 (type of business) MANOVA, using the eight CRI scales as dependent variables.
 - Follow-up ANOVAs and post hoc Bonferroni analyses.
 - Eight separate 3 (problem category) x 2 (type of business) ANOVAs and post hoc Bonferroni analyses.
 - Separate one-way ANOVAs for each of the eight coping strategies, across each of the three problem (stressor) categories and post hoc Bonferroni analyses.
 - Comparisons of male and female CRI results by t-tests.

Positive and Negative Affect Schedule (PANAS)

- Comparisons of family-owned and non-family-owned business respondents respective positive, negative, and positive with negative PANAS scores was accomplished by t-tests.

Demographic Questions

- Comparisons between family-owned and non-family owned businesses on respective responses to questions relating to life satisfaction and work satisfaction were conducted by t-tests.

Brief Symptom Inventory (BSI)

- Comparisons of family-owned and non-family-owned businesses on each of the symptom and aggregate scales of the BSI were made by t-tests.

Hypothesis 2: It was hypothesized that the stressful life situations faced by family-owned business owners/managers and non-family-owned business managers would be reacted to with similar methods. It predicted that there would be no differences between the two groups in coping styles, work commitment, situational characteristics (e.g., size of work unit), organizational characteristics (e.g., organization structure), and subjective reports of feelings of being overwhelmed at home. Listed below are the assessment instruments used and statistical analyses completed in testing Hypothesis 2.

Coping Responses Inventory (CRI)

- Potential differences between the two types of business respondents were tested by a 3 (problem category) by 2 (type of business) MANOVA, using the eight CRI scales as dependent variables.

Positive and Negative Affect Schedule (PANAS)

- As previously noted, all possible PANAS pair-wise comparisons were conducted by t-tests of mean differences between family-owned and non-family-owned business respondents.

Demographic Questions

- Chi-square analyses were conducted of the distributions of responses for family-owned and non-family-owned business results on questions relating to career commitment, being overwhelmed at work or home, and business type.

In addition, data were analyzed separately for family-owned and non-family-owned businesses; it was also analyzed with family-owned data and non-family-owned data combined into one sample. Analyses were completed in this manner so that differences between family-owned and non-family-owned businesses could be highlighted, as could differences between the combined business sample and standardization groups related to the instruments used in the study.

Moreover, descriptive statistics, means and standard deviations, were presented for the results of each instrument, specifically: the nine primary symptom dimensions and the three global indices of distress from the Brief Symptom Inventory; the eight subscales measuring cognitive approach coping, behavioral approach coping, cognitive avoidance coping, and behavioral avoidance coping via the Coping Responses Inventory; positive and negative affect as measured by the PANAS; as well as demographic characteristics measured through questions created specifically for this study.

In order to assess the reliability of measures used in this study, item homogeneity, the internal consistency of the measures, was calculated by coefficient alpha for all measures and these alpha reliability data from each respective instrument's scales were compared with respective coefficient alphas for the standardization sample.

In addition, the pattern and strength of intercorrelations of the measures used in this study (i.e., CRI, PANAS, BSI) were calculated separately for family-owned businesses and non-family-owned businesses, as well as for the combined family-owned business and non-family-owned business sample.

Finally, two sets of logistic regressions were performed. The first set of regressions was done to assess which, if any, of the separate predictor variables, or blocks of variables for predictors with multiple levels of categories, make statistically significant contributions to membership in the family-owned or non-family-owned business groups. The second set of regression analyses depict logistic regression data explorations using aggregate combinations of the significant single variable predictors identified in the first, single variable analyses, to predict membership in the business categories of either family-owned or non-family-owned businesses. Additional exploratory analyses were conducted using a three variable, forced entry logistic regression.

CHAPTER 4. RESULTS

Description of Results

A total of 140 usable surveys were received in response to the sequential mailing of the pre-survey postcards (n=758), the original survey packets (n=758), the reminder postcards (n=658), and the second mailing of a survey packet (n=628). Returned surveys consist of 71 responses from family-owned businesses and 69 responses from non-family-owned businesses, an overall return rate of 18.47 percent. Table 15 presents a delineation of surveys mailed and returned from each of the quadrants, and their subdivisions of the State of Iowa, as specified by the sampling plan for this study.

Cross-tabs comparisons for family-owned businesses and non-family-owned businesses of return rates by quadrant were not statistically significant, χ^2 (df=9, n=140)=9.29, p=.41.

Table 15. Sampling Quadrants and Return Rates

Quadrant	Surveys Mailed	Surveys Returned	Return Rate	Percent of Total Returns	FOB Returns	Non-FOB Returns
NW 2,000-9,999	124	19	15.3	13.6	9	10
NW 10,000-24,999	30	7	23.3	5.0	4	3
NW Over 25,000	30	3	10.0	2.1	2	1
SW 2,000-9,999	92	12	13.0	8.6	3	9
SW 10,000-24,999	—	No communities of this size within this quadrant.			—	—
SW Over 25,000	30	2	6.7	1.4	1	1
NE 2,000-9,999	132	32	24.2	22.9	16	16
NE 10,000-24,999	—	No communities of this size within this quadrant.			—	—
NE Over 25,000	60	10	16.7	7.1	6	4
SE 2,000-9,999	120	22	18.3	15.7	15	7
SE 10,000-24,999	80	15	18.8	10.7	5	10
SE Over 25,000	60	18	30.0	12.9	11	7

Summary of Demographic Characteristics

Tables 16 - 19 provide an overview of the results of the demographic questions which were posed to both family-owned and non-family owned businesses. Table 20 provides an overview of the demographic questions which were directed only to family-owned businesses.

Table 16. Summary of General Demographic Characteristics

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Sex									
(1) Female	48	34.5	25	35.21	23	33.82	.171	137	.865
(2) Male	91	65.5	46	64.79	45	66.18			
Age									
(1) 25 or younger	1	0.7	1	1.41	0	0.00	.580	137	.563
(2) 26-30	6	4.3	3	4.23	3	4.41			
(3) 31-40	30	21.6	17	23.94	13	19.12			
(4) 41-50	52	37.4	25	35.21	27	39.71			
(5) 51-60	33	23.7	17	23.94	16	23.53			
(6) 61-70	16	11.5	7	9.86	9	13.23			
(7) 70 or older	1	0.7	1	1.41	0	0.00			
Present Education Level									
(1) Some High School	1	0.7	0	0.00	1	1.47	1.727	137	.086
(2) High School	51	36.4	21	29.60	30	44.12			
(3) BA/BS	50	35.7	25	35.20	25	36.76			
(4) MA/MS	6	4.3	6	8.45	0	0.00			
(5) Ph.D./Psy.D.	0	0.0	0	0.00	0	0.00			
(6) Other	31	22.1	19	26.75	12	17.65			
Married									
(1) Yes	120	86.3	63	88.73	57	83.82	.838	137	.403
(2) No	19	13.7	8	11.27	11	16.18			
First Marriage									
(1) Yes	100	83.3	53	84.13	47	83.93	.029	117	.977
(2) No	20	13.7	10	15.87	9	16.07			
Years in Marriage									
(1) 0-5	9	7.5	3	4.76	6	10.71	.308	118	.759
(2) 6-10	10	8.3	8	12.70	2	3.57			
(3) 11-15	10	8.3	4	6.35	6	10.71			
(4) 16-20	17	14.2	12	19.05	5	8.92			
(5) 21-25	19	15.8	8	12.70	11	19.64			
(6) > 25	55	45.8	28	44.44	27	48.21			

Table 16. (continued)

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Parent									
(1) Yes	114	90.5	61	92.42	53	88.33	.777	124	.439
(2) No	12	9.5	5	7.58	7	11.67			
Children at Home									
(1) Yes	74	58.7	38	57.58	36	60.00	.274	124	.785
(2) No	52	41.3	28	42.42	24	40.00			
Race/Ethnicity									
(1) African Am.	1	0.7	0	0.00	1	1.47	1.027	136	.306
(2) Caucasian Am.	133	96.4	69	98.57	64	94.12			
(3) Native Am.	2	1.4	1	1.43	1	1.47			
(4) Oriental	1	0.7	0	0.00	1	1.47			
(5) Other	1	0.7	0	0.00	1	1.47			

Table 17. Frequency Summary of Job and Career Characteristics

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Job Title									
(1) Chairman	4	2.9	2	2.86	2	2.94	1.391	136	.166
(2) President	34	24.6	23	32.85	11	16.18			
(3) Vice-president	12	8.7	8	11.43	4	5.88			
(4) Manager	46	33.3	16	22.86	30	44.12			
(5) Director	2	1.4	0	0.00	2	2.94			
(6) Other	40	29.0	21	30.00	19	27.94			
Time in Position									
(1) 0-5	36	25.9	15	21.14	21	30.88	1.464	137	.146
(2) 6-10	25	18.0	14	19.72	11	16.18			
(3) 11-15	23	16.5	10	14.08	13	19.12			
(4) 16-20	17	12.2	10	14.08	7	10.29			
(5) 21-25	12	8.6	5	7.04	7	10.29			
(6) > 25	26	18.7	17	23.94	9	13.24			
Hours Worked per Week									
(1) < 40	12	8.6	8	11.27	4	5.88	.448	137	.655
(2) 41-45	37	26.4	19	26.76	18	26.48			
(3) 46-50	31	22.1	18	25.35	13	19.12			
(4) 51-55	20	14.3	3	4.23	17	25.00			
(5) 56-60	21	15.0	13	18.31	8	11.76			
(6) > 60	18	12.9	10	14.08	8	11.76			

Table 17. (continued)

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Career Commitment									
(1) Low	0	0.0	0	0.00	0	0.00	.860	137	.391
(2) Medium/Low	2	1.4	1	1.41	1	1.47			
(3) Medium	19	13.7	8	11.27	11	16.18			
(4) Medium/High	42	30.2	21	29.57	21	30.88			
(5) High	76	54.7	41	57.75	35	51.47			
Overwhelmed at Work									
(1) Low	26	19.0	14	19.72	12	18.18	.014	135	.989
(2) Medium/Low	20	14.6	12	16.90	8	12.12			
(3) Medium	37	27.0	17	23.94	20	30.30			
(4) Medium/High	30	21.9	13	18.31	17	27.75			
(5) High	24	17.5	15	21.13	9	13.63			
Overwhelmed at Home									
(1) Low	37	26.8	19	26.76	18	26.86	.676	136	.500
(2) Medium/Low	25	18.1	16	22.53	9	13.43			
(3) Medium	33	23.9	16	22.53	17	25.37			
(4) Medium/High	28	20.3	12	16.90	16	23.88			
(5) High	15	10.1	8	11.28	7	10.46			
Current Salary									
(1) < \$20,000	15	10.7	10	14.50	5	7.46	.246	134	.806
(2) 20,000-29,999	20	14.3	9	13.04	11	16.42			
(3) 30,000-39,999	26	18.6	10	14.50	16	23.88			
(4) 40,000-49,999	16	11.4	6	8.71	10	14.93			
(5) 50,000-59,999	16	11.4	12	17.40	4	5.97			
(6) > 60,000	43	30.7	22	31.85	21	31.34			
Prior Work Experience									
(1) None	16	13.7	9	15.00	7	12.28	.604	115	.547
(2) Finance	3	2.6	3	5.00	0	0.00			
(3) Legal	1	0.9	0	0.00	1	1.75			
(4) Administration	3	2.6	1	1.67	2	3.51			
(5) Public Relations	8	6.8	5	8.33	3	5.26			
(6) Sales/Marketing	36	30.8	20	33.33	16	28.07			
(7) Production/Oper.	12	10.3	2	3.33	10	17.54			
(8) Tech./Engineering	7	6.0	4	6.66	3	5.26			
(9) Accounting	5	4.3	1	1.67	4	7.02			
(10) Other	26	22.2	15	25.00	11	19.30			
Years of Prior Work Experience									
(1) 0-5	48	35.3	28	40.00	20	30.30	.680	134	.498
(2) 6-10	27	19.9	11	15.71	16	24.24			
(3) 11-15	22	16.2	13	18.57	9	13.64			
(4) 16-20	19	14.0	7	10.00	12	18.18			
(5) 21-25	14	10.3	9	12.86	5	7.58			
(6) > 25	6	4.4	2	2.86	4	6.06			

Table 18. Frequency Summary of Characteristics of Respondent's Businesses

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Business Type									
(1) Retail	49	40.2	27	43.55	22	36.67	.996	120	.321
(2) Service	27	22.1	14	22.58	13	21.66			
(3) Wholesale	3	2.5	2	3.23	1	1.67			
(4) Construction	11	9.0	5	8.06	6	10.00			
(5) Manufacturing	19	15.6	8	12.90	11	18.33			
(6) Other	13	10.7	6	9.68	7	11.67			
Gross Sales									
(1) < \$50,000	7	5.4	3	4.48	4	6.45	2.617	127	.010
(2) 50,000-149,999	12	9.3	10	14.93	2	3.26			
(3) 150,000-299,999	14	10.9	9	13.43	5	8.06			
(4) 300,000-499,999	11	8.5	5	7.46	6	9.66			
(5) 500,000-999,999	27	20.9	18	26.86	9	14.52			
(6) 1,000,000-3,999,999	26	20.2	12	17.91	14	22.58			
(7) 4,000,000-9,999,999	22	17.1	7	10.45	15	24.18			
(8) > 10,000,000	10	7.8	3	4.48	7	11.28			
Geographic Distribution of Sales									
(1) Local	63	46.3	35	49.30	28	43.07	.127	134	.899
(2) Regional (Instate)	32	23.5	16	22.54	16	24.62			
(3) Surrounding States	16	11.8	7	9.86	9	13.85			
(4) National	6	4.4	2	2.82	4	6.15			
(5) North America	12	8.8	6	8.45	6	9.23			
(6) Global	7	5.1	5	7.03	2	3.08			
Number of Locations Operated									
(1) 1	92	67.6	58	81.68	34	52.31	4.533	134	.001
(2) 2-5	19	14.0	9	12.68	10	15.35			
(3) 6-10	9	6.6	2	2.82	7	10.75			
(4) >10	16	11.8	2	2.82	14	21.50			
Weekly Hours Worked by Part-time Employees									
(1) 10 or >	8	6.7	8	12.31	0	0.00	1.529	117	.129
(2) 11-20	48	40.3	25	38.46	23	42.59			
(3) 21-30	50	42.0	25	38.46	25	46.30			
(4) 31-40	13	10.9	7	10.77	6	11.11			
People in the Organization Know What it Stands For and How You Wish to Conduct Business									
(1) Low	2	1.5	2	2.94	0	0.00	1.029	132	.305
(2) Medium/Low	8	6.0	4	5.88	4	6.06			
(3) Medium	33	24.6	10	14.71	23	34.85			
(4) Medium/High	53	39.6	31	45.59	22	33.33			
(5) High	38	28.4	21	30.88	17	25.76			

Table 18. (continued)

	Number	%	FOB	%	Non-FOB	%	χ^2	n	p
Overall Atmosphere of Working Environment is Positive									
(1) Low	1	.7	1	1.43	0	0.00	.969	134	.334
(2) Medium/Low	6	4.4	2	2.86	4	6.06			
(3) Medium	39	28.7	21	30.00	18	27.27			
(4) Medium/High	59	43.4	25	35.71	34	51.51			
(5) High	31	22.8	21	30.00	10	15.16			
Number of People (Besides Self) Involved in Management Decisions									
(1) 1	38	28.6	23	32.86	15	23.80	15.83	133	.020
(2) 2	34	25.6	18	25.70	16	25.40			
(3) 3	24	18.0	16	22.86	8	12.70			
(4) 4	10	7.5	6	8.57	4	6.35			
(5) 5	4	3.0	3	4.29	1	1.59			
(6) > 5	16	12.0	2	2.86	14	22.22			
(-) 0	7	5.3	2	2.86	5	7.94			

Table 19. Summary of Continuous Scale Work and Business Characteristics

	Combined		Family-Owned		Non-Family-Owned		t	p
	Mean	SD	Mean	SD	Mean	SD		
Work Satisfaction range = 9 to 20 mode = 16	16.04	1.83	15.97	2.06	16.11	1.57	.427	.670
Life Satisfaction range = 2 to 10 mode = 8	7.22	1.79	7.32	1.95	7.10	1.61	.720	.473
Number of Full-time Employees mode: 2 range: 0-200	22.51	38.77	10.53	14.28	35.63	51.14	3.942	.001
Number of Part-time Employees mode: 2 range: 0-5,000	56.65	447.59	80.19	605.81	31.24	148.98	.624	.534

Note. Work satisfaction is assessed on a 1-5 point scale, 25 points possible. Higher score = more satisfied.

Life satisfaction is assessed on a 1-5 point scale, 10 points possible. Higher score = more satisfied.

Comparison of the means of family-owned and non-family-owned-businesses was accomplished by t-tests.

Table 20. Family-Owned Business Demographic Characteristics

	Number	%	Range	Median	Mean	SD
Year Company Was Founded			1896-1998	1979	1971	24
Number of Family Members Involved in the Business			1-6	2	2.43	.1279
Number of Non-Family Members Involved at the Management Level			0-10	1	1.41	1.9241
Family Members on the Board of Directors			0-7	2	2.11	1.3853
Non-Family Members on the Board of Directors			0-6	.000	.6061	1.2232
Number of Male Family Members Now Involved, with the Potential to Fill Highest Management Position			0-3	1.00	.9020	.7812
Number of Female Family Members Now Involved, with the Potential to Fill Highest Management Position			0-2	.000	.4222	.5431
Number of Non-Family Males Now Involved, with the Potential to Fill Highest Management Position			0-3	1.00	.7381	.8571
Number of Non-Family Females Now Involved, with the Potential to Fill Highest Management Position			0-5	.000	.3529	.9173
Family Ownership Level of the Business						
(1) < 50%	4	5.5				
(2) 50-99.9%	11	15.1				
(3) 100%	58	79.5				
Generation of Family Now Operating the Business						
(1) First	51	69.9				
(2) Second	12	16.4				
(3) Third	10	13.7				
Individual at Highest Management Level Retiring During Next 10 Years						
(1) Yes	34	46.6				
(2) No	39	53.4				
Succession Plans Have Been Made for the Future Management of the Business						
(1) Yes	29	40.3				
(2) No	43	59.7				
Survey Participant is the Founder of the Business						
(1) Yes	33	45.2				
(2) No	40	54.8				

Table 20. (continued)

	Number	%
Have Used a Consultant in Relation to the Business		
(1) Yes	32	43.8
(2) No	41	56.2
Have Used Family Meetings to Discuss the Management of the Business		
(1) Yes	27	37.0
(2) No	46	63.0
If Used, Family Meetings Are Held		
(1) Weekly	8	27.6
(2) Biweekly	1	3.4
(3) Monthly	2	6.9
(4) Quarterly	1	3.4
(5) As Needed	13	44.8
(6) Other	4	13.8

Note. A total of 29 family-owned businesses did not have a Board of Directors.

As noted by the columns of χ^2 and the t-tests displayed in tables 16 through 20, comparisons were made between the responses of individuals involved in family-owned businesses and individuals involved in non-family-owned businesses. Chi-square comparisons were used to assess differences in distributions of categories, whereas t-tests, with test difference Bonferonni corrections, were used to assess mean differences in continuous variables. These 30 statistical comparisons revealed statistically significant differences in four areas: gross sales, number of business locations, number of people besides the respondent involved in management decisions, and number of full-time employees.

In relation to gross sales, individuals involved with family-owned businesses reported a mode sales level of \$500,000-999,999, with 18 business (i.e., 26.86%) reporting at this level. The second most common level of gross sales for family-owned businesses was \$1,000,000-3,999,999, with 12 businesses (i.e., 17.91%) reporting at this level. For

non-family-owned businesses the mode level of gross sales was \$4,000,000-9,999,999, with 15 businesses (i.e., 24.18%) reporting at this level. The second most common level of gross sales for non-family-owned businesses was \$1,000,000-3,999,999, with 14 businesses (i.e., 22.58%) reporting at this level. When the types of businesses were compared on gross sales, there was statistically significant, χ^2 (df=7, n=129)=14.20, $p < .05$.

When the number of locations operated by the businesses were compared, individuals involved with family-owned businesses reported a mode level of one location. As indicated in Table 18, 58 businesses (i.e., 81.68%) reported at this level. The second most common number of locations was the level of two to five locations, with 9 businesses (i.e., 12.68%) reporting at this level. For non-family-owned businesses the mode number of locations was one, with 34 businesses (i.e., 52.31%) reporting at this level. The second most common number of locations was reported as the greater than 10 locations level, with 14 businesses (i.e., 21.50%) reporting at this level. Comparison between the two types of businesses on number of locations was statistically significant, χ^2 (df=4, n=136)=18.42, $p < .001$.

As displayed in Table 18, the number of people besides the respondent involved in management decisions in family-owned businesses was reported as a mode level of one person. Twenty-three participants reported this number (i.e., 32.86%). The second most common number of other individuals involved in management decisions of family-owned businesses was two, with 18 participants indicating this number (i.e., 25.70%). For non-family-owned businesses the most common number of other people involved in management decisions was two, with 16 participants noting this number (i.e., 25.40%). The second most common number of other individuals involved in management decisions for

non-family-owned businesses was one, with 15 participants specifying this number (i.e., 23.80%). Comparison between the two types of businesses with respect to the number of individuals involved in management decisions besides the respondent was statistically significant, χ^2 (df=6, n=133)=15.83, $p<.02$.

With respect to the number of full-time employees reported by survey participants, family-owned business participants reported, as noted in Table 19, a mean of 10.53 full-time employees, with a standard-deviation of 14.28. Non-family-owned business participants reported a mean of 35.63 full-time employees, with a standard deviation of 51.14. This comparison was also statistically significant, t (df=132) = 3.94, $p<.001$.

As the above statistics indicate, the areas of significant difference found between family-owned businesses and non-family-owned businesses were related to characteristics of the businesses, and not to the individuals involved with the management of the businesses.

Reliability of Measures

In order to assess item homogeneity, the internal consistency of the measures used in this study, alpha coefficients were calculated for all measures and were compared with alpha reliability data from each respective instrument's standardization sample.

BSI results

Table 21 presents the BSI coefficient alpha reliability data for this study and the equivalent reliabilities reported for the BSI standardization sample. Examination of the BSI coefficient alphas reveals a high degree of similarity when comparisons are made between the data from the current study and the BSI standardization sample. Those scales where reliability differences are most pronounced (lower estimates in the current study) occur on measures of

pronounced thought disorder. The occurrence of severe thought disturbance is probably very infrequent in the current, relatively small, sample of community business participants and very probably much more frequent in a BSI standardization sample comprised of identified psychiatric patients.

Table 21. BSI Internal Consistency, Coefficient Alpha

	Combined Business Sample		Standardization Sample (N = 719)
Somatization	(N = 104)	.79	.80
Obsessive-Compulsive	(N = 103)	.82	.83
Interpersonal Sensitivity	(N = 98)	.74	.74
Depression	(N = 97)	.86	.85
Anxiety	(N = 99)	.72	.81
Hostility	(N = 102)	.80	.78
Phobic Anxiety	(N = 97)	.75	.77
Paranoid Ideation	(N = 100)	.63	.77
Psychoticism	(N = 98)	.58	.71

Note. Data from family-owned and non-family-owned businesses were combined for all reliability analyses.

PANAS results

Table 22 presents a reliability comparison between the results of this study and the coefficient alpha data from the PANAS standardization sample. A visual comparison of the alpha coefficients indicates that the internal consistency results of this study are similar to those of the PANAS standardization sample for those individuals who completed the PANAS under the instructional set of describe yourself over the "past few weeks."

Table 22. Combined Business Sample and PANAS Standardization Sample Alpha Coefficients

	Alpha coefficients	
	Positive Affect scale	Negative Affect scale
Standardization sample (past few weeks)	.87 (n = 586)	.87 (n = 586)
Combined Business Results	.88 (n = 131)	.90 (n = 137)

CRI results

The CRI was developed to assess the coping processes of individuals. The CRI converts raw scores into T scores ($M=50$, $SD=10$) for the sake of facilitating comparisons between scales. As indicated by CRI instructions to the respondent (see Appendix I, Page 144), responses on the CRI were contingent upon the specific stressor (i.e., business related problem) identified by the respondent at the beginning of the CRI section of the survey. Specifically, these stressors were identified by having business managers respond to the following statement:

The next section contains questions about how you manage important problems that come up in your life. Please think about the most important business related problem or stressful situation you have experienced in the last 12 months (for example, declining sales; the illness or death of a relative, friend or employee; an accident; financial problems). Briefly describe the problem in the space provided in Part 1 below. If you have not experienced a major problem, list a minor problem that you have had to deal with.

In order to meaningfully analyze CRI responses in this study, problems identified by respondents were first categorized into four groups. These data were then analyzed by separate sequential analyses of differences between family-owned and non-family-owned businesses. Specifically, a χ^2 analysis of frequency problem types, followed by a MANOVA

of CRI responses, with follow-up ANOVAs of CRI responses across and within type of business. A preliminary categorization of respondent problems was developed by the major professor and supervisor of this project, in conjunction with a graduate student statistical analyst. The four category groupings evolved were: personal/health issues, employee/personnel issues, financial/business issues, and other issues/natural disasters. See Appendix L for a listing of problem categories, their definitions, and examples. Interrater agreement for the categorization system was assessed by having two second-year psychology graduate students at Iowa State University independently sort respondent problems into categories based on the four category system described in Appendix L. Each rater completed this sorting independently and on separate days. Each rater was asked to sort the respondent problems into one of the four categories and, when multiple problems were listed by a respondent, to attend to the first problem listed.

Table 23 displays the results of this test of interrater agreement.

Table 23. CRI Interrater Agreement By Problem Category

	<u>Rater 1</u>				Total
	Personal	Employee	Financial	Other	
<u>Rater 2</u>					
Personal	16	1	5	0	22
Employee	2	45	1	0	48
Financial	2	1	62	0	65
Other	0	0	1	4	5
Total	20	47	69	4	140

Note. Column and row data indicate number of stressors or problems categorized.

The total observed frequencies on the diagonal ($n=127$) represent exact agreement by the two raters. Cohen's Kappa, a chance-corrected index of categorical agreement, was $K=.853$. This statistic indicates that there was an 85.3 percent agreement between rater one and rater two in the categorization of the problems reported by the respondents in this study.

Table 24 presents reliability data from this study and the reliabilities found with the CRI standardization sample. Internal consistency data (i.e., Cronbach's alpha) are presented. A visual comparison of the alpha levels indicates that the reliability results from this study are similar to those of the CRI standardization sample.

Table 24. Combined Business Sample and CRI Standardization Coefficient Alphas

	Number of Items on Each Scale	Combined Business Sample (N = 140) Alpha	Standardization Sample (N = 1,921) Alpha
<u>Approach responses</u>			
Logical Analysis	6	.62	.62
Positive Reappraisal	6	.71	.72
Seeking Guidance and Support	6	.58	.58
Problem Solving	6	.68	.69
<u>Avoidance responses</u>			
Cognitive Avoidance	6	.71	.72
Acceptance or Resignation	6	.57	.58
Seeking Alternative Rewards	6	.44	.45
Emotional Discharge	6	.62	.63

Intercorrelations of Measures

Table 25 displays the intercorrelations of the measures used in this study (i.e., CRI, PANAS, BSI) for family-owned businesses, while Table 26 displays the intercorrelations in relation to non-family-owned businesses. Table 27 displays intercorrelations of the measures

Table 25. Intercorrelations of Measures For Family-Owned Businesses

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13
<u>CRI-Approach Responses</u>													
1. Logical (total)	-												
2. Positive (total)	.46**	-											
3. Guidance (total)	.39**	.42**	-										
4. Problem Solving (total)	.56**	.20	.39	-									
<u>CRI-Avoidance Responses</u>													
5. Cognitive (total)	-.02	.14	-.03	-.23*	-								
6. Acceptance (total)	.03	.14	.09	-.04	.52**	-							
7. Seeking (total)	.20	.28	.29	.05	.18	.26*	-						
8. Emotional (total)	.23	.24*	.18	-.08	.47**	.30**	.35**	-					
<u>PANAS</u>													
9. Positive Affect	.40**	.31*	.30*	.43**	-.52**	-.27*	.05	-.27*	-				
10. Negative Affect	.22	.06	.05	-.04	.55**	.51**	.12	.53**	-.42	-			
<u>BSI (summary indices)</u>													
11. GSI	.29*	.18	.03	.14	.47**	.44**	.03	.52**	-.31*	.81**	-		
12. PSDI	.17	-.02	.00	.07	.34*	.44**	-.05	.49**	-.34*	.73**	.81**	-	
13. PST	.39**	.31*	.22	.13	.39**	.31*	.22	.46**	-.17	.67**	.87**	.46**	-

Note. CRI (N = 72); PANAS, Positive Affect (N = 65); PANAS, Negative Affect (N = 70); BSI, GSI (N = 47); BSI, PSDI (N = 46); BSI, PST (N = 51). ** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

used in the study for the combined family-owned business and non-family-owned business sample.

As displayed in Table 25, the intercorrelation range between measures used in this study was from $-.34$ to $.87$, with the median correlation being $.23$, for family-owned business respondents. The correlations between CRI coping response strategies for family-owned business respondents ranged from $.20$ to $.56$, with a median of $.51$, for the Approach Response strategies; while the Avoidance Response strategies yielded a range from $.18$ to $.52$, with a median of $.41$. The range of correlations between Approach Response strategies and Avoidance Response strategies was $-.23$ to $.29$, with a median of $.09$.

Table 26. Intercorrelations of Measures For Non-Family-Owned Businesses

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13
<u>CRI-Approach Responses</u>													
1. Logical (total)	-												
2. Positive (total)	.53**	-											
3. Guidance (total)	.33**	.46**	-										
4. Problem Solving (total)	.48**	.38**	.45**	-									
<u>CRI-Avoidance Responses</u>													
5. Cognitive (total)	.13	.24	-.02	-.09	-								
6. Acceptance (total)	.12	.39	.17	-.07	.61**	-							
7. Seeking (total)	.33**	.43**	.31**	.31**	.21	.19	-						
8. Emotional (total)	.39**	.37**	.38**	.25*	.41**	.26*	.21	-					
<u>PANAS</u>													
9. Positive Affect	.10	.05	.03	.29	-.23	-.32**	-.04	-.20*	-				
10. Negative Affect	.25*	.10	.13	-.05	.44**	.31*	.28*	.53**	-.45**	-			
<u>BSI (summary indices)</u>													
11. GSI	.15	.02	.02	-.17	.46**	.17	-.01	.66**	-.46**	.75**	-		
12. PSDI	.08	-.05	.02	-.12	.43**	.33*	-.10	.44**	-.50**	.69**	.78**	-	
13. PST	-.01	-.03	.02	-.20	.38**	.10	.07	.48**	-.39**	.58**	.89**	.45**	-

Note. CRI (N = 68); PANAS, Positive Affect (N = 66); PANAS, Negative Affect (N = 67); BSI, GSI (N = 49); BSI, PSDI (N = 47); BSI, PST (N = 51). ** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

As conveyed by Table 26, the intercorrelation range between measures for non-family-owned businesses was from $-.50$ to $.89$, with the median correlation being $.21$. The correlations between CRI coping response strategies for non-family-owned business respondents ranged from $.33$ to $.53$, with a median of $.46$, for the Approach Response strategies; while the Avoidance Response strategies yielded a range from $.19$ to $.61$, with a median of $.51$. The range of correlations between Approach Response strategies and Avoidance Response strategies was $-.09$ to $.43$, with a median of $.25$.

Table 27. Intercorrelations of Measures For Combined Sample

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13
PANAS													
1. Positive Affect	-												
2. Negative Affect	-.43**	-											
BSI (summary indices)													
3. GSI	-.39**	.77**	-										
4. PSDI	-.41**	.71**	.79**	-									
5. PST	-.27**	.61**	.88**	.45**	-								
CRI-Approach Responses													
6. Logical (total)	.24**	.23**	.22**	.12	.18	-							
7. Positive (total)	.19*	.08	.10	-.04	.14	.49**	-						
8. Guidance (total)	.17	.09	.03	.01	.13	.36**	.43**	-					
9. Problem Solving (total)	.36**	-.05	-.02	-.02	-.04	.52**	.28**	.42**	-				
CRI-Avoidance Responses													
10. Cognitive (total)	-.38**	.50**	.46	.38**	.38**	.06	.17*	-.02	-.16	-			
11. Acceptance (total)	-.29**	.42**	.30**	.38**	.20*	.07	.26**	.13	-.05	.56**	-		
12. Seeking (total)	.01	.19*	.01	-.08	.15	.26**	.35**	.30**	.17*	.19*	.22**	-	
13. Emotional (total)	-.27**	.53**	.59**	.46**	.47**	.32**	.30**	.27**	.09	.44**	.28**	.28**	-

Note. CRI (N = 140); PANAS, Positive Affect (N = 131); PANAS, Negative Affect (N = 137); BSI, GSI (N = 96); BSI, PSDI (N = 93); BSI, PST (N = 102). ** Correlation is significant at the 0.01 level. * Correlation is significant at the 0.05 level.

Table 27 indicates the intercorrelation range between measures for the combined sample was between -.43 and .88, with the median correlation being .22. The correlations between CRI coping response strategies for the combined sample ranged from .28 to .52, with a median of .43, for the Approach Response strategies; while the Avoidance Response strategies yielded a range from .19 to .56, with a median of .25. The range of correlations between Approach Response strategies and Avoidance Response strategies was -.16 to .35, with a median of .17.

The intercorrelations described above indicate that family-owned and non-family-owned business respondents have similar correlation patterns in relation to the

coping strategies used by each business type. A visual inspection does yield some difference between the correlation of the Approach and Avoidance Response strategies for the two business types (i.e., .09 for family-owned business and .25 for non-family-owned businesses). As described in the CRI manual (Moos, 1993, p. 17), “the overall moderate level of intercorrelations between the eight coping scales show that people who rely on one type of approach coping also employ other sets of approach coping responses; in addition, they are more likely to use responses in the avoidance domain. According to Moos, these findings may occur because people who experience more pervasive and severe stressors tend to employ more coping of all types. The findings also reflect the dynamic, reciprocal nature of the relationships between approach and avoidance, and between cognition and behavior in the stress and coping process. For example, a traumatic event may initially result in Seeking Guidance and Support and openly expressing emotions; over time, Problem Solving and Seeking Alternative Rewards often become more salient.”

The correlation between PANAS positive affect and PANAS negative affect was similar for family-owned business respondents and non-family-owned business respondents (i.e., -.42 and -.45 respectively). The correlation for the combined sample was -.43. These correlations are appropriately low; they are also lower than that found with the PANAS standardization sample for the same time period (i.e., -.22 for the “past few weeks” time period).

Intercorrelations related to the BSI summary indices are also similar for family-owned business respondents and non-family-owned business respondents. The intercorrelations between BSI summary indices and the other measures used in this study are appropriate for

the relationships depicted. For example, the GSI and the PANAS positive affect scale were correlated at $-.31$ for family-owned respondents, $-.46$ for non-family-owned respondents, and $-.39$ for the combined business sample. The GSI and the PANAS negative affect scale had correlations of $.81$ for family-owned respondents, $.75$ for non-family-owned respondents, and $.77$ for the combined business sample.

Comparisons of Results To Research Questions and Hypotheses

The three major areas of focus in this study were perceived stress, the consequences of perceived stress, and the coping mechanisms used by individuals involved in family-owned and non-family owned businesses in the State of Iowa. These areas of focus were examined through the following research questions and associated hypotheses.

Research Question 1

Is there a significant difference between owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of areas of life reported as stressful and mean levels of reported (i.e., perceived) stress in these areas, and do the areas of life reported as stressful lead to a significant difference between owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of perceived psychological consequences (e.g., depression, anxiety, low levels of work and life satisfaction)?

Hypothesis 1 predicted that no differences would be found in the areas of life seen as stressful by owners/managers of family-owned businesses and managers of non-family-owned businesses, or in the mean levels of reported (i.e., perceived) stress in these areas. Statistical analyses pertinent to the Coping Responses Inventory, the PANAS, and selected demographic

questions were used to decide whether Hypothesis 1 should be rejected. Hypothesis 1 also predicted that any differences existing in responsibilities and rewards found between family-owned and non-family owned businesses would not result in differences in the psychological consequences of working in these two types of businesses. Analyses related to the Brief Symptom Inventory, and selected demographic questions, were used to decide whether this portion of Hypothesis 1 should be rejected.

As will be presented in the following paragraphs, the results of the study failed to reject the null hypothesis that no differences would be found in the areas of life seen as stressful by owners/managers of family-owned businesses and managers of non-family, or in the mean levels of reported (i.e., perceived) stress in these areas. Few statistically significant differences were found in the results of the assessment instruments selected for use in relation to this research question. Specifically, the analyses of findings for the CRI, PANAS, and selected demographic data, are described more fully in the following sections. Moreover, the results of the study also failed to reject the null hypothesis that any differences existing in responsibilities and rewards found between family-owned and non-family owned businesses would not result in differences in the consequences of working in these two types of businesses. No statistically significant differences were found in analyses of the results from the assessment instruments selected for use in relation to this research question (i.e., BSI and selected demographic data). The results of these instruments are described more fully below.

Coping Responses Inventory (CRI) results. Table 28 displays the overall number of respondent problems categorized into each problem category, the number of family-owned

Table 28. CRI Problem Category Responses

	Total	Family-Owned	Non-Family Owned
Personal	20	13	7
Employee	47	22	25
Financial	69	36	33
Other	4	1	3
Total	140	72	68

Note. Since not all participants completed all CRI items the number of respondents per scale and per scale by problem category were unequal (see Appendix N). Thus, a mean replacement strategy was used to correct for missing data.

business respondent problems categorized into each category, and the number of non-family-owned business problems categorized into each category.

A Chi-Square test was completed to assess whether there was a disproportionate frequency of the stress related problem categories from either family-owned business or non-family-owned business respondents. The analysis did not detect disproportionate frequencies, as indicated by a χ^2 ($df=3$, $n=130$) = 3.01, $p < .39$.

A sequential analytic strategy was used to analyze CRI responses (raw scale scores and total raw scale scores) and to assess whether there were differences in business type (family-owned versus non-family-owned). CRI responses were first analyzed by a MANOVA which used the eight CRI scales as dependent variables. Follow-up ANOVAs and post hoc Bonferroni analyses were also performed. The MANOVA yielded non-significant effects for type of business, Wilks's $\lambda = .95$, $F(8,123) = .897$, $p > .05$ and for the interaction of problem category and type of business, Wilks's $\lambda = .85$, $F(16, 246) = 1.30$, $p > .05$. The MANOVA

yielded a significant main effect for problem category, Wilks's $\lambda = .78$, $F(16, 246) = 2.04$, $p < .01$, $\eta^2 = .117$.

The CRI responses were next analyzed through the use of eight separate 3 (problem category) x 2 (type of business) ANOVAs. Business type (i.e., family-owned versus non-family-owned) is included as a factor in this model. These analyses yielded significant effects in relation to problem category for positive reappraisal, $F(2, 130) = 5.61$, $p < .005$, $\eta^2 = .079$, and seeking guidance and support, $F(2, 130) = 3.33$, $p < .05$, $\eta^2 = .049$. No significant effects were found in relation to type of business. The interaction of problem category and type of business yielded a significant effect only for one CRI scale, acceptance or resignation, $F(2, 130) = 4.02$, $p < .05$, $\eta^2 = .058$.

Post-hoc Bonferroni analyses of mean differences related to the significant overall effects indicated that for positive reappraisal there were significant differences between the comparisons of personal problems and the combined employee ($M = 3.62$) and financial problem ($M = 2.24$) categories, $p < .001$, as well as between employee problems and the combined personal ($M = -3.62$) and financial ($M = -1.38$) problem categories, $p < .001$. The third comparison within this area, financial versus the combined personal and employee categories, was not found to be significant, $p > .05$.

In relation to seeking guidance and support, the post hoc tests found significant differences between the comparisons of personal problems and the combined employee ($M = 2.47$) and financial ($M = 1.09$) problem categories, $p < .04$, as well as between employee problems and the combined personal ($M = -1.09$) and financial ($M = -1.12$) problem

categories, $p < .04$. The third comparison within this area, financial versus the combined personal and employee categories, was not found to be significant, $p > .05$.

However, post-hoc Bonferonni analyses for the interaction of problem category and business type yielded no significant differences between means on any of the three comparisons. It is noted that the ANOVA's finding of a significant difference within this interaction for one of the eight CRI categories, the acceptance or resignation coping strategy, was associated with a very minimal effect size, η^2 , as previously noted.

Table 29 (family-owned businesses) and Table 30 (non-family-owned businesses) display scale raw score means and standard deviations for each problem category delineated within the eight separate CRI coping scales. The tables also depict the F statistics and p values related to the ANOVA comparisons of overall means for each coping scale by eight separate one-way ANOVAs within the respective family-owned business (i.e., Table 29) and non-family-owned business respondent groups (i.e., Table 30). Due to the small number of responses (i.e., $n = 4$) and missing data, the "other" category was not used in this analysis. Thus, a total of 16 separate one-way ANOVA's on CRI scores are displayed in the two tables, Tables 29 (i.e., family-owned businesses) and 30 (non-family-owned businesses).

The final analyses completed on the CRI scale raw score results were separate one-way ANOVAs for each of the eight coping strategies, across each of the three problem (stressor) categories. As indicated by Table 29, for family-owned businesses, a significant difference was found between the means of the problem categories in relation to the positive reappraisal coping strategy, $F(2, 68) = 5.64$, $p < .005$. Post-hoc Bonferonni analyses on

Table 29. Family-Owned Business CRI Problem Category Comparisons

	Mean	SD	F	p
<u>Approach responses</u>				
Logical Analysis				
Personal Problem	17.54	3.66		
Employee Problem	16.82	3.09		
Financial Problem	17.30	2.61		
Total	17.20	2.94	.290	.750
Positive Reappraisal				
Personal Problem	18.27	2.82		
Employee Problem	13.89	4.23		
Financial Problem	15.33	3.70		
Total	15.42	3.98	5.643	.005
Guidance and Support				
Personal Problem	16.37	4.06		
Employee Problem	13.77	3.71		
Financial Problem	14.80	3.55		
Total	14.77	3.75	2.027	.140
Problem Solving				
Personal Problem	18.16	3.08		
Employee Problem	18.14	4.09		
Financial Problem	18.68	3.20		
Total	18.42	3.44	.210	.811
<u>Avoidance responses</u>				
Cognitive Avoidance				
Personal Problem	13.85	2.79		
Employee Problem	12.16	4.52		
Financial Problem	12.78	3.95		
Total	12.53	3.96	.887	.417
Acceptance or Resignation				
Personal Problem	12.55	3.07		
Employee Problem	13.13	4.11		
Financial Problem	12.26	3.63		
Total	12.58	3.66	.381	.685

Table 29. (continued)

	Mean	SD	F	p
Seeking Alternative Rewards				
Personal Problem	12.11	3.32		
Employee Problem	11.16	2.61		
Financial Problem	12.45	3.54		
Total	11.99	3.24	1.098	.339
Emotional Discharge				
Personal Problem	11.52	3.04		
Employee Problem	9.49	3.08		
Financial Problem	10.74	3.05		
Total	10.50	3.10	2.043	.138

Table 30. Non-Family-Owned Business CRI Problem Category Comparisons

	Mean	SD	F	p
Approach responses				
Logical Analysis				
Personal Problem	14.13	4.70		
Employee Problem	16.83	3.82		
Financial Problem	17.49	2.92		
Total	16.87	3.58	2.675	.077
Positive Reappraisal				
Personal Problem	16.86	3.34		
Employee Problem	14.04	3.73		
Financial Problem	15.76	3.95		
Total	15.36	3.84	1.508	.229
Guidance and Support				
Personal Problem	15.29	3.04		
Employee Problem	13.31	3.28		
Financial Problem	15.01	3.71		
Total	14.38	3.54	1.956	.150

Table 30. (continued)

	Mean	SD	F	p
Problem Solving				
Personal Problem	15.95	2.91		
Employee Problem	18.22	3.85		
Financial Problem	18.77	3.62		
Total	18.25	3.69	1.723	.187
Avoidance responses				
Cognitive Avoidance				
Personal Problem	13.13	4.64		
Employee Problem	11.48	3.14		
Financial Problem	12.77	4.08		
Total	12.31	3.81	1.003	.373
Acceptance or Resignation				
Personal Problem	15.99	3.70		
Employee Problem	11.16	3.34		
Financial Problem	12.95	3.73		
Total	12.59	3.82	5.302	.007
Seeking Alternative Rewards				
Personal Problem	12.78	3.72		
Employee Problem	11.90	2.65		
Financial Problem	12.35	2.99		
Total	12.22	2.92	.303	.740
Emotional Discharge				
Personal Problem	9.40	3.25		
Employee Problem	9.87	3.17		
Financial Problem	10.88	3.48		
Total	10.33	3.34	.953	.391

observed means related to the significant effects found for the positive reappraisal coping strategy found significant differences between the comparison of personal problems and the combined employee and financial problem categories, $p < .004$; as well as between employee problems and the combined personal and financial problem categories, $p < .004$. The third

comparison within this coping strategy, financial versus the combined personal and employee problem categories, was not found to be significant, $p > .05$.

As indicated by Table 30, for non-family-owned businesses, a significant difference was found between the means of the problem categories in relation to the acceptance or resignation coping strategy, $F(2, 62) = 5.30, p < .007$. Post-hoc Bonferroni analyses on observed means related to the significant effects found for Acceptance or Resignation coping strategy found significant differences between the comparison of personal problems and the combined employee and financial problem categories, $p < .008$; as well as between employee problems and the combined personal and financial problem categories, $p < .008$. The third comparison within this coping strategy, financial versus the combined personal and employee problem categories, was not found to be significant, $p > .05$. To aid the reader in further perusal of CRI results, Appendix N presents a delineation of valid and missing cases and a listing of CRI scale score means and standard deviations, and standard scores (t-scores) for the study sample.

In addition, a comparison of CRI results was made between the scale raw scores of male and female participants. Table 31 displays means and standard deviations for male and female respondents for each CRI coping strategy, as well as the t statistics and p values related to the comparison of the means. Statistically significant differences were found between female and male respondents as to the use of Seeking Guidance and Support, Cognitive Avoidance, and Emotional Discharge. In all three cases female respondents used these coping strategies to a greater extent than male respondents.

Table 31. Female and Male CRI Comparisons

	Female (N = 48)		Male (N = 91)		t	p
	Mean	SD	Mean	SD		
Approach responses						
Logical Analysis	17.13	3.45	16.98	3.12	.253	.801
Positive Reappraisal	16.30	4.40	14.97	3.48	1.952	.053
Seeking Guidance and Support	15.56	3.33	14.04	3.64	2.409	.017
Problem Solving	18.97	3.31	18.04	3.59	1.494	.137
Avoidance responses						
Cognitive Avoidance	13.32	3.57	11.891	3.91	2.079	.039
Acceptance or Resignation	13.33	4.01	12.22	3.47	1.706	.090
Seeking Alternative Rewards	12.72	3.06	11.71	2.89	1.912	.058
Emotional Discharge	11.10	3.00	9.93	3.16	2.104	.037

Positive and Negative Affect Schedule (PANAS) results. The PANAS assesses both positive affect and negative affect by asking participants to indicate how often they generally experience 10 positive and 10 negative emotions (e.g., determined, enthusiastic, jittery, afraid). Table 32 displays the results of a t-test comparison of scale score survey results from family-owned businesses compared with non-family-owned businesses. Results of the PANAS indicated that there were no statistically significant differences between family-owned and non-family-owned businesses in how individuals involved in these businesses experience the positive and negative emotions assessed by the instrument. These comparisons were based on respondents' experiences over the "past few weeks."

Table 32. PANAS Results (t-test)

	Family-Owned		Non-Family-Owned		t	p
	Mean	SD	Mean	SD		
Positive Affect Range: 10-50 Mode: 41	34.43	8.05	34.08	6.98	.270	.788
Negative Affect Range: 10-50 Mode: 12	20.87	8.59	19.90	7.52	.706	.481

Note. Maximum score is 50 for each PANAS scale.

Demographic results. Comparisons via t-tests on work and life satisfaction data presented in Table 19 found no significant differences between family-owned and non-family-owned businesses in either life satisfaction, t ($df=1$) = .72, $p < .47$, or in work satisfaction, t ($df=1$) = .43, $p < .67$.

Brief Symptom Inventory (BSI) results. The Brief Symptom Inventory is the brief form of the symptom Checklist-90-Revised (SCL-90-R) and it was used as a part of this study in order to assess symptomatic psychological distress. The BSI reflects psychological distress in terms of nine primary symptom dimensions and three global indices of distress. Each symptom dimension and the global indices were described in the method section of this document.

Table 33 displays the study's BSI results through a t-test comparison of the family-owned and non-family-owned businesses responses. Based on standard scores (t-scores) there were no statistically significant differences between individuals involved in family-owned businesses and those involved in non-family-owned businesses.

Table 33. BSI Results (t-test)

	Family-Owned			Non-Family-Owned			t	p
	N	Mean	SD	N	Mean	SD		
SOM	48	55.83	10.99	53	54.89	10.10	.451	.653
O-C	50	53.02	11.95	53	51.15	10.92	.829	.409
I-S	47	61.26	8.82	51	59.08	12.44	.992	.324
DEP	47	60.32	9.00	50	61.80	9.25	.798	.427
ANX	48	61.44	8.60	51	61.61	9.51	.093	.926
HOS	48	58.58	9.08	53	58.83	8.17	.144	.886
PHOB	47	51.53	8.36	50	53.98	8.65	1.416	.160
PAR	48	62.46	9.43	52	61.98	12.33	.216	.829
PSY	47	60.60	9.84	51	62.71	9.47	1.082	.282
GSI	44	60.77	12.26	45	57.71	17.07	.970	.335
PSDI	44	56.66	10.78	47	57.89	6.15	.676	.501

Research Question 2

Are there significant differences between the owners/managers of family-owned businesses and managers of non-family-owned businesses in terms of the methods used in coping with stress?

Hypothesis 2 predicted that the stressful situations of life faced by family-owned business owners/managers and non-family-owned business managers would be dealt with through similar methods. It predicted that these methods would include psychological characteristics (e.g., coping styles), individual characteristics (e.g., work commitment), situational characteristics (e.g., size of work unit), organizational characteristics (e.g., organization structure), and subjective reactions (e.g., feelings of being overwhelmed at home). Statistics related to the Coping Responses Inventory, the Positive and Negative Affect Schedule, and selected demographic questions were used to decide whether the study supported Hypothesis 2. The results of the study failed to reject the null hypothesis that the stressful situations of life faced by family-owned business managers and non-family-owned

would be dealt with through similar methods. Overall, statistically significant differences were not found in the analysis of results relevant to the assessment instruments selected for use in relation to this research question. The results of these instruments are described more fully below.

Coping Responses Inventory results. As described in relation to Research Question 1, the CRI responses obtained in the study were analyzed through a 3 (problem category) x 2 (type of business) MANOVA, with the eight CRI scales acting as the dependent variables. The MANOVA yielded non-significant results for type of business, Wilks's $\lambda = .95$, $F(8, 123) = .897$, $p > .05$ and for the interaction of problem category and type of business, Wilks's $\lambda = .85$, $F(16, 246) = 1.30$, $p > .05$. The MANOVA yielded a significant main effect for problem category, Wilks's $\lambda = .78$, $F(16, 246) = 2.04$, $p < .01$, $\eta^2 = .117$. In relation to Research Questions 2, these results indicate that there were no significant differences in the coping strategies used by family-owned and non-family-owned business respondents.

Positive and Negative Affect Schedule (PANAS) results. There were no significant differences between family-owned and non-family-owned businesses in how individuals involved in these businesses experience the positive emotions, $t(1) = .270$, $p < .788$ and, the negative emotions, $t(1) = .706$, $p < .481$, assessed by the instrument.

Demographic and business-related results. Demographic characteristics relating to how one copes with the stresses of life include such things as individual characteristics (e.g., work commitment), situational characteristics (e.g., size of work unit), organizational characteristics (e.g., organization structure), and subjective reactions (e.g., feelings of being overwhelmed at home). No significant differences were found between family-owned and

non-family-owned businesses in relation to career commitment, χ^2 (df=5, n=139)=.860, $p<.391$; overwhelmed at work, χ^2 (df=5, n=137)=.014, $p<.989$; overwhelmed at home, χ^2 (df=5, n=138)=.676, $p<.500$; and business type, χ^2 (df=6, n=122)=.996, $p<.321$.

Significant differences were found in three measures related to the characteristics of businesses: number of locations operated, χ^2 (df=4, n=136)=4.533, $p<.001$; number of people besides self involved in management decisions, χ^2 (df=7, n=135) =15.83, $p<.020$; and number of full-time employees, t (df=134)=3.942, $p<.001$.

Logistic Regression Results

In this study, two sets of logistic regression analyses were performed to explore and assess which predictors, or sets of predictors, would predict membership in the categorical dependent variable family-owned or non-family-owned business. The first set of regressions, displayed in Table 34, depicts the separate single entry of 20 predictor variables. This initial set of exploratory logistic regressions was done to assess which, if any, of the separate predictor variables, or blocks of variables for predictors with multiple levels of categories, make statistically significant contributions to membership in the family-owned or non-family-owned business groups. The odds ratio for each of the respective individual predictor variables represents the comparative odds of membership in the family-owned business (coded 0), as compared to the non-family-owned business (coded 1). As indicated in Table 34, statistically significant chi-square results, indices of the significance of the overall individual variable predictor blocks, are depicted for three business-related predictor variables: number of employees, number of business locations, and number of individuals involved in management. For example, the significant single predictor block of number of locations

produced an odds ratio of 2.28. Thus for each unit (category) increment in the predictor, number of locations, the odds are slightly greater than twice that increased numbers of business locations are associated with membership in non-family-owned businesses.

For each of the three significant chi-square analyses previously noted for the variables number of employees, number of business locations, and number of individuals involved in management, subsequent Homer and Lemeshow Goodness-of-Fit Tests were conducted to ascertain whether there were significant differences between the expected and observed data for each of the individual elements of the individual predictors. All three of the ensuing chi square goodness-of-fit tests were not significant: number of employees, ($df = 8, n = 122$) $\chi^2 = 9.16, p < .33$; number of business locations, ($df = 3, n = 136$) $\chi^2 = .45, p < .93$; and number of individuals involved in management, ($df = 4, n = 133$) $\chi^2 = 12.71, p < .01$.

The second set of regression analyses are displayed in Tables 35 and 36 (p. 122). These tables depict logistic regression data explorations using aggregate combinations of the significant single variable predictors identified in the first, single variable analyses (as conveyed in Table 34), to predict membership in the business categories of either family-owned or non-family-owned businesses. As indicated by Table 35, a full model (three predictor variable) forward selection, logistic regression was conducted. The forward selection analysis terminated at the first forward selection step, as additional iterations did not significantly improve predictability of membership in the dependent variable of business category.

Additional exploratory logistic regression analyses were conducted. Combinations of forced entry, pair-wise prediction models are delineated in Table 36. All pair-wise

Table 34. Single Entry Logistic Regression Results For Predicting Category Membership

Variable	Chi-square	df	Significance	% Correct		% Correct Overall	Odds Ratio
				Yes	No		
Years of Schooling	7.42	1	.12	35.21	80.88	57.55	—
Some High School							0.00
High School							2.26
BA/BS							1.58
MA/MS							0.32
Sex	0.03	1	.86	100.00	0.00	51.08	0.94
PANAS-Positive Affect	0.07	1	.79	43.08	59.09	51.15	.099
PANAS-Negative Affect	0.51	1	.48	51.43	47.76	49.64	0.98
BSI: O-C	1.76	1	.19	39.22	71.70	55.77	0.63
BSI: I-S	1.14	1	.29	40.00	66.04	53.40	0.75
BSI: PHOB	1.85	1	.17	70.83	47.06	58.59	2.26
BSI: PSY	0.09	1	.76	39.22	66.04	52.88	1.10
BSI: GSI	0.02	1	.88	2.13	95.92	50.00	1.07
BSI: PST	0.23	1	.63	87.50	17.24	54.10	0.97
Years Work Experience	2.15	1	.14	59.15	47.06	53.24	0.87
Work Satisfaction	0.03	1	.86	100.00	0.00	51.82	1.01
Life Satisfaction	0.52	1	.47	76.06	37.31	57.25	0.93
Number of Locations	19.47	1	.00	81.69	47.69	65.44	2.28
Business Stands For	1.07	1	.30	76.47	40.91	58.96	0.83
Overall Atmosphere	0.95	1	.33	65.71	33.33	50.00	0.82
Management Involvement	3.30	1	.07	87.14	30.16	58.65	1.21
Overwhelmed at Work	0.00	1	.99	100.00	0.00	51.82	1.00
Overwhelmed at Home	0.46	1	.50	71.83	34.33	53.62	1.09
Numbers of Employees	6.61	1	.01	86.57	29.09	60.66	1.02

Note. Chi-square values are reported for the entry of the respective individual predictor variable blocks.

combinations of the three previously identified predictor variables were used in separate two variable forced entry logistic regression predictor models. The ensuing three sets of analyses are displayed in Table 36.

Additional exploratory analyses were conducted using a three-variable, forced entry logistic regression. These analyses, displayed in Table 37 (p. 123), indicate that combinations

of characteristics of businesses, specifically number of locations and number of employees, and not the psychological variables and measures used in this study, are useful statistical predictors of business category.

Comparisons of Study Results and Normative Samples

BSI comparisons

While no statistically significant differences were found between family-owned and non-family-owned businesses, as delineated in Table 33, comparisons of the combined business sample with the adult non-patient standardization sample and the adult psychiatric outpatient standardization sample resulted in a number of significant differences.

As Table 38 indicates, there is a significant difference between the combined business sample and the non-patient standardization sample on all but two of the BSI scales (i.e., obsessive-compulsive scale and phobic-anxiety scale). These results indicate that family-owned and non-family-owned respondents have higher levels of symptomatic psychological distress than the non-patient standardization sample in relation to the following BSI indexes: somatization, interpersonal sensitivity, depression, anxiety, hostility, paranoid ideation, psychoticism, global severity index, positive symptom distress index, and positive symptom total.

Table 39 displays a comparison of the combined business sample and the adult psychiatric outpatient standardization sample. This comparison shows statistically significant

Table 35. Forward Selection Logistic Regression For Predicting Category Membership

Variable(s)	Chi-square	df	Significance	% Correct		% Correct Overall	B	Wald	df	Sig.	R	Odds Ratio
				Yes	No							
Full Model												
Employees	18.60	3	.0003	89.39	45.19	70.09	.0184	3.43	1	.0641	.0944	1.019
Number of individuals in management							.7554	8.85	1	.0029	.2067	2.128
Number of locations							-.2042	1.54	1	.2152	.0001	0.815
Forward Selection												
Number of locations	13.97	1	.0002	84.45	45.10	67.52	.7915	11.02	1	.0009	.2372	2.207

Table 36. Forced Entry, Pair-wise Logistic Regression For Predicting Category Membership

Variable(s)	Chi-square	df	Significance	% Correct		% Correct Overall	B	Wald	df	Sig.	R	Odds Ratio
				Yes	No							
Location	18.67	2	.0001	81.16	49.18	66.15	.8218	12.09	1	.0641	.0944	2.275
Number of individuals in management							.0123	.0097	1	.9215	.0000	1.012
Number of locations	15.90	2	.0004	91.04	43.40	70.00	.6618	7.61	1	.0058	.1845	1.938
Number of employees							.0112	2.17	1	.1403	.0325	1.011
Number of employees	7.49	2	.0236	86.36	30.19	61.34	.0184	4.75	1	.0293	.1297	1.019
Number of individuals in management							-.0777	.2913	1	.5894	.0000	.925

Table 37. Three-Variable, Forced Entry Logistic Regression For Predicting Category Membership

Variable(s)	Chi-square	df	Significance	% Correct		% Correct Overall	B	Wald	df	Sig.	R	Odds Ratio
				Yes	No							
Number of employees	19.743	5	.0014	86.36	49.02	70.09	0.0202	4.20	1	.0404	.1172	1.020
Number of individuals in management							-0.2236	1.87	1	.1719	.0001	.800
Number of locations												
Location (1)							-2.3323	7.19	1	.0073	-.1799	.097
Location (2)							-1.1342	1.36	1	.2431	.0001	.322
Location (3)							-1.5250	1.41	1	.2356	.0001	.218

Note. All values of the categories of location are included in this model.

differences between these populations on all of the BSI indexes, except the paranoid ideation index. These results indicate that family-owned and non-family-owned respondents have lower levels of symptomatic psychological distress than the adult psychiatric outpatient standardization sample on all of the BSI indexes, except the paranoid ideation index.

When these results are viewed together, it appears that participating Iowa business managers are more psychologically distressed than a non-patient standardization sample, but the same group of managers are not distressed to the same degree as an adult psychiatric outpatient standardization sample.

Table 38. BSI Combined Business Results and Standardization Sample Comparison

	Business Combined			Non-Patient Standardization Sample			t	p
	Raw Score Mean	Raw Score SD	T-score Mean	Raw Score Mean	Raw Score SD	T-score Mean		
SOM	.53	.57	55.34	.29	.40	46.00	4.335	.001
O-C	.53	.57	52.06	.43	.48	44.00	1.832	.070
I-S	.97	.74	60.12	.32	.48	44.00	8.987	.001
DEP	.95	.79	61.08	.28	.46	44.00	8.554	.001
ANX	.88	.61	61.53	.35	.45	45.50	8.874	.001
HOS	.71	.65	58.71	.35	.42	42.50	5.679	.001
PHOB	.20	.37	52.79	.17	.36	46.50	.721	.472
PAR	1.07	.77	62.21	.34	.45	40.00	9.648	.001
PSY	.66	.61	61.69	.15	.30	41.50	8.532	.001
GSI	.79	.48	59.22	.30	.31	41.00	10.057	.001
PSDI	1.58	.45	57.30	1.29	.40	44.50	6.234	.001
PST	25.69	10.37	63.24	11.45	9.20	40.50	13.867	.001

Table 39. BSI Combined Business Results and Standardization Sample Comparison

	Business Combined			Psychiatric Outpatient Standardization Sample				
	Raw Score	Raw Score	T-score	Raw Score	Raw Score	T-score	t	p
	Mean	SD	Mean	Mean	SD	Mean		
SOM	.53	.57	55.34	.83	.79	65.00	5.319	.001
O-C	.53	.57	52.06	1.57	1.00	71.00	18.549	.001
I-S	.97	.74	60.12	1.58	1.05	73.00	8.407	.001
DEP	.95	.79	61.08	1.80	1.08	78.00	10.899	.001
ANX	.88	.61	61.53	1.70	1.00	72.00	13.661	.001
HOS	.71	.65	58.71	1.16	.93	65.00	7.083	.001
PHOB	.20	.37	52.79	.86	.88	71.00	17.767	.001
PAR	1.07	.77	62.21	1.14	.95	65.00	.920	.360
PSY	.66	.61	61.69	1.19	.87	73.00	8.906	.001
GSI	.79	.48	59.22	1.32	.72	78.00	10.671	.001
PSDI	1.58	.45	57.30	2.14	.61	67.00	12.058	.001
PST	25.69	10.37	63.24	30.80	11.63	70.00	4.981	.001

PANAS comparisons

While no statistically significant differences were found between family-owned and non-family-owned business respondents, as delineated in Table 32, significant differences were found between the adult non-patient standardization sample and the family-owned business sample. No significant differences were found in comparisons made between non-family-owned business respondents and the standardization sample, nor between the combined business sample and the standardization sample. All PANAS comparisons were based on the reference period of “experiences over the past few weeks.” Table 40 displays the combined business sample and standardization sample comparison, while Table 41 displays the comparison of the family-owned business sample, non-family-owned business sample, and the standardization sample.

Table 40. PANAS Standardization Sample and Combined Business Results Comparison

	Standardization Sample		Mean	Combined Business Results		
	Mean	SD		SD	t	p
Positive Affect Range: 10-50 Mode: 41	32.00	7.00	34.25	7.50	3.095	NS
Negative Affect Range: 10-50 Mode: 12	19.50	7.00	20.30	8.07	2.515	NS

Table 41. PANAS Standardization Sample, Family-Owned, and Non-Family-Owned Results Comparison

	Standardization Sample		Family-Owned				Non-Family-Owned			
	Mean	SD	Mean	SD	t	p	Mean	SD	t	p
Positive Affect	32.00	7.00	34.43	8.05	1.863	.05	34.08	6.98	2.494	NS
Negative Affect	19.50	7.00	20.87	8.59	1.218	.05	19.90	7.52	2.418	NS

The statistically significant differences found between the standardization sample and family-owned business sample indicate that individuals involved with family-owned businesses endorse positive and negative emotions to a higher degree than did the adult non-patient standardization sample. According to the designers of the instrument, persons with high Positive Affect (PA) display states such as high energy, full concentration, and pleasurable engagement. Thus, Positive Affect is the extent to which a person feels enthusiastic, active, and alert. In contrast, Negative Affect (NA) is the extent to which a person feels subjective distress and unpleasurable engagement. Persons with high NA display states such as anger,

contempt, disgust, guilt, fear, and nervousness. The results of this study indicate that family-owned business respondents felt both high Positive Affect (i.e., enthusiastic, active, alert) and high Negative Affect (i.e., subjective distress, unpleasurable engagement), over the “past few weeks” prior to taking part in the study, to a greater extent than did the standardization sample for the PANAS.

CRI comparisons

Table 42 displays a comparison based on scale raw scores between the combined business sample and the standardization sample for the CRI-Adult scales. This standardization sample consisted of 1,194 men and 722 women. The sample averaged 61 years in age, 90% of the sample were Caucasian, 69% married, 19% separated or divorced, and 7% widowed. The group averaged 14.2 years of education and were of average to above-average socioeconomic status.

Significant differences were found between the combined business sample and the CRI-adult standardization sample on all coping styles, other than cognitive avoidance. These differences indicate that responding business managers used both approach coping responses and avoidance coping responses to a significantly greater extent than the standardization sample. Study participants were at the “well above average” or the “considerably above average” level of use for all coping styles.

A final comparison of CRI results was made between the female-male differences in this study’s sample and the female-male differences in the CRI standardization sample. This comparison tested the magnitude of female to male differences between this study and the

standardization sample. Significant differences were found in the following coping strategies: Logical Analysis, $t(df = 137) = .9748$, $p < .05$; Positive Reappraisal, $t(df = 137) = 1.028$, $p < .05$; Acceptance or Resignation, $t(df = 137) = 1.422$, $p < .05$; and Seeking Guidance and Support, $t(df = 137) = .664$, $p < .05$. In each of these cases, the respondents in this study used the coping strategies to a greater extent than did the standardization sample.

Table 42. CRI Combined Business Sample and Standardization Sample Comparison

	Combined Business Sample		Standardization Sample		F	Sig.
	Mean	SD	Mean	SD		
Approach responses						
Logical Analysis	16.97	3.39	11.25	3.92	.6674 (116)	S
Positive Reappraisal	16.43	3.91	10.50	4.51	.7755 (124)	S
Seeking Guidance and Support	14.47	3.73	9.50	3.98	.5340 (121)	S
Problem Solving	18.25	3.66	11.00	4.23	1.9165 (114)	S
Avoidance responses						
Cognitive Avoidance	12.39	3.87	6.73	4.26	3.2140 (128)	NS
Acceptance or Resignation	12.66	3.80	7.40	4.23	1.6771 (122)	S
Seeking Alternative Rewards	12.09	3.36	5.87	4.37	1.7697 (95)	S
Emotional Discharge	10.44	3.31	3.73	3.26	1.7402 (119)	S

Summary of Findings

This study addressed two hypotheses. Hypothesis 1 predicted that no differences would be found in the areas of life seen as stressful by owners/managers of family-owned businesses and managers of non-family-owned businesses, or in the mean levels of reported (i.e., perceived) stress in these areas. Hypothesis 2 predicted that the stressful situations of

life faced by family-owned business owners/managers and non-family-owned business managers would be dealt with through similar methods. Neither hypothesis was rejected as a result of the study.

The major findings of the study are listed below:

- Statistically significant differences were found between family-owned and non-family-owned businesses in the areas of gross sales, number of business locations, number of people besides the respondent involved in management decisions, and number of full-time employees.
- Statistically significant differences were found between female and male respondents in relation to CRI results and the use of Seeking Guidance and Support, Cognitive Avoidance, and Emotional Discharge. In all three cases female respondents used these coping strategies to a greater extent than male respondents.
- There was a significant difference between the combined business sample and the non-patient standardization sample on all but two of the BSI scales (i.e., obsessive-compulsive scale and phobic-anxiety scale).
- There was a significant difference between the combined business sample and the adult psychiatric outpatient standardization sample on all of the BSI indexes, except the paranoid ideation index.
- Significant differences were found between the PANAS adult non-patient standardization sample and the family-owned business sample, indicating that individuals involved with family-owned businesses endorse positive and negative emotions to a higher degree than did the adult non-patient standardization sample.

- **Significant differences were found between the combined business sample and the CRI-adult standardization sample on all coping styles, other than cognitive avoidance. These differences indicate that responding business managers uses both approach coping responses and avoidance coping responses to a significantly greater extent than the standardization sample.**

CHAPTER 5. DISCUSSION And CONCLUSIONS

Discussion

Summary of research problem and method

This study was an exploratory investigation which had as a primary goal to explore if there are differences in stressors (i.e., aspects of business) and perceived stress related variables (i.e., subjective and psychological measures) between family-owned business owners/managers and non-family-owned business managers in the State of Iowa. The secondary goal was to ascertain if there are differences in the coping strategies used by these same family-owned business owners/managers and non-family-owned business managers. Statistically identified differences between family-owned and non-family-owned business respondents were then used as predictors of category membership in either the family-owned business or the non-family-owned business groups.

Research in the area of family-owned business indicates that individuals involved with family-owned businesses face a variety of unique stresses and rewards not faced by those involved in non-family-owned businesses (e.g., Donckels & Frohlick, 1991; Harvey & Evans, 1994; Hollander & Elman, 1998; Liebowitz, 1986; Kepner, 1983; Rosenblatt et al., 1985). The implication of this research has been that these differences in stresses and rewards lead to differences in how well individuals involved with these businesses function in their daily lives (e.g., levels of symptomatic psychological distress, career satisfaction, life satisfaction).

Because the family-owned business has been, and continues to be, an important part of the American economy (e.g., Bork, 1986; Buchholz & Crane, 1989; Lea, 1991; Shanker & Astrachan, 1995), helping the family-owned business and its constituents deal with these

differences in stresses and rewards, if they are really present, would seem to be important to the continued economic well-being and mental health of our country.

Thus, this study attempted to discover whether differences in stresses and the effects of these stresses existed between a random sample of family-owned business owners/managers and non-family-owned businesses managers in the State of Iowa. In general, this study is significant because it increases the knowledge base of the field of occupational stress research. In particular, this study provides business related and psychological data and findings relevant to individuals involved in family-owned businesses and non-family-owned businesses in a rural state. The study also increases the knowledge base related to differences between Iowa business managers and the standardization data for the assessment instruments used in this study.

Figure 3, as displayed on page 53, depicted the occupational stress research paradigm. The paradigm was used in this study to explore the stresses and undesirable consequences experienced by owners/managers of family-owned businesses and to compare the results of this exploration with the stresses and undesirable consequences experienced by managers of non-family-owned businesses. The stresses and undesirable consequences described by the family-owned and non-family-owned business respondents as part of this study were then used as predictors of membership within either the family-owned business group or the non-family-owned business group.

Response rate

A total of 140 usable surveys were collected in response to the pre-survey postcard, the original survey, the reminder postcard, and the mailing of a second survey. This total

consisted of 71 responses from family-owned businesses and 69 responses from non-family-owned businesses. These numbers reflect an overall return rate of 18.47 percent.

Table 15, p. 87, presents a delineation of surveys mailed and surveys returned for each of the quadrants the State of Iowa was divided into as a part of this study. The highest average return rate came from the Southeast quadrant (i.e., 22.37 %), followed by the Northeast quadrant (i.e., 20.45 %), Northwest quadrant (i.e., 16.20 %), and the Southwest quadrant (i.e., 10.00 %).

As percentages of surveys returned from the total number of surveys mailed to each quadrant, these figures allow a fair comparison between quadrants - even though quadrants were not sampled on an equal basis. Once the state was divided into four quadrants, it was decided that all communities within each population category and within each quadrant would be sampled. This plan sampled businesses proportionate to the number of communities in each population category. The number of businesses sampled within each category of community size was four (i.e., two family-owned and two non-family-owned) for communities between 2,000 and 9,999 in population, 10 (i.e., five family-owned and five non-family-owned) for communities between 10,000 and 24,999 in population, and 10 (i.e., five family-owned and five non-family-owned) for communities over 25,000 in population.

The highest overall return rate was found in the probable most prosperous quadrant of the state, and was also found in the largest category of communities (i.e., populations over 25,000). Within the other three quadrants of the state the highest return rate varied between the smallest communities (i.e., populations of 2,000-9,999) in the Southwest and the

Northeast, and the midsize communities (i.e., populations of 10,000-24,999) in the Northwest.

An equally important point is to reflect on return rate by business type. It should be noted that overall there was not a disproportionate return rate by type of business. Based on χ^2 tests, the distribution of returned questionnaires by quadrant and community was not different for family-owned businesses compared with non-family-owned businesses.

Interpretation of results

The overall results of the study, the tests of the two general hypotheses, seem to conflict with the information shared in the literature review of this document. The literature review indicates that individuals involved with family-owned businesses face a variety of unique stresses and rewards that are not faced by individuals involved in non-family-owned businesses. Some of these differences in stresses relate to defining roles within the business, work-family conflicts and “spillovers,” financial stress, nepotism, and management succession issues. Some of the differences in rewards are related to issues of intimacy within the business, financial rewards, nepotism, having the opportunity to solve family conflicts, and pride and prestige.

Literature related to occupational stress research and family-owned business research would lead one to conclude that these differences in stresses and rewards also lead to differences in symptomatic psychological stress, methods of coping, positive and negative affect, and life and work satisfaction. The results of this study do not support this conclusion. No overall statistically significant results were found between individuals involved in family-owned and non-family-owned businesses on the assessment instruments used in this

study. These instruments include the Brief Symptom Inventory, Coping Responses Inventory, Positive and Negative Affect Schedule, and various demographic questions created specifically for the study. The only significant differences found between respondents had to do with very specific secondary analyses of the CRI, a measure of coping style, and with the types of stressor-problems respondents faced.

Statistically significant differences that did emerge pertained to differences between the two types of business in the areas of gross sales, number of separate business locations operated, number of people involved in management decisions, and number of employees. These significant differences pertained to characteristics of business, not to psychological measures. The fact that no significant differences were found within the assessment instruments used seems to indicate that while the stresses and rewards experienced by family-owned and non-family-owned businesses may differ, the individuals involved in these businesses react to their own stresses and rewards in a similar manner. Another explanation for the lack of significant differences could be that non-representative groups of respondents were obtained for each category of business. It may be that individuals more adept and proficient at coping with stress chose to respond within each of the business categories, while those less adept at coping suffered from too much stress and dysfunction to take the time to reply to the survey.

The small number of responses received, and the overall low return rate of the study, are also important to acknowledge. The results of the study demonstrate quite similar distributions of responses within each of the business types. There was more similarity within the groups, than there were differences between the groups. It is possible that either the

instruments and questions used were not sensitive enough to detect the differences which might be present, or the instruments and questionnaire items did not assess dimensions which were pertinent to differentiating the groups. Because the instruments used have internal consistencies similar to the published standardization data, it is possible that this study did not investigate dimensions appropriate for differentiating between the groups.

Comparisons of business respondents with instrument standardization samples

While this study did not find significant differences between respondents from family-owned businesses and non-family-owned businesses, significant differences were found between the managers of businesses within the State of Iowa and the “normal adult” populations used as standardization samples for the Brief Symptom Inventory, the Coping Responses Inventory, and the Positive and Negative Affect Schedule. Results from these t-test comparisons of the means of business respondents with means from the standardization samples indicate that both family-owned and non-family-owned business managers suffer from significantly greater symptomatic psychological stress and use approach and avoidance coping responses (both cognitive and behavioral styles) to a greater degree than the standardization samples (who were not involved in business management). The study also found a significant difference between family-owned business managers and the PANAS standardization sample in relation to the amount of positive and negative affect endorsed. These differences indicate that individuals involved with family-owned businesses endorse both positive and negative emotions to a higher degree than did the adult non-patient standardization sample. According to the designers of the instrument, persons with high Positive Affect (PA) display states such as high energy, full concentration, and pleasurable engagement. Thus, Positive Affect is the

extent to which a person feels enthusiastic, active, and alert. In contrast, Negative Affect (NA) is the extent to which a person feels subjective distress and unpleasurable engagement. Persons with high NA display states such as anger, contempt, disgust, guilt, fear, and nervousness. The results of this study indicate that family-owned business respondents felt both high Positive Affect (i.e., enthusiastic, active, alert) and high Negative Affect (i.e., subjective distress, unpleasurable engagement), over the “past few weeks” prior to taking part in the study, to a greater extent than did the standardization sample for the PANAS.

Counseling implications

The differences found between the study’s respondents and the standardization samples seem to highlight the need for psychological counseling and coping skills training for individuals involved in business management. Specifically, the findings seem to indicate that the stress involved in business management results in Iowa business managers being more psychologically distressed, as indicated in the BSI results, than a non-patient standardization sample, but less distressed than an adult psychiatric outpatient standardization sample. It appears that the individuals responding to this survey would benefit from help in dealing with elevated levels of psychological stress, stress that can lead to somatization concerns, obsessive-compulsive symptoms, self-deprecation, self-doubt, discomfort during interpersonal interactions, depression, anxiety, hostility, phobic anxiety, paranoia, and psychoticism.

It also appears that these individuals might benefit from skills training on how to better cope with the situations they face on a daily basis. Respondents used all of the CRI coping styles, except cognitive avoidance, to a significantly greater degree than the standardization sample. On one hand this could be seen as a sign of good mental health, as respondents were

able to employ diversified approaches to a varied group of stressors. However, the extent to which emotional discharge was used could prove to be detrimental to how these respondents function at work and at home. Whether this hypothesis is statistically supported could be investigated in a future and larger sample study by conducting a comparison of CRI coping styles for those respondents who said they were most stressed at home, at work, or in both settings with those respondents least distressed in one or both of these areas. Finally, it appears that family-owned business managers would benefit from help in dealing with the amount of negative affect felt in their lives, as indicated by the comparison of family-owned business managers to the PANAS standardization sample.

It is possible, but not assessed in this study, that the availability of counseling and skills training resources may be one difference found between the world of family-owned business and non-family-owned business. As results of this study indicate, non-family-owned businesses tend to be larger, and have higher gross sales, more employees, more geographic locations, and a wider geographic sales distribution. It is hypothesized here that these differences might also lead to differences in the amount of help available to individuals in dealing with the stresses and rewards of their lives. Anecdotal evidence would seem to indicate that increased financial resources might result in better health-care benefits and a greater availability of Employee Assistance Programs (EAPs) for non-family-owned businesses. Having services of this type available to individuals involved in all types of businesses would seem to be important for these individuals, their families, and for our local and national economies. This would seem to be especially true for family-owned businesses, where, according to the literature review, difficulties in the business more often also become

family difficulties. This would also be important due to the fact that many family-owned businesses do not survive the transition from the first to the second generation of family involvement, while even fewer survive the succeeding transfers from generation to generation.

Consequences of business involvement

The results of this study seem to support the use of the general occupational stress research paradigm to explore the stresses, the undesirable consequences, and the coping mechanisms used by individuals in relation to how an individual's work experience effects his or her life. As the results of this study indicate, the family-owned and non-family-owned business managers responding to the survey displayed a high level of undesirable consequences, as measured by the BSI, in comparison to the standardization sample of the instrument. Responding managers also reported higher usage of the CRI coping strategies, in comparison to the CRI standardization sample. The CRI results could be taken as both a positive and a negative. Responding managers used both healthy coping skills and unhealthy coping skills to a greater degree than the CRI standardization sample.

While the BSI, CRI, and PANAS indicate that responding managers may have a number of concerns related to involvement in their business, other study findings indicate that participants did not see these concerns as serious problems. This is indicated by PANAS results showing that family-owned business managers endorse positive emotions at a higher rate than the PANAS standardization sample, while non-family-owned business managers and the combined business sample endorse both positive and negative emotions at basically the same rate as the instrument's standardization sample. The PANAS results also indicate that respondents endorsed positive emotions at a 68% higher rate than they did negative emotions.

According to the creators of the PANAS, this indicates that these individuals more readily display such states as high energy, full concentration, and pleasurable engagement. This high positive emotion endorsement can be contrasted to the states displayed when there is a high endorsement of negative emotions, states such as anger, contempt, disgust, guilt, fear, and nervousness.

Finally, the results of several demographic questions also indicate that responding managers do not consider the problems indicated through the BSI, CRI, and PANAS results to be serious problems. These demographic results include the fact that responding managers, on average, indicated their career commitment to be between medium/high and high, work satisfaction to be 16.04 on a 25-point maximum scale, life satisfaction to be 7.22 on a 10-point maximum scale, feelings of being overwhelmed at work to be at a medium level, and feelings of being overwhelmed at home to be at a medium/low to medium level.

These results do not indicate that the high levels of symptomatic psychological stress indicated by the BSI, and the high levels of coping indicated by the CRI, translate into a negative effect on the respondents' view of their lives at work or at home. If these results were having a negative effect on the lives of the respondents, it does not seem plausible that the PANAS and demographic results mentioned above would be at the levels described.

The results of this study have increased the knowledge base of the field of occupational stress research, particularly as this field relates to the similarities/differences between owners/managers of family-owned businesses and managers of non-family-owned businesses, as well as the differences between the combined business manager sample of this study and the standardization samples of the assessment instruments used in this study.

Because few significant differences were found between these two types of business managers, any generalizations that we are able to make from this study should be able to be made across both types of businesses.

Limitations of the Study

Generalization from this study must be approached cautiously for a number of reasons. The first reason to consider is the relatively low overall response rate achieved by the study. The total response rate was 18.47 percent, with the quadrant response rates ranging from a low of 9.85 percent to a high of 22.37 percent. While the total number of responses (i.e., 140) is somewhat low, responses were evenly distributed between family-owned businesses (i.e., 71) and non-family-owned businesses (i.e., 69). This distribution of responses allowed a fair comparison to be made between respondents involved with family-owned businesses and respondents involved in non-family-owned businesses. When all of the above is taken into account, the results of this study must be interpreted in the context in which they were obtained. This context is a randomly selected group of business managers within the State of Iowa, in which approximately one-half of the respondents were involved in a family-owned business and the other half of the respondents were involved in a non-family-owned business.

A second reason for caution in generalizing the results from this study is the fact that all participants in the study were volunteers, self-selected business persons who took the time to participate in the study. This leads one to question whether only those individuals who have high career commitment, and relatively low levels of feeling overwhelmed at work and at home, chose to participate in the study. This question leads to a concern that the view gained

from this study might be biased toward the well-adjusted individual who is happy in his or her work life and home life, and may also be successful in business.

A third reason for caution is the high degree of non-completion and number of omissions on the BSI. These occurred at a rate high enough that the mean replacement strategy used with the CRI could not be used with the BSI. The number of completed responses relating to the BSI sub scales, from a total of 140 useable surveys returned, ranged from a low of 97 (i.e., depression and phobic anxiety) to 104 (i.e., somatization). Before further research was done using this instrument it would be important to decide what caused these low completion rates. Are these response rates a function of the placement of the BSI within the survey instrument (i.e., in the middle or at the end of the instrument), did respondents decide the instrument was too pathologically oriented (e.g., not relevant to them), or did respondents decide that it was not important in terms of how they function in their business?

Due to the fact that many tests and comparisons were made as part of this study and that few significant findings emerged, a potential for Type I error is a fourth reason for caution in generalizing the study's results. Although this concern was somewhat alleviated through the use of post hoc Bonferroni analyses.

Finally, this study was an exploratory correlational investigation, which used self-report measures and it is not possible to infer causality from this design or data. For this reason, the interactions highlighted by this study must be considered as only tentative and should be used to help direct additional research in this area.

Implications of the Study

This study offers a number of implications for consultants and mental health professionals working with managers of family-owned and non-family-owned businesses. The results of this study indicate that managers of these businesses experience a higher level of symptomatic psychological stress and that they use a variety of coping responses to a greater extent than does the “normal” adult population. The results of the study are unclear as to how this symptomatic psychological stress and use of coping responses effects the lives of family-owned and non-family-owned business managers. Further research into how business managers and their families are effected by these findings would seem to be in order. Further research could focus on areas such as the physical health of the individual, on a more in-depth look at any depression or anxiety experienced by the individual, and on how interpersonal relationships have been effected (e.g., marriages, relationships with children and other family members) by being a part of the business in question.

Consultants and mental health professionals in this area could help business managers recognize what it is about their businesses that is causing these high levels of symptomatic psychological stress and the need for high levels of coping. Once these causes are discovered, business managers could be helped to make changes in order to create a work atmosphere that discourages high levels of stress and coping. Many of these stressful areas have been highlighted in the literature review of this document. For family-owned businesses these stressful areas include a limited access to capital markets, confusing organizational structures, nepotism, internecine strife, paternalistic/autocratic rule, financial strain, and succession dramas. For non-family-owned businesses these stresses can include low levels of pay, long

working hours, lack of total control over business decisions, high-profit and short-term business orientations of a parent company, and bureaucracy. Consultants and mental health professionals could also be of service to business managers, as well as to all employees and families involved in the business, by helping business owners make sure that health care benefits and mental health counselors are available to individuals involved with their businesses. Mental health care should be available and an environment should be created in which it is accepted that individuals use this benefit as needed.

Mental health professionals could help business managers deal more effectively with the stresses they face on a daily basis. Healthy coping skills could be taught to business managers, especially skills that would help managers use cognitive avoidance and emotional discharge to a lesser degree than has been indicated by the results of this study. Mental health professionals could also work with business managers to put some balance in their lives; so that the business and what happens in the business are not the main measures of self-worth used by business managers. This type of help could be offered to business managers on an individual basis, through a group format, or through a seminar format. Mental health professionals could work in conjunction with business consultants, local Chambers of Commerce and economic development groups, or business and professional organizations.

Suggestions for Future Research

Several issues should be addressed before further research is attempted with a research design similar to this study. These issues are the need to enhance the return rate achieved from the businesses sampled and the need to select dimensions and instruments which are

either more sensitive to, or domain relevant to, capturing differences in business participants. It would also be important to extend the study to include a moderator or mediator design.

This study suggests opportunities for further research in a number of areas. The development and implementation of a psychoeducational group intervention regarding the stresses facing these populations would seem to be one area of further study. Such a group could focus on dealing with the day-to-day stresses of business management and in the interactions of business and family. A pretest-posttest designed study would be beneficial in discovering the effectiveness of such an intervention.

The extension of this study to other areas of the country might also prove useful. As a Midwest state, business managers in Iowa may have different beliefs about business management, about what is stressful, and about how to cope with the stresses of their businesses than would business managers in other areas of the country. Extending this study to include states on the East Coast, West Coast, and in the South would give a better indication as to the ability to generalize these findings to outside the State of Iowa.

The extension of this study to include both employees and managers of the same business could offer an interesting and informative comparison of how the stresses of working in a business affect the different positions within the business. This extension of the study would also provide valuable information in relation to what health care benefits and mental health benefits need to be supplied for employees of all types.

A longitudinal study designed to follow a specific group of family-owned and non-family-owned business managers would also seem to be appropriate. This type of study would help show how life stages, business stages, and economic conditions (i.e., local,

statewide, and national) effect levels of symptomatic psychological stress, the use of coping responses, career commitment, life satisfaction, and work satisfaction.

Finally, adding a qualitative component to the study could help explain the contradictions found in this study. Individual interviews with family-owned business managers and non-family-owned business managers could lead to a deeper level of understanding as to what these managers are dealing with on a daily basis. The extension of these interviews to include coworkers, friends, and families could also help deepen our level of understanding in this area.

**APPENDIX A. TRANSMITTAL LETTER -
FAMILY-OWNED BUSINESS**

July 1, 1999

Dear Business Manager:

You have been selected to receive a survey on the effects of business related stresses on individuals involved with the management of businesses within the State of Iowa. Based on your current involvement in an Iowa family-owned business, we believe that you are in a unique position to reflect on the stresses brought about by this involvement. Your cooperation in responding to this survey, which should take about 45 minutes to complete, is essential to understanding the impact being involved with your business has on your life.

As a way of saying thank you for completing this survey, we are offering you the chance to win one of two \$100.00 prizes that will be awarded through a random drawing, to be conducted on September 30, 1999, from the names of all the individuals completing the anonymous survey and who also send back a separate participation card. The odds of winning are no less than 2 out of 720.

This survey is part of a dissertation project I am conducting through the Ph.D. program in Counseling Psychology at Iowa State University. This project is being supervised by Dr. Norm Scott of the Iowa State University Department of Psychology. If you have questions concerning this study, you may contact me at (515) 294-7596 or Dr. Scott at (515) 294-1509.

Please complete the survey instruments and return them in the enclosed stamped/self-addressed envelope by July 24. I also ask you to complete, and mail separately from the survey packet, the postage-paid postcard informing us that you have taken part in the study. By conducting the study in this manner, we assure you that the information you provide to us is anonymous. We will not know from which business a specific survey instrument has been returned. Moreover, all information gained through this project will remain strictly confidential and will only be summarized and reported as group (overall averages and ranges) data. No individuals or specific businesses will be identified. If you would like to receive summary results of this study, please check the appropriate box on the postcard you return to inform us you have taken part in the study.

I thank you in advance for taking part in this study. Your involvement is essential to understanding the impact that being involved with your family-owned business has on your life.

Sincerely,

William Burns
Ph.D. Candidate
Iowa State University

Norman A. Scott, Ph.D.
Associate Professor
Iowa State University

Douglas, L. Epperson, Ph.D.
Interim Chair
Iowa State University

**APPENDIX B. TRANSMITTAL LETTER -
NON-FAMILY-OWNED BUSINESS**

July 1, 1999

Dear Business Manager:

You have been selected to receive a survey on the effects of business related stresses on individuals involved with the management of businesses within the State of Iowa. Based on your current involvement in an Iowa business, we believe that you are in a unique position to reflect on the stresses brought about by this involvement. Your cooperation in responding to this survey, which should take about 45 minutes to complete, is essential to understanding the impact being involved with your business has on your life.

As a way of saying thank you for completing this survey, we are offering you the chance to win one of two \$100.00 prizes that will be awarded through a random drawing, to be conducted on September 30, 1999, from the names of all the individuals completing the anonymous survey and who also send back a separate participation card. The odds of winning are no less than 2 out of 720.

This survey is part of a dissertation project I am conducting through the Ph.D. program in Counseling Psychology at Iowa State University. This project is being supervised by Dr. Norm Scott of the Iowa State University Department of Psychology. If you have questions concerning this study, you may contact me at (515) 294-7596 or Dr. Scott at (515) 294-1509.

Please complete the survey instruments and return them in the enclosed stamped/self-addressed envelope by July 24. I also ask you to complete, and mail separately from the survey packet, the postage-paid postcard informing us that you have taken part in the study. By conducting the study in this manner, we assure you that the information you provide to us is anonymous. We will not know from which business a specific survey instrument has been returned. Moreover, all information gained through this project will remain strictly confidential and will only be summarized and reported as group (overall averages and ranges) data. No individuals or specific businesses will be identified. If you would like to receive summary results of this study, please check the appropriate box on the postcard you return to inform us you have taken part in the study.

I thank you in advance for taking part in this study. Your involvement is essential to understanding the impact that being involved with your business has on your life.

Sincerely,

William Burns
Ph.D. Candidate
Iowa State University

Norman A. Scott, Ph.D.
Associate Professor
Iowa State University

Douglas, L. Epperson, Ph.D.
Interim Chair
Iowa State University

APPENDIX C. PRE-SURVEY POSTCARD

Iowa State University Business Manager Survey

Dear Business Manager:

In approximately one week you will receive a survey packet assessing the impact of business on the lives of the managers of family-owned and non-family-owned businesses within the state of Iowa. It is hoped that the information gained through this study will help those involved with these businesses better deal with the stress that they face.

The survey packet to follow will explain fully how you can take part in this project. Your participation in this survey is crucial to its success and to any future benefits which may result for businesses in Iowa. If this postcard has been improperly addressed, please forgive our mistake. If you are the current manager of the business, we ask you to complete the survey packet when it arrives. If you are not the current manager, please pass the packet along to the current manager of the business.

Thank you for your time and your consideration.

William Burns, MA
Psychology Department
Iowa State University
Ames, IA 50011

Norman A. Scott, Ph.D.
Psychology Department
Iowa State University
Ames, IA 50011

APPENDIX D. PARTICIPATION POSTCARD

Iowa State University Business Manager Survey

I have chosen to participate in this study and have returned the survey instruments in the stamped/self-addressed envelope. My wishes concerning participation in the drawing and receiving information about the study are shown below.

I am interested in receiving information concerning the results of this study.

- Yes No

I am interested in having my name placed in the drawing for the two \$100 prizes.

- Yes No

If you checked "Yes" to either question, please indicate your name and mailing address.

APPENDIX E. REMINDER POSTCARD

Iowa State University Business Manager Survey

Approximately two weeks ago you received a survey packet inquiring about the stresses experienced by business managers in the State of Iowa. Please accept this postcard as a reminder for you to complete and return the above mentioned survey.

If you have already returned the survey, I thank you for your participation. If you have not yet returned the survey, I ask you to please consider returning the survey at this time. Your participation in this survey is crucial to its success and to any future benefits which may result for businesses in Iowa gained through the survey.

Thank you for your time and your consideration.

William Burns
Ph.D. Candidate
Psychology Department
Iowa State University
Ames, IA 50011

Norman A. Scott, Ph.D.
Associate Professor
Psychology Department
Iowa State University
Ames, IA 50011

APPENDIX F. PRIZE DRAWING FLYER

WIN ONE OF TWO \$100.00 PRIZES

Just complete this important business related anonymous survey packet, return it, and separately mail back the participation postcard, and you will be eligible to receive one of two **\$100.00 prizes!**

The drawing for these prizes will take place on September 30, 1999 and winners will be notified by mail.

Two winners will be drawn from those individuals returning the participation postcards.

The odds of winning are no less than 2 out of 760.

These cards are returned separately from the survey. Thus, the anonymity of those who completed and returned the survey can be assured.

Thank you for your participation!

WIN \$100.00

**APPENDIX G. NON-FAMILY-OWNED BUSINESS
DEMOGRAPHIC ITEMS**

For each question listed below, please mark an 'x' in the answer that applies to you or fill in the blank as needed.

1. What is your sex? 1 Female 2 Male
2. How old are you?
 1 25 or younger 3 31-40 5 51-60 7 Over 70
 2 26-30 4 41-50 6 61-70
3. What is the highest level of schooling you have completed?
 1 Some high school 4 Master of arts or science degree
 2 High school graduate 5 Ph.D., Psy.D.
 3 Bachelor of arts or science degree 6 Other: _____
4. Are you currently married? 1 Yes 2 No
 a. If yes, is this your first marriage? 1 Yes 2 No
 b. If yes, how long have you been in your current marriage?
 1 0-5 years 3 11-15 years 5 21-25 years
 2 6-10 years 4 16-20 years 6 Over 25 years
5. Are you a parent? 1 Yes 2 No
 a. If yes, do you have children living in the home with you at this time? 1 Yes 2 No
6. What is your racial or ethnic background?
 1 African American 4 Oriental
 2 Caucasian American 5 Other: _____
 3 Native American
7. What is your job title?
 1 Chairman of the board 4 Manager
 2 President 5 Director
 3 Vice president 6 Other: _____
8. How long have you worked at your current position?
 1 0-5 years 3 11-15 years 5 21-25 years
 2 6-10 years 4 16-20 years 6 Over 25 years
9. What is the average number of hours you work each week?
 1 Less than 40 3 46-50 5 56-60
 2 41-45 4 51-55 6 Over 60

10. Please rate your commitment to your career.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low commitment | 4 <input type="checkbox"/> Medium high commitment |
| 2 <input type="checkbox"/> Medium low commitment | 5 <input type="checkbox"/> High commitment |
| 3 <input type="checkbox"/> Medium commitment | |

11. Please rate your agreement or disagreement with the following statements concerning your life today:

a. "I feel fairly satisfied with my present job."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

b. "Most days I am enthusiastic about my work."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

c. "In most ways my life is close to ideal."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

d. "Each day of work seems like it will never end."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

e. "I find real enjoyment in my work."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

f. "I am satisfied with my life."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

g. "I consider my job rather unpleasant."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

12. How overwhelmed or overloaded have you felt over the previous month with work responsibilities?

- 1 Low level of overload
- 2 Medium low level of overload
- 3 Medium level of overload
- 4 Medium high level of overload
- 5 High level of overload

13. How overwhelmed or overloaded have you felt over the previous month with home responsibilities?

- 1 Low level of overload
- 2 Medium low level of overload
- 3 Medium level of overload
- 4 Medium high level of overload
- 5 High level of overload

14. What is the current salary you receive from this business?

- | | | |
|--|--|--|
| 1 <input type="checkbox"/> Less than \$20,000 | 3 <input type="checkbox"/> \$30,000 - \$39,999 | 5 <input type="checkbox"/> \$50,000 - \$59,999 |
| 2 <input type="checkbox"/> \$20,000 - \$29,999 | 4 <input type="checkbox"/> \$40,000 - \$49,999 | 6 <input type="checkbox"/> Over \$60,000 |

15. What type of work experience did you have before your involvement with business?

- | | |
|---|--|
| 1 <input type="checkbox"/> None | 6 <input type="checkbox"/> Sales/Marketing |
| 2 <input type="checkbox"/> Finance | 7 <input type="checkbox"/> Production/Operation |
| 3 <input type="checkbox"/> Legal | 8 <input type="checkbox"/> Technical/Engineering |
| 4 <input type="checkbox"/> Administration | 9 <input type="checkbox"/> Accounting |
| 5 <input type="checkbox"/> Public Relations | 10 <input type="checkbox"/> Other: _____ |

16. How many years of work experience did you have before starting work with your current business?

- | | | |
|---------------------------------|----------------------------------|------------------------------------|
| 1 <input type="checkbox"/> 0-5 | 3 <input type="checkbox"/> 11-15 | 5 <input type="checkbox"/> 21-25 |
| 2 <input type="checkbox"/> 6-10 | 4 <input type="checkbox"/> 16-20 | 6 <input type="checkbox"/> Over 25 |

17. What is the nature of your business?

- | | |
|--------------------------------------|--|
| 1 <input type="checkbox"/> Retail | 4 <input type="checkbox"/> Construction |
| 2 <input type="checkbox"/> Service | 5 <input type="checkbox"/> Manufacturing |
| 3 <input type="checkbox"/> Wholesale | 6 <input type="checkbox"/> Other: _____ |

18. What was the gross revenue of your business in 1998, or in your most recently completed fiscal year?

- | | |
|---|---|
| 1 <input type="checkbox"/> Less than \$50,000 | 5 <input type="checkbox"/> \$ 500,000 to 999,999 |
| 2 <input type="checkbox"/> \$ 50,000 to 149,999 | 6 <input type="checkbox"/> \$1,000,000 to 3,999,999 |
| 3 <input type="checkbox"/> \$150,000 to 299,999 | 7 <input type="checkbox"/> \$4,000,000 to 9,999,999 |
| 4 <input type="checkbox"/> \$300,000 to 499,999 | 8 <input type="checkbox"/> Over \$10,000,000 |

19. What is the geographic distribution of your sales/revenues?

- | | |
|--|--|
| 1 <input type="checkbox"/> Local | 4 <input type="checkbox"/> National |
| 2 <input type="checkbox"/> Regional (within state) | 5 <input type="checkbox"/> North America |
| 3 <input type="checkbox"/> Regional (surrounding states) | 6 <input type="checkbox"/> Global |

a. How many geographic locations does your business operate (stores, offices, plants, etc.)?

- | | |
|---|--|
| 1 <input type="checkbox"/> One location | 3 <input type="checkbox"/> 6 to 10 locations |
| 2 <input type="checkbox"/> 2 to 5 locations | 4 <input type="checkbox"/> Over 10 locations |

20. How many full time employees did your business employ in the most recently completed year?

21. How many part time employees did your business employ in the most recently completed year?

22. What was the average number of hours worked by these part time employees?

- | | | | |
|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 <input type="checkbox"/> 10 or less | 2 <input type="checkbox"/> 11-20 | 3 <input type="checkbox"/> 21-30 | 4 <input type="checkbox"/> 31-40 |
|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|

23. The people in our organization know what we stand for and how we wish to conduct business.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low level of agreement | 4 <input type="checkbox"/> Medium high level of agreement |
| 2 <input type="checkbox"/> Medium low level of agreement | 5 <input type="checkbox"/> High level of agreement |
| 3 <input type="checkbox"/> Medium level of agreement | |

24. The overall atmosphere of the working environment in my company is positive.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low level of agreement | 4 <input type="checkbox"/> Medium high level of agreement |
| 2 <input type="checkbox"/> Medium low level of agreement | 5 <input type="checkbox"/> High level of agreement |
| 3 <input type="checkbox"/> Medium level of agreement | |

25. How many people (besides yourself) are included in making management decisions in your company?

- | | | |
|--------------------------------|----------------------------------|---|
| 1 <input type="checkbox"/> One | 3 <input type="checkbox"/> Three | 5 <input type="checkbox"/> Five |
| 2 <input type="checkbox"/> Two | 4 <input type="checkbox"/> Four | 6 <input type="checkbox"/> More than five |

APPENDIX H. FAMILY-OWNED BUSINESS DEMOGRAPHIC ITEMS

For each question listed below, please mark an 'x' in the answer that applies to you or fill in the blank as needed.

1. What is your sex? 1 Female 2 Male
2. How old are you?
 1 25 or younger 3 31-40 5 51-60 7 Over 70
 2 26-30 4 41-50 6 61-70
3. What is the highest level of schooling you have completed?
 1 Some high school 4 Master of arts or science degree
 2 High school graduate 5 Ph.D., Psy.D.
 3 Bachelor of arts or science degree 6 Other: _____
4. Are you currently married? 1 Yes 2 No
 a. If yes, is this your first marriage? 1 Yes 2 No
 b. If yes, how long have you been in your current marriage?
 1 0-5 years 3 11-15 years 5 21-25 years
 2 6-10 years 4 16-20 years 6 Over 25 years
5. Are you a parent? 1 Yes 2 No
 a. If yes, do you have children living in the home with you at this time? 1 Yes 2 No
6. What is your racial or ethnic background?
 1 African American 4 Oriental
 2 Caucasian American 5 Other: _____
 3 Native American
7. What is your job title?
 1 Chairman of the board 4 Manager
 2 President 5 Director
 3 Vice president 6 Other: _____
8. How long have you worked at your current position?
 1 0-5 years 3 11-15 years 5 21-25 years
 2 6-10 years 4 16-20 years 6 Over 25 years
9. What is the average number of hours you work each week?
 1 Less than 40 3 46-50 5 56-60
 2 41-45 4 51-55 6 Over 60

10. Please rate your commitment to your career.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low commitment | 4 <input type="checkbox"/> Medium high commitment |
| 2 <input type="checkbox"/> Medium low commitment | 5 <input type="checkbox"/> High commitment |
| 3 <input type="checkbox"/> Medium commitment | |

11. Please rate your agreement or disagreement with the following statements concerning your life today:

a. "I feel fairly satisfied with my present job."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

b. "Most days I am enthusiastic about my work."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

c. "In most ways my life is close to ideal."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

d. "Each day of work seems like it will never end."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

e. "I find real enjoyment in my work."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

f. "I am satisfied with my life."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

g. "I consider my job rather unpleasant."

- | | | |
|--|------------------------------------|---|
| 1 <input type="checkbox"/> Strongly disagree | 3 <input type="checkbox"/> Neutral | 4 <input type="checkbox"/> Agree |
| 2 <input type="checkbox"/> Disagree | | 5 <input type="checkbox"/> Strongly Agree |

12. How overwhelmed or overloaded have you felt over the previous month with work responsibilities?

- 1 Low level of overload
- 2 Medium low level of overload
- 3 Medium level of overload
- 4 Medium high level of overload
- 5 High level of overload

13. How overwhelmed or overloaded have you felt over the previous month with home responsibilities?

- 1 Low level of overload
- 2 Medium low level of overload
- 3 Medium level of overload
- 4 Medium high level of overload
- 5 High level of overload

14. What is the current salary you receive from this business?

- | | | |
|--|--|--|
| 1 <input type="checkbox"/> Less than \$20,000 | 3 <input type="checkbox"/> \$30,000 - \$39,999 | 5 <input type="checkbox"/> \$50,000 - \$59,999 |
| 2 <input type="checkbox"/> \$20,000 - \$29,999 | 4 <input type="checkbox"/> \$40,000 - \$49,999 | 6 <input type="checkbox"/> Over \$60,000 |

15. What type of work experience did you have before your involvement with business?

- | | |
|---|--|
| 1 <input type="checkbox"/> None | 6 <input type="checkbox"/> Sales/Marketing |
| 2 <input type="checkbox"/> Finance | 7 <input type="checkbox"/> Production/Operation |
| 3 <input type="checkbox"/> Legal | 8 <input type="checkbox"/> Technical/Engineering |
| 4 <input type="checkbox"/> Administration | 9 <input type="checkbox"/> Accounting |
| 5 <input type="checkbox"/> Public Relations | 10 <input type="checkbox"/> Other: _____ |

16. How many years of work experience did you have before starting work with your current business?

- | | | |
|---------------------------------|----------------------------------|------------------------------------|
| 1 <input type="checkbox"/> 0-5 | 3 <input type="checkbox"/> 11-15 | 5 <input type="checkbox"/> 21-25 |
| 2 <input type="checkbox"/> 6-10 | 4 <input type="checkbox"/> 16-20 | 6 <input type="checkbox"/> Over 25 |

17. What is the nature of your business?

- | | |
|--------------------------------------|--|
| 1 <input type="checkbox"/> Retail | 4 <input type="checkbox"/> Construction |
| 2 <input type="checkbox"/> Service | 5 <input type="checkbox"/> Manufacturing |
| 3 <input type="checkbox"/> Wholesale | 6 <input type="checkbox"/> Other: _____ |

18. What was the gross revenue of your business in 1998, or in your most recently completed fiscal year?

- | | |
|---|---|
| 1 <input type="checkbox"/> Less than \$50,000 | 5 <input type="checkbox"/> \$ 500,000 to 999,999 |
| 2 <input type="checkbox"/> \$ 50,000 to 149,999 | 6 <input type="checkbox"/> \$1,000,000 to 3,999,999 |
| 3 <input type="checkbox"/> \$150,000 to 299,999 | 7 <input type="checkbox"/> \$4,000,000 to 9,999,999 |
| 4 <input type="checkbox"/> \$300,000 to 499,999 | 8 <input type="checkbox"/> Over \$10,000,000 |

19. What is the geographic distribution of your sales/revenues?

- | | |
|--|--|
| 1 <input type="checkbox"/> Local | 4 <input type="checkbox"/> National |
| 2 <input type="checkbox"/> Regional (within state) | 5 <input type="checkbox"/> North America |
| 3 <input type="checkbox"/> Regional (surrounding states) | 6 <input type="checkbox"/> Global |

a. How many geographic locations does your business operate (stores, offices, plants, etc.)?

- | | |
|---|--|
| 1 <input type="checkbox"/> One location | 3 <input type="checkbox"/> 6 to 10 locations |
| 2 <input type="checkbox"/> 2 to 5 locations | 4 <input type="checkbox"/> Over 10 locations |

20. How many full time employees did your business employ in the most recently completed year?

21. How many part time employees did your business employ in the most recently completed year?

22. What was the average number of hours worked by these part time employees?

- | | | | |
|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 1 <input type="checkbox"/> 10 or less | 2 <input type="checkbox"/> 11-20 | 3 <input type="checkbox"/> 21-30 | 4 <input type="checkbox"/> 31-40 |
|---------------------------------------|----------------------------------|----------------------------------|----------------------------------|

23. The people in our organization know what we stand for and how we wish to conduct business.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low level of agreement | 4 <input type="checkbox"/> Medium high level of agreement |
| 2 <input type="checkbox"/> Medium low level of agreement | 5 <input type="checkbox"/> High level of agreement |
| 3 <input type="checkbox"/> Medium level of agreement | |

24. The overall atmosphere of the working environment in my company is positive.

- | | |
|--|---|
| 1 <input type="checkbox"/> Low level of agreement | 4 <input type="checkbox"/> Medium high level of agreement |
| 2 <input type="checkbox"/> Medium low level of agreement | 5 <input type="checkbox"/> High level of agreement |
| 3 <input type="checkbox"/> Medium level of agreement | |

25. How many people (besides yourself) are included in making management decisions in your company?

- | | | |
|--------------------------------|----------------------------------|---|
| 1 <input type="checkbox"/> One | 3 <input type="checkbox"/> Three | 5 <input type="checkbox"/> Five |
| 2 <input type="checkbox"/> Two | 4 <input type="checkbox"/> Four | 6 <input type="checkbox"/> More than five |

The remaining questions in this section are intended for owners or managers of family-owned businesses. Please read and indicate your agreement or disagreement with the following statements.

Majority ownership or control of the business is held within a single family.

1 Yes 2 No

Two or more family members are now, or have at some time in the past, been directly involved in the business.

1 Yes 2 No

If you responded "No" to either of these statements you have completed the survey and we thank you for your participation.

If you responded "Yes" to both of these statements, for the purposes of this study you are defined as a family-owned business. Please continue the survey by responding to the questions listed below.

- _____
26. What year was your company founded? _____
27. How many family members (including you) are currently active in your business? _____
28. How many non-family members do you employ at the managerial level? _____
29. What is your family's ownership level of the business?
- 1 Less than 50 % 2 50-99.9 % 3 100 %
30. What generation of the family is now operating the business?
- 1 1st 3 3rd 5 5th
2 2nd 4 4th 6 Beyond the 5th
31. What is the membership make-up of your board of directors? Please specify the number.
- Family members: _____ Non-family members: _____
- We do not have a board of directors.
32. Will the person at the highest management level of the business retire during the next ten years?
- 1 Yes 2 No
33. How many people currently involved with the business have the potential to assume this position?
- Family members: Male: _____ Female: _____
- Non-family members: Male: _____ Female: _____

APPENDIX I. COPING RESPONSES INVENTORY

The section below contains questions about how you manage important problems that come up in your life. Please think about the most important **business related** problem you have experienced in the last 12 months (for example, declining sales; the illness or death of a relative, friend or employee; an accident; financial problems). Briefly describe the problem in the space provided in Part 1 below. If you have not experienced a major problem, list a minor problem that you have had to deal with.

Part 1

Describe the problem or situation

Please answer each of the following questions about the problem or situation you have described by circling the appropriate response:

DN = Definitely No (1) MN = Mainly No (2) MY = Mainly Yes (3) DY = Definitely Yes (4)

- | | | | | |
|--|----|----|----|----|
| 1. Have you ever faced a problem like this before? | DN | MN | MY | DY |
| 2. Did you know this problem was going to occur? | DN | MN | MY | DY |
| 3. Did you have enough time to get ready to handle this problem? | DN | MN | MY | DY |
| 4. When this problem occurred, did you think of it as a threat? | DN | MN | MY | DY |
| 5. When this problem occurred, did you think of it as a challenge? | DN | MN | MY | DY |
| 6. Was this problem caused by something you did? | DN | MN | MY | DY |
| 7. Was this problem caused by something someone else did? | DN | MN | MY | DY |
| 8. Did anything good come out of dealing with this problem? | DN | MN | MY | DY |
| 9. Has the problem or situation been resolved? | DN | MN | MY | DY |
| 10. If the problem has been worked out, did it turn out all right for you? | DN | MN | MY | DY |

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Part 2

Please read each item carefully and indicate how often you engaged in that behavior in connection with the problem you described in Part 1. Circle the appropriate response:

N = NO, Not At All O = YES, Once Or Twice S = Yes, Sometimes F = Yes, Fairly Often

There are 48 items in Part 2. Remember to mark all your answers in the answer space next to each question. Please answer each item as accurately as you can. All your answers are strictly confidential. If you do not wish to answer an item, please circle the number of that question to indicate that you have decided to skip it. If an item does not apply to you, please write NA (Not Applicable) in the space to the right of the answers for that item. If you wish to change an answer, make an X through your original answer and circle the new answer.

- | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|-----|
| 1. Did you think of different ways to deal with the problem? | N | O | S | F | ___ |
| 2. Did you tell yourself things to make yourself feel better? | N | O | S | F | ___ |
| 3. Did you talk with your spouse or other relative about the problem? | N | O | S | F | ___ |
| 4. Did you make a plan of action and follow it? | N | O | S | F | ___ |
| 5. Did you try to forget the whole thing? | N | O | S | F | ___ |
| 6. Did you feel that time would make a difference - that the only thing to do was wait? | N | O | S | F | ___ |
| 7. Did you try to help others deal with a similar problem? | N | O | S | F | ___ |
| 8. Did you take it out on other people when you felt angry or depressed? | N | O | S | F | ___ |
| 9. Did you try to step back from the situation and be more objective? | N | O | S | F | ___ |
| 10. Did you remind yourself of how much worse things could be? | N | O | S | F | ___ |
| 11. Did you talk to a friend about the problem? | N | O | S | F | ___ |
| 12. Did you know what had to be done and try hard to make things work? | N | O | S | F | ___ |
| 13. Did you try not to think about the problem? | N | O | S | F | ___ |
| 14. Did you realize that you had no control over the problem? | N | O | S | F | ___ |
| 15. Did you get involved in new activities? | N | O | S | F | ___ |
| 16. Did you take a chance and do something risky? | N | O | S | F | ___ |
| 17. Did you go over in your mind what you would say and do? | N | O | S | F | ___ |

N = NO, Not At All O = YES, Once Or Twice S = Yes, Sometimes F = Yes, Fairly Often

- | | | | | | |
|--|----------|----------|----------|----------|-----|
| 18. Did you try to see the good side of the situation? | N | O | S | F | ___ |
| 19. Did you talk with a professional person (e.g., doctor, lawyer, clergy)? | N | O | S | F | ___ |
| 20. Did you decide what you wanted and try hard to get it? | N | O | S | F | ___ |
| 21. Did you daydream or imagine a better time or place than the one your were in? | N | O | S | F | ___ |
| 22. Did you think that the outcome would be decided by fate? | N | O | S | F | ___ |
| 23. Did you try to make new friends? | N | O | S | F | ___ |
| 24. Did you keep away from people in general? | N | O | S | F | ___ |
| 25. Did you try to anticipate how things would turn out? | N | O | S | F | ___ |
| 26. Did you think about how you were much better off than other people with similar problems? | N | O | S | F | ___ |
| 27. Did you seek help from persons or groups with the same type of problem? | N | O | S | F | ___ |
| 28. Did you try at least two different ways to solve the problem? | N | O | S | F | ___ |
| 29. Did you try to put off thinking about the situation, even though you knew you would have to at some point? | N | O | S | F | ___ |
| 30. Did you accept it; nothing could be done? | N | O | S | F | ___ |
| 31. Did you read more often as a source of enjoyment? | N | O | S | F | ___ |
| 32. Did you yell or shout to let off steam? | N | O | S | F | ___ |
| 33. Did you try to find some personal meaning in the situation? | N | O | S | F | ___ |
| 34. Did you try to tell yourself that things would get better? | N | O | S | F | ___ |
| 35. Did you try to find out more about the situation? | N | O | S | F | ___ |
| 36. Did try to learn to do more things on your own? | N | O | S | F | ___ |
| 37. Did you wish the problem would go away or somehow be over with? | N | O | S | F | ___ |
| 38. Did you expect the worst possible outcome? | N | O | S | F | ___ |
| 39. Did you spend more time in recreational activities? | N | O | S | F | ___ |

N = NO, Not At All O = YES, Once Or Twice S = Yes, Sometimes F = Yes, Fairly Often

- | | | | | | |
|---|----------|----------|----------|----------|-----|
| 40. Did you cry to let your feelings out? | N | O | S | F | ___ |
| 41. Did you try to anticipate the new demands that would be placed on you? | N | O | S | F | ___ |
| 42. Did you think about how this event could change your life in a positive way? | N | O | S | F | ___ |
| 43. Did you pray for guidance and/or strength? | N | O | S | F | ___ |
| 44. Did you take things a day at a time, one step at a time? | N | O | S | F | ___ |
| 45. Did you try to deny how serious the problem really was? | N | O | S | F | ___ |
| 46. Did you lose hope that things would ever be the same again? | N | O | S | F | ___ |
| 47. Did you turn to work or other activities to help you manage things? | N | O | S | F | ___ |
| 48. Did you do something that you didn't think would work, but at least you were doing something? | N | O | S | F | ___ |

APPENDIX J. POSITIVE AND NEGATIVE AFFECT SCHEDULE

The words below describe different feelings and emotions. Please read each word and then fill-in the blank next to the word with the answer (1, 2, 3, 4, or 5) which indicates to what extent you have felt this way during the past few weeks.

1	2	3	4	5
Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1. Interested	_____		11. Irritable	_____
2. Distressed	_____		12. Alert	_____
3. Exited	_____		13. Ashamed	_____
4. Upset	_____		14. Inspired	_____
5. Strong	_____		15. Nervous	_____
6. Guilty	_____		16. Determined	_____
7. Scared	_____		17. Attentive	_____
8. Hostile	_____		18. Jittery	_____
9. Enthusiastic	_____		19. Active	_____
10. Proud	_____		20. Afraid	_____

APPENDIX K. BRIEF SYMPTOM INVENTORY

APPENDIX L. CRI PROBLEM CATEGORIES

CRI Problem Categories and Examples

Personal problem examples

- Divorce of respondent
- Grief due to death of a partner
- Grief due to death of a parent
- Serious illness of the respondent (e.g., cancer)

Financial problem examples

- Business finding itself over budget
- Inability of business to borrow money
- Low sales volume
- Structural reorganization of the business

Employees

- Theft by employees
- Inability to find good employees
- Inability to find enough employees to cover all shifts
- Issues of sexual harassment

Other (not used in statistical analysis due to small N)

- Fire
- Flood
- Wind damage

**APPENDIX M. REVIEW AND APPROVAL OF RESEARCH
WITH HUMAN SUBJECTS**



Information for Review of Research Involving Human Subjects
Iowa State University
 (Please type and use the attached instructions for completing this form)

1. Title of Project Family and Non-Family Business: Stress & Coping

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

<u>William B. Burns</u> Typed name of principal investigator	<u>5/25/99</u> Date	<u>William B. Burns</u> Signature of principal investigator
<u>Psychology</u> Department	<u>M217 Willow Hall</u> Campus address	
<u>294-7596</u> Phone number to report results		

3. Signatures of other investigators	Date	Relationship to principal investigator
<u>Norman A. Dett</u>	<u>5/27/99</u>	<u>Major Professor</u>

4. Principal investigator(s) (check all that apply)
 Faculty Staff Graduate student Undergraduate student

5. Project (check all that apply)
 Research Thesis or dissertation Class project Independent Study (490, 590, Honors project)

6. Number of subjects (complete all that apply)

# adults, non-students:	<u>760</u>	# minors under 14:	<u>0</u>	# minors 14 - 17:	<u>0</u>
# ISU students:	<u>0</u>	other (explain):	<u>0</u>		

7. Brief description of proposed research involving human subjects: (See instructions, item 7. Use an additional page if needed.)

A survey of 760 businesses in the State of Iowa will be conducted (380 family-owned and 380 non-family-owned) to compare the managers of such businesses on levels of stress and how they cope with the unique stressors of their businesses. A variety of demographic information will be gathered, as well as information concerning job and life satisfaction, a measure of positive/negative affect, and a measure concerning the adverse effects of stress. This survey will be mailed to participants and two \$100 prizes will be offered as incentive for its completion and return. The complete survey, as well as letters and post cards requesting participation, can be found in the attached survey packet.

This plan will sample businesses proportionately to the number of Iowa communities within three population categories (2,000-9,999, 10,000-24,999, and 25,000 and over). Businesses will be sampled from all Iowa communities fitting these population categories. Two family-owned and two non-family-owned businesses will be sampled from each community in the 2,000-9,999 population category and five family-owned and five non-family-owned businesses will be sampled from the 10,000-24,999 and the 25,000 and over population categories. Businesses will be randomly selected from each community, as listed in the 1998-1999 edition of the Iowa Business Directory (published by American Business Directories, Omaha, NE).

<http://www.grad-college.iastate.edu/forms/HumanSubjects.doc>

Last name of Principal Investigator Burns

Checklist for Attachments and Time Schedule

The following are attached (please check):

- 12. Letter or written statement to subjects indicating clearly:
 - a) the purpose of the research
 - b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see item 17)
 - c) an estimate of time needed for participation in the research
 - d) if applicable, the location of the research activity
 - e) how you will ensure confidentiality
 - f) in a longitudinal study, when and how you will contact subjects later
 - g) that participation is voluntary; nonparticipation will not affect evaluations of the subject
- 13. Signed consent form (if applicable)
- 14. Letter of approval for research from cooperating organizations or institutions (if applicable)
- 15. Data gathering instruments

(Has not made contact with subjects. Will do so upon receiving human subjects approval. - Per William B. Bittner 6/17/99)

16. Anticipated dates for contact with subjects:

First contact

June 1, 1999

Month/Day/Year

Last contact

September 15, 1999

Month/Day/Year

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or video tapes will be erased:

Month/Day/Year

18. Signature of Departmental Executive

Date

Department or Administrative Unit

Officer

Randy Epperson

5/28/99

Psychology

19. Decision of the University Human Subjects Review Committee:

Project approved

Project not approved

No action required

Name of Human Subjects in Research Committee Chair

Date

Signature of Committee Chair

Patricia M. Keith

6/3/99

Pat Keith

**APPENDIX N. COMBINED SAMPLE CRI SCALE SCORES,
T-SCORES, AND NUMBER OF VALID
AND MISSING CASES**

APPENDIX N. COMBINED SAMPLE CRI SCALE SCORES, T-SCORES, AND NUMBER OF VALID AND MISSING CASES

CRI Scales	Valid Responses		Missing Cases		Total n	Raw Scores		T-Scores		
	n	%	n	%		Mean	SD	Mean	SD	
Approach responses										
Logical Analysis	118	84.3	22	15.7	140	16.97	3.39	50.00	10.00	
Positive Reappraisal	126	90.0	14	10.0	140	16.43	3.91	50.00	10.00	
Seeking Guidance and Support	123	87.9	17	12.1	140	14.47	3.73	50.00	9.99	
Problem Solving	116	82.9	24	17.1	140	18.25	3.66	49.99	9.99	
Avoidance responses										
Cognitive Avoidance	130	92.9	10	7.1	140	12.29	3.87	50.00	10.01	
Acceptance or Resignation	125	89.3	15	10.7	140	12.66	3.80	50.00	10.00	
Seeking Alternative Rewards	97	69.3	43	30.7	140	12.09	3.36	50.00	9.99	
Emotional Discharge	121	86.4	19	13.6	140	10.44	3.31	50.00	10.00	

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